

# 2004 Water Use Efficiency Proposal Solicitation Package

## APPENDIX A: Project Information Form

Applying for:

Urban

Agricultural

1. (Section A) **Urban or Agricultural Water Use Efficiency Implementation Project**

(a) implementation of Urban Best Management Practice, # 6 and 14

(b) implementation of Agricultural Efficient Water Management Practice, # \_\_\_\_\_

(c) implementation of other projects to meet California Bay-Delta Program objectives, Targeted Benefit # or Quantifiable Objective #, if applicable  
\_\_\_\_\_

(d) Specify other: \_\_\_\_\_

2. (Section B) **Urban or Agricultural Research and Development; Feasibility Studies, Pilot, or Demonstration Projects; Training, Education or Public Information; Technical Assistance**

(e) research and development, feasibility studies, pilot, or demonstration projects

(f) training, education or public information programs with statewide application

(g) technical assistance

(h) other

3. Principal applicant  
(Organization or affiliation):

Los Angeles County Waterworks Districts

4. Project Title:

Residential Ultra Low Flush Toilet and High Efficiency Washing Machine Rebate Program

5. Person authorized to sign and submit proposal and contract:

Name, title

Manuel Del Real,  
Assistant Deputy Director

Mailing address

Los Angeles County  
Waterworks Districts

P.O. Box 1460

Telephone

Alhambra, CA 91802-1460

Fax.

(626) 300-3300

E-mail

(626) 300-3385

mreal@ladpw.org

6. Contact person (if different):	Name, title.	David Rydman Associate Civil Engineer
	Mailing address.	Los Angeles County Waterworks Districts P.O. Box 1460
	Telephone	Alhambra, CA 91802-1460
	Fax.	(626) 300-3351
	E-mail	(626) 300-3385 drydman@ladpw.org

7. Grant funds requested (dollar amount): <i>(from Table C-1, column VI)</i>	<b>\$196,685</b>
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8. Applicant funds pledged (dollar amount):	\$167,547
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9. Total project costs (dollar amount): <i>(from Table C-1, column IV, row n)</i>	\$364,232
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10. Percent of State share requested (%) <i>(from Table C-1)</i>	54%
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11. Percent of local share as match (%) <i>(from Table C-1)</i>	46%
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12. Is your project locally cost effective?  <i>Locally cost effective means that the benefits to an entity (in dollar terms) of implementing a program exceed the costs of that program within the boundaries of that entity.</i>  <i>(If yes, provide information that the project in addition to Bay-Delta benefit meets one of the following conditions: broad transferable benefits, overcome implementation barriers, or accelerate implementation.)</i>	<input type="checkbox"/> (a) yes  <input checked="" type="checkbox"/> (b) no
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11. Is your project required by regulation, law or contract?  (a) yes  
 If no, your project is eligible.  (b) no

If yes, your project may be eligible only if there will be accelerated implementation to fulfill a future requirement and is not currently required.

*Provide a description of the regulation, law or contract and an explanation of why the project is not currently required.*

The Districts are signatories to the California Urban Water Conservation Council. This project is consistent with the goals outlined in the voluntary MOU.

12. Duration of project (month/year to month/year): **Spring 2005 to Spring 2009**
13. State Assembly District where the project is to be conducted: **36, 37, 38, 41, 53**
14. State Senate District where the project is to be conducted: **20, 23, 17, 17, 17, 28**
15. Congressional district(s) where the project is to be conducted: **24, 25, 26, 27, 36**
16. County where the project is to be conducted: **Los Angeles**
17. Location of project (longitude and latitude) **34°, -117°**
18. How many service connections in your service area (urban)? **50,000**
19. How many acre-feet of water per year does your agency serve? **63,000**
20. Type of applicant (select one):
- (a) City
  - (b) County
  - (c) City and County
  - (d) Joint Powers Authority
  - (e) Public Water District
  - (f) Tribe
  - (g) Non Profit Organization
  - (h) University, College
  - (i) State Agency
  - (j) Federal Agency

(k) Other

(i) Investor-Owned Utility

(ii) Incorporated Mutual Water Co.

(iii) Specify \_\_\_\_\_

21. Is applicant a disadvantaged community? If 'yes' include annual median household income.

(Provide supporting documentation.)

(a) yes, \$38,471-Region 38 and \$36,662-Region 35 median household income (DISTRICT 40. See attached Census Tract Maps.)

