

CONSOLIDATED WATER USE EFFICIENCY 2002 PROPOSAL

GRANT APPLICATION FOR
PROPOSITION 13
URBAN WATER CONSERVATION CAPITAL OUTLAY GRANT

March 1, 2002

Submitted by
CITY OF LOS ANGELES
DEPARTMENT OF WATER AND POWER



TABLE OF CONTENTS

Part 1 – A. Project Information Form	2
Part 1 – B. Signature Page	5
Part 2 – Project Summary	6
A. Scope of Work.....	6
1. <i>Nature, Scope and Objectives</i>	8
2. <i>Critical Local, Regional, Bay-Delta, State and Federal Water Issues</i>	9
3. <i>Need For The Project</i>	10
4. <i>Consistency with Water Management Plans</i>	10
B. Scope of Work: Technical/Scientific Merit, Feasibility, Monitoring and Assessment	12
1. <i>Approach – Methods, Procedures and Facilities</i>	12
2. <i>Task List and Schedule</i>	14
3. <i>Monitoring and Assessment</i>	16
4. <i>Preliminary Plans and Specifications, and Certifications Statements</i>	17
C. Qualifications of the Applicants and Cooperators	18
1. <i>Project Manager</i>	18
2. <i>External Cooperators</i>	18
D. Benefits and Costs	19
1. <i>Budget</i>	19
2. <i>Cost Sharing</i>	21
3. <i>Benefit Summary and Breakdown</i>	22
4. <i>Assessment of Costs and Benefits</i>	29
E. Outreach, Community Involvement and Acceptance	33

LIST OF TABLES

Table B-1 – Estimated Project Schedule and Expenditures.....	15
Table D-1 – Rebates and Incentives for Installation of Water Savings Devices	19
Table D-2 – Regionwide Commercial Fixture Retrofit Program Rebate Contributors.....	21
Table D-3 – Technical Assistance Program (TAP) Incentives Project Cost – Sharing	22
Table D-4 – Regionwide Rebate Program Estimated Prop 13 Funded Devices	23
Table D-5 – Regionwide Commercial Fixture Retrofit Program-Rebates Avoided Cost of Purchased Water	24
Table D-6 – LADWP Technical Assistance Program (TAP) Incentives Avoided Cost of Purchased Water	25
Table D-7 – Consolidated Programs Total Avoided Cost of Projected Water Savings	25
Table D-8 – Regionwide Commercial Fixture Retrofit Program Programmatic Goals and Projected Savings	26
Table D-9 – LADWP Technical Assistance Program (TAP) Incentives Programmatic Goals and Projected Savings.....	27
Table D-10 – Proposed Project Costs and Benefits in Year 2001 Dollars.....	30
Table D-11 – Present Value of Proposed Project Costs and Benefits.....	31
Table D-12 – Summary of Non-Quantified Costs and Benefit	31
Table D-13 – Local Cost Effectiveness of Proposed Project	32

**Consolidated Water Use Efficiency 2002 PSP
 Proposal Part One:
 A. Project Information Form (continued)**

- 10.** Estimated annual amount of water to be saved (acre-feet): **901.6 AF**
 Estimated total amount of water to be saved (acre-feet): **10,403 AF**
 Over **25** years, ***depending on the type of water saving device: 8 to 25 year economic life***
 Estimated benefits to be realized in terms of water quality, instream flow, other: **Water quality, reliability**
- 11.** Duration of project (month/year to month/year): **10/02 to 10/05**
- 12.** State Assembly District where the project is to be conducted: **38-49, 51-52 and 55**
- 13.** State Senate District where the project is to be conducted: **19-28**
- 14.** Congressional District(s) where the project is to be conducted: **24,26,29-30,33 and 35**
- 15.** County where the project is to be conducted: **Los Angeles**
- 16.** Date most recent Urban Water Management Plan submitted to the Department of Water Resources: **November 2000**
- 17.** Type of applicant (select one): **?** (a) city
 Prop 13 Urban Grants and Prop 13 **?** (b) county
 Agricultural Feasibility Study Grants: **?** (c) city and county
? (d) joint power authority
 DWR WUE Projects: the above entities **?** (e) other political subdivision of the
 (a) through (f) or: State, including public water district
? (f) incorporated mutual water company
? (g) investor-owned utility
? (h) non-profit organization
? (i) tribe
? (j) university
? (k) state agency
? (l) federal agency
- 18.** Project focus: **?** (a) agricultural
? (b) urban



**Consolidated Water Use Efficiency 2002 PSP
 Proposal Part One:
 A. Project Information Form (continued)**

- | | |
|---|---|
| <p>19. Project type (select one):
 Prop 13 Urban Grant or Prop 13
 Agricultural Feasibility Study Grant
 capital outlay project related to:</p> | <p>? (a) implementation of Urban Best
 Management Practices
 ? (b) implementation of Agricultural
 Efficient Water Management Practices
 ? (c) implementation of Quantifiable
 Objectives (include QO number(s))
 ? (d) other (specify)</p> |
| <p>DWR WUE Project related to:</p> | <p>? (e) implementation of Urban Best
 Management Practices
 ? (f) implementation of Agricultural
 Water Management Practices
 ? (g) implementation of Quantifiable
 Objectives (include QO number(s))
 ? (h) innovative projects (initial
 of new technologies, methodologies,
 approaches, or institutional</p> |
| <p>Efficient

 investigation

 frameworks)</p> | <p>? (i) research or pilot projects
 ? (j) education or public information
 programs
 ? (k) other (specify)</p> |
| <p>20. Do the actions in this proposal involve
 physical changes in land use, or
 potential future changes in land use?</p> | <p>? (a) yes
 ? (b) no</p> |

If yes, the applicant must complete the CALFED PSP Land Use Checklist found at http://calfed.water.ca.gov/environmental_docs.html and submit it with the proposal.

**Consolidated Water Use Efficiency 2002 PSP
 Proposal Part One
 B. Signature Page**



By signing below, the official declares the following:

The truthfulness of all representations in the proposal;

The individual signing the form is authorized to submit the proposal on behalf of the applicant; and

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.

Signature

Thomas L. Gackstetter
Water Conservation Manager
Name and title

Date



URBAN WATER CONSERVATION CAPITAL OUTLAY GRANT PROPOSAL PART TWO

Project Summary

The Los Angeles Department of Water and Power (LADWP) proposed project Enhanced Rebates and Incentives for Installation of Water Savings Devices (Proposed Project) would increase the current rebate level to City participants in the Regionwide Commercial, Industrial and Institutional (CII) Water Conservation Program (Regionwide Program), and increase financial incentives for water saving projects through the LADWP's Technical Assistance Program (TAP).

The goal of the Proposed Project is to reduce the water used in the CII sector through enhanced participation in the two programs. Project objectives include 1) accelerate the purchase and installation of ultra-low-flush toilets (ULFTs) and high efficiency coin/card operated clothes washers (HECWs) by CII customers through increased participation in the rebate program, 2) accelerate the purchase and installation of innovative conservation projects through increased participation in the TAP; 3) reduce imported water demand; 4) reduce stress on the Bay-Delta; 5) improve water supply reliability; 6) improve water quality; and 7) meet the objectives of the Memorandum of Understanding Regarding Urban Water Conservation in California, and local and regional water management plans.

Metropolitan Water District of Southern California's (MWD) existing Regionwide Program offers rebates funded by the LADWP and MWD for ULFTs and HECWs. Prop 13 Grant funding would increase the rebate levels for these water saving devices within Los Angeles.

The TAP provides incentive payments to CII customers for qualifying projects to encourage the installation of water-saving measures. Prop 13 grant funding would extend the period by two additional years, in effect doubling the incentive amount. LADWP will match Prop 13 grant funds for the TAP incentives.

Immediate application of Prop 13 grant funds would take place, resulting in increased participation in each program. No action is required by the Boards of LADWP or MWD to activate the increase in either program. Marketing efforts would promote the increase in rebates and incentives to CII customers, with additional efforts provided by program contractors.

Assessment of performance will measure project success relative to project goals and objectives. Monitoring and assessment of activity reports for the Rebate Program will determine the impacts of increased incentives. For the TAP, assessment of increased incentives will be completed prior to approval of the project. Program data and results will be submitted to DWR through quarterly, annual and final reports.

LADWP pledges \$1,700,000 million and requests \$1,115,000 from the Prop 13 Urban Water Conservation Capital Outlay Grant for a total project cost of \$2,815,000. The Rebate Program would be allocated \$615,000 in Prop 13 funds and the TAP incentives would be allocated \$500,000. In-kind services include LADWP staff time for administration, data analysis and assessment, reporting, programmatic customer service, and outreach efforts, in addition to this budget.



