



**Inland Empire**  
UTILITIES AGENCY\*

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\* A Municipal Water District

January 10, 2005

Debra Gonzalez,  
California Department of Water Resources  
Office of Water Use Efficiency  
1416 Ninth Street, Room 338, Sacramento, CA 95814  
(916) 651-7026

Reference: **2004 Urban Water Use Efficiency (TYPE B) Proposal**  
Proposal Title: **Landscape Irrigation System Audit and Tune-up Program**

Dear Debra,

The Inland Empire Utilities Agency is hereby submitting the complete proposal for the 2004 Agricultural and Urban Water Use Efficiency Implementation Project PSP. This proposal package includes one original, eight photocopies and one electronic copy of PDF format, on CD-ROM, and it consists of the following for your review:

1. Project Information Form
2. Signature Page
3. Statement of Work
  - 3.1 Relevance and Importance
  - 3.2 Technical/Scientific Merit, Feasibility
  - 3.3 Monitoring and Assessment
4. Qualifications of the Applicants and Cooperators
5. Outreach, Community Involvement, and Acceptance
6. Innovation
7. Benefits / Costs

If you have any questions regarding this submittal, please do not hesitate to contact me at (909) 993-1740 or email at [atwater@ieua.org](mailto:atwater@ieua.org). If am not available, please contact Jason Gu at (909) 993-1636 or email at [jgu@ieua.org](mailto:jgu@ieua.org).

Sincerely,

Richard W. Atwater  
CEO/General Manager

# **Agricultural and Urban Water Use Efficiency Implementation Project** (Section B) Proposal

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## **1 - Project Information Form**

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### **APPENDIX A: Project Information Form**

Applying for:

Urban

Agricultural

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

(a) implementation of Urban Best Management  
Practice, # 3,5,7,8

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

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

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

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

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

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

(g) technical assistance

(h) other (career development opportunities for  
college interns)

3. Principal applicant  
(Organization or affiliation):

Inland Empire Utilities Agencies

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**Applicant: Inland Empire Utilities Agency  
Landscape Irrigation System Audit and Tune-Up Program Proposal**

4. Project Title: **Landscape Irrigation System Audit and Tune Up Program**

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

Name, title	Richard W. Atwater
Mailing address	P.O. Box 9020
	Chino Hills, CA 91709
Telephone	(909) 993-1740
Fax.	(909) 597-8875
E-mail	atwater@ieua.org

6. Contact person (if different):

Name, title.	David Hill
Mailing address.	P.O. Box 9020
	Chino Hills, CA 91710
Telephone	909-993-1705
Fax.	909-597-8875
E-mail	dhill@ieua.org

7. Grant funds requested (dollar amount): **\$31,000**  
*(from Table C-1, column VI)*

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8. Applicant funds pledged (dollar amount): **\$57,000**

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9. Total project costs (dollar amount): **\$88,000**  
*(from Table C-1, column IV, row n)*

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10. Percent of State share requested (%): **35%**  
*(from Table C-1)*

11. Percent of local share as match (%): **65%**  
*(from Table C-1)*

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12. Is your project locally cost effective?

*Locally cost effective means that the benefits to an entity (in dollar terms) of implementing a program exceed the costs of that program within the boundaries of that entity.*

(a) yes

*(If yes, provide information that the project in addition to Bay-Delta benefit meets one of the following conditions: broad transferable benefits, overcome implementation barriers, or accelerate implementation.)*

(b) no

11. Is your project required by regulation, law or contract?  
If no, your project is eligible.

(a) yes

(b) no

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

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

12. Duration of project (month/year to month/year):

**Sept 2005 to Sept 2008**

13. State Assembly District where the project is to be conducted:

**61<sup>st</sup> and 63<sup>rd</sup>**

14. State Senate District where the project is to be conducted:

**29<sup>th</sup>, 31<sup>st</sup>, and 32<sup>nd</sup>**

15. Congressional district(s) where the project is to be conducted:

**41<sup>st</sup> and 42<sup>nd</sup>**

16. County where the project is to be conducted:

**San Bernardino**

17. Location of project (longitude and latitude)

**117.36 and 34.1**

18. How many service connections in your service area (urban)?

**178,335 meters**

19. How many acre-feet of water per year does your agency serve?

**229,454 (FY 03/04)**

20. Type of applicant (select one):

(a) City

(b) County

(c) City and County

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- (d) Joint Powers Authority
- (e) Public Water District
- (f) Tribe
- (g) Non Profit Organization
- (h) University, College
- (i) State Agency
- (j) Federal Agency
- (k) Other
  - (i) Investor-Owned Utility
  - (ii) Incorporated Mutual Water Co.
  - (iii) Specify \_\_\_\_\_

21. Is applicant a disadvantaged community? If 'yes' include annual median household income.  
(Provide supporting documentation.)