(b) no

**2004 Water Use Efficiency Proposal Solicitation Package**  
**APPENDIX B: Signature Page**

By signing below, the official declares the following:

The truthfulness of all representations in the proposal;

The individual signing the form has the legal authority to submit the proposal on behalf of the applicant;

There is no pending litigation that may impact the financial condition of the applicant or its ability to complete the proposed project;

The individual signing the form read and understood the conflict of interest and confidentiality section and waives any and all rights to privacy and confidentiality of the proposal on behalf of the applicant;

The applicant will comply with all terms and conditions identified in this PSP if selected for funding; and

The applicant has legal authority to enter into a contract with the State.

\_\_\_\_\_  
Signature

\_\_\_\_\_  
Name and title

\_\_\_\_\_  
Date

## **STATEMENT OF WORK, SECTION 1: Relevance and Importance**

### **INTRODUCTION**

The Los Angeles County Waterworks Districts (Districts) propose to conduct a Residential Ultra Low Flush Toilet (ULFT) and High Efficiency Washing Machine (HEWM) Rebate Program to increase water use efficiency and reduce wasteful water usage throughout the Districts' service area.

The Districts are the primary water retailer to five water districts within Los Angeles County, including 1) Kagel Canyon (District 21), 2) the City of Malibu, Topanga Canyon and the Marina Del Rey Water System (District 29), 3) Val Verde (District 36), 4) Acton (District 37), and 5) the Antelope Valley (District 40) See Map 1 for a location of Districts. These Districts, which provide potable water to about 150,000 people, use a combination of approximately 25 percent local groundwater for Districts 21, 36, 37, and 40 and imported water supplies from the State Water Project. District 29 uses 100 percent imported water.

Currently, the wholesale water supplier for District 29, West Basin Municipal Water District, offers ULFT and HEWM rebates to its customers. District 29 makes up approximately 14 percent of the Districts total service area. If implemented, the proposed program will compliment the existing rebate program by broadening it to the remaining 86 percent of our customers in Districts 21, 36, 37, and 40.

### **GOALS AND OBJECTIVES OF PROJECT**

The goal of this program is to reduce water use by 46 acre-feet per year. Implementation of this program would permanently reduce water use in homes since it involves replacing older ULFTs and HEWMs with more water-efficient models. Assuming a resident occupies a home for ten years, this program will reduce water use by 460 acre feet over a ten-year period. This will be accomplished by making available 800 rebates available for ULFTs and 800 rebates available for HEWMs over a four-year period. The Districts goal is to award 100 percent of the rebates offered.

This is a voluntary program, which will be marketed to all customers through advertisements on water bills, a quarterly newsletter, and the official Waterworks Districts Website <http://ladpw.org/wwd/conservation>.

Customers will be made aware of existing rebate programs offered by gas and electric utility companies for HEWM to complement the Districts' HEWM rebate program.

### **CONSISTENCY WITH CALFED PROGRAM ELEMENTS**

If funded, this program will indirectly reduce demand on the San Francisco Bay/Sacramento-San Joaquin Delta (Bay Delta) estuary by reducing the Districts' demand on the State Water Project (SWP), a tributary of the Bay Delta. The Districts utilize two sources of water supply, groundwater and imported water drawn from the

SWP. Because the Districts use a fixed amount of groundwater each year, any reduction in water use will result in a decreased demand on imported water from the SWP.

The proposed Residential ULFT and HEWM Rebate Program will increase water use efficiency and promote water conservation. Water conservation and water use efficiency are interrelated and interdependent with all aspects of the CALFED Bay-Delta Program. The goal of this program is to reduce water use by 46 acre-feet per year (AFY) throughout the Districts' service area, thereby reducing the Districts' demand on the SWP BY 46 AFY.

### NEED FOR THE PROJECT

The Districts serve some of the fastest growing areas in Los Angeles County. Since Districts 21, 36, 37, 40 utilize groundwater and imported water supplies, there is a critical need for this project because both sources are limited. Conserving water is critical in order to meet the growing demands associated with population growth for these areas.

The majority of this service area has a high desert climate. The population is expected to more than double in the next 20 years, according to the Southern California Association of Governments. The Districts' water use data demonstrates many residents living in these Districts use significantly more water than the average use for these desert areas. In addition to the Districts' quarterly newsletter, official website, public events, and printed messages on customer water bills, the Districts has used radio advertisements to promote water conservation in these areas. To expand these efforts, the Districts plan to implement the Residential ULFT and HEWM Rebate Program. As more people move into the desert areas, it is imperative that they use water efficiently in order to conserve the local supply of groundwater and imported water.