For a total project cost of \$2.8 million over the three-year project period, over 10,400 AF of lifetime water savings can be realized for a total avoided cost of purchased water of nearly \$4.5 million. This represents an overall return on original investment of 161 percent. LADWP funds of \$1,700,000 over the three-year project period represents a 265 percent return on original investment for the LADWP making the Proposed Project locally cost effective.

A \$615,000 Prop 13 grant investment applied to the Rebate Program results in a total cost of \$144.20 per AF of water saved. Applied to TAP incentives, a \$500,000 investment will result in a total cost of \$81.46 per AF of water saved. Combined, this represents a cost of \$107.18 per AF of water saved. The cost of Bay-Delta water is valued greater than the cost to Prop 13 funding per AF of water saved, thereby making the Prop13 grant funding cost effective to contribute to the CALFED objectives.



A. Scope of Work: Relevance and Importance

1. Nature, Scope and Objectives

The Los Angeles LADWP of Water and Power (LADWP) proposed project “*Rebates and Incentives for Water Saving Devices*” (Proposed Project) would increase the current rebate level to City of Los Angeles participants in Metropolitan Water District of Southern California’s (MWD) Regionwide Commercial Fixture Retrofit Program (Regionwide Program) and enhance the financial incentives provided through the LADWP’s Technical Assistance Program (TAP).

The LADWP is one of numerous MWD member agencies participating in the Regionwide Program. The LADWP participated in program design and development, signed an agreement with MWD to participate, and supports program administration by an experienced contractor. The Regionwide Program currently offers rebates to commercial, industrial, and institutional (CII) customers for purchase and installation of ultra-low-flush toilets (ULFTs) and high efficiency coin/card operated clothes washers (HECW), and other fixtures and devices, and complements the LADWP’s residential rebate program. Current rebate contributors to the Regionwide Program include the LADWP and MWD. Prop 13 grant funding would be used to increase rebate levels for specific ULFTs and qualified models of HECWs purchased and installed within the City of Los Angeles.

Increased project incentives to CII customers through the LADWP’s TAP program would encourage participation in the program. While the name of the program suggests the provision of technical information, and perhaps conducting audits, the main purpose is to provide financial incentives for qualifying projects. Qualifying projects under current TAP guidelines are water conservation projects that result in water savings of at least 400,000 gallons over two years and remain in place for a minimum of five years. TAP incentives are currently calculated at the rate of \$1.25 per thousand gallons saved over two years, limited to either the installed cost of the project or \$50,000, whichever is less. Qualifying projects must reduce existing water consumption; new construction projects are ineligible. The incentive calculation is based on engineering estimates of project water savings, and the incentive is paid upon verification of installation and operation of the project. Incentives are paid for measures including equipment, devices, products, treatments, fixtures, and technologies of permanent nature.

Prop 13 grant funding would be used to supplement TAP incentives paid by the LADWP. The incentive calculation is currently based on water savings over the first two years of the project life, and limited to a maximum of \$50,000. Prop 13 grant funding would be applied to water savings in the third and fourth years of the project life, in effect, doubling the project incentive amount to a maximum of \$100,000. Therefore, the LADWP is proposing to continue the current funding level of the TAP, thus matching Prop 13 grant funds dollar for dollar. Participation in the TAP has been limited due to limited incentive funding levels (typical TAP incentives pay for 25-50 percent of project cost). The LADWP anticipates increased participation with increased incentives.

Funding through the Prop 13 Urban Water Conservation Capital Outlay Grant program would enable the LADWP to expand its proven incentive programs for the City’s large population of



commercial, industrial and institutional customers. Prop 13 funding would also enable the LADWP to realize an equally impressive reduction in water consumption by its CII customer base as has been demonstrated by our residential sector (over one million toilets replaced in Los Angeles). Ultimately, with Prop 13 funding support, the City of Los Angeles will continue to implement cost effective demand-reduction programs well into the 21st century.

The Proposed Project objectives are to:

- 1) Encourage and accelerate the purchase and installation of ULFTs and HECWs by CII customers through increased participation in the rebate program;
- 2) Encourage and accelerate the purchase and installation of innovative conservation projects through increased participation in the Technical Assistance Program;
- 3) Reduce imported water demand;
- 4) Reduce stress on the Bay-Delta;
- 5) Improve water supply reliability to meet future needs;
- 6) Improve water quality; and
- 7) Meet the objectives of the MOU, and local and regional water management plans.

2. Critical Local, Regional, Bay-Delta, State and Federal Water Issues

The LADWP must provide a safe, reliable, and affordable water supply for a growing urban population and commerce base in an arid region of the state. This has meant increased demands for imported water supplies, including that from the San Francisco-San Joaquin Bay Delta. On average, 35 percent of the water used in Los Angeles is purchased from MWD and delivered via the State Water Project from the San Francisco Bay-Sacramento/San Joaquin Rive Delta. Water saved through the Proposed Project will directly reduce the need for additional imported water supplies from the Bay-Delta. Water quality is also improved by reducing demands on the Bay-Delta during those times of the years when water diversions can contribute to water quality issues.

Therefore, encouraging participation in citywide demand-reduction programs can improve water supply reliability to meet future needs; thus generating real water savings while reducing diversions and providing secondary benefits to the environment.

The objective of demand reduction is achievable. The LADWP's incentive-based water conservation programs for residential customers have gained national recognition. Over \$100 million has been invested in conservation programs over the last 10 years, resulting in estimated water savings of over 33,000 acre-feet per year. Prop 13 grant funding represents an opportunity to expand a similar program for CII customers in the City of Los Angeles. To illustrate, the California Urban Water Conservation Council has recently completed studies that developed census numbers for non-ULFTs within Los Angeles and water savings estimates attributable to toilet replacement in each of 12 CII sectors. Los Angeles' CII market potential currently comprises over 260,000 toilets having an estimated savings potential of over 20 acre-feet per day.

3. Need For The Project

Rebate programs are the backbone of the collective water conservation effort in California. The LADWP's decade-long experience with water conservation programmatic efforts in the



residential sector will provide a strong foundation for an expanded program in the largely untapped CII sectors. This particular customer base represents some of the largest volume of water users in LADWP's service area—which is precisely why efforts are being made to provide financial incentives that would offer sound economic justification for water use efficiency program participation.

Coin/card operated clothes washers are found in laundromats and multifamily common area laundry rooms. Virtually all of the clothes washers found in laundromats are purchased, while 80 percent of the machines found in multifamily facilities are leased through third-party "Route Operators." Los Angeles has an estimated 600 laundromats, each having an average of 40 clothes washers. In addition, there are approximately 30,000 clothes washers in multifamily common area laundry rooms. Using typical industry rate-of-use statistics, replacement of conventional washers with high efficiency models represents a savings potential of 8.6 acre-feet per day.

While the potential for savings is great, a number of hurdles exist that must be overcome. First, the costs for CII toilet replacement do not compare favorably with those in the residential sector. The City's plumbing code requires application for a plumbing permit when replacing a toilet in a CII facility, labor costs are incurred for the services of a licensed plumber, and commercial-grade fixtures are more costly than residential counterparts. Second, the selection and purchase of clothes washers is based largely on the criterion of first cost, regardless of whether the purchase is made by a laundromat owner or the Route Operator. Research has shown an incremental cost of \$300 - \$350 for bulk purchase of high efficiency model clothes washers over standard models. Incremental costs can be as high as \$500 for smaller volume purchases. Rebates that address these higher customer costs will result in immediate and sustainable water savings through increased program participation. The LADWP's application for Prop 13 funding for CII ULFTs and HECWs is predicated on this premise.

As a result of increased participation, immediate results would be realized in reduced water demand, thereby reducing stress on the Bay-Delta, improving water supply reliability and water quality, and supporting the objectives of the MOU, and local and regional water management plans.

4. Consistency with Water Management Plans

Los Angeles has continued to emphasize water conservation since the first water meters were installed in the early 1900's. Conservation has had a tremendous impact on Los Angeles' water use patterns, which has been demonstrated by unprecedented reductions in their water use. Now, with over 3.8 million people residing in the LADWP's service area and the occurrence of droughts, we are presented with a continuing opportunity to build upon the LADWP's water conservation accomplishments.

The LADWP is signatory to the Memorandum of Understanding Regarding Urban Water Conservation in California (Urban MOU), which outlines the increased need for urban conservation measures. Among the revised Best Management Practices (BMP) included in the Urban MOU is the requirement for conservation programs for CII customers (BMP No. 9). The LADWP's Year 2000 Urban Water Management Plan (UWMP) recognizes the importance of water conservation as a resource for Los Angeles and is consistent with the Urban MOU and



identifies conservation benefits of reduced water demand, increased system reliability and efficiency, and resultant water quality benefits.

