

- **Board of Directors**
Water Planning, Quality and Resources Committee

May 13, 2003 Board Meeting

9-3

Subject

Authorize an amendment to the existing contract with WaterWise Consulting for up to \$1 million of services for water conservation

Description

It is proposed that the existing contract with WaterWise Consulting (WaterWise) be amended to support water conservation services, up to a total of \$1 million for the three-year period which started on Oct. 1, 2001. Specific services would include:

- Landscape irrigation efficiency classes for landscape professionals and homeowners under Metropolitan's Protector del Agua (PDA) Program with multilingual curriculum ([Attachment 1](#)) emphasizing water efficiency;
- On-call services, if needed, to implement Metropolitan's enhanced or extraordinary conservation under the Water Surplus and Drought Management plan, including the native plant campaign and related public events.

With irrigation accounting for more than 50 percent of urban water use, it is valuable to have landscape industry professionals and homeowners trained to implement the latest water efficiency practices. Continuation of this education campaign is an important element in the outdoor conservation campaign authorized by the Board in November 2002. The PDA program complements Metropolitan's outreach efforts to reduce water use by providing hands-on education to Southern California residents on specific ways to reduce outdoor water use through more efficient irrigation techniques and plant selection. This training is consistent with Metropolitan's commitment under the statewide memorandum for Best Management Practices (BMP) for urban water conservation. PDA supports compliance with BMP #5 for large landscape programs, and BMP #7 for public information programs. PDA provides the following benefits to Southern California:

- Graduates are able to improve irrigation efficiency by correctly adjusting controllers and selecting appropriate plants for gardens.
- Trained landscape professionals influence water efficiency at multiple sites amounting to numerous acres of irrigated land.

Since its inception, the PDA Program has graduated over 20,000 landscape professionals and homeowners. The number of classes requested has grown significantly ([Attachment 2](#)). In 1994, there were 31 classes and 930 graduates; in 2002 there were 313 classes with 5,421 graduates. Member agency participation is high ([Attachment 3](#)), and requests are being submitted by agencies that have not previously participated. Member agencies enroll students and provide classrooms and refreshments. Metropolitan provides the instructors and educational material at no cost to the member agency or student. Classes are usually held on weekends or evenings.

In June 2001, Metropolitan issued a competitive request for proposal (RFP) seeking qualified consulting firms to provide PDA classroom instruction services. More than 20 consultants received copies of the RFP and were encouraged to submit proposals. WaterWise was the only respondent and was ultimately selected. Since Oct. 1, 2001, Metropolitan has contracted with WaterWise to provide PDA classes under the Chief Executive Officer's contracting authority. To date, approximately \$430,000 has been spent. As additional background,

from 1995 through 2001, Metropolitan contracted with many of WaterWise's PDA instructors on an individual basis. In 2001, a number of those instructors, who were minority-owned small businesses, banded together to form the WaterWise partnership to handle larger contracts.

Three contracting options have been crafted for consideration:

- Option 1, which is recommended by staff, amends WaterWise's existing contract to provide a limit of \$1 million for additional PDA classes and on-call services to support Metropolitan's native plant campaign, public outreach events, and other actions needed to support regional conservation efforts. The amount of future training is based on a proposed level budget of \$310,000 per year over the remaining 1.5 years of contract term. On-call services, if needed, would be about an additional \$105,000. Additionally, WaterWise would add five new minority-owned small businesses as partners under this option ([Attachment 4](#)).
- Option 2 amends WaterWise's existing contract to provide a limit of \$890,000 based on a proposed level budget amount of \$310,000 per year over the remaining 1.5 years of its contract term, and excludes on-call services.
- Option 3 would maintain WaterWise's existing contract, limiting services to the \$249,000 threshold as provided under the CEO's contracting authority from Oct. 1, 2003, to its termination date of Sept. 30, 2004. Option 3 would require rescheduling of classes requested by the member agencies from around mid-May through September of this year. Approximately \$60,000 could be made available for additional classes if a new training consultant is procured.

