



**MWD**

*METROPOLITAN WATER DISTRICT OF SOUTHERN CALIFORNIA*

7-3

January 26, 1993

(Water Problems Committee--Action)  
*To:* Board of Directors (Finance and Insurance Committee--Information)  
*From:* General Manager  
*Subject:* Landscape Conservation Program

Report

The California Urban Water Conservation Best Management Practices (BMP) pertaining to landscape (BMPs 1, 5, 6, and 12) require that water agencies: implement landscape water audits; provide guidelines, information, and incentives for installation of more-efficient landscapes; and enact and implement landscape water conservation ordinances. This letter contains staff's proposal for a landscape program for Metropolitan and its member agencies.

The proposed program is based on the following premises: 1) the landscape industry is a complex, multi-faceted industry; 2) human behavior is probably the most significant controlling factor in outside water use; 3) we have no reliable quantification of landscape water use; 4) water audit effectiveness is unproven; 5) many member agencies and most sub-agencies lack sufficient staff to accomplish landscape BMPs; 6) within Metropolitan's service area, there is no entity other than Metropolitan that can provide the regional coordination required to achieve effective landscape water conservation; and 7) significant, permanent landscape water conservation will not be achieved by quick fixes.

The proposed program includes the following components: 1) an intern pilot project for low-cost residential water audits of high water users; 2) promotional programs to support regional gardens emphasizing dry-climate landscape and co-participation in local contests among water users to identify, publicize, and promote award-winning examples of dry-climate landscape; 3) educational programs to target different groups affecting landscape water use, namely landscape architects, irrigation designers, landscape contractors, gardeners, nurserymen, and municipal organizations and governing bodies; 4) software development to permit landscape architects and irrigation designers to easily implement AB 325, the Model Water Efficient Landscape Ordinance; 5) research programs will also be developed to: a) determine water use requirements of different trees, shrubs, and groundcovers; b) identify inexpensive, reliable

moisture sensors for residential turf irrigation control; and c) test centralized, computer-controlled irrigation systems coupled with system maintenance service to reduce wasteful water use; 6) collect and disseminate pertinent water conservation information among significant green-industry segments; and 7) conduct several pilot projects to test different water audit and incentive approaches and to quantify residential and public school landscape conservation water savings.

The total proposed Landscape Conservation Program budget is estimated to be \$2.5 million of which \$900,000 would be allocated from the Conservation budget for fiscal year 1992-93. The balance of \$1.4 million would be included in the budget request for fiscal year 1993-94. A detailed outline of the proposed program budget is attached.

This action is exempt from provisions of the California Environmental Quality Act in that there is no possibility that it may have a significant adverse effect on the environment.

#### Board Committee Assignments

This letter is referred to:

The Water Problems Committee for action because of its authority to advise and make recommendations with regard to policies regarding water conservation pursuant to Administrative Code Section 2481(i); and

The Finance and Insurance Committee for information because of its authority to advise and make recommendations with regard to policies regarding disposition and investment of funds pursuant to Administrative Code Section 2441(c).

#### Recommendation

#### **WATER PROBLEMS COMMITTEE FOR ACTION.**

It is recommended that: 1) your Board approve the program concept as presented; 2) your Board approve \$900,000 for the Landscape Conservation Program from the fiscal year 1992-93 budget; and 3) the General Manager be authorized to enter into agreements in excess of \$250,000 with member agencies and other parties as he deems desirable to implement Landscape Conservation Program projects as outlined in this letter. All agreements are to be approved in form by the General Counsel.

  
Carl Boronkay

JPW:aw:lanii

Attachment

**OUTLINE AND BUDGET\* FOR LANDSCAPE PROGRAM**

**A. EDUCATIONAL PROGRAMS**

1. Conservation Coordinator Training for Residential Landscape Water Conservation Workshops
  - Develop materials for half-day workshops
    - basic soil/plant/water relationships
    - principles of dry climate landscapes
    - basic irrigation principles
    - maximum allowable water allowance (and techniques to stay within)
  - Develop with contractor
  - Co-sponsor workshops conducted by member and sub-agencies for retail home improvement centers, local nurseries, garden clubs, and local service clubs
  - Provide course materials (See A.7 below)
  - Budget: \$50,000
  