- (a) yes median household income
- (b) no

## **2. Signature Page**

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By signing below, the official declares the following:

The truthfulness of all representations in the proposal;

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

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

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

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

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

Richard W. Atwater  
CEO/General Manager

Signature: Richard W. Atwater

Date: January 10 2005

**Applicant: Inland Empire Utilities Agency  
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For projects under Section B, provide the following information:

Describe how this project will contribute toward or support California Bay-Delta Program goals.

Provide estimates of total expected water saving for proposals that are designed to lead to quantifiable water savings. Provide an explanation for all assumptions, methodologies, and computations used to arrive at the values.

Provide a plan for project monitoring and evaluation that will be used to document the benefits to mark progress and to determine the success of the project in relation to project goals and objectives.

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### **3. Statement of Work**

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#### **3.1 Statement of Work - Relevance and Importance**

##### **Introduction**

The Inland Empire Utilities Agency (IEUA) is a wholesale water district that distributes imported water, provides industrial/municipal wastewater collection and treatment services, recycled water, and other services to the cities of Chino, Chino Hills, Ontario, and Upland, as well as to the Monte Vista Water District, the Cucamonga Valley Water District, the Fontana Water Company and the San Antonio Water Company. IEUA serves a population of approximately 700,000 in a 242-square mile service area of southwest San Bernardino County. The IEUA service area is also part of the Santa Ana River Watershed with growth rates in the 1990's of over 3 percent annually. The Santa Ana River Watershed continues to be one of the most rapidly urbanizing areas in the United States. Several cities in the IEUA service area continue to see growth rates of between 2 and 3 percent each year. By 2020, the IEUA service area is expected to have a population of over 850,000.

IEUA is a signatory to the California Urban Water Conservation Council (CUWCC) memorandum of understanding (MOU) regarding urban water best management practices (BMP). IEUA is committed to implementing the BMP's in partnership with our local retail water agencies. IEUA completed an Urban Water Management Plan (UWMP) in December 2000 that sets a goal of saving 25,000 acre-feet (AF) of water per year by 2020. This number represents about 7 percent of the total local water supply.

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IEUA purchases approximately 70,000 acre-feet of imported water annually into the region from the Metropolitan Water District of Southern California. This amount represents about 20 percent of the total annual water supply for the service area. All imported water brought into the region is from the California State Water Project. Due to water quality concerns from the Regional Water Quality Control Board – Santa Ana Region, Colorado River Water cannot be brought into the IEUA service area. Therefore, all water use efficiency projects that result in water savings provide direct benefits to the California Bay-Delta. This is a critical element of the CALFED Water Use Efficiency program and the Record of Decision (ROD). Without the implementation of array of water conservation activities associated with water-efficient landscapes, the anticipated population growth in the western San Bernardino County will continue to increase its demand on the Bay-Delta for more imported water.

**Goals and Objectives**

IEUA proposes to implement a research and redevelopment project to assess conservation savings retention on residential and commercial properties that previously participated in an IEUA funded pilot landscape audit program. In theory, one would expect a gradual erosion of the water savings provided through better distribution uniformity and irrigation scheduling that was attained in the initial audit. The question is, how much of water savings would be lost after a one-year period since the initial landscape audit and what is the benefit to scheduling? The goal is to visit approximately 70 residential and commercial sites that received a landscape audit in the winter and spring of 2005 with the objective of ascertaining the erosion of water savings. IEUA will request \$31,000 in funding from the Department of Water Resources (DWR) to support a Landscape Audit “Tune Up” project.