Offering higher rebates to CII customers for the installation of ULFTs and high-efficiency clothes washers and incentives for innovative conservation programs is consistent with the conservation goals contained in LADWP's UWMP. Continuation and expansion of these successful programs would be a simple and significant step forward in the LADWP's ongoing acquisition of conserved water resources.

Consistency With the LADWP's Rebate Program

The MWD's Regionwide Commercial Fixture Retrofit Program complements the LADWP's rebate program. The LADWP has implemented its ULFT Rebate Program since 1990; offering rebates for the purchase and installation of new ULFTs in residential and CII facilities. The LADWP's Residential High Efficiency Clothes Washer Rebate Program began in 1998. In February 2001, the MWD launched a new rebate program offering incentive amounts exceeding that of the LADWP's program, made possible by a grant MWD received from the United States Bureau of Reclamation (USBR). In addition to the higher incentive level, MWD's program also targeted large corporate customers having chain accounts (e.g. supermarkets, restaurants) throughout southern California, thereby increasing the likelihood of participation at the local level. Therefore, the LADWP chose to suspend its own ULFT rebate program for the CII customer segment and participate in MWD's Regionwide Program.

In the Regionwide Program, the LADWP is currently supplementing the tiered ULFT rebate levels such that a \$120 rebate is available to all customer types for both flushometer and gravity type toilets. Prop 13 grant funding would be used to further supplement rebates for flushometer toilets to help offset the higher fixture and installation costs, as well as increase rebates for high efficiency clothes washers to further offset the incremental costs over standard models.



B. Scope of Work: Technical/Scientific Merit, Feasibility, Monitoring and Assessment

1. Approach – Methods, Procedures and Facilities

Rebate Program

The LADWP fully supports and participates in MWD's Regionwide Commercial Fixture Retrofit Program. The LADWP participated in its design and development, signed on as a participant, committed additional funding for increased ULFT rebates and program marketing, and is now referring eligible customers from the LADWP's own rebate program. This is being done to enhance participation and minimize competition between the two programs.

The capacity, facilities and procedures, including customer and trade ally outreach, are already in place to enhance program participation. Program implementation is now underway. The Regionwide Program uses a third party contractor to administer the rebate program, including rebate application issuance, participant data collection and tracking, and rebate processing including check printing and mailing. Customers access the program through a toll-free program telephone number.

MWD and the program contractor will continue to promote the Regionwide Program at trade shows and associations meetings and conferences, through the Chamber of Commerce, plumber's unions, and local advertising. The Regionwide Program is also promoted by the LADWP's account executives through its account management program, and also through direct contact with large corporate customers and trade organizations.

Application of Prop 13 funding to the program for increased rebates would be immediate upon execution of a contract with DWR. The existing contract between the LADWP and MWD has been structured to render changes in rebate levels in an expeditious fashion. No costs will be incurred to implement increased rebate levels. All Prop 13 grant funding will be applied directly to increased ULFT and HECW rebates.

The Regionwide Rebate Program is scheduled to continue through June 2004 with the current contractor. Prior to June 2004, an assessment of participation will be conducted to determine continuation of the program beyond 2004. In the unlikely event that MWD's Regionwide Program should end June 2004, the LADWP's Rebate Program would again be activated and Prop 13 grant funds would supplement the LADWP rebates.

Technical Assistance Program (Tap) Incentives

The LADWP's Technical Assistance Program (TAP) provides incentive payments to CII customers to encourage the installation of water saving projects. Qualifying TAP projects are paid incentives upon verification of installation and operation of the project. As with the rebate program, the capacity and procedures of the TAP are already in place to enhance program participation.

Established in 1992, the TAP offers incentives for customer-proposed projects having demonstrable water savings. A TAP application form is completed and submitted to the LADWP along with sufficient project documentation. Each project application is evaluated for feasibility and soundness of cost and savings estimates. A letter is sent to the applicant



informing of acceptance of the project and includes an estimate of the incentive amount. LADWP staff conducts a pre-project inspection and a post-installation inspection. The total incentive is paid upon verification of installation and operation of the project as specified in the application.

For a project deemed acceptable and feasible by the LADWP, the project incentive amount is calculated on the basis of projected water savings over two years at the rate of \$1.25 per thousand gallons saved. The incentive is currently limited to the lesser of the installed project cost or \$50,000. Current project incentives range from \$500 to \$50,000, therefore the strategy of offering up to \$100,000 per project is anticipated to result in an increased number of projects based on feedback received from the LADWP's CII customers.

As compared to typical rebate programs, the TAP offers significantly higher incentive levels for larger water saving projects, and acknowledges the value of a given conservation measure when installed in a more water intensive environment. Pre- and post-installation inspections are required. TAP incentives are paid once the installation and initial startup of the project has been completed. Invoices are required prior to incentive payment as proof of project cost. Examples of previously paid TAP projects include process water efficiency improvements, installation of cooling tower control equipment, landscape irrigation efficiency improvements, conversion of single pass cooling medical equipment, and installation of a car wash water recycling system.

Prop 13 grant funding would be used to supplement TAP incentives paid by the LADWP. Incentives paid would be calculated based on water savings over the first four years of the project life. LADWP funding would be applied to water savings in the first two years, and Prop 13 grant funding would be applied to water savings in the third and fourth years. Therefore, the LADWP is continuing the current TAP incentive funding level, thus matching Prop 13 grant funds dollar for dollar.

Marketing activities to promote the increased incentives available to CII water customers include, as appropriate, direct mail to large water users, bill stuffers, direct customer contact, and training of LADWP employees on the TAP that market the Energy Efficiency Program. The LADWP will also contract with a firm to conduct CII Water Audits as part of BMP implementation. This contractor will assist in marketing the TAP program through its CII water audit efforts, including identification and assessment of benefits and costs of TAP-eligible projects in the audit report.

Additional marketing efforts for both the Regionwide Rebate Program and the TAP will be provided through the LADWP's Conservation Awareness Campaign. The LADWP has budgeted \$100,000 in program year 2002-03 and \$200,000 in program year 2003-04. This campaign will focus on general conservation awareness, and is anticipated to increase interest in all of the LADWP's rebate and incentive programs.

Readiness To Proceed

Both the Rebate Program and the TAP are established programs ready to meet the objectives of the Proposed Project with the addition of Prop 13 grant funding. Immediate application of Prop 13 grant funds for rebates and incentives would take place, resulting in accelerated and increased participation in each program.



A Letter of Agreement detailing the terms and conditions of the Regionwide Rebate Program participation has been established between the LADWP and MWD, including an exhibit that identifies the rebate levels paid to participating LADWP customers. Upon approval of Prop 13 grant funding, this exhibit would be modified to reflect the increased rebate amounts. This action requires no approval by either Board.

2. Task List and Schedule

The LADWP would begin the Proposed Project immediately upon an executed contract with DWR, estimated to be October 1, 2002. Table B-1 shows the proposed schedule and quarterly expenditures for the project period – October 1, 2002 through September 30, 2005.

The Regionwide Rebate Program has been scheduled based on anticipated participation from information derived from assessment of historic program activity reports. Participation in the TAP is much more difficult to project since it is far more customer driven. Program marketing to provide information on the increased incentive payments would be immediately initiated to encourage expanded participation.



Table B-1
 Los Angeles Department of Public Works
 Rebates and Incentives for Water Savings Devices
 Estimated Schedule and Quarterly Expenditures

