

CITY OF WESTMINSTER

**PARK LANDSCAPE
IRRIGATION PROJECT**

March 1, 2002

Water Use Efficiency Grant Proposal

ApplicationNum	121	Specify from cho	
Application for (Specify from (k)	
Principle Applic	Westminster, City of, Parks Division	Does Proposal in	<input type="checkbox"/>
Project Title	Park Landscape Irrigation Project		
First Name-Aut	Jeff		
Last Name (AA)	Howell		
Title	Public Works Manager		
Street Address	14381 Olive St.		
PO Box			
City	Westminster		
State	Ca		
Zip Code	92683		
Telephone Num	(714) 895-28		
Fax Number (Inc	(714) 373-5		
E-mail Address	jeff@ci.westminster.ca.us		
First Name-Con			
Last Name-CP			
Contact-Title			
Contact-Street			
Contact-PO Box			
Contact-City			
Contact-State			
Contact-Zip Cod			
Contact-Phone			
Contact-Fax Nu			
Contact-E-Mail			
Funds Requeste	\$291,375.00		
Applicant Funds	\$32,375.00		
Total Project Co	\$323,750.00		
Estimated Total	\$325,300.00		
Percentage of Be	0%		
Percentage of Be	0%		
Estimated Annu	22		
Estimated Total	440		

Over ____ Nu	20
Estimated Benef	
Duration of Proj	01/03-06/03
State Assembly	68
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State-Wide	<input type="checkbox"/>
County-location	Orange

Most recent Urb

Type Applicant-

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Project Focus

Project Type

Quantifiable Ob

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PROJECT SUMMARY

Nature, Goals, and Objectives

The scope of the Landscape Irrigation Project is to replace the outdated Aqua Dial hydraulic irrigation systems at Palos Verde Park, Westminster Park, and Park West Park. Palos Verdes Park is a twelve (12) acre park located at 8600 Palos Verdes Ave. Westminster Park is a nine (9) acre park located at 14402 Magnolia Ave. Park West Park is a five (5) acre park located at 8301 Mc Fadden Ave. The main objective is to reduce water usage by replacing older inefficient irrigation systems with newer, more efficient systems. This newer technology will allow for better spray patterns and new controllers that will actually shut the irrigation system down in the event of a leak, saving from twenty-five to fifty percent of water wasted.

The project will promote water use efficiency and conservation in accordance with Westminster's Urban Water Management Plan 2000. The City of Westminster recognizes the need for water conservation as an essential tool in managing water resources. The long-term goal of Westminster's water conservation program is to achieve and maintain a high level of efficient water use. The Park Landscape Irrigation Project complies with the Best Management Practices suggested by the California Urban Water Conservation Council.

Methods and Procedures

The project will go to bid in November 2002 and contractors will be held to the bid schedule. The anticipated start date is January 2003 and the project will take approximately fourteen weeks with a completion date of April 15th.

Water bills will be monitored and compared to past bills to measure increased water use efficiency resulting from a reduction of watering times. In addition, a central computer will provide water usage reports that are designed to educate field personal on proper water management techniques. Water usage reports can also be used by upper management to confirm water savings and verify proper implementation of the system.

Expected Outcomes

Expected outcomes include increased water use efficiency, reduced watering times, and water conservation.

Palos Verde Park will have new lines, heads and clocks, and controllers. Westminster Park and Park West Park will have new valves, heads and clocks, and controllers.

The City anticipates increased water conservation efforts by the public as a result of promoting and advertising the project.

Costs and Benefits

The total project cost of replacing the irrigation systems at Palos Verde Park, Westminster Park, and Park West Park, are estimated to be \$323,750. City Parks Division will pledge ten percent or \$32,375, and is requesting \$291,375 in grant funds.

Benefits of increased water use efficiency, reduced watering times, and water conservation will result in approximately 7,172,000 gallons of water saved per year.