**California Bay-Delta Program Goals**

In 1994, state and federal resource agencies signed an agreement that led to the formation of CALFED. The focus of this cooperative organization, working with other governmental and water and environmental agencies, is to find long-term solutions to the competing uses for water supply and habitat in the Bay-Delta. To accomplish this, CALFED and its staff have focused on reliable quality water supply, ecosystem restoration, levee rehabilitation, increased water storage, and improved water conveyance. In 2000, a comprehensive plan, an official Record of Decision, was approved to meet CALFED’s goals to ensure reliable quality water supplies for the State’s environment and economy.

One of the four CALFED program elements is Water Supply Reliability. The first goal of this program element is to reduce water demand through "real water" conservation. The CALFED program requires conservation projects that deliver real

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water savings. Since landscape irrigation efficiency represents the next frontier in water conservation savings, this research and development project represents an ideal opportunity to learn how irrigation efficiency can be maintained and thus support real water savings that benefit CALFED and the Bay-Delta.

**Expected Water Savings**

Water audits conducted in the pilot program are expected to produce an immediate savings. For a typical single family home in the Inland Empire area of Southern California, this equates to about 35 gallons per day. This equates to over 12,000 gallons per home per year. For 70 audits, this should result in a savings of just less than 900,000 gallons annually. The savings rate for those properties that qualified for a Weather Based Landscape Irrigation Controller (WBLIC), will be a bit higher. These water savings numbers are consistent with a study completed by the Irvine Ranch Water District on landscape audits and weather-based evapotranspiration (ET) controllers. The "Irvine Residential Runoff Reduction Study" showed that ET controllers, when used in combination with horticultural information for the resident, resulted in water savings of 41 gallons per home per day. This proposed project will attempt to document the changes in those documented water savings on a house by house basis. IEUA should be able to establish if there is an erosion of water savings over the year period.

**Consistency with Local and Regional Plans**

The IEUA adopted an Urban Water Management Plan (UWMP) in December 2000. This UWMP is on file with the Department of Water Resources. The UWMP was adopted by the local water retail agencies in 2000 as a water conservation plan for the Chino Basin area. The water conservation goal in the UWMP is to reduce water use in the region by 1,000 acre-feet per year over the next twenty years. Since this proposed project would result in a net reduction of water use in the region, the project is consistent with stated goals of the UWMP.

The Metropolitan Water District of Southern California (MWD) completed an UWMP in December 2000 and an update of their Integrated Resources Plan (IRP) in 2004. These two plans call for water savings through active conservation programs of 300,000 acre-feet for the MWD region. Of the 300,000 acre-feet of active conservation, MWD expects to achieve about 68,000 acre-feet strictly in landscape programs. Therefore, this project will be consistent with MWD long range conservation plan.

Additionally, this project is consistent with the goals of the *Optimum Basin Management Plan* adopted by the Chino Basin Water Master, the *Maximum Benefit*

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*Plan* approved by the Santa Ana Regional Water Quality Control Board and the State Water Resources Control Board, and the regional *Integrated Resources Plan* adopted by the Santa Ana Watershed Project Authority.

**Water Demand Activities**

The basis for water demand activities in the IEUA service area is the Memorandum of Understanding (MOU) regarding Urban Water Best Management Practices (BMP). The MOU was created in 1990 as an alternative to legislative mandates for water conservation to help protect the Water Quality of the California Bay Delta, the place where two-thirds of all Californians receive at least some of their water supply. The MOU is a voluntary agreement among several hundred urban water supply agencies throughout the state. IEUA is an original signatory agency to the MOU. Water agencies that sign the MOU are required to provide “good-faith” efforts to implement the 14 BMP’s. Locally, most of the water agencies are signatories. This includes the Cities of Ontario and Upland, the Cucamonga Valley Water District and the Monte Vista Water District. All of the conservation activities that have taken place in the IEUA service area are consistent with the list of BMP. Figure 1 provides a list of the 14 BMP’s and when initial implementation of each BMP has taken place in the IEUA service area.