### CONSISTENCY WITH WATER MANAGEMENT PLANS

The Districts are signatories to the California Urban Water Conservation Council (CUWCC) Memorandum of Understanding (MOU). The purpose of the MOU is to expedite implementation of reasonable water conservation measures in urban areas to conserve water, which could be used for the protection of streams, wetlands and estuaries and/or urban water supply reliability.

One primary responsibility of the signatories is to implement water conservation best management practices (BMP) set forth by the CUWCC. Signatories also submit BMP reports annually. The CUWCC defines a BMP as "an established and generally accepted practice among water suppliers that results in more efficient use or conservation of water." This program is "BMP 6 and 14" in the CUWCC MOU.

Urban Water Management Plans (UWMP) are a requirement by the California Urban Water Management Planning Act of 1984. The Act requires urban water suppliers

providing water for municipal purposes to more than 3,000 customers or supplying more than 3,000 acre-feet of water annually to prepare and adopt an UWMP. The UWMP, which must be updated at least once every five years, must address water supply, use, reliability, shortage, recycling, and other water related issues over 20 years.

- The *2000 Urban Water Management Plan Los Angeles County Waterworks District 40* was prepared solely by the Districts for the District 40 service area. This plan addresses the above-mentioned requirements and identifies water conservation as a primary method to ensure water supply reliability. Implementation of water conservation best management practices by satisfying the requirements of the CUWCC MOU “increases the Districts’ commitment toward implementing water conservation projects to prepare the service area for potential water shortages.”
- The updated *2005 Integrated Urban Water Management Plan for the Antelope Valley*, which has not yet been adopted, is being developed. This UWMP will be unique compared to previous plans in that it will serve as the UWMP for several agencies, including Los Angeles County Waterworks District 40, the Quartz Hill Water District, the Littlerock Creek Irrigation District, the Rosamond Community Services District, the Antelope Valley East Kern Agency, and the County Sanitation Districts of Los Angeles County for the entire Antelope Valley. See Map 2 for a map of District 40 and unofficial boundaries of the entire Antelope Valley. The Districts will work closely with the above agencies to develop the *2005 Integrated UWMP for the Antelope Valley* to incorporate water conservation and water use efficiency as important strategies for water demand management and water supply reliability. In addition to water conservation, this joint effort will address, but not be limited to, aquifer storage and recovery, in-lieu groundwater recharge, and the distribution of recycled water.

The Residential ULFT and HEWM Rebate Program is consistent with the Districts’ goals to address water conservation best management practices.

#### HOW THIS PROJECT WILL FURTHER IMPLEMENT EXISTING WATER MANAGEMENT ACTIVITIES

The Districts are already committed to implementing water conservation and water use efficiency programs. The Districts track and analyze all water use, consumption, and water supply on a monthly basis. Leak detection is an integral part of the Districts operations to locate water use efficiency problems in our systems. In addition, the Districts have many public outreach efforts currently in place, including:

- “Splash” quarterly newsletter
- Radio advertisements
- Public service announcements
- Landscaping brochures
- Kids water conservation activity books
- Water conservation materials distributed at District field offices and public events i.e., toothbrushes with a useful message, “Save Gallons. Turn the water off while

brushing your teeth”; hose nozzles with automatic shut-off valves; landscaping moisture sensors; toilet tummies; leak detection dye tablets; and low-flow shower heads with shut off valves .

- Public events such as environmental fairs and garden shows
- Official Waterworks Website linked to the County of Los Angeles environmental resources website [www.888CleanLA](http://www.888CleanLA)
- Water conservation messages on 888CleanLA hotline
- District 29 monthly water use banner displayed near Malibu City Hall
- Seasonal news releases
- Public workshops for County of Los Angeles Smart Gardening Program
- Water conservation complaints procedure (field staff coordinates site visit with customers where an over-irrigating complaint has been made).

The Residential ULFT and HEWM Rebate Program will enhance existing public outreach programs by encouraging customers to change old inefficient toilets and washing machine models with more water-efficientconserving versions.