TECHNICAL FEASIBILITY AND MONITORING

Contractors will be monitored by City Yard Operations and Engineering staff and will be held to bid schedule.

City staff will be on-site to provide continuous monitoring of all tasks from start to completion.

Work Schedule

The Park Landscape Irrigation Project will go out to bid in November 2002. The project is scheduled to start in January 2003 and be fully completed by June 2003, taking approximately fourteen weeks to complete all tasks.

Palos Verdes Park / 8 weeks duration, January 2, 2003 – March 1, 2003

TASKS	DUE DATES	COSTS
Trench and install new lines	Approx 6 weeks / February 14, 2003	Labor \$100,000
Install new heads		Materials \$76,000
Install valves and controller	Approx 2 weeks / March 1, 2003	

Westminster Park / 4 weeks duration, March 1, 2003 – April 1, 2003

TASKS	DUE DATES	COSTS
Install new heads	Approx 2 weeks / March 14, 2003	Labor \$41,250
		Materials \$43,250
Install valves and controller	Approx 2 weeks / April 1, 2003	

Park West Park / 2 weeks duration, April 1, 2003 – April 15, 2003

TASKS	DUE DATES	COSTS
Install new heads	Approx 1 week / April 7, 2003	Labor \$29,500
		Materials \$30,000
Install valves and controller	Approx 1 week / April 15, 2003	

QUALIFICATIONS OF APPLICANT

JEFF HOWELL

14381 Olive Street, Westminster, CA 92683

Work Phone (714) 895-2876 Ext 6290

E-mail: jeffh@ci.westminster.ca.us

OBJECTIVE

Approval of Prop 13 Grant Request.

WORK HISTORY

Public Works Manager (Maintenance Operations), City of Westminster 4/98 – present.

Responsible for the maintenance operations management of the Streets, Parks, and Fleet Divisions. Develop and administer the division budgets totaling \$4.6 million and a staff of 30. Manage the maintenance of the streets, parks and fleet utilizing a combination of in-house staff and contract agreements with private enterprise. Coordinate the maintenance of the Corporate Yard buildings. Administer the street sweeping contract, the concrete right of way repair contract, tree maintenance contract, and the landscape median maintenance contract.

PROJECTS

Manage the replacement of the irrigation systems at Bolsa Chica Park and Buckingham Park.
Manage playground equipment and surfacing replacement at twelve park sites.
Supervise the cleanup of the Hefley tank disaster.
Installation of aboveground fuel tank for emergency generator.
Removal of underground tanks and remediation process. Successfully applied for and receiving reimbursement from the State Cleanup Fund.
Installation of underground vault and fuel tank for City Yard fueling facility.

EDUCATION

A.A. in Business Administration, Goldenwest College 6/88
B.S. in Organizational Management, Pacific Christian College 1/98
Graduate Certificate in Project Management, Keller Graduate School of Management 2/01

BENEFITS AND COSTS / BUDGET BREAKDOWN

Planning / Design Engineering	Plans	\$750
Materials / Installation	Materials	\$149,250
	Installation	\$170,750
Overhead	Project Management	\$3,000
TOTAL		\$323,750

City will match 10%, \$32,375

BENEFITS

Replacing sprinkler heads, valves, and controllers	Palos Verdes Park, Westminster Park, and Park West Park	up to 50% water savings water use efficiency water conservation
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A three-inch line failure often goes unnoticed for 24 – 48 hours until it’s reported. At 350 gallons per minute this equals to a loss of approximately 1,008,000 gallons of water. Historically, the irrigation systems have failed one to two times annually. If one assumes three parks, with three failures per year, then water savings of 3,024,000 gallons annually will be realized. At six failures per year, an annual savings of 6,048,000 will be realized. There will also be water savings when heads are broken because the system is capable of shutting down individual stations.

In addition, irrigation heads that spray 24.3 gallons per minute, with a radius of 56 feet, will be replaced by heads that spray 20 gallons per minute, with a radius of 65 feet, resulting in an eight percent savings. Based on prior year usage, this will result in savings of approximately 1,000,000 gallons of water annually.