**Figure 1  
BMP Implementation**

Best Management Practices	Implementation	Year
BMP 1 - Water Survey Programs For Single Family Residential and Multi-Family Residential Customers	Pilot Program	2004
BMP 2 - Residential Plumbing Retrofit	Implemented	2002
BMP 3 - System Water Audits	Implemented	1990
BMP 4 - Metering with Commodity Rates for All New Connections and Retrofit of Existing Connections	Implemented	1990
BMP 5 - Large Landscape Conservation Programs	Pilot Program	2004
BMP 6 - High Efficiency Clothes Washing Machine Financial Incentive Programs	Implemented	2002
BMP 7 - Public Information Programs	Implemented	2001
BMP 8 - School Education Programs	Implemented	2001
BMP 9 - Conservation Program for Commercial, Industrial, and Institutional (CII) Accounts	Implemented	2002
BMP 10 - Wholesale Agency Assistance Programs	Implemented	2001
BMP 11 - Conservation Pricing	Implemented	1990
BMP 12 - Conservation Coordinator	Implemented	1990
BMP 13 - Water Waste Prohibition	Implemented	1990
BMP 14 - Residential ULFT Replacement Programs	Implemented	1992

The proposed project will further implement BMP #5 (Large Landscape Programs) and help IEUA and the local agencies to meet their coverage requirements as part of their commitment to implement the BMP’s as well as meet the local conservation goals and the water efficiency goals of the CALFED program. In addition, the project

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will assist with the further development of landscape programs locally and help pinpoint our options for maintaining achieved water savings.

**Project Proposal Background**

IEUA, along with many other water agencies in California, has recognized that the most of the conservation programs to date have been related to modifying the indoor plumbing to one degree or another. Although this has worked well for many water agencies trying to implement conservation programs, there is a limitation to what can be done indoors. The area that is expected to yield the greatest water conservation savings will be in the landscape. Specifically, it will be in the landscape irrigation system and the scheduling of watering times.

About 50 percent of all water use in the state is used to support existing landscapes. Locally in the Chino Basin, where the climate is generally hotter, the percentage is closer to 60 percent. This makes the IEUA service area an ideal candidate for research in landscape program development. Landscapes include turf areas such as residential front yards and back yards, ornamental landscapes such as rose gardens, vegetable gardens, etc., and commercial landscapes. Unfortunately, much of the water used in the landscape is wasted due to over watering and poor scheduling.

IEUA is now engaged in pilot landscape water audit program to determine the potential for water savings through this vehicle. This program is being conducted in coordination with MWD's Evapotranspiration (ET) Controller Rebate program. This program, funded in part by the Department of Water Resources (DWR), provides a weather-sensitive irrigation controller to residential and commercial properties as method of reducing water use in the landscape. IEUA has retained a consultant to perform a complete audit of pre-selected residential and commercial irrigation systems to determine what the savings estimates could be. What is currently not part of this program is a follow-up on each of these properties to determine if the water savings that were created are actually being maintained and for how long.

Metropolitan Water District of Southern California (MWD) has recognized this fact and has recently begun a campaign to make people aware of the waste that goes on at most homes. Much of the waste is simple neglect of the irrigation system, a poor schedule on the irrigation timer, poor distribution uniformity, or a combination of all of these. Any type of campaign that simply notifies people that a problem exists will only provide limited results that transfers into real water savings. Where real water savings in the landscape will materialize is when the irrigation system itself is reviewed by an expert, the small items are fixed, and a new irrigation controller and schedule is created.

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### **3.2 Statement of Work - Technical/Scientific Merit, Feasibility**

IEUA proposes to implement a research and redevelopment project to assess conservation savings retention on residential and commercial properties that previously participated in an IEUA funded pilot landscape audit program. The central question we would like to answer is: How much water savings would be lost after a one-year period since the initial landscape audit and what is the benefit to scheduling? IEUA will retain a consultant to visit approximately 70 residential and commercial sites that received a landscape audit in the winter and spring of 2005 with the objective of ascertaining the erosion of water savings, if any. IEUA is requesting \$25,000 in funding from the Department of Water Resources (DWR) to support a Landscape Audit “Tune Up” project.

#### **Methods and Procedures**

IEUA is now engaged in a pilot landscape audit program. The purpose of the audit is to determine the viability of contracting residential and commercial property owners, evaluate their the status of their irrigation system and irrigation schedule, make very minor repairs or make recommendations for more extensive repairs, and create a water budget for each property. And, if the water use is excessive, offer to provide a Weather Based Landscape Irrigation Controller (WBLIC).