## **STATEMENT OF WORK, SECTION 2: Technical/Scientific Merit/Feasibility**

### **Project Plan**

The Districts will implement a ULFT and HEWM rebate program for District Nos. 21, 36, 37, and 40. The program will consist of the following:

- Creating and duplicating flyers for ULFT and HEWM rebates. The flyers will include information on rebates available to our customers in Districts 21, 36, 37, and 40 through this program. The flyer will contain the Districts or our Consultant’s phone number and address for customers to request an application. Flyers will be distributed to customers as part of the Residential Water Use Audit Program, by mail enclosed with customer water bills, and at District field offices.
- Preparing a list of approved ULFT and HEWM models.
- Preparing a list of ULFT and HEWM vendors.
- Creating separate applications for ULFT and HEWM rebates. Applications will be provided to the customer upon request. The applications will include, but not be limited to, the following information:
  - i. Name, address, and phone number of applicant.
  - ii. Date of application.
  - iii. Customer’s Waterworks District account number.
  - iv. Make and model of the ULFT or HEWM.
  - v. The water factor value for the HEWM purchased.
  - vi. Start date and expiration date of rebate program. The ULFT and HEWM must be purchased within this timeframe.

- vii. A statement requiring residents to enable a consultant or a representative of the Districts to verify the installation of the appliance.
  - viii. For ULFT rebates, a condition indicating that the house must be built before 1992.
  - ix. Customer protection statements regarding privacy of information submitted to the Districts.
  - x. A requirement that the customer must provide an original copy of a receipt indicating the store where the ULFT or HEWM was purchased, including the purchase price, and date of transaction.
  - xi. A line or check box to indicate if the water bill is paid by the property owner or tenant.
  - xii. A section indicating how the customer will receive the rebate. A credit will be given to the customer through the water bill. If a tenant pays the water bill and the homeowner is requesting the rebate, a check will be issued to the homeowner.
  - xiii. Address and phone number of the Districts or a consultant.
- Receiving all completed applications, verifying the proof of purchase, and conducting follow-up calls with customers to verify installation.
  - Recording information from approved applications in spreadsheet format.
  - Rebates shall be limited to 200 customers per year each for ULFT and HEWM for each of the four years.

#### PROJECT PLAN, TASK LIST, AND COST

See Exhibit I. The expected program start date is Spring 2005.

#### **Preliminary Plans and Specifications and Certification Statements (for construction projects only)**

This is not a construction project.

#### **Environmental Documentation**

The proposed program is not subject to the California Environmental Quality Act as the proposed program does not meet the definition of a project and it can be seen with certainty that this program will not result in a direct or reasonably foreseeable indirect physical change in the environment (Public Resources Code Section 21065; Section 15061(b)(3) of the California Environmental Quality Act Guidelines).

#### **STATEMENT OF WORK, SECTION 3: Monitoring and Assessment**

The Districts' goal is to reduce water use by 460 acre feet over ten years by offering rebates to customers for ULFT and HEWM to 800 customers for each type of rebate. The amount of each rebate was determined by assuming an average cost for each

ULFT and HEWM, and the economic benefit customers will receive based on a reasonable recovery time.

Water savings for the ULFT and the HEWM were determined based on published data (*Water Use and Water Conservation*, Amy Vickers 2001). According to this report, the average non-conserving toilet uses 3.6 gallons per flush, the new ULFTs use 1.6 gallons per flush ULFT, and, on average, each person flushes five times per day per household. Non-conserving washing machines were assumed to use 40 gallons of water per load and HEWM use 27 gallons of water per load. Each person in a household was assumed to produce 0.37 loads of laundry per day. From an analysis based on Districts' records, each household is assumed to contain 3.5 residents.

ULFT Rebates for 800 customers is estimated to result in annual water savings of 31 acre feet valued at \$11,943 (see Table C-9). HEWM Rebates for 800 customers is estimated to result in annual water savings of 15 acre feet valued at \$5,744 (see Table C-10).

Customer information will be entered into and stored in a Microsoft Excel database. Since the Districts track all water consumption for each customer, it will be relatively easy to compare the water usage on an annual basis to determine the effectiveness of the rebate program. As part of this program, follow-up phone calls will be made to customers who received rebates to verify customer satisfaction. Tracking and analysis, and follow-up phone calls are built into the administrative costs.

Processed applications will be tracked as a result of this program. The number of rebates issued and the amount of water savings will be reported to the Department of Water Resources on a quarterly basis.

## **QUALIFICATIONS OF THE APPLICANTS AND COOPERATORS**

1. Resume of Project Manager (See attached)
2. External Cooperators

The Districts will manage and oversee the program and will hire a consultant to conduct the work. The Districts will follow the County of Los Angeles procedures and guidelines for hiring a consultant. The project will be advertised as an open bid. Interested and qualified consultants will submit proposals to the County. A selection committee consisting of qualified professionals will be established to evaluate the proposals. Proposals will be evaluated based on price, references, and work plan. The proposal with the lowest proposed cost may not necessarily be awarded the contract. Consideration will be given to consultants with the most experience in water conservation projects and water use audit programs and a detailed and relevant work plan. The most qualified consultant will be selected based on the overall evaluation criteria, scoring, and an optional interview.

