

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

1. Applying for (select one):
- (a) Prop 13 Urban Water Conservation Capital Outlay Grant
  - (b) Prop 13 Agricultural Water Conservation Capital Outlay Feasibility Study Grant
  - (c) DWR Water Use Efficiency Project

2. Principal applicant (Organization or affiliation): City of West Covina

3. Project Title: Water Conservation and Field Improvements at City Parks

4. Person authorized to sign and submit proposal:

Name, title	<u>Barbara Briley, Admin. Analyst</u>
Mailing address	<u>P.O. Box 1440</u>
	<u>West Covina, CA 91793</u>
Telephone	<u>(626) 814-8425</u>
Fax.	<u>(626) 813-8660</u>
E-mail	<u>barbara.briley@westcov.org</u>

5. Contact person (if different):

Name, title.	<u>                    </u>
Mailing address.	<u>                    </u>
Telephone	<u>                    </u>
Fax.	<u>                    </u>
E-mail	<u>                    </u>

6. Funds requested (dollar amount): \$286,600

7. Applicant funds pledged (dollar amount): \$150,000

8. Total project costs (dollar amount): \$436,600

9. Estimated total quantifiable project benefits (dollar amount): \$18,000 annually

Percentage of benefit to be accrued by applicant: 100%

Percentage of benefit to be accrued by CALFED or others: 100%

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Proposal Part One:  
A. Project Information Form (continued)**

10. Estimated annual amount of water to be saved (acre-feet): .364
- Estimated total amount of water to be saved (acre-feet): 11
- Over 30 years
- Estimated benefits to be realized in terms of water quality, instream flow, other: Ongoing water consumption reduction
11. Duration of project (month/year to month/year): 10/01/02 - 10/01/03
12. State Assembly District where the project is to be conducted: 60th
13. State Senate District where the project is to be conducted: 29th
14. Congressional district(s) where the project is to be conducted: 28th
15. County where the project is to be conducted: Los Angeles
16. Date most recent Urban Water Management Plan submitted to the Department of Water Resources: N/A
17. Type of applicant (select one):
- Prop 13 Urban Grants and Prop 13 Agricultural Feasibility Study Grants:
- (a) city
  - (b) county
  - (c) city and county
  - (d) joint power authority
  - (e) other political subdivision of the State, including public water district
  - (f) incorporated mutual water company
  - (g) investor-owned utility
  - (h) non-profit organization
  - (i) tribe
  - (j) university
  - (k) state agency
  - (l) federal agency
- DWR WUE Projects: the above entities (a) through (f) or:

18. Project focus:  (a) agricultural  
 (b) urban

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

19. Project type (select one):  
 Prop 13 Urban Grant or Prop 13  
 Agricultural Feasibility Study Grant  
 capital outlay project related to:
- (a) implementation of Urban Best Management Practices
- (b) implementation of Agricultural Efficient Water Management Practices
- (c) implementation of Quantifiable Objectives (include QO number(s))
- 
- (d) other (specify)
- 

- DWR WUE Project related to:
- (e) implementation of Urban Best Management Practices
- (f) implementation of Agricultural Efficient Water Management Practices
- (g) implementation of Quantifiable Objectives (include QO number(s))
- (h) innovative projects (initial investigation of new technologies, methodologies, approaches, or institutional frameworks)
- (i) research or pilot projects
- (j) education or public information programs
- (k) other (specify)
- 

20. Do the actions in this proposal involve physical changes in land use, or potential future changes in land use?
- (a) yes
- (b) no

If yes, the applicant must complete the CALFED PSP Land Use Checklist found at [http://calfed.water.ca.gov/environmental\\_docs.ht](http://calfed.water.ca.gov/environmental_docs.ht)

[m](#) and submit it with the proposal.

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

By signing below, the official declares the following:

The truthfulness of all representations in the proposal;

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

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

\_\_\_\_\_  
Signature

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

\_\_\_\_\_  
Date

## PROJECT SUMMARY

The City of West Covina intends to install water/cost-saving centralized irrigation in all of the City's parks and open space areas. The first phase of the project will be to install new irrigation controllers and irrigation lines in 6 of the City's 12 parks that have irrigation systems that are over 40 years old or have areas that have no irrigation at all.