TASKS	Year 1			Year 2			Year 3			Total Project Budget			
	1st Qtr	2nd Qtr	3rd Qtr	4th Qtr	1st Qtr	2nd Qtr	3rd Qtr	4th Qtr	1st Qtr		2nd Qtr	3rd Qtr	4th Qtr
Task 1 — Regionwide Rebate Program													
Rebates LADWP													Oct '05
Prop 13 Devices	\$ 3,000	\$ 3,000	\$ 3,000	\$ 3,000	\$ 6,000	\$ 6,000	\$ 6,000	\$ 6,000	\$ 6,000	\$ 6,000	\$ 6,000	\$ 6,000	\$ 60,000
All Other Devices	\$ 84,500	\$ 84,500	\$ 84,500	\$ 84,500	\$ 81,500	\$ 81,500	\$ 81,500	\$ 81,500	\$ 81,500	\$ 81,500	\$ 81,500	\$ 81,500	\$ 990,000
Prop 13 Grant													
Specific Devices Program Admin	\$ 36,250	\$ 36,250	\$ 36,250	\$ 36,250	\$ 57,500	\$ 57,500	\$ 57,500	\$ 57,500	\$ 60,000	\$ 60,000	\$ 60,000	\$ 60,000	\$ 615,000
Subtotal													In-kind
Rebate Program	\$ 123,750	\$ 123,750	\$ 123,750	\$ 123,750	\$ 145,000	\$ 145,000	\$ 145,000	\$ 145,000	\$ 147,500	\$ 147,500	\$ 147,500	\$ 147,500	\$ 1,665,000
Task 2 — TAP Incentives													
Incentive Payments													
LADWP	\$ 25,000	\$ 25,000	\$ 25,000	\$ 25,000	\$ 50,000	\$ 50,000	\$ 50,000	\$ 50,000	\$ 50,000	\$ 50,000	\$ 50,000	\$ 50,000	\$ 500,000
Prop 13 Grant	\$ 25,000	\$ 25,000	\$ 25,000	\$ 25,000	\$ 50,000	\$ 50,000	\$ 50,000	\$ 50,000	\$ 50,000	\$ 50,000	\$ 50,000	\$ 50,000	\$ 500,000
Program Admin													In-kind
Subtotal TAP Incentives	\$ 50,000	\$ 50,000	\$ 50,000	\$ 50,000	\$ 100,000	\$ 100,000	\$ 100,000	\$ 100,000	\$ 100,000	\$ 100,000	\$ 100,000	\$ 100,000	\$ 1,000,000
Task 3 — Marketing													
Rebate Program													
LADWP - Program													
Promotion	\$ 30,000			\$ 30,000				\$ 30,000					\$ 150,000
Other Outreach Activities													In-kind
TAP Incentives													In-kind
Subtotal Marketing	\$ -	\$ 30,000	\$ -	\$ 30,000	\$ -	\$ 30,000	\$ -	\$ 30,000	\$ -	\$ 30,000	\$ -	\$ -	\$ 150,000
Task 4 — Monitoring													
Review Activity													
Reports													In-kind
Prepare Assessment Reports													In-kind
Task 5 — Reporting													
Quarterly Reports													In-kind
Annual and Final Reports													In-kind
Information Dissemination													In-kind
Total Project	\$ 173,750	\$ 203,750	\$ 173,750	\$ 203,750	\$ 245,000	\$ 245,000	\$ 245,000	\$ 275,000	\$ 247,500	\$ 277,500	\$ 247,500	\$ 247,500	\$ 2,815,000

Legend: Schedule



3. Monitoring and Assessment

Monitoring

Rebate Program – Monitoring and assessment of the impacts of increased rebate levels is straightforward. MWD and their program contractor already conduct monitoring through semi-monthly activity reporting to the LADWP. Rebate activity reports include program participant data such as number of participants, customer type, name and location, number and type of fixtures installed, and amount and schedule of rebates.

Incentive Program - Assessment of the impacts of increased incentive levels will be through the evaluation of qualified conservation projects generated by LADWP staff prior to approval of the project. A TAP project file is completed for each approved project. Project that have been approved and paid incentives will be compiled into a consolidated report on a quarterly basis. These reports will identify program participant information similar to that of the rebate program, including number of participants, customer type and location, project type, project life, amount and schedule of incentives, amount of water savings over four years (incentive basis) and over project life, etc.

Performance Measurement

Rebate Program – Activity reports received from MWD and the rebate program contractor easily facilitate assessment of rebate activity. Assessment of the impacts of higher rebate levels will be made using comparisons of program participation rates between MWD's program in the LADWP's service territory, MWD's program (at lower rebate levels) in similar territories of other participating member agencies, and historical participation rates in the LADWP's long-running rebate program. Since higher costs have deterred participation in the rebate program for flushometer ULFTs and coin/card operated clothes washers, comparison data will be readily available.

Water savings impacts will be derived from program participant data (e.g. customer type, number of fixtures installed) using industry-accepted water savings estimates for specific devices. Marketing efforts will be assessed based on type, means and/or location of marketing efforts compared to affiliation and/or location of program participants. If needed, appropriate adjustments will be made.

Incentive Program – Activity reports generated by LADWP staff will be assessed to determine the impacts of increased incentive payments. Marketing efforts will also be assessed for this program based on type, means and/or location of marketing efforts compared to affiliation and/or location of program participants, and appropriate adjustments will be made.

Assessment of Project Success – All performance measures will be used to assess project success in relation to project goals and objectives. The goal of the Proposed Project is to reduce the amount of water used in the CII sector through enhanced participation in the rebate program and the TAP due to increased incentives. Achievement of the project goal will be evaluated through the analysis of program activity results described above. The following Proposed Project objectives and their level of achievement will be assessed within this analysis: 1) encourage and accelerate the purchase and installation of ultra-low-flush toilets (ULFTs) and high efficiency coin/card operated clothes washers (HECWs) by CII customers through increased participation



in the rebate program, 2) encourage and accelerate installation of innovative conservation projects through increased participation in the TAP, 3) reduce imported water demand, 4) reduce stress on the Bay-Delta, 5) improve water supply reliability to meet future needs, 6) improve water quality, and 7) meet the objectives of the MOU, and local and regional water management plans.

Reporting

Program data and assessment results for both programs in Los Angeles will be made available in on a quarterly basis. Program assessment results will be transmitted to the State in required quarterly and annual progress fiscal and programmatic reports, and a final report at the conclusion of the three-year project period.

Accomplishments and results for each of the programs may be presented to CII customers through various communication methods, including, but not limited to, mailers, bill stuffers, Chamber of Commerce, and similar marketing methods used to promote the program. Additional forums for sharing of program information may include presentations, workshops and other appropriate venues. These communications vehicles will be implemented as requested and determined if necessary throughout project implementation.

Program information is stored with the LADWP in electronic and hard copy formats, and made available upon request. The LADWP stores the program information locally in the format received from MWD, as well as in summary form (both in Excel file format).

4. Preliminary Plans and Specifications, and Certifications Statements

The Proposed Project, *Rebates and Incentive for Water Savings Devices*, does not require plans and specifications. The rebate program involves the purchase and installation of ULFTs and HECWs for which a rebate is provided to the customer. The Proposed Project expands MWD's Regionwide Commercial Fixture Retrofit Program that is currently in place through increased rebates. The Proposed Project also enhances the LADWP's existing Technical Assistance Program through increased financial incentives to CII customers for installation and operation of water saving projects.



C. Qualifications of the Applicants and Cooperators.

1. Project Manager

The Project Manager for the Proposed Project will be Thomas L. Gackstetter, Water Conservation Manager with the LADWP. Mr. Gackstetter has been with LADWP 25 years and in his current position of Water Conservation Manager for eight years. Mr. Gackstetter is responsible for management of all LADWP water conservation staff in the implementation of conservation programs. He is also responsible for management and oversight of the division's \$13 million budget, design and implementation of conservation programs, contract negotiation and management, and contractor oversight. Mr. Gackstetter also acts as liaison to other California water agencies and state/federal water agencies, and is a member of the California Urban Water Conservation Council's Executive Committee. A copy of the project manager's resume is attached at the end of this proposal.

2. External Cooperators

Regionwide Commercial Fixture Retrofit Program

The Regionwide Commercial Fixture Retrofit Program represents a cooperative effort by the LADWP, MWD, and the United States Bureau of Reclamation (USBR). Upon approval of Prop13 grant funds, DWR/CALFED would also become project partners. The LADWP has a decade-long track record of implementing cost-effective, water saving programs, and is investing financial resources, marketing and in-kind contributions to this program.

MWD, the regional water wholesaler for Southern California, also has extensive conservation program implementation experience. MWD staff was responsible for conceptual development of the program, conducted a competitive bid process that resulted in the hiring of the program contractor, and is coordinating the implementation of the program among its participating member agencies. Coordination of the program includes program and contractor oversight, and reimbursement of rebates. Supplemental rebates – rebates in addition to MWD's contribution – are paid by MWD and then reimbursed by member agencies desiring to increase rebate amounts for their customers. MWD provides coordination on all program issues with member agencies in their respective service areas. Participating agencies have significant latitude over program promotion and local requirements.

The USBR is a staunch supporter of urban water conservation and plays an active role in supporting conservation efforts at the state and local levels. The USBR provided supplemental rebate levels for certain water-saving devices, including HECWs. In addition, USBR funds were used to pay the Regionwide Program contractor's administrative costs. The USBR's contribution of \$250,000 to the program has been exhausted. MWD has stepped up to continue the prior level of rebates and is funding the contractor costs previously paid by USBR funds.

Technical Assistance Program (TAP) Incentives

The LADWP's TAP is currently implemented and funded exclusively by LADWP. However, the LADWP anticipates hiring a contractor to conduct CII audits as part of its conservation program to meet the BMP goals within the Urban Water Management Plan. The contractor may also assist with TAP implementation and marketing. The City's LADWP of Public Works will also be requested to assist in raising awareness of the TAP to the City's large wastewater dischargers.



