

# A-1 Urban Water Conservation Grant Application Cover Sheet

1. Applicant (Organization or affiliation): Santa Barbara County Water Agency

2. Project Title: Santa Barbara County CII Rebate Program

3. Person authorized to sign and submit proposal:

<b>Name, Title</b>	<u>Robert Almy</u>
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4. Contact person (if different):

<b>Name, Title</b>	<u>Rory Lang</u>
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5. Funds requested (dollar amount): \$268,600

6. Applicant funds pledged (local cost share) (dollar amount): \$41,075

7. Total project costs (dollar amount): \$309,675

8. Estimated net water savings (acre-feet/year): 156

Estimated total amount of water to be saved (acre-feet): 3163

Over 22 years

Benefit/cost ratio of project for applicant: 1.47

Estimated \$/acre-feet of water to be saved: \$215

9. Project life (month/year to month/year): 10/03-09/06

10. State Assembly District where the project is to be conducted: 33 & 35

11. State Senate District where the project is to be conducted: 15 & 19

12. Congressional District(s) where the project is to be conducted: 23 & 24

13. County where the project is to be conducted: Santa Barbara County

14. Do the actions in this application involve physical changes in land use, or potential future changes in land use?

(a) Yes \_\_\_\_\_

(if yes, complete the land use check list at

[http://www.calfed.water.ca.gov/adobe\\_pdf/Questionnaires\\_EC\\_Permits\\_Land\\_Use.pdf](http://www.calfed.water.ca.gov/adobe_pdf/Questionnaires_EC_Permits_Land_Use.pdf) and submit it with the proposal

(b) No X

## A-2 Application Signature Page

By signing below, the official declares the following:

The truthfulness of all representations in the application;

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

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 application on behalf of the applicant; and

The applicant will comply with all terms and conditions identified in this Application Package if selected for funding.

\_\_\_\_\_  
Signature

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

\_\_\_\_\_  
Date

### **A-3 Application Checklist**

Complete this checklist to confirm all sections of this application package have been completed.

#### **Part A: Project Description, Organizational, Financial and Legal Information**

- \_\_\_\_\_ A-1 Urban Water Conservation Grant Application Cover Sheet
- \_\_\_\_\_ A-2 Application Signature Page
- \_\_\_\_\_ A-3 Application Checklist
- \_\_\_\_\_ A-4 Description of project
- \_\_\_\_\_ A-5 Maps
- \_\_\_\_\_ A-6 Statement of work, schedule
- \_\_\_\_\_ A-7 Monitoring and evaluation
- \_\_\_\_\_ A-8 Qualification of applicant and cooperators
- \_\_\_\_\_ A-9 Innovation
- \_\_\_\_\_ A-10 Agency authority
- \_\_\_\_\_ A-11 Operation and maintenance (O&M)

#### **Part B: Engineering and Hydrologic Feasibility (construction projects only)**

- \_\_\_\_\_ B-1 Certification statement
- \_\_\_\_\_ B-2 Project reports and previous studies
- \_\_\_\_\_ B-3 Preliminary project plans and specifications
- \_\_\_\_\_ B-4 Construction inspection plan

#### **Part C: Plan for Environmental Documentation and Permitting**

- \_\_\_\_\_ C-1 CEQA/NEPA
- \_\_\_\_\_ C-2 Permits, easements, licenses, acquisitions, and certifications
- \_\_\_\_\_ C-3 Local land use plans
- \_\_\_\_\_ C-4 State and local statutes and regulations

#### **Part D: Need for Project and Community Involvement**

- \_\_\_\_\_ D-1 Need for project
- \_\_\_\_\_ D-2 Community involvement, support, opposition

#### **Part E: Water Use Efficiency Improvements and Other Benefits**

- \_\_\_\_\_ E-1 Water use efficiency improvements
- \_\_\_\_\_ E-2 Other project benefits

#### **Part F: Economic Justification, Benefits to Costs Analysis**

- \_\_\_\_\_ F-1 Net water savings
- \_\_\_\_\_ F-2 Project budget and budget justification
- \_\_\_\_\_ F-3 Economic efficiency
- \_\_\_\_\_ Benefit/Cost Analysis Tables 1; 2; 3; 4a, 4b, 4c, 4d; and 5

## **Part A: Project Description, Organizational, Financial and Legal Information**

### **A-4 Description of project**

Water purveyors in Santa Barbara County have long been known for their successful water efficiency programs. However, to date these programs have mainly focused on the water savings achieved through residential programs. Therefore, there is significant potential for water savings through the implementation of commercial, industrial and institutional (CII) water efficiency programs in Santa Barbara County. The proposed Santa Barbara County CII Rebate Program (CII Rebate Program) will increase water efficiency services to the local CII sector through rebates for ultra low-flush toilets (ULFT), waterless and ULF urinals and commercial clothes washers.

The goals of the CII Rebate Program are to increase water efficiency in the CII sector in Santa Barbara County and to promote retail sales of water saving fixtures and equipment in Santa Barbara County. The objective of this program is to achieve a life-time water savings of 3,163 AF by replacing old high-water use fixtures and equipment currently used in local CII facilities with new water efficient fixtures and equipment. The 3-year specific objectives are to:

- Replace 20% of non-efficient toilets within the Category 1 commercial sector with ULFTs.
- Replace 4% of non-efficient toilets with all other commercial customers with ULFTs.
- Replace 6% of inefficient urinals in the local CII sector with ULF or waterless urinals.
- 50% of sales of non-efficient clothes washers with water efficient clothes washers in multi-family common area laundry facilities and self-serve, coin-operated laundromat facilities.