The new radio-sensored controllers will be linked via satellite to a central computer in the City's Maintenance Division. The system will adjust irrigation schedules according to climate and precipitation. It will also report problems in the field and provide reports on water usage.

Staff installed and tested the proposed system on a six-acre area. Utilizing the centralized irrigation system, the City was able to reduce water consumption in the test area by 37%. Based on the potential for saving costs on irrigation and manpower needed to manually adjust the irrigation controllers according to climate, the City considered installing the centralized irrigation within all City-maintained slopes, parks and open space areas.

However, due to the high cost of the system, the City is now looking into phasing in the installation of new irrigation systems beginning with 6 of the City's 12 parks. The names and locations of the parks proposed in the project are as follows:

Friendship Park	3740 Sentous Avenue
Gingrich Park	1935 Woodgate Drive
Orangewood Park	1615 W. Merced Avenue
Palmview Park	1340 E. Puente Avenue
Shadow Oak Park	2121 E. Shadow Oak Drive
Walmerado Park	625 E. Merced Avenue

Once installed, the City anticipates an annual savings in water usage of \$18,000, a \$57,000 savings in manpower, and a reduction in water consumption of 118,480 gallons or .364 acre-feet. Moreover, the installation of the new irrigation lines will substantially improve the turf area particularly those areas that are not being irrigated properly.

These parks are all used extensively for recreation and sports activities. With the high volume of usage, it is vital for the City to maintain the turf in peak condition. Installing the new irrigation systems within the parks is a win-win-win for the City, the community, and for the Department of Water Resources' water conservation and efficiency efforts.

## A. Scope of Work: Relevance and Importance

1. Nature, scope, and objectives of the project. The City of West Covina began water conservation efforts numerous years ago primarily to save costs by reducing the irrigation times during high precipitation periods and to repair and replace broken irrigation lines more timely.

Approximately eleven years ago, the City hired a water conservation specialist to oversee the City-maintained irrigation systems. With the assistance of the water conservation specialist, the City was able to reduce water consumption and costs significantly by adjusting controllers based on climate and precipitation.

West Covina recently participated in a demo program testing a computerized irrigation system capable of storing and processing a multitude of information. This system links satellite controllers, weather stations, and flow and moisture sensors in the field to a central computer. The field controllers and sensors communicated via radio to specialized water management software located in the City's Maintenance Division.

In addition, the system will adjust irrigation schedules according to climatic conditions, report problems in the field, such as leaks, and shut down or bypass problem zones. The controllers log the water usage for individual valves and monitors manual and non-irrigated water usage. Using the square footage, the water budget feature of the controller maximizes the expected water savings and provides a tool for monitoring the success of the system.

Utilizing the computerized irrigation system, the City was able to reduce water consumption in the test area by 37%. Based on these results, the City considered installing the centralized irrigation within all City-maintained slopes, parks and open space areas. However, due to the high cost of the system, the City is now looking into installing the system in 6 of the City's 12 parks that have irrigation systems that are over 40 years old or have areas that have no irrigation at all.

2. Statement of critical local, regional, Bay-Delta, State or Federal water issues. The potential water savings for the installation of centralized controllers is substantial. The estimated amount of overall savings for these six parks is .364 acre-feet annually. This project will also assist local water purveyors in their effort to reduce water consumption pursuant to CALFED program objectives and principles.

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

1. Methods, procedures, and facilities. Centralized irrigation systems have been installed by numerous public agencies and private companies. They have proven to be successful in the effort to reduce water consumption and promote water use efficiency.

Due to the need for the City to replace the aged systems in the City's parks, the City is looking toward a long-term investment to provide the most efficient and beneficial system to the community.

The installation of the centralized irrigation controllers and associated appurtenances will be by contract services. The City Council has approved \$100,000 in Capital Improvement Projects for each of these parks that will include but is not limited to irrigation upgrades. The total estimated cost of irrigation upgrades to these six parks is \$436,600.