In the upcoming fiscal year, staff and the member agencies will review program objectives in light of its significant growth, explore new directions in landscape education and pursue methods of improving program cost efficiency.

Policy

By Minute Item 43225, dated Oct, 13 1998, the Board approved Metropolitan's Large Landscape and Landscape Conservation Education Program

By Minute Item 45084, dated Nov. 19, 2002, the Board approved \$2.4 million for this summer's region-wide public outreach program seeking water use efficiency

By Minute Item 45208, dated Feb. 11, 2003, the Board adopted policy principles regarding water conservation activities

California Environmental Quality Act (CEQA)

CEQA determination for Options #1, 2, and 3:

The proposed actions are categorically exempt under the provisions of CEQA and the State CEQA Guidelines. The overall activities involve the funding and awarding of an agreement relating to Metropolitan's existing educational and training program, which does not involve physical alteration in the area affected. In addition, this program will consist of resource evaluation activities, which do not result in a serious or major disturbance to an environmental resource. This may be strictly for information gathering purposes, or as part of a study leading to an action, which a public agency has not yet approved, adopted, or funded. As such, the proposed actions qualify for both Class 6 and Class 22 Categorical Exemptions (Sections 15306 and 15322 of the State CEQA Guidelines).

The CEQA determination is: Determine that pursuant to CEQA, the proposed actions qualify under two Categorical Exemptions (Class 6, Section 15306; and Class 22, Section 15322 of the State CEQA Guidelines).

Board Options/Fiscal Impacts

Option #1

Adopt the CEQA determination and authorize an amendment in form approved by the General Counsel with WaterWise Consulting to increase the maximum contract amount to \$1 million over the current three-year term.

Fiscal Impact: Up to \$1 million over three-year period from Oct. 1, 2001 through Sept. 30, 2004, of which about \$430,000 has already been expended.

Option #2

Adopt the CEQA determination and authorize an amendment in form approved by the General Counsel with WaterWise Consulting to increase the maximum contract amount to \$890,000 over the current three-year term.

Fiscal Impact: Up to \$890,000 over three-year period from Oct. 1, 2001 through Sept. 30, 2004, of which about \$430,000 has already been expended.

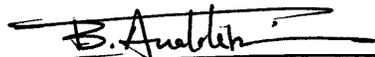
Option #3

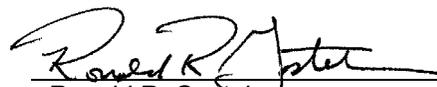
Adopt the CEQA determination and do not amend the contract.

Fiscal Impact: Up to \$685,000 over three-year period from Oct. 1, 2001 through Sept. 30, 2004, of which about \$430,000 has already been expended. Since the proposed FY 2003/04 budget of \$310,000 for the PDA program exceeds the CEO's maximum contract authority of \$249,000, approximately \$60,000 could be made available for additional classes if a new training consultant is procured.

Staff Recommendation

Option #1

	4/16/2003
B. Anatole Falagan	<i>Date</i>
for Stephen N. Arakawa	
Manager, Water Resource Management	

	4/28/2003
Ronald R. Gastelum	<i>Date</i>
Chief Executive Officer	

Attachment 1 – Protector del Agua Training Program - Descriptions

Attachment 2 – Protector del Agua Graduates 1994 through 2003

Attachment 3 – Participating Member Agency Breakdown

Attachment 4 – WaterWise Consulting Partners



Protector del Agua Training Program Descriptions

Protector del Agua

(Offered in English or Spanish)

Our original irrigation management education course directed at landscape maintenance personnel. This course consists of six 4-hour consecutive classes in landscape water management. Each class builds on principles presented in the preceding class. Protector del Agua begins with basic irrigation principles of soil-plant-water relationships, and concludes with irrigation scheduling. Each participant receives a bound booklet. The following is an outline of each class in the course.

