

Project Description

Elsinore Valley Municipal Water District proposes implementing a school based landscape irrigation water audit program utilizing the California Irrigation Management Information System (CIMIS) Mobile Lab Program. Identifying key areas of irrigation improvement, CIMIS computerized data analyzes local weather and soil conditions, plant water use and system uniformity information to determine modifications in system maintenance, scheduling, design and operation. Irrigation evaluations can save irrigators up to 40% in water and energy costs when recommendations are applied.

Statement of Work, Schedule

Elsinore Valley Municipal Water District proposes scheduling 10 landscape water audits at Lake Elsinore Unified School District sites starting in October of 2003 and continuing at 5 week intervals through October of 2004. CIMIS staff will handle scheduling, performance of and evaluation reports for the audits. EVMWD staff will assist with coordination of site contacts, promotional activities and delivery of audit reports to the EVMWD and LEUSD management staff. EVMWD staff will also provide follow-up support to site staff during implementation of irrigation modifications. EVMWD can also coordinate landscape maintenance staff training through the existing Metropolitan Water District Protector Del Agua Program for landscape professionals. Quarterly grant project reporting will be provided by EVMWD.

Project Timetable

The following schedule is tentative and will serve as a guideline for planning and coordination purposes.

Elsinore Middle School	October 2003
Butterfield Elementary School	November 2003
Donald Graham Elementary School	January 2004
Elsinore Elementary School	February 2004
Machado Elementary School	March 2004
Railroad Canyon Elementary School	April 2004
Rice Canyon Elementary School	May 2004
Tuscany Hills Elementary School	June 2004
Wildomar Elementary School	July 2004
William Collier Elementary School	August 2004
Withrow Elementary School	September 2004

Monitoring and Evaluation

Built into the CIMIS Irrigation Water Audit Program are procedures that monitor and assess procedures and document water savings. During program implementation, CIMIS staff identify site acreage, plant material, irrigation uniformity, irrigation efficiency, water loss and water use history. The evaluation process considers all variables and involves key maintenance and supervisory site staff in the entire process. Following the evaluation a report is produced that details site conditions, soil types, drainage, erosion, water pressure and irrigation systems. A list of recommendations for improvement is provided with accompanying water volume/value savings estimates and additional resources are offered.

A conservative estimate of water savings following water audit evaluation and recommendation implementation at a normal 10-acre school site is 4 acre feet annually. Future water savings during the life of the system could reach 80 acre feet.

Qualifications

Project manager will be Public Affairs Representative Mary Brown; a resume of her qualifications is attached. The CIMIS Irrigation Management Mobile Lab, is operated by the Riverside-Corona Resource Conservation District (RCRCD). Kerwin Russell is a staff member of the RCRCD and operates the CIMIS Mobile Lab. An overview of the program is attached.

Innovation

This program will be a proactive effort on behalf of EVMWD. Staff will oversee that water audits are performed as scheduled, system modifications are implemented and variations in water volume and dollar savings are recorded and reported to EVMWD and LEUSD management staff.

Agency Authority

1. General Manager Ron Young will sign the grant application document.
2. Elsinore Valley Municipal Water District was incorporated on December 23, 1950, under the primary enabling legal authority of the California Municipal Water District Act. Of 1911. This allows the District to supply and distribute water, treat and dispose of wastewater, make beneficial use of reclaimed water and manager water related recreational activities. The Elsinore Valley Municipal Water District is a “special district.”
3. No
4. No
5. No

Part E Water Use Efficiency Improvements and Other Benefits

Water Use Efficiency Improvements

The purpose of an irrigation water audit is to improve water use efficiency. Funding and implementation of this program will provide evaluation and the tools necessary to enable ten local school sites to reduce water use and realize significant cost savings on their water bills.

Other Project Benefit

Elsinore Valley Municipal Water District prides itself on positive community involvement. Obtaining this grant will enable the District to satisfy the Urban Water Management Plan Best Management Practices by offering water conservation opportunities to some of the largest water users in the area.

This project will be promoted as a joint effort between Elsinore Valley Municipal Water District and the Lake Elsinore Unified School District (LEUSD). Promotion of this

project will encourage neighboring agencies and school districts to follow our example and perform landscape water audits.

Future benefits will include continued water savings for the life of the landscape system at each school site. Any landscape design changes implemented will serve as an example of water efficiency that can be utilized at future new school sites.

Table 4: Water Supply Benefits

Annual amount of water to be saved (acre-feet) *40

*Conservative estimate supplied by the Resource Conservation District, Savings to be realized by customer, school district.

4a. Avoided Costs of Current Supply Sources

Sources of Supply	Cost of Water (\$/AF)	Annual Displaced Supply (AF)	Annual Avoided Costs (\$)
(a)	(b)	(c)	(d) (b x c)
Elsinore Water for Landscape	\$671/AF	40	\$26,840
Total			\$26,840

4b. Alternative Costs of Future Supply Sources

Future Supply Sources	Total Capital Costs (\$)	Capital Recovery Factor (1)	Annual Capital Costs (\$)	Annual O&M Costs (\$)	Total Annual Avoided Costs (\$)
(a)	(b)	(c)	(d) (b x c)	(e)	(f) (d + e)
Total					

(1) 6% discount rate; Use Table 6- Capital Recovery Factor

A-1 Urban Water Conservation Grant Application Cover Sheet

1. Applicant (Organization or affiliation): Elsinore Valley Municipal Water District

2. Project Title: Landscape Water Audit Program

3. Person authorized to sign and submit proposal:

Name, Title	<u>Ron Young, General Manager</u>
Mailing address	<u>P.O. Box 3000, Lake Elsinore, CA 92531-3000</u>
Telephone	<u>(909) 674-3146, ext. 224</u>
Fax	<u>(909) 674-9872</u>
E-mail	<u>ryoung@evmwd.net</u>

4. Contact person (if different):

Name, Title	<u>Mary Brown, Public Affairs Representative</u>
Mailing address	<u>P.O. Box 3000, Lake Elsinore, CA 92531-3000</u>
Telephone	<u>(909) 674-3146, ext. 274</u>
Fax	<u>(909) 674-9872</u>
E-mail	<u>mbrown@evmwd.net</u>

5. Funds requested (dollar amount): \$15,000

6. Applicant funds pledged (local cost share) (dollar amount): \$5,000

7. Total project costs (dollar amount): \$20,000

8. Estimated net water savings (acre-feet/year): 40

Estimated total amount of water to be saved (acre-feet): 800

Over 20 years

Benefit/cost ratio of project for applicant: .19

Estimated \$/acre-feet of water to be saved: \$671

9. Project life (month/year to month/year): 10/03-10/04

10. State Assembly District where the project is to be conducted: 66th

11. State Senate District where the project is to be conducted: 36

12. Congressional District(s) where the project is to be conducted: 49

13. County where the project is to be conducted: Riverside

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%20Permits_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

Ron Young, General Manager

Name and title

12/2/02

Date