2. Task List and Schedule. The following table is a proposed work schedule:

<b>Park</b>	<b>Task</b>	<b>Cost</b>	<b>Installation Start</b>	<b>Installation Completion</b>
Friendship	Controller/Irrigation Material Installation	\$86,600	05/01/03	07/01/03
Gingrich	Controller/Irrigation Material Installation	\$56,000	11/01/02	12/01/02
Orangewood	Controller/Irrigation Material Installation	\$57,000	10/01/02	11/01/02
Palmview	Controller/Irrigation Material Installation	\$101,000	01/01/03	03/01/03
Shadow Oak	Controller/Irrigation Material Installation	\$90,000	08/01/03	10/01/03
Walmerado	Controller/Irrigation Material Installation	\$46,000	07/01/03	08/01/03

3. Monitoring and assessment. The progress of this project is easily monitored based on water costs pre and post installation of the centralized irrigation system as well as data transmitted from the irrigation controllers to a central computer.

The computerized system is capable of providing a multitude of information such as water usage for individual valves, climatic conditions, reporting problems in the field, such as leaks, and non-irrigated times (Attachments A, B).

4. Preliminary Plans and Specifications and Certification Statements. Not applicable.

C. Qualifications of the Applicants and Cooperators

1. The City of West Covina is a municipal agency incorporated in 1923 with a current population of 105,000. West Covina has over 500 acres of City-maintained landscaped areas that includes 169.6 acres of City parks.

Landscape maintenance in the City of West Covina is performed by contract services. The Public Works' Maintenance Division is responsible for overseeing landscape maintenance activities in the City. The budget for landscape maintenance in the parks, medians and open space areas is over \$3,000,000. The City will continue to provide the funding necessary for the on-going maintenance costs for the new irrigation systems.

For the purpose of the proposed project, Michael Shott, Public Works Project Supervisor, will be the project manager. Mr. Shott can be reached at (626) 814-8425. Once the installation has been completed, Curtis Roberts, Park Maintenance Supervisor, will provide ongoing monitoring and assessment of the project. Mr. Roberts can be reached at (626) 814-8458.

2. The project will be completed by a licensed C-27 landscape maintenance contractor.

D. Benefits and Costs

1. Budget Breakdown and Justification. The following is a breakdown of the project cost:

Park Name	Project Costs				
	Qty	Irrigation Controller	Irrigation Material	Contract Labor	Total Cost
Friendship	1	\$ 6,600	\$ 36,700	\$ 43,300	\$ 86,600
Gingrich	1	\$ 6,000	\$ 22,000	\$ 28,000	\$ 56,000
Orangewood	3	\$ 17,000	\$ 11,500	\$ 28,500	\$ 57,000
Palmview	2	\$ 11,000	\$ 39,500	\$ 50,500	\$101,000
Shadow Oak	4	\$ 30,000	\$ 15,000	\$ 45,000	\$ 90,000
Walmerado	1	\$ 6,000	\$ 17,000	\$ 23,000	\$ 46,000
<b>Totals</b>		<b>\$ 76,600</b>	<b>\$141,700</b>	<b>\$218,300</b>	<b>\$436,600</b>

Project Expenditure Summary:

Computerized Irrigation Controllers	\$ 76,600
Irrigation Material and Incidentals	\$141,700
Contract Labor	<u>\$218,300</u>
Total	\$436,600

Funding Summary

Prop 13 Urban Water Conservation Grant	\$286,600
City Park Funds	<u>\$150,000</u>
Total	\$436,600

2. Cost-Sharing. The West Covina City Council has approved funding for improvements at the aforementioned six City parks. However, the amount of funding available is not sufficient to complete the project. The City is proposing to fund \$150,000 of the project and is requesting Proposition 13 Urban Water Conservation Grant funds in the amount of \$286,600.

The City has also applied for grant funds from two other sources; the Metropolitan Water District, and the US Department of the Interior's Bureau of Reclamation. Neither one of these agencies has committed to any funding.