Class 1

Irrigation Basics

- ◆ Irrigation efficiency
- ◆ Irrigation system uniformity
 - Water pressure
 - Sprinkler spacing
 - Sprinkler flow and radius
 - Tilted sprinklers
 - Sprinkler spray interference
- ◆ Basics of soil-plant-water relations

Method of Instruction:

Indoors: A slide show with lecture and a demonstration of soil water-holding capacity. Outdoors: A demonstration of the effects of system problems on distribution uniformity.

Class 2

Sprinkler Adjustment and Repair

- ◆ Sprinkler system components
 - Overhead and drip irrigation systems
 - Sprinkler types
 - Drip system emitters
- ◆ Irrigation system uniformity
 - Maintenance and design factors that affect uniformity
 - System repair, adjustments and upgrades, which can improve uniformity.
- ◆ Water pressure measurement techniques and simple remedies for pressure problems

- ◆ Arc and radius adjustments and nozzle changes for specific sprinklers
 - Hunter PGP and PGM
 - Toro 300
 - Rain Bird 1800
 - Rain Bird R50 and T-Bird
 - Toro 570
- ◆ Low head drainage issues and solutions

Method of instruction:

Indoors: A slide show with lecture and a sprinkler and pressure reading demonstrations. Outdoors: A hands-on sprinkler adjustments and pressure readings activity.

Class 3**Irrigation System Troubleshooting**

- ◆ The functions of irrigation controllers, valve wires, and valves in automatic valve operation.
- ◆ Basics of electricity
- ◆ Use of a multimeter
 - Voltage readings
 - Circuit resistance readings
- ◆ Diagnosing electrical problems in valve operation
- ◆ How electromagnetic diaphragm valves operate
- ◆ Valve components
- ◆ Diagnosing mechanical problems in valve operation
- ◆ Troubleshooting valve problems and valve repair

Method of instruction:

Indoors: A slide show with lecture, a multimeter use exercise, and a valve dismantling and rebuilding exercise.

Outdoors: A valve troubleshooting and repair exercise.

Class 4**Irrigation Scheduling**

- ◆ Discussion of the major factors that influence how long each irrigation station should be operated.
 - Weather - Effects of individual weather elements and general climate zones.
 - Plant type - General water use categories for specific plant species.
 - System precipitation rate - How to estimate rates based on system types.
 - System distribution uniformity
- ◆ Basic discussion of how these factors work in irrigation scheduling formulas
- ◆ Major soil types and how they affect water holding capacity and irrigation frequency.
- ◆ How to use a specially designed 'scheduler' that estimates irrigation run times without having to perform complicated calculations.

Method of instruction:

Indoors: A slide show with lecture and class exercise on scheduler use.

Outdoors: An exercise on determining soil texture and soil moisture levels.

Class 5**Basic Controller Programming**

- ◆ The major points in programming any controller.
- ◆ The basic features of the Irritrol MC Plus irrigation controller.
 - Calendar, time of day, day of week, program erase, station run times, irrigation days, cycles starts, manual operations.
- ◆ The basic features of the Rain Bird ISC-B Plus irrigation controller.
 - Calendar, time of day, day of week, station run times, irrigation days, cycles starts, manual operations.
- ◆ Hands-on training for both controllers.

Method of instruction:

Indoors: A slide show with lecture and hands-on training using actual irrigation controllers.

Class 6**Advanced Controller Programming**

- ◆ Review of the basic controller programming operations.
- ◆ The advance features of the Irritrol MC Plus irrigation controller.
 - Water budget mode, programmed rain off, looping, options 1 and 2.
- ◆ The advanced features of the Rain Bird ISC-B Plus irrigation controller.
 - Flow groups, ditto schedule-copying function.
- ◆ Hands-on training for both controllers.