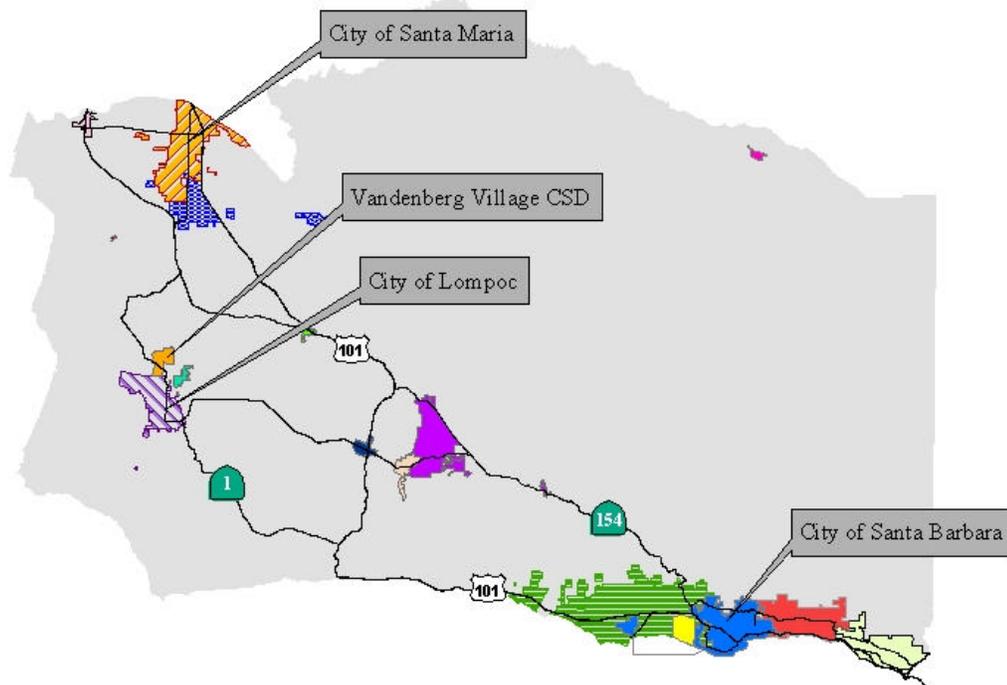
Participating Santa Barbara County water purveyors will be the City of Santa Barbara, Santa Barbara County Water Agency, City of Santa Maria, City of Lompoc and Vandenberg Village Community Services District. Agency staff will administer the program and contract with a consultant for implementation of the regional marketing campaign to promote the rebates to the CII sector. The CII Rebate Program will market one message with a single point of contact to make it simple for CII customers from all over the county to participate in the program.

The CII Rebate Program will issue \$234,100.00 in rebates to CII customers within a 3-year period. For ULF toilets, marketing will be targeted at those specific customers where retrofit of an existing fixture would yield the highest annual and lifetime water savings. The expected outcome is to replace 1600 Category 1 toilets, 200 Category 2 and 3 toilets, 511 urinals and 200 multi-family common area laundry facility washers, and 200 commercial laundromat clothes washers with water efficient fixtures in three years to save 156 AFY.

The program cost will be \$309,675 with a projected economic life-time water savings of 3,163 acre feet (AF), with the cost of water saved estimated at \$215 per acre foot. The funds requested by this proposal are \$268,600 and the partner water purveyors match is \$41,075.

## A-5 Maps

Figure 1: Map of the County of Santa Barbara showing water purveyors participating in the CII Rebate Program.



## A-6 Statement of work and work schedule

### Methods

The CII Rebate Program will include several major components: a regional marketing campaign, rebate processing and payment, and verification of installation. Staff from the partner agencies will administer the program and work with a consultant to develop the regional marketing campaign to promote the rebates to the CII sector. The CII Rebate Program will market one message with a single point of contact to make it simple for all CII customers from all over the county to participate in the program. This program is modeled after Metropolitan Water District's CII Rebate Program.

## Procedures

### *Fixture Selection*

The fixtures selected for rebate eligibility as part of this program were chosen based on the findings of numerous audits conducted in the CII sector by program purveyors and other water districts throughout the state. The results of these surveys indicate that these fixtures were among those that were consistently recommended for replacement by the auditors. Selection was also based on the water efficient replacement fixture having a product life of seven or more years.

### *Target Selection*

For ULF toilets, marketing will be targeted at those specific end-uses where retrofit of an existing fixture would yield the highest annual and lifetime water savings as determined by *The CII ULFT Savings Study* produced by the California Urban Water Conservation Council in 2001 as shown in Table 1 below. The total number of pre-1993 toilets in the service areas of the participating water purveyors is 34,959. Of these: 8,000 fall in Category I; 3,353 are Category II; and the remainder are Category III.

Market Segment	Savings per Installed ULFT (gpd)
Category I	
Wholesale	57
Food Store	48
Restaurant	47
Category II	
Retail	37
Automotive	36
Multiple Use	29
Religious	28
Category III	
Manufacturing	23
Health Care	21
Office	20
Miscellaneous	17
Hotel/Motel	16
School	18

### *Savings Estimates*

As noted above, savings estimates for ULFTs were taken from *The CII ULFT Savings Study* produced by the California Urban Water Conservation Council in 2001.

Savings estimates for urinals is an average based on replacing an inefficient urinal with either a ULF or a waterless urinal. This information was taken from *Reference Document: Program Design Tool and Savings Estimates* prepared by A&N Technical for Metropolitan Water District, July 1997.

Estimates for washer savings are taken from the *Preliminary Estimates of Energy and Water Savings Potential for Residential Clothes Washers, Commercial Clothes Washers, and Commercial Dishwashers* prepared by the CUWCC, March 2001. This publication uses the assumptions that multifamily loads per day is 3, while laundromat loads per day is 5, and the economic life of commercial clothes washers is seven years.

### *Rebate Quantity Selection*

See Table 2 below for rebate amounts and basis for amounts. Rebate amounts were based on purchase price of product, review of other water purveyors CII rebate programs rebate amounts, the life cycle water savings of each product, the administrative cost of the program, and the cost effectiveness of providing rebates for each item.