#### **Equipment and Facilities**

The initial audit is quite extensive and exceeds the Irrigation Association standards for the components of an audit. Procedurally, the audit is broken down into two phases; the first is a “pre-audit” that simply evaluates the conditions of the irrigation system and allows for very minor repairs to take place. If the irrigation system needs no significant repairs and the property owner approves, the auditor will conduct the full audit which encompasses a catch can test to determine distribution uniformity. Finally, additional significant data will be gathered. The entire process encompasses the following procedures:

##### Pre-Audit Procedures

- Contact of the property owner and scheduling of the initial site visit.
- Survey the property owner about current irrigation and landscape maintenance practices being conducted on the site.
- Document the current irrigation schedule programmed in the irrigation controller.
- Turn on all valves
- Evaluate hardware for proper installation (i.e. tilted sprinkler heads, sunken sparkler heads, low-head drainage, etc.)
- Evaluate the water service meter and backflow device (if applicable) for leaks.

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- Monitor water meter and valves for internal or non-visible leaks.
- Measure the irrigated landscape and create a baseline water budget for the site.

Site Audit Procedures

- Non-Turf areas measure precipitation rates
- Measure turf areas, distribution uniformity and precipitation rate of existing irrigation hardware using Irrigation Association auditing procedures.
- Retrofit thick spray nozzles with new multi-stream rotating nozzle technology.
  - Re-Measure distribution uniformity and precipitation rates.
- Establish base irrigation schedule from data gathered.
- Install Weather Based Landscape Irrigation Controller (WBLIC) and rain sensor if qualified and requested by the property owner.
- Install base irrigation schedule into the WBLIC
- Provide irrigation information and training to the property owner.

Follow Up Audit

As part of the research and development project, IEUA proposes to retain a consultant to re-visit each one of the properties after one year to determine if the documented water savings are still in place. If the water savings are no longer apparent, what happened to change that fact?

The follow up visit will consist of the following procedures:

- Compare water use over the previous two years by gaining access to water use records through the retail water agency.
- Revisit the site to verify condition of irrigation hardware and evaluate the quality (aesthetics and health) of the landscape.
- Turn on all valves
- Evaluate hardware for proper installation (i.e. tilted sprinkler heads, sunken sprinkler heads, and low-head drainage, etc.)
- Evaluate the water service meter and backflow device (if applicable) for leaks.
- Monitor water meter and valves for internal or non-visible leaks.
- Measure the irrigated landscape, baseline a water budget for the site
- Survey to property owner for satisfaction with all program elements.
- Provide property owner with a “report card” on the status of the irrigation system and scheduling.

**Readiness to Proceed**

Since the pilot landscape audit program is currently underway and is scheduled to be completed and evaluated in June 2005, the follow-up site visit to each property could be conducted approximately one year later during the spring of 2006. Therefore,

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IEUA is in a position to proceed almost immediately after a funding contract with the Department of Water Resources is completed.

**Project Schedule**

<b>Task Description</b>	<b>Number of Audits</b>	<b>Time Frame</b>
<b>Task I:</b> IEUA will work with DWR to expedite the funding contract execution. Concurrently, IEUA will retain a consultant/contractor to implement the program.	0	September /October 2005
<b>Task II:</b> Kick-Off meeting in January to review all collected data from the properties involved in the pilot water audit program.	0	January 2006
<b>Task III: Contact property owners and begin scheduling the follow-up audits.</b>	0	February 2006
<b>Task IV: Conduct follow-up audits.</b>	70	February 2006 to May 2006.
<b>Task V: Collect and analyze data.</b>	0	June 2006
<b>Task VI: Program wrap-up and prepare final report for the Department of Water Resources.</b>	0	June 2006
<b>Total</b>	<b>70</b>	

**CEQA**

This retrofit is not a “project” as defined by the California Environmental Quality Act (CEQA). There are no other permits or approvals required by State, Federal, and/or local agencies to conduct this water conservation research and development project.