D. Benefits and Costs

1. Budget

The LADWP is requesting Prop 13 Urban Water Conservation Capital Outlay Grant funding of \$1,115,000. The Regionwide Rebate Program would be allocated \$615,000 and the TAP Incentives would be allocated \$500,000. The LADWP will also invest an additional \$1.7 million in the programs, in addition to in-kind services, over the same three-year implementation period. Table D-1 shows the Proposed Project budget. The value of in-kind services, including LADWP staff time for program administration, data analysis and assessment, program reporting, programmatic customer service, and additional outreach efforts, would be in addition to this budget.

Table D-1
Rebates and Incentives for Installation of Water Savings Devices
Proposed Project Budget

Proposed Project	Year 1	Year 2	Year 3	Total Project
Regionwide Rebate Program¹				
<i>LADWP – Prop 13 Device Rebates²</i>	\$ 12,000	\$ 24,000	\$24,000	\$60,000
All Other Device Rebates	\$338,000	\$326,000	\$326,000	\$990,000
Program Administration	In-kind	In-kind	In-kind	In-kind
<i>Prop 13 Grant – Specified Device Rebates</i>	\$145,000	\$230,000	\$240,000	\$615,000
Total	\$495,000	\$580,000	\$590,000	\$1,665,000
TAP Incentives³				
<i>LADWP – Incentives</i>	\$100,000	\$200,000	\$200,000	\$500,000
Program Administration	In-kind	In-kind	In-kind	In-kind
<i>Prop 13 Grant – Incentives</i>	\$100,000	\$200,000	\$200,000	\$500,000
Total	\$200,000	\$400,000	\$400,000	\$1,000,000
Marketing				
<i>LADWP – Program Promotion</i>	\$50,000	\$50,000	\$50,000	\$150,000
Additional Outreach Activities	In-kind	In-kind	In-kind	In-kind
Total	\$50,000	\$50,000	\$50,000	\$150,000
Monitoring				
Review/Assessment of Activity Reports	In-kind	In-kind	In-kind	In-kind
Reporting				
Quarterly, Annual and Final Reports	In-kind	In-kind	In-kind	In-kind
Program Information Dissemination	In-kind	In-kind	In-kind	In-kind
Total Project Budget	\$745,000	\$1,030,000	\$1,040,000	\$2,815,000

¹ MWD’s Regionwide Commercial Fixture Retrofit Program: offers rebates for installed ULFTs and HECWs

² ULFT Category 2 Flushometer = 1,000 x \$60 = \$60,000 (see Table D-2)

³ Technical Assistance Program: offers financial incentives for installation of conservation devices resulting in established minimum water savings



All Prop 13 grant funding will be applied directly to increased ULFT and HECW rebates and increased TAP incentives. The LADWP's budget of \$400,000 annually for the rebate program is shown in Table 2. Since the existing contract for the Rebate Program between the LADWP and MWD has been structured to render changes in rebate levels in an expeditious fashion, no costs will be incurred to implement an increase in rebate levels.

Justification

Programmatic efforts undertaken with Prop 13 funding will target customer segments offering the greatest potential for water savings. Prop 13 Urban Water Conservation Capital Outlay Grant funding of this program recognizes the value and potential of rebate programs for water saving devices that have produced significant water savings over the last decade. Prop 13 grant funding will be strictly limited to increasing rebates for the installation of approved devices, while other program partners assume administrative, marketing and other costs.

The flushometer type toilets and HECWs that would be targeted with Prop 13 grant funds are commonly found in restaurants and other high traffic facilities resulting in greater water savings per fixture. The fact that very few flushometer toilets have been replaced through the rebate program suggests that the current rebate level is too low to induce participation. This is attributable to the higher cost of the fixtures and installation, as well as the cost of the plumbing permit that is a requirement in Los Angeles. Prop 13 grant funding applied toward flushometer type ULFTs would substantially decreased the cost to the customer, thereby accelerating the replacement of these fixtures and saving substantial amounts of water in a locally cost effective manner.

Los Angeles' CII market potential currently comprises over 260,000 toilets having an estimated savings potential of over 20 AF per day. Currently the Regionwide Rebate Program has captured participation from Los Angeles customers for only 3,142 toilets and 634 clothes washers. The water savings associated with these devices is 11 AF per year. Increased rebates would accelerate the rate of participation and substantially increase water savings immediately assisting the critical local, regional, Bay-Delta, State and Federal water issues.

The TAP has shown great success producing a large amount of water savings even with limited participation. In FY 2000-01, 34 projects were approved for TAP incentives totaling \$192,000. Many of these projects were the result of large landscape customer participation due to the expertise of LADWP staff with this CII sector. Since that time, program efforts and incentive levels are reflective of the decreased participation in TAP.

The LADWP has experienced limited participation in the TAP due to the City's budget-constrained incentive amounts. Additional funding would encourage and incentivize greater participation in the program. The LADWP has learned from its CII customers that the \$50,000 incentive is often insufficient to justify undertaking a large conservation project. Since current project incentives range from \$500 to \$50,000, the strategy of offering up to \$100,000 per project is anticipated to result in an increased number of projects. TAP incentives cover an average of 25-50 percent of a typical project's installed cost, which oftentimes is insufficient to initiate action for even small projects. Prop 13 grant funding would provide the opportunity to enhance incentives and facilitate this strategy.



2. Cost-Sharing

In addition to rebate contributions of up to \$350,000 annually and matching TAP incentives of \$100,000 annually, the LADWP will budget \$50,000 annually to market the rebate program largely to those CII customers representing the higher water savings potential. LADWP is prepared to fund up to \$225,000 in incentives per year should participation in the TAP increase significantly. LADWP staff will also provide in-kind services for both programs for program administration, data analysis, program reporting, additional marketing and outreach efforts, and programmatic customer service.

Rebate Program

The LADWP’s past programmatic experience has shown that customers are least likely to replace flushometer-type toilets due to the complexity of the task and level of professional expertise required for fixture replacement. Properly installed and adjusted, flushometer-type ULFTs will generate reliable long-term water savings and are therefore targeted in this proposal for Prop 13 funding.

LADWP funding is primarily in areas of the rebate program for which Prop 13 grant funding is not sought. This strategy is being pursued to broaden the appeal and applicability of the program to a larger customer base. The LADWP is encouraging all eligible customers to participate.

For the ULFT rebates, customers are identified by three categories: Category 1 (highest savings) – restaurants, food (grocery) stores, and wholesale establishments (distribution centers, warehouses, etc), Category 2 – retail, automotive, multiple use, and religious, and Category 3 – all other CII facilities. Rebate levels have been maintained across the three customer categories in the interest of customer equity in the program. Prop 13 grant funding would be applied only to Category 1 and 2 flushometer type toilets, as well as HECWs. Table D-2 shows project cost-sharing by agency for rebates by water saving device type.

Table D-2
Regionwide Commercial Fixture Retrofit Program - Rebate Contributors
 \$/Rebate

Water Saving Device Type	LADWP	MWD	Prop 13	Total Rebate
ULFT – Cat. 1 Flushometer	--	\$120	\$130	\$250
ULFT – Cat. 2 Flushometer	\$60	\$60	\$130	\$250
ULFT – Cat. 1 Tank Type	\$30	\$90	--	\$120
ULFT – Cat. 2 Tank Type	\$60	\$60	--	\$120
High Efficiency Clothes Washer (HECW)	--	\$250	\$200	\$450

Category 1 – Installed in restaurants, food (grocery) stores, wholesale establishments (distribution centers, warehouses)
Category 2 – Installed in non-Category 1 facilities



The Regionwide Rebate Program is scheduled to continue through June 2004 with the current contractor. Prior to June 2004, MWD will conduct an assessment of participation to determine continuation of the program beyond 2004. However, this scenario is highly unlikely given that MWD has demonstrated strong program commitment through established contracts with the member agencies and program contractor. In the unlikely event that MWD's Regionwide program should conclude in June 2004, the LADWP's rebate program would again be activated and Prop 13 grant funds would supplement the LADWP rebates.

TAP Incentives

Prop 13 funding is also targeted for increased incentives in the LADWP's TAP. As noted previously, participation in the TAP has been minimal due to incentive amounts typically funding a minority portion of project costs. Therefore, Prop 13 funding will be used to enhance the incentives limits from \$50,000 to \$100,000 provided for qualified projects in the TAP. Table D-3 shows cost sharing by project year. No other participants provide cost-share.