2. Gardeners' Irrigation "Short Course" to target landscape gardeners and landscape irrigation operators
  - Half-day, hands-on classes
    - basic soil/plant/water relationships
    - principles of uniformity
    - benefits of good irrigation water management
    - sprinkler uniformity demonstration
    - introduction to drip
    - visual props
  - Contract with Cal Poly San Luis Obispo
  - Promoted through local water agencies, parks departments, golf courses, local nurseries and irrigation dealerships, phone contact with local landscape contractor
  - Agencies contribute via in-kind service to promote program locally
  - Bi-lingual (Spanish/English)
  - Promotional program and coordination support (see A.7 below)
  - 30 classes
  - Budget: \$50,000

\* Budget figures represent full fiscal year amounts; for budgeted amounts for remainder of fiscal year 1992-93, see Budget Summary at end of exhibit.

3. Irrigation System Maintenance and Repair Courses for landscape maintenance personnel, landscape contractors, and gardeners
  - Two six-hour courses
  - Maintenance and basic repair of:
    - hydraulic components
    - electrical components
  - Contract with Irrigation Association
  - 25 classes - 1000 participants
  - Promotional literature and support (see A.7 below)
  - Budget: \$62,500
  
4. Landscape Irrigation Auditing and Scheduling Course to target landscape maintenance contractors, site managers, master gardeners, water agency personnel
  - One- or two-day class
    - audit procedures
    - techniques
    - analytic concepts
  - Hands-on and concept centered
  - Computer and non-computer formats
    - additional computer support from Cal Poly San Luis Obispo (see #5 below)
  - Contract with UC Riverside
  - Promotional literature and support (see A.7 below)
  - Evaluate course effectiveness via post-course surveys
  - Budget: (\$197,200 budgeted on separate work order)
  
5. AB 325 support for architects, designers, planners, conservation coordinators
  - Develop software to analyze landscape water needs and to create irrigation scheduling based on requirements of AB 325 or customized local ordinance
  - Develop a one day class (Planning for AB 325) centered on using the software for planning and landscape design in accordance with AB 325
  - Contract Cal Poly San Luis Obispo for software and class development
  - Train interns to assist member agencies in establishing water budgets for top landscape water users
  - Promotional and literature support (see A.7 below)
  - Budget: software and class - \$105,000  
intern audit program - \$55,000

6. Public Relations Presentations for city councils, water boards, local service groups

- Half-hour to hour sessions
  - drought conditions
  - supply/demand constraints
  - summary of conservation program opportunities
  - public/private partnership emphasis
- Contractor on retainer/conservation coordinator
- Agency support: local promotion and arranging presentations to local groups
- Promotional literature and support (see A.7 below)
- 50 presentations
- Budget: \$15,000

7. Program Coordinator/Organizer

- Coordinates and organizes the various classes, workshops and courses listed above and for other conservation courses, meetings, etc.
- Works hand-in-hand with agencies and subagencies, acting as an extension of staff
- Permits course contractors to focus efforts where their skills are best used - conducting courses
- Organizes regional data bank of potential attendees
- Develops and maintains promotional materials
- Develops and maintains maintain data base for information dissemination (see Item C.1-6 below)
- Budget: \$25,000

B. DRY CLIMATE LANDSCAPE PROMOTION

1. Promote network of selected regional centers that teach dry climate landscape fundamentals (design, soil improvements, limited turf areas, use of mulches, use of low-water-demand plants, efficient irrigation, and appropriate maintenance)

- Select sites with high public visibility, possibly Western MWD, Irvine Ranch WD, San Diego Zoo and Wild Animal Park, the LA County Arboretum, Fullerton Arboretum, and sites on West Side, and San Fernando Valley
- Develop supporting literature for distribution through public libraries, garden clubs, service clubs, schools, nurseries, new housing developments, etc.
- Budget: \$50,000

2. Co-sponsor contests with water agencies for the "Top Ten" dry climate landscape sites. Co-sponsorship to include cash awards, contest publicity, community recognition, and news releases
  - Solicit participation of local garden clubs, nurseries, home improvement centers, and other business and community groups
  - Develop literature to support unguided tours of award-winning sites (with owners' consent)
  - 20 contests; awards of \$1000, \$750, \$500 and \$250 plus framed certificates of recognition
  - Budget: \$20,000
  