**Table 2. Basis for Rebate Amounts**

	Avg. cost to purchase product	Avg. Lifetime Savings per retrofit (AF)	Administrative and Marketing Cost	Rebate Amount
Category 1 Tank Type ULFT	\$100	1.223	\$28	\$80
Category 1 Flushometer ULFT	\$200	1.223	\$28	\$100
Categories 2&3 ULFT	\$150	.654	\$28	\$45
Waterless/ULF Urinals	\$450	1.646	\$28	\$100
Clothes Washers	\$1000	.543	\$28	\$100

### *Marketing and Outreach*

Maureen Erbeznik & Associates will conduct marketing and outreach of the program for the first six months of the project based on her experience with marketing the CII Rebate Programs for Metropolitan Water District, the San

Diego County Water Authority, California Urban Water Conservation Council and the City of Santa Monica.

Once the marketing element is up and running, the program purveyors will handle the marketing portion of the program on their own. Regional marketing will include using such contact points and avenues as:

- Chain headquarters of CII firms
- Industry and trade organization and associations
- CII industry contacts
- Chambers of Commerce
- Trade journals and trade shows

Local marketing and outreach will be coordinated with participating water purveyors and will include:

- Promotion to customers as part of CII surveys conducted by water purveyor staff.
- Water bill stuffers and direct mailings to water purveyors' customers
- Information at seminars/workshops/special events

Existing sites using water efficient toilets, urinals and clothes washers will be promoted as examples for customers to see working examples of savings and user acceptance. In particular, there are several public facilities in Santa Barbara County using waterless urinals that will be beneficial as example sites since this is a fairly new technology.

#### *Rebate Processing and Payment*

Participating water purveyors will develop a rebate processing and payment system based on past experience from purveyors' residential ULFT rebate programs. The rebate processing and payment system will include:

- Rebate application forms
- Application review
- Disbursement of rebate checks
- Rebate tracking system (some of the participating water purveyors currently have databases developed for residential ULFT rebate tracking and these databases would be enhanced to track CII customer rebates and used as a model for the other participating water purveyors.)

#### *Installation Verification*

In order to ensure that efficient fixtures are installed prior to rebate payment, the partner purveyors will conduct site verification of 100% of all devices within any one application containing ten or more devices at the same installation, and 10% of all other device installations, selected on a random basis.

An intern will be hired for 5- 10 hours per week to assist water purveyors with rebate processing and installation verification.

For Work Schedule see Attachment A.

### **A-7 Monitoring and evaluation**

Each of the partner purveyors will compile three years' historical water use data from their water billing databases for each CII customer that participates in the rebate program. This information will be entered into a database specifically developed for CII Rebate Program monitoring. Following the installation of the new fixtures, future water use will be entered into the database and a comparison will be made to determine actual water savings. In addition to water use information, the database will also include information regarding the North American Industrial Classification System codes, the type and number of fixtures that were installed and the location of the customer. All of the information from the database will be submitted with each quarterly or annual progress report.

#### Project Specific Performance Measures

1. Verification of installation of water efficient fixtures as described above.
2. 10% of customers randomly selected will be contacted regarding customer acceptance of product.
3. Comparisons of estimated number of rebates distributed with actual distribution, and modified program marketing based on results.
4. Program participants estimated water savings compared to actual water savings.

#### Expected Products and Outcomes

The CII Rebate Program will issue \$234,100.00 in rebates to targeted end-use CII customers within a 3-year period. The expected outcome is to replace 1600 Category 1 toilets, 200 Categories 2 and 3 toilets, 511 urinals and 200 multi-family common area laundry facility washers, and 200 commercial laundromat clothes washers with water efficient fixtures in three years to save 156 AFY.

See Attachment B. Water Savings Achieved Through CII Retrofits.

Information about the program will be shared through a variety of means including reports to the California Urban Water Conservation Council, updates at the Santa Barbara County/San Luis Obispo County Joint Conservation Staff Meetings, presentations at conferences and program updates on partner purveyors' websites.

## **A-8 Qualification of applicant and cooperators**

See attached resumes.

Maureen Erbeznik & Associates will provide services for program promotion based on her experience with other water purveyors' CII rebate programs. Maureen has been in the energy and water efficiency industry since 1988. Implementing over 25 programs, Maureen has run some of the nation's largest rebate programs in the industry. Time and again, Maureen's clients have acclaimed her ability to implement operationally superior programs while achieving the production goals. Maureen will use this experience to assist program water purveyors in design and implementation of our marketing campaign as well as transfer knowledge to the water purveyor program staff.

## **A-9 Innovation**

The agencies participating in this program provide services to 26,000 or fewer service connections, which is considered a small water purveyor in California. Currently there are no CII rebate programs being implemented by small water purveyors in California. This program will be a model for small water purveyors.

Additionally, waterless urinals are not widely accepted in the marketplace. Promoting waterless urinals and using sites as local examples will increase the marketability of the waterless urinal in California.

## **A-10 Agency authority**

1. Does the applicant (official signing A-2, Application Signature Page) have the legal authority to submit an application and to enter into a funding contract with the State?

Yes, Rob Almy of the Santa Barbara County Water Agency received approval from the Santa Barbara County Board of Supervisors to submit a proposal for the Santa Barbara County CII Rebate Program and enter into an agreement with the California Department of Water Resources for the purposes of securing grant funding as demonstrated by the attached Board Letter dated March 26, 2002 (see Attachment C). Please note that this Board letter refers to the proposal submitted to DWR in January 2002, which was not funded. However, once the approval for pursuing grant funding for a project is received, the Water Agency is asked to continue to pursue grant funding without returning to the Board for continued approval to save administrative time.

2. What is the legal authority under which the applicant was formed and is authorized to operate?

The Santa Barbara County Water Agency (Water Agency) was established by the State legislature in 1945. It was established under the State Water Code, Section 3000 et seq. and was given a wide range of powers for the purpose of controlling and conserving storm, flood and other surface waters for beneficial use. Its boundaries are coincident with the boundaries of the county; its officers are the Board of Supervisors and employees of the Water Agency are county employees.