**Table D-3
 Technical Assistance Program (TAP) Incentives
 Project Cost Sharing**

Project Years	LADWP¹	Prop 13²	Total Project
Year 1	\$100,000	\$100,000	\$200,000
Year 2	\$200,000	\$200,000	\$400,000
Year 3	\$200,000	\$200,000	\$400,000
Total Project	\$500,000	\$500,000	\$1,000,000

¹ Based on water savings (\$1.25 per 1,000 gallons) for the first two years of project life

² Based on water savings for years 3 and 4 of project life

3. Benefit Summary and Breakdown

The Proposed Project, *Enhanced Rebates and Incentives for Water Saving Devices*, will provide quantifiable and qualitative benefits for each project partner. The goal of the Proposed Project to reduce water demand will create quantifiable benefits for the LADWP, MWD and the Bay-Delta. Qualitative benefits will also be realized for the each of the project partners.

a. Quantified Project Outcomes and Benefits.

Quantified outcomes and benefits for the Regionwide Rebate Program has been limited to the water saving devices for which Prop 13 grant funding would be directed. Quantified outcomes and benefits for the TAP are inclusive of all qualified projects.

LADWP – will realize reduced water demand (10,403 AF) by their CII customers resulting in a total avoided cost of purchased water over the life of the Proposed Project of \$4.5 million: Rebate Program = \$1.8 million and Incentive Program \$2.7 million.

MWD – will realize an equal amount of reduction in demand of potable water, resulting in a reduced cost of supply, water treatment, and power, and an equal amount of water available for other use as needed. Total avoided cost to MWD is estimated at \$2.1 million (project lifetime



water savings of 10,403 AF x \$202/AF – avoided cost to MWD water includes cost of supply, power and treatment).¹

Bay-Delta – will realize an equal amount of reduction in demand of potable water from the Bay-Delta – 10,403 AF project lifetime water savings. This demand reduction will contribute to the CALFED goals of reduced demand on Bay-Delta supplies, thereby contributing to the objectives for a solution to the Bay-Delta issues, including water quality, supplies matched to beneficial uses, and improved habitats and ecological functions.

Avoided Cost of Purchased Water to LADWP

In order to determine avoided cost of purchased water, annual rebate goals have been estimated in Table D-4.

**Table D-4
 Regionwide Rebate Program
 Estimated Prop 13 Funded Devices**

Device	Year 1	Year 2	Year 3
ULFT	500	1000	1000
HECW	400	500	550

Since ULFTs and HECWs are categorized as shown in Table D-5, ULFT rebates are estimated annually as 60% Category 1 and 40% Category 2, and HECW rebates are 90% Commercial and 10% Multifamily.

Total avoided purchased water cost for the LADWP for water saving devices installed in the Rebate Program is shown in Table D-5. Water savings and avoided costs are shown in annual and project lifetime savings during the project period.

¹ MWD cost of Non-Interruptible Potable Water \$431 AF = supply \$84, conveyance \$116, power \$36, emergency storage \$29, distribution \$84, and treatment \$82



Table D-5
Regionwide Commercial Fixture Retrofit Program – Rebates
Avoided Cost of Purchased Water

Water Saving Device	Annual Savings (AF)				Annual Avoided Cost of Purchased Water By Device	Lifetime Savings (AF)	Total Avoided Cost of Purchased Water By Device
	Year 1	Year 2	Year 3	3 rd Year Total Savings			
ULFT – Cat.1 Flushometer	17.0	34.1	34.1	85.2	\$36,721	2,130	\$918,030
ULFT – Cat.2 Flushometer	5.5	11.0	11.0	27.5	\$11,853	688	\$296,528
HECW- Commercial	45.2	56.5	62.0	163.7	\$70,555	1,310	\$564,610
HECW – Multifamily	3.1	3.9	4.4	11.4	\$4,913	137	\$59,047
Totals	70.8	105.5	111.5	287.8	\$124,057	4,265	\$1,838,215
Annual Avoided Cost of Purchased Water By Year	\$30,515	\$45,471	\$48,056	\$124,042	\$124,042	--	--
Lifetime Savings By Year (AF)	962	1,627	1,676	4,265	--	--	--
Total Avoid Cost of Purchased Water by Year	\$414,622	\$701,237	\$722,356	\$1,838,215	--	--	--

Savings Assumptions:

ULFT Cat. 1:

50.7 gallons/day (GPD), 25 year economic life

ULFT Cat. 2:

24.6 gallons/day (GPD), 25 year economic life

HECW – Commercial:

8 loads/day, 14 gallons/load, 8 year economic life

HECW – Multifamily:

5 loads/day, 14 gallons/load, 12 year economic life

1 acre-foot (AF) = 325,851 gallons

Cost Assumption:

Current MWD Rate for Non-Interruptible Water = \$431 acre-foot

Total avoided purchased water cost for the LADWP for installation and operation of water saving projects in the TAP is shown in Table D-6. Water savings and avoided purchased water costs are shown in annual and project lifetime savings during the project period. Current TAP results demonstrate projects are in place at least 10 years.



Table D-6
LADWP Technical Assistance Program (TAP) Incentives
Avoided Cost of Purchased Water

Qualified Conservation Programs	Minimum Annual Water Savings (AF)	Annual Avoided Cost of Purchased Water	10-Year Water Savings (AF)	Total Avoided Cost of Purchased Water
Year 1	122.76	\$ 52,910	1,227.6	\$529,096
Year 2	245.52	\$105,820	2,455.2	\$1,058,191
Year 3	245.52	\$105,820	2,455.2	\$1,058,191
Totals	613.8	\$264,550	6138.0	\$2,645,478

Cost Assumptions: Current MWD Rate for Non-Interruptible Water = \$431 acre-foot

Table D-7 shows the consolidated total of avoided cost of purchased water for the LADWP for both the Rebate Program and TAP Incentives. Water savings and avoided costs are shown in annual savings and total savings during the project period and lifetime savings, then compared to LADWP annual and total project investment during the project period.

Table D-7
Consolidated Programs
Total Avoided Cost of Projected Water Savings

Project Year	Minimum Annual Savings (AF)	Annual Avoided Cost of Purchased Water	Lifetime Savings (AF)	Total Avoided Cost of Purchased Water	Total LADWP Investment
Year 1	193.56	\$ 281,529	2,190	\$ 943,890	\$ 500,000
Year 2	351.02	\$ 493,150	4,082	\$1,759,342	\$ 600,000
Year 3	357.02	\$ 493,150	4,131	\$1,780,461	\$ 600,000
Totals	901.6	\$ 388,590	10,403	\$4,483,693	\$1,700,000

Cost Assumptions:

- Current MWD Rate for Non-Interruptible Water = \$431 acre-foot
- Lifetime savings includes economic life of ULFTs and HECWs in rebate program and 10-year project life for TAP projects as used in Tables D-5 and D-6.

Cost Per AF of Prop 13 Funding - Rebate Program

The Prop 13 funding investment for the Rebate Program is projected to yield water savings at a cost of \$144.20 per acre-foot. Three-year programmatic goals and projected savings for installation of devices to receive rebates by Prop 13 funding in MWD's Regionwide Commercial Fixture Retrofit Program are shown in Table D-8.



Table D-8
Regionwide Commercial Fixture Retrofit Program
Programmatic Goals and Projected Savings

Water Saving Device	Number of Devices	Savings (GPD)	Annual Savings (AF)	Lifetime Savings (AF)	Total Prop 13 Funding	Prop 13 Funding Per AF of Water Saved
ULFT – Cat.1 Flushometer	1,500	76,050	85.2	2,130	\$ 195,000	\$ 91.55
ULFT – Cat.2 Flushometer	1,000	24,600	27.6	688	\$ 130,000	\$ 188.95
HECW- Commercial	1,300	145,600	163.1	1,310	\$ 260,000	\$ 199.47
HECW - Multifamily	150	10,500	11.8	137	\$ 30,000	\$ 218.98
Totals	3,950	256,750	287.7	4,265	\$ 615,000	\$ 144.20

Savings Assumptions:

- ULFT Cat. 1: 50.7 gallons/day (GPD), 25 year economic life*
- ULFT Cat. 2: 24.6 gallons/day (GPD), 25 year economic life*
- HECW – Commercial: 8 loads/day, 14 gallons/load, 8 year economic life*
- HECW – Multifamily: 5 loads/day, 14 gallons/load, 12 year economic life*
- 1 acre-foot (AF) = 325,851 gallons*

Cost Per AF of Prop 13 Funding - TAP Incentives

The Prop 13 funding investment for the Incentive Program is projected to yield water savings at a cost of \$81.46 per acre-foot. Three-year programmatic goals and projected savings for installation and operation of water saving devices to receive incentives in the TAP by Prop 13 funding are shown in Table D-9. Each year shows the savings generated for projects provided incentives in that year and the associated 10-year water savings. The total is cumulative of the total projects funded during the three-year project period.