Method of instruction:

Indoors: A slide show with lecture and hands-on training using actual irrigation controllers.

PDA Plant Class

(Offered in English or Spanish)

The Plant Class is designed to give landscape professionals information in plant identification characteristics, and water use requirement guidelines for over 40 common landscape plant species. Also included is general landscape water use information. The class consists of a slide presentation, two exercises and an optional garden walk-through. A class booklet is included with the class. The booklet includes color photos of common landscape plants and maintenance information. A copy of the WUCOLS water use guidelines for landscape species is also included as a handout.

This 6-hour class covers plant identification, plant selection for hydrozones, basic Xeriscape® principles and plant water usage as well as other plant material issues. This class can be taught in one day or split into two 3-hour classes. The class consists of the following:

- ◆ A slide presentation
- ◆ A leaf identification exercise
- ◆ A plant walk
- ◆ A Xeriscape® design exercise

PDA: Residential

(Offered only in English)

The PDA Residential class has become a great hit since we first introduced it to our member agencies. It is geared towards the residential homeowner and takes many important features from the original PDA course and translates them into an easily understood series for the layperson. The series is divided into four separate classes that run approximately 3 1/2 hours, each class includes a slide presentation.

The first class (**Basic Landscape Design**) goes over basic landscape planning, the second class (**Landscape Plants**) is dedicated to landscape plant selection, the third class (**Sprinkler Systems**) reviews sprinkler design and maintenance principles, and the fourth class (**Watering & Fertilizing**) discusses watering and fertilizing. Below is an outline for each class.

Basic Landscape Design

- ◆ Your landscape as part of your living space
- ◆ How to develop a landscape plan
- ◆ Hardscapes, patios, etc.
- ◆ Plant Selection

Landscape Plants

- ◆ Plant identification of 25 common plants
- ◆ Planting design exercise
- ◆ Tour of the surrounding grounds for plant identification exercise
- ◆ A full color book identifying the 25 plants discussed in class is included