**3.3 Statement Work – Monitoring and Assessment**

By agreeing to participate in the initial pilot program the property owner will allow the retail water agency to release water use records for their property. This will allow IEUA to review the water savings over the next year. Specifically:

- IEUA will record the water use history for at least one full year prior to the initial audit and one year after the initial audit for comparison purposes. This data will be unique to each property, whether residential or commercial. By tracking the water use data, pre- and post-audit comparisons of water demands should become very distinct and easily discernable.

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- All data from the initial audit paperwork will be placed into an electronic data base. Once the follow up audit is completed, these data will be placed into the data base for future comparison in the final report and subsequent annual reports.
- As part of the final report, IEUA will prepare water use comparison charts for the entire project and evaluate total water savings. The water savings will be compared to estimated water savings of 35 gallons per day per home. The comparison chart will show the pre-audit water use, the estimated savings, and the actual savings for each individual site and for the project as a whole.
- Finally, the actual water savings will be used to show how well IEUA is meeting its regional water conservation goals of 1,000 acre-feet annually. Again, this information will be reported back to the Department of Water Resources. This data will be provided to the California Urban Water Conservation Council, Metropolitan Water District and our own retail water agencies for their consideration on the development of future landscape programs.

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**4. Qualifications of the Applicants and Cooperators**

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**Resume**

**DAVID A. HILL**

**Education:**

Master of Science Degree - Environmental Studies: Policy and Planning  
California State University, Fullerton, May 1995

Bachelor of Arts Degree - Liberal Studies  
California State University, Fullerton, May 1987

**Extended Education:**

Management and Leadership Certificate  
California State University, Northridge, June 2000

Valley Leadership Institute Graduate, June 2000

**Experience:**

**January 2002 to Present:**

**Manager of Water Resources** – Inland Empire Utilities Agency,

## **Applicant: Inland Empire Utilities Agency Landscape Irrigation System Audit and Tune-Up Program Proposal**

Chino, CA

Inland Empire Utilities Agency is a wholesale water district, which distributes imported water, provides industrial/municipal wastewater collection and treatment services, recycled water, and other services to the Cities of Chino, Chino Hills, Fontana, Montclair, Ontario, Rancho Cucamonga, and Upland. The agency serves a population of approximately 700,000.

Reporting to the Executive Manager of Policy Development, duties include management of \$25 million water resources departmental budget for annual imported water purchases, \$1.4 million annual water conservation program budget, and three staff members. Other duties include annual budgeting, staffing and labor allocation plans, annual goals and objectives for water resources department, and preparing board letters and presentations.

### **April 1991 to December 2001:**

**Senior Project Manager** - West Basin Municipal Water District, Carson, Central Basin Municipal Water District, Carson, CA

West Basin and Central Basin are two quasi-government agencies that provide wholesale water to 2.3 million residents in 41 cities in the South Bay and southeast Los Angeles County. The Districts are nationally recognized as innovative leaders in water resource management.

Duties include serving as the Districts' Conservation Coordinator, Legislative Analyst and CALFED Liaison. This position encompasses developing, organizing, and administering a comprehensive residential, commercial, and industrial water conservation program for the region. Duties as legislative analyst include tracking and analyzing legislation through on-line service and working closely with the District's Sacramento and Washington lobbyists. Participation with local and state government departments and local special interests groups on numerous key legislative issues. Overall programs consist of an annual budget of \$2 million of local and federal funding. Management of three consultants while assisting in the public affairs departmental management. In addition, public speaking to city councils, local water boards community groups, and statewide and national water organizations.

### **Major Projects:**

- CALFED Liaison - Lead agency representative on all CALFED (and Colorado River) issues.

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- Ultra-Low Flush (ULF) Toilet Rebate Program – Project manager for a \$3.4 million incentive program which operated for four years and replaced over 37,000 toilets in West Basin and Central Basin.
- ULF Toilet Distribution Program – Project manager for a \$1.2 million annual program created to provide District residents with free ULF toilets to reduce municipal demand and retail water bills.
- “Circuit-Rider” Local Government Landscape Program - A \$60,000 annual program to provide technical assistance and education to municipal planners in the area of demand reduction in landscaping and bring municipalities in compliance with state law.
- Recycled Water Marketing – Part of a marketing team responsible for the connection of public agency lands and private businesses to the West Basin Recycled Water Program and the Central Basin Recycled Water Program.