Table D-9
LADWP Technical Assistance Program (TAP) Incentives¹
Programmatic Goals and Projected Savings

Qualified Conservation Programs	Minimum Annual Water Savings (AF) ²	10-Year Water Savings (AF) ³	LADWP Funding	Total Prop 13 Funding	Prop 13 Funding Per AF of Water Saved
Year 1	122.76	1,227.6	\$100,000	\$100,000	\$81.46
Year 2	245.52	2,455.2	\$200,000	\$200,000	\$81.46
Year 3	245.52	2,455.2	\$200,000	\$200,000	\$81.46
Cumulative Total	613.8	6,138	\$500,000	\$500,000	\$81.46

Savings Assumptions:

¹ Incentive payment is calculated at \$1.25 per 1,000 gallons saved over two years for two 2-year periods, limited to \$100,000 per project

² Minimum Annual Savings: $\$200,000 / \$1.25 \times 1,000 / 325,851 / 4$

³ Projects must result in at least 400,000 gallons saved over two years; must remain in place five years; however, program results demonstrate projects are in place at least 10 years

* 1 acre-foot (AF) = 325,851 gallons

Water Reliability Benefits

Reliability of water supplies to meet future needs is improved equal to the total water demand reduction (10,403 AF) in the combined projects. When water demand is reduced in the Los Angeles area, reliability of water supplies to areas that more closely match supply to beneficial uses occurs.

CALFED/Bay-Delta Benefits

Quantified outcome and benefits are expected to directly and indirectly contribute to CALFED goals through reduction of water demands on the Bay-Delta by means of reduction on MWD State Water Project supplies. This 10,403 AF of total demand reduction will contribute to the CALFED objectives of a solution to the Bay-Delta issues, including water quality, supplies matched to beneficial uses, and improved habitats and ecological functions. One of CALFED's goals is to facilitate and fund locally supported, managed and controlled water conservation programs that contribute to the objectives of the Bay-Delta solution. Water demand reduction on the Bay-Delta has been quantified as a result of the LADWP's Rebate Program and TAP incentives, and is translated into real water savings.

b. Qualitative Project Outcomes and Benefits.

The Proposed Project objectives are to 1) encourage and accelerate the purchase and installation of ultra-low-flush toilets (ULFTs) and high efficiency coin/card operated clothes washers (HECWs) by CII customers through increased participation in the rebate program; 2) encourage



and accelerate the purchase and installation of innovative conservation projects through increased participation in the TAP; 3) reduce imported water demand; 4) reduce stress on the Bay-Delta; 5) improve water supply reliability to meet future needs; 6) improve water quality; and 7) meet the objectives of the MOU, and local and regional water management plans.

It is clear that increased participation rates in the rebate and TAP programs are quantifiable. It is also clear that water demand levels can be determined and quantified. Improved water reliability, improved water quality, reduced stress on the Bay-Delta and meeting the objectives of the MOU, and local and regional water management plans are more challenging to quantify. An additional qualitative benefit will be improved assessment of program data to better evaluate varying rebate and incentive levels.

Water Reliability Benefits

Reliability of water supplies to meet future needs is improved equal to the total water demand reduction in the combined projects. If water demand is reduced in the Los Angeles area, then reliability of water supplies to areas that more closely match supply to beneficial uses occurs.

Water Quality Benefits

Reducing demands on the Bay-Delta during those times of the years when water diversions can contribute to water quality issues, e.g., salinity, has shown to improve water quality. The Proposed Project is estimated to reduce water demands approximately 902 AFY with a total project water savings of 10,403 AF. This reduction is significant to improve water quality in the near future.

Bay-Delta Benefits

Reduced water demand on the Bay-Delta through encouraged participation in citywide demand-reduction programs can improve water supply reliability to meet future needs; thus generating real water savings while reducing diversions and providing secondary benefits to the environment. This demand reduction will contribute to the CALFED objectives of a solution to the Bay-Delta issues, including water quality, supplies matched to beneficial uses, and improved habitats and ecological functions.

Meeting Objectives of Water Management Plans

Local, regional and statewide water management plans create a framework to meet the overriding goal of water conservation in California. The LADWP's Urban Water Management Plan has established objectives to reduce demand through a variety of conservation programs, including rebate and incentive programs. Regional and statewide water management plans also include programmatic goals to reduce water demand throughout the Los Angeles region and statewide. The Proposed Project contributes toward the water demand reduction goals of each of these plans.

Program Data Assessment Improved and Shared Among Project Beneficiaries

Program data analysis will allow the LADWP and other water agencies throughout the state to better evaluate the impact of varying levels of device rebates, identify device rebate "trigger" levels, and adjust individual rebate programs accordingly. This affords direct, long-term water conservation benefits at the local, regional, and state levels.



4. Assessment of Costs and Benefits

The LADWP's Proposed Project, *Enhanced Rebates and Incentives for Water Saving Devices*, represents an opportunity for significant reductions in water demand. For a total project cost of \$2.8 million over the three-year project period between the LADWP and Prop 13 grant funding, over 10,400 AF of lifetime water savings can be realized for a total avoided cost of purchased water of nearly \$4.5 million. This represents an overall Proposed Project return on original investment of 161 percent.

The LADWP is requesting a total of \$1,115,000 from Prop 13 grant funding. As applied to the Regionwide Rebate Program, a \$615,000 Prop 13 grant investment will result in a total cost of \$144.20 per AF of water saved. Applied to the TAP incentives, a \$500,000 Prop 13 grant investment will result in a total cost of \$81.46 per AF of water saved. Combined, this represents a cost of \$107.18 per AF of water saved. The cost of Bay-Delta water is valued greater than the cost to Prop 13 funding per AF of water saved in this Proposed Project, thereby making the Prop13 grant funding cost effective to contribute to the CALFED objectives.

The LADWP pledges funds of \$1,700,000 over the three-year project period for both programs. Again, this investment will assist in producing over 10,400 AF of lifetime water savings, for a total avoided cost of purchased water of nearly \$4.5 million. This represents a 265 percent return on original investment for the LADWP.

Additional investment in the Regionwide Rebate Program by MWD for rebates specific to the Prop 13 grant funded devices equals \$602,500 over the three-year period. The Proposed Project water savings equals demand of potable water, resulting in a reduced cost of supply, water treatment, and power. Total avoided cost to MWD is estimated at \$2.1 million (project lifetime water savings of 10,403 AF x \$202/AF). Again, the avoided cost to MWD for the water saved is far greater than its funding contribution in the Regionwide Rebate Program, therefore making the MWD funding locally cost effective.

a. Assumptions and Methodologies.

1. Both the Regionwide Rebate Program and the TAP are established programs. No start-up costs are required, no governing body approvals are required, and no additional labor is required to implement the increased rebates and incentives. Additional marketing budget has been allocated by the LADWP to develop and conduct outreach approaches to disseminate program information. All program management and administration is supported by in-kind services.
2. In-kind services have not been quantified. In-kind services include such items as the full cost of labor, agency contract costs, and direct costs, including printing, packaging, postage, travel, etc.
3. Prop 13 grant funding would only be applied toward flushometer ULFTs and HECWs in the Regionwide Rebate Program, and toward incentives for all qualified projects in the TAP. Therefore, the benefits of avoided purchased water costs and investment per AF of water saved have been calculated for only Prop 13 grant funded devices and programs.



4. LADWP funding for the Regionwide Rebate Program is primarily in areas of the program where Prop 13 grant funding is not sought. This strategy is anticipated to broaden the appeal and applicability of the program to a larger customer base.
5. LADWP's avoided cost of purchased water is based on the MWD non-interruptible rate of \$431 per AF.
6. Water saving assumptions for the Regionwide Rebate Program are based on the following:

ULFT Cat. 1: 50.7 gallons/day (GPD), 25 year economic life
ULFT Cat. 2: 24.6 gallons/day (GPD), 25 year economic life
HECW – Commercial: 8 loads/day, 14 gallons/load, 8 year economic life
HECW – Multifamily: 5 loads/day, 14 gallons/load, 12 year economic life
1 acre-foot (AF) = 325,851 gallons

7. Water savings assumptions for the TAP are based on the following:

Qualified conservation projects must result in water savings of at least 400,000 gallons of water over two years for two 2-year periods. A review of past TAP projects shows a majority having an economic life of at least seven years and as much as 10 years. Projects having a minimum economic life of seven years will receive supplemental Prop 13 grant funding, and lifetime water savings has been calculated at 10 years.