3. Benefit Summary and Breakdown. The following table provides a comparison of the current utility costs and water consumption with the projected savings:

Park	Acres	Current		Projected (With 30% Savings)	
		Utility Costs	*Unit Consumption	Utility Costs	*Unit Consumption
Friendship	6.0	\$ 11,900	10,700	\$8,330	7,490
Gingrich	8.0	\$7,700	6,500	\$5,390	4,550
Orangewood	8.3	\$7,800	6,600	\$5,460	4,620
Palmview	7.9	\$13,900	12,700	\$9,730	8,890
Shadow Oak	26.2	\$12,400	11,200	\$8,680	7,840
Walmerado	5.7	\$6,300	5,100	\$4,410	3,570
		\$60,000	52,800	\$42,000	36,960

\*Each unit represents 100 cubic feet of water

Current Utility Costs	\$60,000	
Utility Costs With 30% Savings	<u>-\$42,000</u>	
Projected Utility Cost Savings		\$18,000
Projected Manpower Cost Savings		<u>\$57,000</u>
Total Savings		\$93,000

Current Water Consumption	52,800 Units
Water Consumption With 30% Reduction	-36,960 Units
Projected Water Reduction	15,840 Units (.364 acre ft)

With an approximate life span of 30 years, the total estimated water savings should be 11 acre feet of water.

4. Assessment of Costs and Benefits. As shown in the previous comparison, there is both cost savings and water consumption savings. The following table illustrates the beneficiaries and quantifies the benefits for this project based on 2001 dollars.

Beneficiary	Benefit	Measurement
City of West Covina	Utility cost savings Manpower cost savings	\$18,000 <u>\$57,000</u> \$93,000 annually
Suburban Water Company	Water reduction pursuant to CALFED program objectives and principles	94,790 gallon reduction annually
Walnut Water Company	Water reduction pursuant to CALFED program objectives and principles	23,700 gallon reduction annually
Sports Groups	Improved field conditions	Shown in the table below

The new and improved irrigation system will provide a significant benefit to the leagues and sport groups as well as other pedestrian park users. The measurement of the users is shown below:

PARK	ACTIVITY	LEAGUE	NUMBER OF PARTICIPANTS
Friendship	Baseball *Rec N Roll	Galaxy Little League	500 weekly 20-25 weekly
Gingrich	Baseball	Galaxy Little League	200 weekly
Orangewood	Baseball	Pony/Colt League	1,000 weekly
Palmview	Baseball Baseball Rec Program	Pacific Coast Little League Little Shots	600 weekly 150 weekly 50-60 daily
Shadow Oak	Baseball Baseball Softball Cricket Soccer	San Jose Little League Little Shots Women's Fast Pitch	330 weekly 150 weekly 50 weekly 30-50 weekly 30-40 weekly
Walmerado	Baseball	Pony/Colt League	1200

\*Rec N Roll is a portable recreation program that travels to parks and school sites.

In addition to the sports programs, both Palmview and Shadow Oak Parks have reserved group areas. Annual participation for these areas is approximately 23,440 and 5,000 respectively.

## E. Outreach, Community Involvement and Acceptance

The City has received letters of support for the centralized irrigation project from Suburban Water Systems, the largest water purveyor in West Covina; the US Department of the Interior, Bureau of Reclamation; the Upper San Gabriel Valley Water District, a member agency for the Metropolitan Water District; and numerous sports groups in the City of West Covina. The support letters from these entities are included in this proposal except the Upper San Gabriel Valley Water District which will be mailed out March 1, 2002.

The City of West Covina utilizes various media venues to keep its residents informed and involved with issues and events. This cooperative project will be ideal to advertise in the City's monthly newspaper with a picture and article describing the many benefits of the project made possible from Proposition 13 Urban Water Conservation Program funding.

Another media venue is the City's web site [www.westcov.org](http://www.westcov.org). City staff provides continual updates of City projects and events. The project information would be put on the web site making it easily accessible to the public at large.