3. Water Use Efficiency Projects In Which the Applicant Has Participated

No prior grants for water use efficiency projects have been awarded to the Districts. However, the Districts have implemented and are currently conducting many public outreach efforts targeting water conservation and water use efficiency projects as previously noted.

## **OUTREACH, COMMUNITY INVOLVEMENT, AND ACCEPTANCE**

In order to reach our goal of saving 46 acre-feet per year of water, the Districts will develop the Residential ULFT and HEWM Rebate Program, which will focus on extensive public outreach. Because the program is voluntary, the Districts will advertise optional participation in the program through flyers distributed with customer water bills, on a message line printed on the water bills, the Districts' quarterly newsletter, radio announcements, press releases, and posting on the official Waterworks Districts Website. The Districts will encourage customers to participate by publishing typical cost savings.

The Districts will continue to work closely with other agencies to meet water conservation goals and objectives set by the community. The attached letters of support demonstrate the Districts' ongoing efforts to promote water conservation and water use efficiency to the community. Letters of support were provided by Antelope Valley East Kern Water Agency and the City of Lancaster. These letters demonstrate our consistency with other agencies' efforts.

## **INNOVATION**

Innovation takes many forms. First, this program is innovative to the Los Angeles County Waterworks. A similar program is being offered by the wholesale water supplier for District 29; however, to date, the Districts have not offered a rebate program to our customers.

Second, and more importantly, the program is innovative since it will change the water use efficiency habits for thousands of Districts' customers. There will be a shift in personal priorities among our customers. Customers will replace older, less efficient models with new, water-efficient models. High efficiency washing machines have improved water factor values resulting in cost, energy, and water for our customers.

## **BENEFITS AND COSTS TABLES NEXT PAGE**

**Applicant:**

THE TABLES ARE FORMATTED WITH FORMULAS: **FILL IN THE SHADED AREAS ONLY**

Section A projects must complete Life of investment, column VII and Capital Recovery Factor Column VIII. Do not use 0.

**Table C-1: Project Costs (Budget in Dollars) ULFT & HEWM REBATE PROGRAM-LOS ANGELES COUNTY WATERWORKS DISTRICTS**

	Category (I)	Project Costs \$ (II)	Contingency % (ex. 5 or 10) (III)	Project Cost + Contingency \$ (IV)	Applicant Share \$ (V)	State Share Grant \$ (VI)	Life of investment (years) (VII)	Capital Recovery Factor*** (VIII)	Annualized Costs \$ (IX)
	Administration <sup>1</sup>								
	Salaries, wages	\$38,400	10	\$42,240	\$19,430	\$22,810	0	0.2886	\$12,190
	Fringe benefits	\$0	0	\$0	\$0	\$0	0	0.0000	\$0
	Supplies	\$0	0	\$0	\$0	\$0	0	0.0000	\$0
	Equipment	\$0	0	\$0	\$0	\$0	0	0.0000	\$0
	Consulting services	\$92,720	10	\$101,992	\$46,916	\$55,076	4	0.2886	\$29,435
	Travel	\$0	0	\$0	\$0	\$0	0	0.0000	\$0
	Other	\$0	0	\$0	\$0	\$0	0	0.0000	\$0
(a)	Total Administration Costs	\$131,120		\$144,232	\$66,347	\$77,885			\$41,625
(b)	Planning/Design/Engineering	\$0	0	\$0	\$0	\$0	0	0.0000	\$0
(c)	Equipment Purchases/Rentals/Rebates/Vouchers	\$0	0	\$0	\$0	\$0	0	0.0000	\$0
(d)	Materials/Installation/Implementation	\$0	0	\$0	\$0	\$0	0	0.0000	\$0
(e)	Implementation Verification	\$0	0	\$0	\$0	\$0	0	0.0000	\$0
(f)	Project Legal/License Fees	\$0	0	\$0	\$0	\$0	0	0.0000	\$0
(g)	Structures	\$0	0	\$0	\$0	\$0	0	0.0000	\$0
(h)	Land Purchase/Easement	\$0	0	\$0	\$0	\$0	0	0.0000	\$0
(i)	Environmental Compliance/Mitigation/Enhancement	\$0	0	\$0	\$0	\$0	0	0.0000	\$0
(j)	Construction	\$0	0	\$0	\$0	\$0	0	0.0000	\$0
(k)	Rebates	\$220,000	0	\$220,000	\$101,200	\$118,800	4	0.2886	\$63,492
(l)	Monitoring and Assessment*	\$0	0	\$0	\$0	\$0	0	0.0000	\$0
(m)	Report Preparation	\$0	0	\$0	\$0	\$0	0	0.0000	\$0
(n)	<b>TOTAL</b>	\$351,120		\$364,232	\$167,547	\$196,685			\$105,117
(o)	Cost Share -Percentage **				46	54			

1- excludes administration O&M.