Consistent with its enabling legislation, the Water Agency has developed several essential functions over the years. It is contracting entity for the Cachuma and Twitchell Projects with the U.S. Bureau of Reclamation (Bureau). Those contracts are held on behalf of the Cachuma Member Units and the Santa Maria Water Conservation District respectively. The Water Agency administers the contracts for these projects, coordinates with the Member Units and corresponds with the Bureau regarding various decisions.

The Agency also holds the master contract with the Bureau for the Cachuma Project. In addition, each member unit has a separate contract with the Water Agency. The master contract between the Water Agency and the Bureau was signed on September 12, 1949; consistent with its provisions, the Water Agency serves a primarily administrative function. The Water Agency does not have facilities, meters, customers or any other function related to directly treating or purveying water from the Cachuma Project to other purveyors or end users. These functions are performed by the Bureau, the Cachuma Operations and Maintenance Board, and the individual Member Units. The Water Agency is responsible for providing assistance with the water efficiency requirements listed under the state and federal contracts for

3. Is the applicant required to hold an election before entering into a funding contract with the State?

No.

4. Will the funding agreement between the applicant and the State be subject to review and/or approval by other government agencies? If yes, identify all such agencies (e.g. Local Area Formation Commission, local governments, U.S. Forest Service, California Coastal Commission, California Department of Health Services, etc.).

No.

5. Is there any pending litigation that may impact the financial condition of the applicant, the operation of the water facilities, or its ability to complete the proposed project? If none is pending, so state.

No.

### **A-11 Operation and maintenance (O&M)**

This section does not apply to this program, as we are not conducting any construction as part of this project

### **Part B: Engineering and Hydrologic Feasibility (construction projects only)**

This section does not apply to this program, as we are not conducting any construction as part of this project.

### **Part C: Plan for Environmental Documentation and Permitting**

This section does not apply to this program because the CII Rebate Program does not fall under the definition of a “Project” under CEQA/NEPA guidelines.

### **Part D: Need for Project and Community Involvement**

#### **D-1 Need for project**

Rebates for CII water efficient clothes washers and waterless urinals have never been offered by any of the project partners. For toilets, only the City of Santa Barbara has offered rebates for CII toilets. The City’s rebate program ended in 1995 with 14% of pre-1993 CII toilets being retrofitted. Therefore there remain a large number of CII customers with potential for significant water savings. The development of the CII Rebate Program in Santa Barbara County will open up new avenues of water savings for local purveyors.

A recent report published by the Santa Barbara County Water Agency indicates that currently developed water supplies will not provide enough water for the growth projected for our area in the next 15 years. Potential alternative supplies, including desalination, are expensive and have environmental and political impacts.

Local water supplies include the Santa Ynez River watershed, with Lake Cachuma, United States Bureau of Reclamation facility, providing the majority of the local surface supply. The cities of Santa Barbara and Santa Mara are State Water contractors. Groundwater is the source of water supply for the City of Lompoc and Vandenburg Village Community Services District. The semi-arid climate, periodic droughts and high cost of water locally, make efficient use of the limited water supplies essential.

The City of Santa Barbara and Santa Barbara County Water Agency are signatories of the Memorandum of Understanding Regarding Water Conservation in California and participate in implementing the 14 Best Management Practices. This program would meet a portion of the coverage requirements for BMP 9.

This program is consistent with local Urban Water Management Plans in that it will meet a portion of the water conservation element of the plan by implementing sections of the best management practice for CII customers.

## **D-2 Community involvement**

Prior to applying for this grant, Santa Barbara county Water agency sent out a notice to all water purveyors in Santa Barbara County to encourage them to participate in this regional program.

Santa Barbara County businesses are well known for their support of programs that protect the environment and conserve natural resources. In the past 9 years, approximately 45 local businesses have received Green Business Awards for their efforts to protect natural resources. These efforts by business owners and past participation in incentive programs for water efficiency indicate that local businesses will be willing to participate in this program.

In addition, the partner water purveyors currently provide basic commercial business surveys to commercial customers varying from 1-10 surveys per month per purveyor. These surveys show Santa Barbara County commercial businesses have both the interest and the need for improving water efficiency in their facilities.

## **Part E: Water Use Efficiency Improvements and Other Benefits**

### **E-1 Water use efficiency improvements**

The CII Rebate Program will issue \$234,100.00 in rebates to targeted end-use CII customers within a 3-year period. The expected outcome is to replace 1600 Category 1 toilets, 200 Categories 2 and 3 toilets, 511 urinals and 200 multi-family common area laundry facility washers, and 200 commercial laundromat clothes washers with water efficient fixtures in three years to save 156 AFY. Replacing high water using fixtures with water efficient fixtures ensures a water savings because it does not require a change in habits of the users.

See Attachment B. Water Savings Achieved Through CII Retrofits

## **E-2 Other project benefits**

This rebate program will help to transform the market in Santa Barbara County to a greater supply of water efficient toilets, urinals and clothes washers at a lower cost and more widely available.

In addition, this rebate program will increase water supply reliability within the Bay-Delta by reducing the cities of Santa Barbara and Santa Maria's need to supplement local water supplies with State Water.

Another project benefit will be the economic savings for CII water customers that retrofit fixtures.

## **Part F: Economic Justification, Benefits to Costs Analysis**

### **F-1 Net water savings**

See Attachment B

### **F-2 Project budget and budget justification**

See Attachment D

### **F-3 Economic efficiency**

See Attachment E. Benefit/Cost Analysis Tables

Program water purveyors avoided cost of current supply sources in Table 4A is based on the following:

- City of Santa Barbara's water source that would be avoided is State Water. Avoided cost, \$300 per AF, is based on \$260 per AF pumping cost and \$40 per AF chemical/treatment cost.
- City of Santa Maria's water source that would be avoided is State Water. Avoided cost of \$200 per AF is based on \$100 per AF pumping cost and \$100 per AF chemical cost.
- Vandenburg Village Community Services District water source is groundwater. Avoided cost, \$160 per AF, is based on \$130 per AF pumping cost and \$30 per AF chemical cost.
- City of Lompoc's water source is groundwater. Avoided cost, \$199 per AF, is based on \$88 per AF pumping cost and \$111 per AF chemical cost.