**Statewide and Regional:**

- Served on the California Water Awareness Campaign Steering Committee
- California Urban Water Conservation Council (CUWCC) Membership Committee
- Regional Water Conservation Partnership Workgroup (Chair)

**Publications:**

- “The Efficient Flush,” Letters to the Editor, The Wall Street Journal, January 31, 2000.
- Guest Commentary “Low flow toilets check the use of water,” Whittier Daily News, August 1, 1997.
- “Water Districts and Urban Planners: Developing Partnerships for Water Conservation In Landscaping for the Urban Environment,” Proceedings of Conserv ‘96, 1996.
- “Water Plan ‘95” - Urban Water Management Plan, 1995.
- “Recycled Water Handbook: An Introduction to and Resource Guide to Using Recycled Water,” 1995.
- “Injury and Illness Prevention Plan” 1992.
- “Urban Water Shortage Contingency Plan”, 1992.

**Video Publications:**

- “Drought-Proof 2000,” 1996 - Co-authored a script for a West Basin and Central Basin promotional video.
- “Making Recycled Water Work,” 1995 - Co-authored the script for a training video for utility personnel on the requirements of using recycled water.

**Affiliations:**

**Applicant: Inland Empire Utilities Agency  
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- American Water Works Association

Identify and describe the role of any external cooperators that will be used for this project.

IEUA will be managing the project. Other entities involved will include the consultant that will be retained to conduct the follow-up audits. Other entities cooperating with the project will include the local retail water agencies of the Regional Water Conservation Partnership.

Describe briefly any previous water use efficiency grant projects in which the applicant has participated. Consideration will be given to the applicant's performance in prior water use efficiency programs.

IEUA currently has two outstanding grant projects. The first project is an X-Ray Film Processor retrofit program scheduled to be completed through June 2005. The program is scheduled to complete the installation of up to 50 X-Ray film processors. All of the hospital, clinics and diagnostic facilities that qualify have retrofitted their X-Ray Film Processors except for one company. Eleven processors have been installed to date. IEUA is working closely with DWR to encourage Kaiser Hospital to upgrade their X-Ray facilities prior to June 2005. The other project is the Chino Prison Water Conservation Program. This grant was awarded in the last round of Proposition 13 funding and is now scheduled to begin retrofit work in April 2005. The retrofit work is anticipated to take about 4 months to complete.

If applicant is a disadvantaged community, provide geographic scope and the source of information documenting annual median household income. The IEUA service area is not considered to be socio-economically disadvantaged.

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**5. Outreach, Community Involvement, and Acceptance**

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Applicants are encouraged to coordinate prior to submitting a proposal with local governments and other local entities such as community based organizations and watershed groups. The proposal shall describe a plan for public outreach to the groups or individuals that may be affected by the project. Identify which local groups or other interested organizations are aware of the project and their level of support or opposition. Identify any potential third party impacts. Estimate the number of people or organizations that are expected to receive training, employment, or other social or economic benefits from the project. Describe any opposition to the proposed project.

**Applicant: Inland Empire Utilities Agency  
Landscape Irrigation System Audit and Tune-Up Program Proposal**

This project is supported by the Regional Water Conservation Partnership (Partnership). This is collaboration between the IEUA and the eight local retail water agencies in the IEUA service area. The purpose of the Partnership is to provide oversight and direction for the regional water conservation program effort in the IEUA service area. These agencies pay a surcharge on each acre-foot of imported water that comes into the region. The surcharge is collected and used for the regional water conservation program effort.

For most of these retail water agencies, outreach to their customers is a desirable but often unachievable goal. Staffing limitations limit the staff's ability to effectively participate with local groups (Chambers of Commerce, Apartment Owners Associations, Service Groups, etc.) at a desirable level. That is why the agencies of the Partnership strongly support this project. Programs like these allow the agencies to meet their customers and provide the kind of customer service that they would like to provide.

The results of the study will be provided to the Department of Water Resources through a final report. The actual water savings will be used to show how well IEUA is meeting its regional water conservation goals of 1,000 acre-feet annually. This data will be shared with the California Urban Water Conservation Council, Metropolitan Water District and our own retail water agencies for their consideration on the development of future landscape programs.