8. TAP Incentive payments are calculated at \$1.25 per 1,000 gallons saved over two years for two 2-year periods, limited to \$100,000 per project.

b. Quantified Costs and Benefits in Year 2001 Dollars

Table D-10 shows the Proposed Project costs and benefits in year 2001 dollars.

**Table D-10
 Proposed Project Costs and Benefits in Year 2001 Dollars**

	Project Costs	Project Benefits	Benefits Notes
<i>LADWP</i>			
Rebates	\$1,050,000	\$1,838,215	Avoided Purchased Water Costs
Marketing	\$ 150,000		
Incentives	\$ 500,000	\$2,645,478	Avoided Purchased Water Costs
Program Administration	In-kind		
<i>Total LADWP</i>	\$1,700,000	\$4,483,693	Total Avoided Purchased Water Costs
<i>Prop 13 Grant/CALFED</i>			
Rebates	\$615,000	\$144.20	Funding Per AF of Water Saved
Incentives	\$500,000	\$81.46	Funding Per AF of Water Saved
<i>Total Prop 13/CALFED</i>	\$1,115,000	10,403 AF	Reduced Water Demand on Bay-Delta
<i>Total Proposed Project Costs</i>	\$2,815,000		



Table D-11 shows the present value using a 6 percent discount rate of the Proposed Project costs and benefits.

**Table D-11
 Present Value of
 Proposed Project Costs and Benefits**

	Project Costs	Project Benefits	
LADWP			
Rebates	\$ 991,687	\$1,135,656	Avoided Purchased Water Costs
Marketing	\$ 141,670		
Incentives	\$ 466,679	\$1,817,350	Avoided Purchased Water Costs
Program Administration	In-Kind		
Total LADWP	\$1,600,036	\$2,953,006	Total Avoided Purchased Water Costs
Prop 13 Grant/CALFED			
Rebates	\$578,100		Funding Per AF of Water Saved
Incentives	\$466,679		Funding Per AF of Water Saved
Total Prop 13/CALFED	\$1,044,779		Reduced Water Demand on Bay-Delta
Total Proposed Project Costs	\$2,644,815		

Table D-12 summarizes non-quantified costs and benefits for each project partner.

**Table D-12
 Summary of Non-Quantified Costs and Benefits**

	Costs	Benefits
LADWP	In-kind services for program administration; additional outreach activities; review/assessment of activity reports; quarterly, annual and final reporting; and program information dissemination	Increased program participation resulting in reduced water demand, meeting the goals of the LADWP's UWMP, and local, regional and state water management plans, including CALFED
MWD	In-kind services to provide program management for the Regionwide Rebate Program, including managing the contracts for program participation, program marketing, hire/manage the contractor to facilitate the program, generate semi-monthly participant activity reports, and provide support to all program participants. MWD also provides rebate contributions from \$60 to \$250 per water saving device as identified in Table D-2.	Reduction in demand of potable water, resulting in a reduced cost of supply, water treatment, and power estimated at \$2.1 million.



<i>Table D-3 Continued</i>	Costs	Benefits
Prop 13/CALFED	Prop 13 Grant Funding	Water reliability, water quality, supplies matched to beneficial uses, and improved habitats and ecological functions.

e. Local Cost Effectiveness of Project

Local cost effectiveness is demonstrated in Table D-13 using present valued costs and benefits. LADWP Proposed Project present value costs equal \$1,600,036, while avoided present value cost of purchased water equals \$2,953,006. This represents nearly 185 percent return on investment. This clearly demonstrates local cost effectiveness.

**Table D-13
 Local Cost Effectiveness of Proposed Project**

LADWP	Project Costs	Project Benefits	Cost Effectiveness	% Return on Investment
Rebates	\$ 991,687			
Marketing	\$ 141,670			
Incentives	\$ 466,679			
Program Administration	In-Kind			
Total Project Costs	\$1,600,036			
Avoided Cost of Purchased Water				
Rebate Program		\$1,135,656		
TAP Incentives		\$1,817,350		
Total Project Benefits		\$2,953,006		
Net Benefit to LADWP			\$1,352,970	185%



E. Outreach, Community Involvement and Acceptance

Outreach efforts are key to the Proposed Project's success. Experience has shown that community-based organizations (CBO) provide a vital link to the diverse communities of Los Angeles. In fact, the LADWP has established cooperative working relationships with five (5) CBOs for assistance in the distribution of residential ULFTs throughout the City. CBOs assist and support the rebate and incentive programs, and provide additional valuable marketing efforts to the programs.

It is anticipated that, with additional funding for rebates to the LADWP's commercial and industrial customer base, these and other organizations can assist the LADWP in reaching small business owners—particularly those in disadvantaged communities. In the end, these customers stand to benefit the most from installing more water-efficient equipment by means of reduced energy and water bills. Therefore, offering higher rebates benefits the City of Los Angeles economically while reducing demand for additional water in the future.

As a result of the Proposed Project, many community members have the opportunity to receive training, employment and other economic benefits. The CBOs will employ and train additional staff as needed, and the local economy will be stimulated for small business owners through increased business, including plumbers, suppliers, and other providers of water conservation equipment.



Table B-1
Los Angeles Department of Public Works
Rebates and Incentives for Water Savings Devices
Estimated Schedule and Quarterly Expenditures

TASKS	Year 1				Year 2				Year 3				Final	Total Project Budget
	1st Qtr	2nd Qtr	3rd Qtr	4th Qtr	1st Qtr	2nd Qtr	3rd Qtr	4th Qtr	1st Qtr	2nd Qtr	3rd Qtr	4th Qtr		
Task 1 — Regionwide Rebate Program														
Rebates														
LADWP														
Prop 13 Devices	\$ 3,000	\$ 3,000	\$ 3,000	\$ 3,000	\$ 6,000	\$ 6,000	\$ 6,000	\$ 6,000	\$ 6,000	\$ 6,000	\$ 6,000	\$ 6,000		\$ 60,000
All Other Devices	\$ 84,500	\$ 84,500	\$ 84,500	\$ 84,500	\$ 81,500	\$ 81,500	\$ 81,500	\$ 81,500	\$ 81,500	\$ 81,500	\$ 81,500	\$ 81,500		\$ 990,000
Prop 13 Grant														
Specific Devices	\$ 36,250	\$ 36,250	\$ 36,250	\$ 36,250	\$ 57,500	\$ 57,500	\$ 57,500	\$ 57,500	\$ 60,000	\$ 60,000	\$ 60,000	\$ 60,000		\$ 615,000
Program Admin														In-kind
Subtotal														
Rebate Program	\$ 123,750	\$ 123,750	\$ 123,750	\$ 123,750	\$ 145,000	\$ 145,000	\$ 145,000	\$ 145,000	\$ 147,500	\$ 147,500	\$ 147,500	\$ 147,500		\$ 1,665,000
Task 2 — TAP Incentives														
Incentive Payments														
LADWP	\$ 25,000	\$ 25,000	\$ 25,000	\$ 25,000	\$ 50,000	\$ 50,000	\$ 50,000	\$ 50,000	\$ 50,000	\$ 50,000	\$ 50,000	\$ 50,000		\$ 500,000
Prop 13 Grant	\$ 25,000	\$ 25,000	\$ 25,000	\$ 25,000	\$ 50,000	\$ 50,000	\$ 50,000	\$ 50,000	\$ 50,000	\$ 50,000	\$ 50,000	\$ 50,000		\$ 500,000
Program Admin														In-kind
Subtotal TAP Incentives	\$ 50,000	\$ 50,000	\$ 50,000	\$ 50,000	\$ 100,000	\$ 100,000	\$ 100,000	\$ 100,000	\$ 100,000	\$ 100,000	\$ 100,000	\$ 100,000		\$ 1,000,000
Task 3 — Marketing														
Rebate Program														
LADWP - Program														
Promotion		\$ 30,000		\$ 30,000		\$ 30,000		\$ 30,000		\$ 30,000				\$ 150,000
Other Outreach														
Activities														In-kind
TAP Incentives														In-kind
Subtotal Marketing	\$ -	\$ 30,000	\$ -	\$ 30,000	\$ -	\$ 30,000	\$ -	\$ 30,000	\$ -	\$ 30,000	\$ -	\$ -		\$ 150,000
Task 4 — Monitoring														
Review Activity														
Reports														In-kind
Prepare Assessment														
Reports														In-kind
Task 5 — Reporting														
Quarterly Reports														In-kind
Annual and Final														
Reports														In-kind
Information														
Dissemination														In-kind
Total Project	\$ 173,750	\$ 203,750	\$ 173,750	\$ 203,750	\$ 245,000	\$ 275,000	\$ 245,000	\$ 275,000	\$ 247,500	\$ 277,500	\$ 247,500	\$ 247,500		\$ 2,815,000

Legend: Schedule