**Attachment E**

**Applicant: Santa Barbara County Water Agency**

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

**Table 1: Capital Costs**

	<b>Capital Cost Category</b>	<b>Cost</b>	<b>Contingency Percent</b>	<b>Contingency \$</b>	<b>Subtotal</b>
	<b>(a)</b>	<b>(b)</b>	<b>(c)</b>	<b>(d)</b>	<b>(e)</b>
				<b>(bxc)</b>	<b>(b+d)</b>
(a)	Land Purchase/Easement			0	0
(b)	Planning/Design/Engineering			0	0
(c)	Materials/Installation			0	0
(d)	Structures			0	0
(e)	Equipment Purchases/Rentals			0	0
(f)	Environmental Mitigation/Enhancement			0	0
(g)	Construction/Administration/Overhead			0	0
(h)	Project Legal/License Fees			0	0
(i)	Other	309,675		0	309,675
<hr/>					
(j)	Total (1) (a + ... + i)				309,675
(k)	Capital Recovery Factor: Use Table 6				0.0830
(l)	Annual Capital Costs (j x k)				25,703

(1) Costs must match Project Budget prepared in Section F-2.

**Attachment B. Water Savings Achieved Through CII Retrofits**

	Estimated Savings (gpd)	Predominant Type of ULFT	Expected Avg Life of Water Savings (yrs)	Acre-Feet of Lifetime Water Savings	Number of Retrofits Planned in CII Program	Percent of Market Reached with CII Rebate Program	AF Total Lifetime Savings	Annual Savings Per Acre Foot
<b>ULFT End Use Categories</b>	(note 1)				(note 2)	(note 6)	(note 5)	
<b>Category 1</b>								
Wholesale	57	Tank	20	1.277	1600	20%	1956.22	90.29
Food Store	48	Tank	20	1.075				
Restaurant	47	Est 50/50	25	1.316				
<b>Category 2</b>								
Retail	37	Tank	20	0.829	150	4%	121.17	5.39
Automotive	36	Tank	20	0.806				
Multiple Use	29	Est 50/50	25	0.812				
Religious	28	Est 50/50	25	0.784				
<b>Category 3</b>								
Manufacturing	23	Est 50/50	25	0.644	50	1%	27.30	1.06
Health Care	21	Est 50/50	25	0.588				
Office	20	Flushometer	30	0.672				
Miscellaneous	17	Est 50/50	25	0.476				
Hotel/Motel	16	Tank	20	0.358				
School (note 3)	16	Flushometer	30	0.538				
<b>Waterless Urinals (note 10)</b>	49		30	1.646				
<b>CII Clothes Washers (note 4)</b>								
Multi-family	51.9		7	0.407	200	50% (of sales) (note 8)	81.38	11.63
Laundromat	86.5		7	0.678	200		135.63	19.38
		Overall Average Life	21.69	(note 9)		Totals:	3162.99	155.77

**Variables:**

Physical life of tank type ULFTs	20	years
Physical life of flushometer ULFTs	30	years

**Water Savings per Purveyor (note 11)**

City of Santa Barbara	69
City of Santa Maria	55
City of Lompoc	30
Vandenberg Village	3
<b>TOTAL</b>	<b>156</b>

**For Notes See Page 2.**

**Notes:**

- (1) Source: *CII ULFT Savings Study*, by California Urban Water Conservation Council, August 5, 1997
- (2) Composite assumes an equal distribution among the previously listed CII sectors.
- (3) The *CII ULFT Savings Study*, by California Urban Water Conservation Council, August 5, 1997 did not have a statistically significant sample size for schools so could not list a savings for this segment. For the purposes of our report we assume the lowest estimate of savings in the list is equal to the savings realized at a school.
- (4) Estimates for washer savings are taken from the Preliminary Estimates of Energy and Water Savings Potential for Residential Clothes Washers, Commercial Clothes Washers, and Commercial Dishwashers prepared by the CUWCC, March 2001. This publication uses the assumptions that multifamily loads per day is 3, while laundromat loads per day is 5 and the economic life of commercial clothes washers is seven years.
- (5) Lifetime savings numbers for ULFT Categories are based on the number of retrofits planned for that category multiplied by the average lifetime water savings for that category.
- (6) Estimates for the program water purveyors' market for pre-1993 commercial toilets was taken from the CUWCC zip code information.
- (7) Estimates for the program water purveyors' market for urinals was derived by estimating 25% of the number of CII toilets based on #s from Note 6.
- (8) Estimates for commercial clothes washer market in program water purveyors' service area is based on the ratios used in the Preliminary Estimates of Energy and Water Savings Potential for Residential Clothes Washers, Commercial Clothes Washers, and Commercial Dishwashers prepared by the CUWCC, March 2001.
- (9) Overall Average life based on 2711 total rebates, 65% rebates = 22.5 year product life, 2% rebates = 26 year product life, 19% rebates = 30 year product life, 15% rebates = 7 year product life
- (10) Savings estimates for urinals is an average based on replacing an inefficient urinal with either a ULF or a waterless urinal. This information was taken from "Reference Document: Program Design Tool and Savings Estimates" prepared by A&N Technical for Metropolitan Water District, July 1997.
- (11) Savings per water purveyor determined by proportion of population.