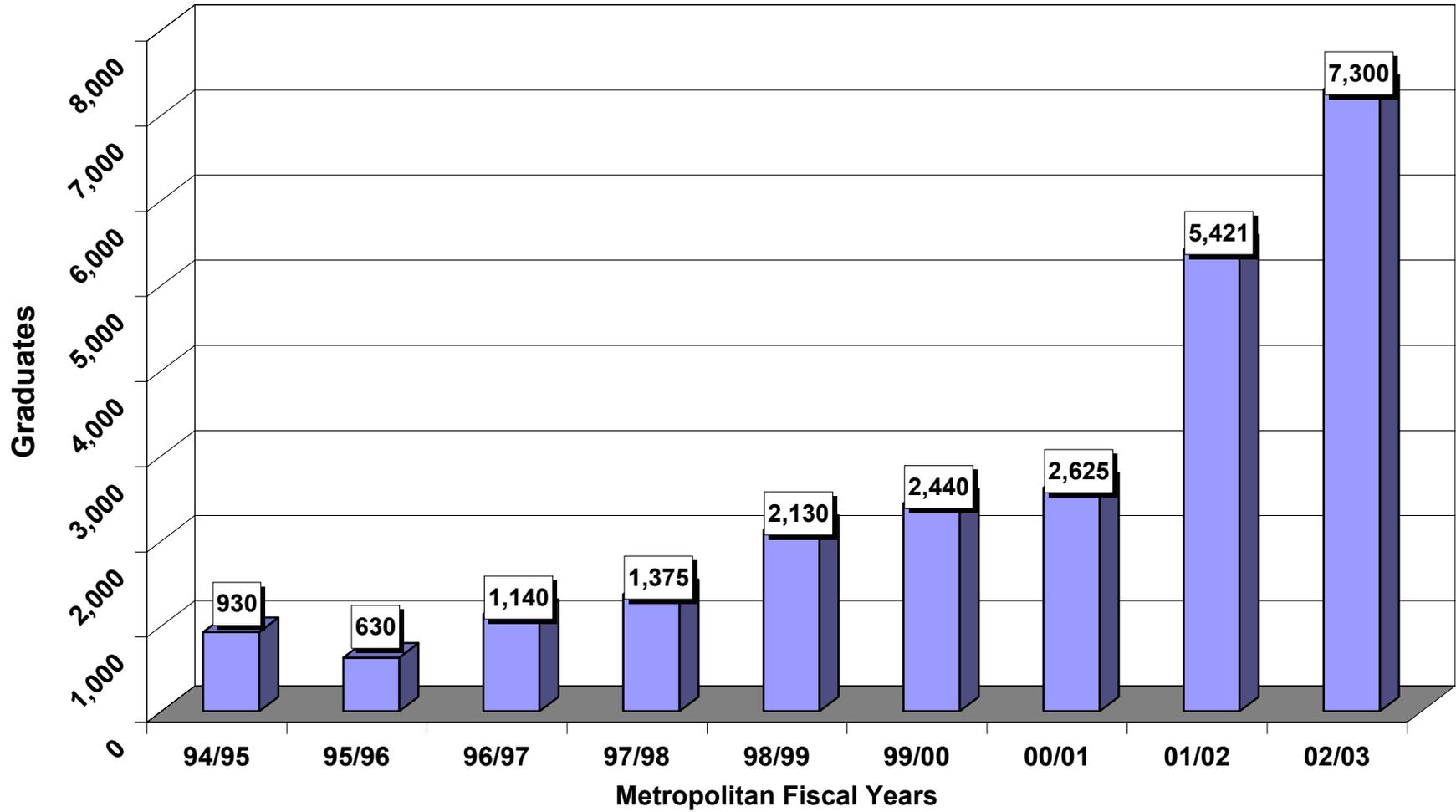
Landscape Sprinkler Systems

- ◆ California's water supply situation
- ◆ Major irrigation design principles
- ◆ The right sprinkler for the right job
- ◆ Major overhead sprinkler types
- ◆ Sprinkler system maintenance

Landscape Watering and Fertilizing

- ◆ How long should you run your sprinkler?
- ◆ How does soil affect plant growth and watering?
- ◆ Irrigation control clock programming
- ◆ Fertilizers

Protector del Agua Graduates 1994 through 2003



Participating Member Agency Breakdown

Agency	Classes	Graduates
Anaheim	24	640
Burbank	15	315
Calleguas	68	957
Central Basin/West Basin	8	197
Compton	3	80
Eastern	24	561
Foothill	15	277
Fullerton	16	499
Glendale	47	356
Inland Empire	58	826
Las Virgenes	17	377
Long Beach	5	79
Los Angeles	89	859
MWDOC	183	2,689
Pasadena	26	194
San Diego	309	5,536
Santa Ana	7	225
Santa Monica	3	60
Three Valleys	42	703
Torrance	7	190
USGVWD	68	992
Western	8	159
Totals	1,042	16,771

WaterWise Consulting Partners

Name	Address	Bilingual
Alfonso Castillo, Jr.*	Sylmar, California	Yes
Cristobal Jauregui*	Alhambra, California	Yes
Juan Carlos Garcia*	Chino, California	Yes
Juan Cueva*	Santa Monica, California	Yes
Juan J. Zamora*	Escondido, California	Yes
Marcos Quezada	West Covina, California	Yes
Armando Salas	Sylmar, California	Yes
Don Schultz	San Diego, California	Yes
Derek Stucki	Thousand Oaks, California	No
Juan Zamora	Escondido, California	Yes
Hernan Quezada	West Covina, California	Yes
Camilo Castillo	Lakewood, California	Yes
Jan Tubiolo	Lakeside, California	No
Mark Felciano	Sylmar, California	No
Erick Ledwin Valle	Rancho Cucamonga, California	Yes

*New partners