\*Monitoring and Assessment included in Administrative Costs

\*\*Applicant Share < 50% due to District 40, Regions 35 & 38 (disadvantaged community-no cost share required)

\*\*\*Capital Recover Factor of 0.2886 was used based on a 4-year investment. The program will be conducted over four years.

Administration

\$100/hour  
10% of Consultant Hours  
\$38,400

Consulting Services

\$50/Survey x 1600 Rebates  
\$10,000 Flyers, applications, manual  
\$2,720 Quarterly meetings with Districts

Rebates

ULFT: \$75 x 800  
HEWM: \$200 x 800

Applicant:

**LOS ANGELES COUNTY WATERWORKS DISTRICTS**

THE TABLES ARE FORMATTED WITH FORMULAS: FILL IN THE SHADED AREAS ONLY

**Table C-2: Annual Operations and Maintenance Costs**

Operations (1) (I)	Maintenance (II)	Other (III)	Total (IV) (I + II + III)
\$0	\$0	\$0	\$0

(1) Include annual O & M administration costs here.

**Table C-3: Total Annual Project Costs**

Annual Project Costs (1) (I)	Annual O&M Costs (2) (II)	Total Annual Project Costs (III) (I + II)
\$105,117	\$0	\$105,117

(1) From Table C-1, row ( n ) column (IX)

(2) From Table C-2, column ( IV )

Applicant: **LOS ANGELES COUNTY WATERWORKS DISTRICTS**

THE TABLES ARE FORMATTED WITH FORMULAS: FILL IN THE SHADED AREAS ONLY

**Table C-5 Project Annual Physical Benefits (Quantitative and Qualitative Description of Benefits)**

	Qualitative Description - Required of all applicants <sup>1</sup>				Quantitative Benefits - where data are available
	Description of physical benefits (in stream flow and timing, water quantity and water quality) for:	Time pattern and Location of Benefit	Project Life: Duration of Benefits	State Why Project Bay Delta benefit is Direct <sup>3</sup> Indirect <sup>4</sup> or Both	Quantified Benefits (in-stream flow and timing, water quantity and water quality)
Bay Delta	The Districts import approximately 75% of its water supply. This project would result in less water being used by the Districts' customers. Therefore, The State Water Project and Bay Delta will indirectly benefit by having less water exported to this region.	There would be indirect benefits to the Bay Delta and could be identified monthly after the project is implemented.	10 Years	The Bay Delta benefit is indirect. If water is conserved, the dependency on the Bay Delta is reduced. There is no direct dependency on the Bay Delta by our Districts. Sources of water for the Districts are groundwater supplemented by imported water via the State Water Project provided by wholesale water agencies.	460 acre-feet
Local	This project would reduce the demand for imported water.	The benefits would reduce water demand daily by residential customers in Districts 21, 36, 37, and 40.	10 Years	<b>Not applicable.</b>	0

<sup>1</sup> The qualitative benefits should be provided in a narrative description. Use additional sheet.

<sup>2</sup> Direct benefits are project outcomes that contribute to a CALFED objective within the Bay-Delta system during the life of the project.

<sup>3</sup> Indirect benefits are project outcomes that help to reduce dependency on the Bay-Delta system. Indirect benefits may be realized over time.

<sup>4</sup> The project benefits that can be quantified (i.e. volume of water saved or mass of constituents reduced) should be provided.