APPENDIX D Costs and Benefits

Item	Amount	Units	Qty.	Total Cost	Units	Life (years)	Present Value	Beneficiary
<b>Quantified Costs</b>								
Santa Barbara County Water Agency Coordinator	\$75.00	\$/hour	200	\$15,000.00	\$	#REF!	\$15,000.00	n/a
City of Santa Barbara Coordinator	\$75.00	\$/hour	125	\$9,375.00	\$	#REF!	\$9,375.00	n/a
Goleta Water District Coordinator	#REF!	#REF!	#REF!	#REF!	#REF!	#REF!	#REF!	n/a
Intern	\$10.00	\$/hour	500	\$5,000.00	\$	#REF!	\$5,000.00	n/a
Marketing Pieces for CII Customers	\$6,000.00	\$/program	1	\$6,000.00	\$	#REF!	\$6,000.00	n/a
Marketing Pieces for Industry Representatives	\$5,000.00	\$/program	1	\$5,000.00	\$	#REF!	\$5,000.00	n/a
Maureen Erbezniak & Assoc. Contract	\$75.00	\$/hour	200	\$15,000.00	\$	#REF!	\$15,000.00	n/a
ULFT Rebate Category 1	\$80.00	\$/rebate	1300	\$104,000.00	\$	#REF!	\$104,000.00	CII Customer
ULFT Rebate Category 1 Flushometer	\$100.00	\$/rebate	300	\$30,000.00	\$	#REF!	\$30,000.00	CII Customer
ULFT Rebate Category 2	\$45.00	\$/rebate	200	\$9,000.00	\$	#REF!	\$9,000.00	CII Customer
Waterless Urinals Rebate	\$100.00	\$/rebate	511	\$51,100.00	\$	#REF!	\$51,100.00	CII Customer
CII Clothes Washer Rebate	\$100.00	\$/rebate	400	\$40,000.00	\$	#REF!	\$40,000.00	CII Customer
Spray Nozzle Rebate	#REF!	#REF!	#REF!	#REF!	#REF!	#REF!	#REF!	CII Customer
Cooling Tower Rebate	#REF!	#REF!	#REF!	#REF!	#REF!	#REF!	#REF!	CII Customer
Advertising Placement (Print and Radio)	\$350.00	\$/ad	10	\$3,500.00	\$	#REF!	\$3,500.00	n/a
800 Number Fees	\$2,500.00	\$/year	3 years	\$7,500.00	\$	#REF!	\$7,500.00	n/a
Local Marketing Consultant	#REF!	#REF!	#REF!	#REF!	#REF!	#REF!	#REF!	n/a
Direct Mailings, Trade Show Displays, etc.	\$8,000.00	\$/program	1	\$8,000.00	\$	#REF!	\$8,000.00	n/a
Design of Marketing Materials	\$30.00	\$/hour	40	\$1,200.00	\$	3	\$1,200.00	n/a
Total Cost of Purchase & Installation of Product to Customer less rebate	\$0.00	\$/program	all	\$0.00	\$	vary	\$0.00	
<b>Subtotal</b>				<b>#REF!</b>			<b>#REF!</b>	
<b>Quantified Benefits</b>								
Purveyor Water Savings	6,751	AF	na	\$10,126,500.00	\$	14	\$10,126,500.00	Partner Purveyors/Bay-Delta
Customer Water Savings	6,751	AF	na	\$10,910,872.43	\$	14	\$10,910,872.43	CII Customers
Wastewater Savings	6,751	AF	na	\$3,646,760.60	\$	14	\$3,646,760.60	CII Customers and Wastewater Treatment Plants
<b>Subtotal</b>				<b>\$24,684,133.02</b>			<b>\$24,684,133.02</b>	
<b>Non-Quantified Costs</b>								
None	n/a	n/a	n/a	n/a	n/a	n/a	n/a	
<b>Non-Quantified Benefits</b>								
Customer Energy Savings	n/a	n/a	n/a	n/a	n/a	n/a	n/a	CII Customers
Increased Awareness of Conservation	n/a	n/a	n/a	n/a	n/a	n/a	n/a	Partner Purveyors/Purveyors Statewide
Increased Marketshare for Fixtures/Equipment	n/a	n/a	n/a	n/a	n/a	n/a	n/a	CII Customers/Partner Purveyors/Purveyors Nationwide
Coverage for BMP 9	n/a	n/a	n/a	n/a	n/a	n/a	n/a	Partner Purveyors/Purveyors Statewide
<b>Analysis Assumptions</b>								
Savings for each fixture were based on the CII Water Savings Study sponsored by the California Urban Water Conservation Council, 1997								
Economic life of CII toilets assumes an equal mix of tank type (20 years) and flushometer type (30 years)								
Coin-operated washer savings assumes a use rate of 8 loads per day								

## Timeline 2004-05

FISCAL YEAR 2004/2005 ACTION		OCTOBER	NOVEMBER	DECEMBER	JANUARY	FEBRUARY	MARCH	APRIL	MAY	JUNE	JULY	AUGUST	SEPTEMBER	Projected Cost	Deliverable
		1 8 15 22 29	5 12 19 26	3 10 17 24 31	7 14 21 28	4 11 18 25	4 11 18 25	1 8 15 22 29	6 13 20 27	3 10 17 24	1 8 15 22 29	5 12 19 26	2 9 16 23 30		
<b>Program Implementation</b>															
	Workteam Meeting													\$300.00	Monthly Updates Rebates Issued Installation of Equipment/Fixtures Verified Verification of Incremental Water Savings for each Installation
	Coordinate rebate distribution and issue rebate checks													\$89,925.00	
	Carry out installation verification process													\$500.00	
	Monitor water use of participating CII customers													\$500.00	
<b>Marketing</b>															
	Implement CII customer outreach													\$3,457.50	Positive contact with customers/Educational Opportunity/Water Savings Displays at Trade Shows/Communication with Industry Reps
	Implement industry outreach													\$2,457.50	
<b>Program Reporting</b>															
	Quarterly Report													\$150.00	Quarterly Measure of Success Annual Measure of Success
	Annual Update													\$375.00	
	Quarterly Cost Projection			\$24,416.25						\$24,416.25				\$24,416.25	
	<b>Annual Cost</b>			\$24,416.25						\$24,416.25				\$24,416.25	
														\$97,665.00	
														\$97,665.00	