Another benefit of the project will be reduced energy usage / costs realized by not pumping the extra water.

Overall, the main benefit of the Parks Landscape Irrigation Project is water conservation.

BENEFIT SUMMARY AND BREAKDOWN

The Park Landscape Irrigation Project will result in Palos Verde Park having new lines, heads and clocks, and controllers. Westminster Park and Park West will have new valves, heads and clocks, and controllers.

Master Valves (MV) and Calsense Controllers will help to control and conserve water, and generate valuable reports on water conservation to help monitor the proper implementation of the system.

A MV, located at the point of connection, and connected to a controller with the ability to monitor water flow, can act as a device to shut the irrigation system down in the event of a broken mainline. This will conserve water by eliminating the broken mainline from flooding a park until somebody notices.

The Calsense Controller has the ability to automatically respond to the mainline high flow condition and shut down the MV, isolating the mainline from wasting additional water. In addition, the Calsense Controller can be integrated into a full water management system utilizing a communication method, linking the field controllers to a central personal computer. This system, when fully implemented, can conserve twenty-five to thirty percent of water consumption.

Water conservation, through the installation of Calsense Controllers, can be addressed at several levels:

- ?? The controller can respond to broken heads and shut individual valves off,
- ?? The controller has the ability to shut off the mainline due to a high flow condition
- ?? Through a personal computer, software and a communication link, it is designed to accept the sharing of real time weather data. Sharing of weather data will enable the controller to apply the exact amount of water necessary to replace what was lost from the plant material from that day's weather.
- ?? The controller and central computer will provide water usage reports that are designed to educate field personal on proper water management techniques.
- ?? Water usage reports can also be used by upper management to confirm water savings and verify proper implementation of the system.

ASSESSMENT OF COSTS AND BENEFITS

The benefits of the Park Landscape Irrigation Project to CALFED Bay-Delta program objectives are to offer long-range cost-effective solutions for water use efficiency and conservation. This will be accomplished by replacing older inefficient irrigation systems with newer, more efficient systems in three of our city parks.

Locally, the project will provide for increased control of water flows, resulting in the ability to shut down the irrigation system in the event of a broken mainline. The new irrigation system will generate valuable reports on water conservation that will enable management to monitor the proper implementation of the system. Regionally, the project will support the CALFED process to solve the water supply problems of the Northern California Delta region.

It is estimated that the project will save 7,032,000 gallons of water per year.

COSTS

ITEM		PRESENT VALUE	BENEFICIARY
Planning / Design Engineering	Plans for Palos Verdes Park	\$750	N/A
Materials / Installation	Materials	\$149,250	N/A
	Installation	\$170,750	N/A
Overhead	Project Management	\$3,000	N/A
TOTAL		\$323,750	N/A

City will match 10%, \$32,375

BENEFITS

ITEM		PRESENT VALUE	BENEFICIARY
Replacing sprinkler heads, valves, and controllers	Palos Verdes Park,	up to 50% water savings	CITY CALFED
	Westminster Park,	water use efficiency	
	Park West Park		

COMMUNITY OUTREACH AND INVOLVEMENT

The City of Westminster currently has a population of approximately 90,000, and will have a projected population of 110,775 through 2002. According to the latest census information, approximately 15 percent of the population lives below or at poverty levels. City Parks Division will consider participating in the Summer Youth Employment Program (SYEP) and the Workforce Investment Act Program (WIA) to train and hire support maintenance workers for the project. The SYEP and WIA programs are run through our City Community Services Department and they accept applicants from local disadvantaged residents that qualify.

In addition, the project will be advertised in local newspapers and our city cable TV channel. We will also write an article in our quarterly city brochure to inform our citizens of the project. The City anticipates increased water conservation efforts by the public as a result of promoting and advertising the project.