$ble^2$

Applicant:

**LOS ANGELES COUNTY WATERWORKS DISTRICTS**

THE TABLES ARE FORMATTED WITH FORMULAS: FILL IN THE SHADED AREAS ONLY

**Table C-6 Project Annual Local Monetary Benefits**

ANNUAL LOCAL BENEFITS	ANNUAL QUANTITY	UNIT OF MEASUREMENT	ANNUAL MONETARY BENEFITS
(a) Avoided Water Supply Costs (Current or Future Source)	46	AF	\$12,596
(b) Avoided Energy Costs	0		\$0
(c) Avoided Waste Water Treatment Costs	0		\$0
(d) Avoided Labor Costs	0		\$0
(e) Other (Avoided O & M costs)	0		\$5,092
(f) Total [(a) + (b) + (c) + (d) + (e) ]			\$17,688

**Table C-7 Project Local Monetary Benefits and Project Costs**

(a) Total Annual Monetary Benefits [(Table C-6, row (f))		\$17,688
(b) Total Annual Project Costs (Table C-3, column III)		\$105,117

**Table C-8 Applicant's Cost Share and Description**

Applicant's cost share %: (from Table C-1, row o, column V)	<b>46.00</b>
Describe how the cost share (based on relative balance between Bay-Delta and Local Benefits) is derived. (See Section A-7 for description.)	
Provide Description in a narrative form.	

This project is not locally cost effective. The cost to implement exceeds the benefits (See Table C-7). Therefore, this project is eligible for a 50% match. Two regions in District 40, Regions 35 and 38, are exempt because they are considered disadvantaged communities (at least 80 percent of the annual median income is less than \$38,000). These regions make up 7% of the population of the Districts, which was subtracted from the eligible cost share match.

## Ultra Low Flush Toilet Recovery Time for \$75 Rebate by District

District-Region	Rate	Benefit to Customer	Recovery	Recovery
		Per Yr from ULFT	Time	Time
		<i>Cost of ULFT</i>	<i>\$100</i>	<i>\$200</i>
			<b>Years</b>	<b>Years</b>
21	\$ 4.56	\$ 77.88	<b>0.3</b>	<b>1.6</b>
36	\$ 1.44	\$ 24.59	<b>1.0</b>	<b>5.1</b>
37	\$ 1.04	\$ 17.76	<b>1.4</b>	<b>7.0</b>
40-4	\$ 0.77	\$ 13.15	<b>1.9</b>	<b>9.5</b>
40-24	\$ 0.84	\$ 14.35	<b>1.7</b>	<b>8.7</b>
40-27	\$ 0.84	\$ 14.35	<b>1.7</b>	<b>8.7</b>
40-33	\$ 0.84	\$ 14.35	<b>1.7</b>	<b>8.7</b>
40-34	\$ 1.36	\$ 23.23	<b>1.1</b>	<b>5.4</b>
40-35	\$ 1.05	\$ 17.93	<b>1.4</b>	<b>7.0</b>
40-38	\$ 0.86	\$ 14.69	<b>1.7</b>	<b>8.5</b>
40-39	\$ 1.46	\$ 24.94	<b>1.0</b>	<b>5.0</b>
29-Malibu/Top*	\$ 4.00	\$ 68.32	<b>0.4</b>	<b>1.8</b>
29-MDR*	\$ 2.50	\$ 42.70	<b>0.6</b>	<b>2.9</b>

Rebate Amount: \$ 75

3.5 capita/household

1.6 gpf conserving home

3.6 gpf non-conserving home

*\*There will be no rebate offered by District 29*

**Table C-9 Ultra Low Flush Toilet Rebate Program Benefits**

(A) District- Region	(B) Size of District (Meters)	(C) Rate (w/ O&M) \$/HCF	(D) Rate (no O&M) \$/AF	(E) Annual Savings <u>Gallons</u>	(F) Annual Benefits (Including O & M)	(G) Annual Benefit to Districts
21	248	\$ 4.56	\$ 1,293	19,325	\$ 118	\$ 77
36	1305	\$ 1.44	\$ 183	101,691	\$ 196	\$ 57
37	1225	\$ 1.04	\$ 280	95,457	\$ 133	\$ 82
40-4	103600	\$ 0.77	\$ 270	8,072,953	\$ 8,310	\$ 6,689
40-24	220	\$ 0.84	\$ 270	17,143	\$ 19	\$ 14
40-27	1130	\$ 0.84	\$ 270	88,054	\$ 99	\$ 73
40-33	1250	\$ 0.84	\$ 270	97,405	\$ 109	\$ 81
40-34	18200	\$ 1.36	\$ 270	1,418,221	\$ 2,579	\$ 1,175
40-35	210	\$ 1.05	\$ 270	16,364	\$ 23	\$ 14
40-38	3450	\$ 0.86	\$ 270	268,839	\$ 309	\$ 223
40-39	315	\$ 1.46	\$ 270	24,546	\$ 48	\$ 20
<b>Total</b>	<b>131,153</b>			<b>10,220,000</b>	<b>\$ 11,943</b>	<b>\$ 8,505</b>