**Timeline 2005-06**

<b>FISCAL YEAR 2004/2005</b>		<b>OCTOBER</b>	<b>NOVEMBER</b>	<b>DECEMBER</b>	<b>JANUARY</b>	<b>FEBRUARY</b>	<b>MARCH</b>	<b>APRIL</b>	<b>MAY</b>	<b>JUNE</b>	<b>JULY</b>	<b>AUGUST</b>	<b>SEPTEMBER</b>	<b>Projected Cost</b>	<b>Deliverable</b>
<b>ACTION</b>		7 14 21 28	4 11 18 25	2 9 16 23 30	6 13 20 27	3 10 17 24	3 10 17 24 31	7 14 21 28	5 12 19 26	2 9 16 23 30	7 14 21 28	4 11 18 25	1 8 15 22 29		
<b>Program Implementation</b>															
	Workteam Meeting													\$300.00	Monthly Updates
	Coordinate rebate distribution and issue rebate checks													\$89,925.00	Rebates Issued
	Carry out installation verification process													\$500.00	Installation of Equipment/Fixtures Verified
	Monitor water use of participating CII customers													\$500.00	Verification of Incremental Water Savings for each Installation
<b>Marketing</b>															
	Implement CII customer outreach													\$3,457.50	Positive contact with customers/Educational Opportunity/Water Savings
	Implement industry outreach													\$2,457.50	Displays at Trade Shows/Communication with Industry Reps
<b>Program Reporting</b>															
	Quarterly Report													\$150.00	Quarterly Measure of Success
	Annual Update and Final Report													\$375.00	Annual Measure of Success
	Quarterly Cost Projection			\$24,416.25			\$24,416.25			\$24,416.25			\$24,416.25	\$97,665.00	Final Measure of Success
	<b>Total Annual Cost</b>			\$24,416.25			\$24,416.25			\$24,416.25			\$24,416.25	\$97,665.00	

**ALISON W. JORDAN**  
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**email: whitneyalison@hotmail.com**

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**PROFESSIONAL EXPERIENCE:**

**Water Resources Specialist** **July 1998 to present**  
**City of Santa Barbara, Public Works Department**

- Manages City's Water Conservation Program, which includes implementing the 14 Best Management Practices for water conservation as adopted by the California Urban Water Conservation Council. Implements program with two half-time employees. (See description of program below.)
- Project management for water quality capital projects and the youth education component of the City's Creek Restoration and Water Quality Improvement Program. Assists with administration of the City's NPDES Phase II Permit.
- Administers Recycled Water Program user site coordination, outreach and education.

**Water Conservation Specialist** **May 1990 to June 1998**  
**City of Santa Barbara, Public Works Department**

- Manages City's Water Conservation Program, which includes implementing the 14 Best Management Practices for water conservation as adopted by the California Urban Water Conservation Council.
- Water efficient landscaping education, which includes management of the City public demonstration gardens, conducting landscaping and irrigation workshop and seminars, and developing brochures.
- Conducts water checkups which includes evaluating homes and businesses water use by checking for leaks, irrigation system inspection and scheduling suggestions, and recommendations for improving water efficiency inside and outside.
- Administers youth education program which includes teacher training workshops, development of educational materials, and classroom presentations at City elementary and middle schools,
- Serves on various State and County water conservation committees,
- Administers public information program, which includes developing newsletters, fliers, videos, bill inserts and brochures on water resources, water conservation and recycled water issues.

**EDUCATION:**

University of California, Santa Barbara

Bachelor of Arts, Environmental Studies, March 1990

**PUBLICATIONS:**

“Green Gardener Certification Program - Providing Economic Incentives for Landscape Maintenance Professionals to Improve Water Efficiency and Reduce Pollution on Landscape Sites” – published for the AWWA Water Sources Conference, January, 2002

“Monitoring Graywater Use: Three Case Studies in California” – published for AWWA Conserv '99 Conference

“Evolution of Public Information During the Drought and Beyond” and “Implementing and Maintaining a Landscape Water Efficiency Program” – published for AWWA Conserv '93 Conference

“Sustainable Landscaping –Resource Efficient Landscapes for the Central Coast” – coauthored

Various articles for industry publications.

**PROFESSIONAL MEMBERSHIPS:**

American Water Works Association - Water Conservation Division Member

California Urban Water Conservation Council – Agency Representative

Horticulture Consortium of Santa Barbara – Board Member

California Regional Environmental Education Community Network Region 8 – Steering Committee Chair

Project WET Trainer

**COMPUTER SKILLS:**

Word, Excel, Pagemaker

**ACTIVITIES:**

City Orators Toastmasters Club – member since 1991, past officer roles include President, Vice President

UCSB Environmental Associates Board Member since 1995

Court Appointed Special Advocate Volunteer – 1993-1998

SCUBA certified, triathlete, City league volleyball and softball

## **MAUREEN ERBEZNIK**

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4246 Michael Avenue  
Los Angeles, CA 90066  
(310) 822-3369  
e-mail: [moerbeznik@attbi.com](mailto:moerbeznik@attbi.com)

### **PROFILE:**

Sixteen years of experience managing public and private sector sales campaigns, government affairs strategies, negotiations, people, programs, and budgets at ever-increasing levels of responsibility. Recognized for outstanding strategy design and problem assessment capabilities. Proven team builder with leadership style based upon personal accountability.

### **EXPERIENCE:**

#### **Maureen Erbeznik and Associates - August 2001 - Present**

Maureen Erbeznik owns and operates and a wholly women-owned consulting firm specializing in program design, implementation and marketing services for energy and water efficiency programs. Clients include:

- California Urban Water Conservation Council
- California Energy Coalition
- Santa Monica Energy Office
- Pasadena Water and Power
- City of Santa Monica Water Resources Section
- Honeywell DMC

#### **PeopleSoft, Inc. – 2000 to August 2001**

PeopleSoft, Inc. is a \$2 billion company providing enterprise software solutions to thousands of companies worldwide and hundreds of state and local governments in the United States.