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**6. Innovation**

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Many water agencies are committed to implementing programs that help increase the efficiency of water use in landscapes. Much of this work is focused on a one-time audit and tune up approach. Unfortunately, follow up visits to these sites usually never occur because the assumption is that the changes in the irrigation systems are permanent. Unfortunately, there are still far too many behavioral changes on the part of the residential property and commercial property owner that need to take place before these efficiencies become an important part of the regular maintenance schedule. Therefore, a follow visit to the property one year later should help maintain the efficiencies that were installed.

This project is innovative because it attempts to answer the question about the benefit of visiting sites and reviewing the changes that occurred in the initial audit. If the Department of Water Resources continues to put funding toward these audit programs, it needs to be assured that the resulting water savings are being

**Applicant: Inland Empire Utilities Agency  
Landscape Irrigation System Audit and Tune-Up Program Proposal**

maintained. Maintaining the established water savings are a benefit to the local agencies, the regional wholesale water agencies and to CALFED and the Bay-Delta.

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**7. Benefits and Costs**

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**Project Costs**

Costs associated with the initial pilot landscape audit program are listed in Table C-1 as “Pilot Audit Program.” These are costs that IEUA is absorbing as part of the initial Landscape Audit Program. These costs include administration, the purchase and

**Table C-1: Project Costs (Budget) in Dollars)**

	<b>Category</b>  (I)	<b>Project Costs</b>  (II)	<b>C</b>  III	<b>Project Cost</b>  (IV)	<b>Local Share</b>  (V)	<b>State Share</b>  (VI)
a	Pilot Audit Program Admin	\$4,000	0	\$4,000	\$4,000	\$0
b	Pilot Audit Program Equipment Purchase	\$0	0	\$0	\$0	\$0
c	Pilot Audit Program Materials and Installation (WBLIC's)	\$28,000	0	\$28,000	\$28,000	\$0
d	Pilot Program Consulting services	\$25,000	0	\$25,000	\$25,000	\$0
e	Follow Up Audit Consulting Services	\$21,000	0	\$21,000	\$0	\$21,000
f	Follow Up Audit Administration, Final Report, & Annual Report	\$10,000	0	\$10,000	\$0	\$10,000
	<b>TOTAL</b>	\$88,000		\$88,000	\$57,000	\$31,000
	Cost Share -Percentage				65	35

**Applicant: Inland Empire Utilities Agency  
Landscape Irrigation System Audit and Tune-Up Program Proposal**

installation of Weather Based Landscape Irrigation Controllers (WBLIC's) and multi-stream rotating nozzles, and for consulting services. The consulting services are estimated to be \$300 per site with a maximum of 70 sites to be surveyed.

Attachment A



MONO LAKE  
COMMITTEE

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January 6, 2005

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California Department of Water Resources  
Office of Water Use Efficiency  
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CALIFORNIA DEPARTMENT OF WATER RESOURCES  
PROP 50 GRANT APPLICATIONS

Dear Ms. Gonzales:

On behalf of the 15,000 members of the Mono Lake Committee I strongly support the following Proposition 50 Water Use Efficiency project proposals being submitted the California Department of Water Resources by the Inland Empire Utilities Agency (IEUA):

- Ultra-Low Flush (ULF) Toilet Multi-Family Direct-Install Program – This project will provide the necessary funding to install up to 22,500 ULF toilets in apartment complexes through the region and reduce water demand by over 1,200 acre-feet annually.
- Landscape Audit "Tune Up Program – This is a research and development project to determine the benefits of conducting follow-up landscape audits to enhance water conservation savings achieved an earlier audit.
- Southern California Water Efficient Residential Landscape (WERL) Facility – This facility will provide a series of example landscapes that demonstrate water efficiency products and practices for the benefit of the general public.

The Mono Lake Committee is committed to helping water agencies implement water efficiency projects statewide and particularly to meet regional water conservation goals in Southern California. Therefore, the Committee strongly supports these applications for funding under Proposition 50. We believe these proposals will provide tremendous benefits to our urban water efficiency programs, help reduce our local dependence on imported water, and provide direct benefits to the California Bay-Delta.

Sincerely,

Frances Spivy-Weber  
Executive Director, Policy