Assumptions

5 Flushes/Capita/Day

3.5 capita/household

1.6 gpf conserving home

3.6 gpf non-conserving home

Gallons 10,220,000

HCF 13,663

AF 31

*There will be no rebate offered by District 29*

Operations and Maintenance is the difference between Column (F) total and Column (G) total \$ 3,438

**Table C-10**  
**High Efficiency Washing Machine Rebate Program Benefits**

(A) District- Region	(B) Size of District (Meters)	(C) Rate/HCF	(D) <u>Annual Savings</u> <u>Gallons</u>	(E) Cost to Districts \$/AF	(F) Annual Benefits (Including O & M)	(G) Annual Benefits to Districts
21	248	\$ 4.56	9,295	\$ 1,293	\$ 57	\$ 37
36	1305	\$ 1.44	48,913	\$ 183	\$ 94	\$ 27
37	1225	\$ 1.04	45,915	\$ 280	\$ 64	\$ 39
40-4	103600	\$ 0.77	3,883,090	\$ 270	\$ 3,997	\$ 3,218
40-24	220	\$ 0.84	8,246	\$ 270	\$ 9	\$ 7
40-27	1130	\$ 0.84	42,354	\$ 270	\$ 48	\$ 35
40-33	1250	\$ 0.84	46,852	\$ 270	\$ 53	\$ 39
40-34	18200	\$ 1.36	682,165	\$ 270	\$ 1,240	\$ 565
40-35	210	\$ 1.05	7,871	\$ 270	\$ 11	\$ 7
40-38	3450	\$ 0.86	129,311	\$ 270	\$ 149	\$ 107
40-39	315	\$ 1.46	11,807	\$ 270	\$ 23	\$ 10
<b>Total</b>	<b>131,153</b>		<b>4,915,820</b>		<b>\$ 5,744</b>	<b>\$ 4,091</b>

Assumptions

0.37 Loads/Capita/Household  
3.5 capita/household  
27 gpl conserving home  
40 gpl non-conserving home

*There will be no rebate offered by District 29*

Operations and Maintenance is the difference between Column (F) total and Column (G) total \$ 1,654

## High Efficiency Washing Machine Recovery Time for \$200 Rebate by District

District-Region	Rate/HCF	Annual Benefit to Customer per Household		Recovery Time
		<i>Washing Machine Amount</i>		<i>\$400</i>
				<b>Years</b>
21	\$ 4.56	\$	37.46	<b>5.3</b>
36	\$ 1.44	\$	11.83	<b>16.9</b>
37	\$ 1.04	\$	8.54	<b>23.4</b>
40-4	\$ 0.60	\$	4.93	<b>40.6</b>
40-24	\$ 0.60	\$	4.93	<b>40.6</b>
40-27	\$ 0.60	\$	4.93	<b>40.6</b>
40-33	\$ 0.60	\$	4.93	<b>40.6</b>
40-34	\$ 0.95	\$	7.80	<b>25.6</b>
40-35	\$ 0.74	\$	6.08	<b>32.9</b>
40-38	\$ 0.60	\$	4.93	<b>40.6</b>
40-39	\$ 1.50	\$	12.32	<b>16.2</b>

### Assumptions

\$200 Rebate  
 0.37 Loads/Capita/Household  
 3.5 capita/household  
 27 gpl conserving home  
 40 gpl non-conserving home

*There will be no rebate offered by District 29*

<u>Savings per year</u>	
Gallons	4,915,820
HCF	6,572
AF	15

**Table C- 4: Capital Recovery Table (1)**

Life of Project (in years)	Capital Recovery Factor
1	1.0600
2	0.5454
3	0.3741
4	0.2886
5	0.2374
6	0.2034
7	0.1791
8	0.1610
9	0.1470
10	0.1359
11	0.1268
12	0.1193
13	0.1130
14	0.1076
15	0.1030
16	0.0990
17	0.0954
18	0.0924
19	0.0896
20	0.0872
21	0.0850
22	0.0830
23	0.0813
24	0.0797
25	0.0782
26	0.0769
27	0.0757
28	0.0746
29	0.0736
30	0.0726
31	0.0718
32	0.0710
33	0.0703
34	0.0696
35	0.0690
36	0.0684
37	0.0679
38	0.0674
39	0.0669
40	0.0665
41	0.0661
42	0.0657
43	0.0653
44	0.0650
45	0.0647
46	0.0644
47	0.0641
48	0.0639
49	0.0637
50	0.0634

(1) Based on 6% discount rate.