#### **Regional Sales Manager – Education and Government 2000 to Present**

Responsible for marketing and selling PeopleSoft's new Customer Management software tool to government agencies within the 13 western states. Key responsibilities include the creation of investment models, market analysis, development of a public sector sales strategy, creation of prospect assessment tools and sales collateral, and, the building and maintaining of long-term government public-private partnerships.

#### **Key Accomplishments**

- Created a sales foundation by initiating a *market education campaign* directed at "high probability" public sector customers.
- Developed over \$5 million worth of government sales prospects (from a base of \$0) likely to close in the next six months.
- Designed an investment model that determines threshold operational conditions, which demonstrate that the customer management software is a valuable public sector investment.

## **MAUREEN ERBEZNIK**

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### **Honeywell DMC Services Inc. – 1990 to 1999**

Honeywell DMC Services, Inc. is a \$60 million company (purchased by Honeywell in 1994), which provides residential and commercial energy and water conservation services and products to utilities across the nation. The operating environment of the company is by nature contract-to-contract, low margin and extremely fast-paced. The Company staffing levels fluctuate dramatically from year-to-year due to market and regulatory shifts.

#### **Director of Sales – West Region 1998 to 2000**

Responsible for sales, strategic marketing efforts, and government affairs within the 30 western states. Key responsibilities included strategy development, prospecting, proposal preparation, and contract negotiations. Recognized for creating a synergistic relationship between sales and operations further enhancing sales effectiveness.

#### **Key Accomplishments:**

- Personally responsible for proposing and closing five major utility and municipality contracts within one year - totaling \$32 million.
- Awarded 9 out of 11 proposals submitted within the last 12 months of employment.
- Winner of Honeywell DMC's National Employee of the Year Award – 1998.

#### **District Manager – Southwest Region 1994 to 1998**

Responsible for implementation of all start-ups, management, and profitability for DMC's residential energy and water contracts in the southwest region of the United States. Managed an organization of over 100 professional, sales, and technical employees.

#### **Key Accomplishments:**

- Increased Southwest Regional revenue from \$2 million to \$6 million during an 18-month period.
- Dramatically increased overall profitability from 12% gross margin to 30% gross margin during that same period.
- Responsible for establishing 7 new offices in 4 states.

#### **Programs Manager – Southwest Region – 1990 to 1994**

Responsible for operations and account management for \$3 million worth of contracts with Southern California Edison, the Los Angeles Department of Water and Power, the Metropolitan Water District of Southern California, and the City of Santa Monica.

#### **Key Accomplishments:**

- Designed diverse advertising and marketing campaigns including theme and logo development, direct mail, billboards, community events and more.
- Met or exceeded every required contract start date and program performance goal. The Southwest Region was the only region in the company to achieve this standard.

**Rory Lang**  
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**Santa Maria, CA 93455**  
**(805) 938-1084**  
[rlang@co.santa-barbara.ca.us](mailto:rlang@co.santa-barbara.ca.us)

**Education:**

Fall 1988 - Spring 1993      University of Texas at Arlington  
B.S. Biology

Spring 1994 - Fall 1995      Texas Christian University  
M.S. Aquatic Biology

**Employment Experience:**

January 2000 - Present      **Regional Water Efficiency Program Coordinator**  
**Santa Barbara County Public Works Department**  
Managing Regional Water Conservation Program for Santa Barbara County Water Agency. Design and implement water efficiency programs including public information campaigns, school education programs, landscape efficiency education, conservation plans and water management plans.

January 1998 - January 2000      **Business Recycling Program Coordinator**  
**Santa Barbara County Public Works Department**  
Managed the Business Recycling Program and Seasonal Recycling Programs for Santa Barbara County Public Works Department, Solid Waste and Utilities Division. Developed and implemented recycling programs for both the residential and commercial sectors including the Business Recycling Program (waste audits, employee training, recycling system development), Christmas Tree Recycling, Telephone Book Recycling, and public information campaigns.

January 1997 - September 1997      **Associate Faculty**  
**Allan Hancock College, Santa Maria**  
Instructed Natural History, Humans and the Environment, and Natural Resources Management. Topics included water resources, agricultural resources, wildlife resources, geology, climatology, waste management, hazardous waste management, and taxonomy.

January 1997 - June 1997      **Associate Faculty**  
**Santa Barbara City College**  
Instructed Introduction to Biology for non-majors. Topics included chemistry, physics, natural resource management, plant and animal biology, and genetics.

January 1996 - August 1996      **Laboratory Technician**  
**Dr. John Horner, Texas Christian University**  
Assisted with laboratory experiments investigating plant-herbivore interactions and modes of speciation in parasitoid insects.

January 1996 - April 1996

**Substitute Teacher**

**Trinity Valley School, Ft. Worth, Texas**

Instructed Physical and Life Science to junior high and high school students. Topics included physics, chemistry, physiology, genetics, and ecology.

January 1994 - December 1995

**Graduate Teaching Assistant**

**Texas Christian University**

Instructed Introduction to Biology Laboratory to Biology Majors, Introduction to Marine Science, and Invertebrate Zoology. Topics included chemistry, taxonomy, genetics, physiology, ecology, and water science. Conducted original research on ???

June 1993 - August 1993

**Laboratory Technician**

**Southwestern Medical Center, Dallas, Texas**

Assisted with research investigating the affects of smoking and vitamins on cholesterol levels.

May 1992 - May 1993

**Research Assistant**

**University of Texas at Arlington, Dr. Robert Sterner**

Conducted research investigating methods of culturing freshwater copepods and phytoplankton-zooplankton interactions.

December 1991 - May 1993

**Laboratory Technician**

**University of Texas at Arlington, Dr. Robert McMahon**

Assisted with research into the natural control of the exotic zebra mussel, *Dreissena polymorpha*.