3. Conduct short workshops for interested home and business owners, garden clubs, service clubs, nurseries, and home improvement centers
  - Cover dry climate landscape principles and anticipated water savings (present and extrapolated)
  - Provide supporting literature and list of local businesses and professionals who provide dry climate services and materials
  - Post-workshop: demonstrate computer-designed landscape options
  - Workshops - 3 hours each
  - Budget: \$10,000
  
4. Co-sponsor with local water agencies and residential developers the landscaping of model homes with dry climate landscape
  - Promote concept of environmentally efficient homes
  - Each home buyer is provided with supporting literature and list of local businesses and professionals who provide xeriscape services and materials
  - Cash rebates solicited from local businesses and professionals
  - Developer installs separate metering for monitoring landscape water use
  - Developer incentives: positive publicity (being environmentally responsible) and the building permit (no permit by local building authority without consent to installing sample dry climate landscape and distributing supporting materials to home-buyers)
  - Budget: \$ 0 (to be requested in 1993-94 budget)

5. Solicit cooperation of nurserymen to promote and stock dry climate landscape plant materials
  - Educate nursery owners and staff of Southern California's highly tenuous water supply situation and the need to conserve water. Highlight potential savings achievable with dry climate landscape
  - Hour-long presentations at local California Association of Nurserymen meetings and at local nurseries and garden centers
  - Provide nursery signs for dry climate plants, dry climate calendar, etc.
  - Solicit co-sponsorship co-sponsorship of California Association of nurserymen
  - 20 classes
  - Budget: \$10,000

#### C. INFORMATION DISSEMINATION

1. Provide central information source for green industry keeping track of:
  - Calendar of upcoming green industry events
  - Latest pertinent water-related landscape issues and listing of source(s)
2. Maintain library of water-related, landscape publications and articles.
3. Develop data base of green industry personnel
  - Utilize lists of participants of various education courses, membership rosters of green industry groups, university personnel, etc.
4. Distribute quarterly newsletter highlighting most recent calendar of upcoming green industry events and summary of latest pertinent, published landscape materials
5. Solicit co-sponsorship from green industry groups (CLCA, CAN, CLAA, Xeriscape Foundation, IA, etc.
6. Budget: \$10,000

D. RESEARCH

1. Trees, shrubs and groundcovers: water requirements
  - UC Riverside
  - Budget: \$80,000 per year for three years
2. Inexpensive, reliable moisture sensors
  - Testing existing products
  - Developing specification for required product
  - Testing by Center for Irrigation Technology
  - Budget: \$50,000

E. PILOT PROJECTS

1. Centralized landscape irrigation control system
  - Target: schools, public housing
  - Budget: \$25,000
2. Quantification of water conservation in different landscape settings:
  - Residential audit program
  - Budget: \$250,000
  - School retrofit program
  - Budget: \$100,000



**LANDSCAPE PROGRAM BUDGET SUMMARY**

	Fiscal Year	
	<u>1992-93</u>	<u>1993-94</u>
1. Courses		
A. Residential Landscape Water Conservation Workshop	50,000	50,000
B. Gardeners' Irrigation "Short Course"	50,000	75,000
C. Irrigation System Maintenance and Repair	62,500	75,000
D. Landscape Irrigation Auditing and Scheduling	*	240,000
E. AB 325 Support	105,000	60,000
F. Public Relations Presentations	15,000	30,000
2. Course organizer/coordinator	25,000	60,000
3. Dry Climate Landscape Promotion		
A. Support for regional centers	50,000	100,000
B. "Top Ten" award contests	20,000	50,000
C. Dry climate workshops	10,000	25,000
D. Model home promotions	0	25,000
E. Dry climate plant material promotion with local nurseries	10,000	20,000
4. Information Dissemination		
A. Developing data base	10,000	
B. Maintaining library	**	**
C. Tracking current events and information	**	**
D. Distributing quarterly newsletter	0	20,000
5. Research		
A. Trees, shrubs & groundcovers: water use	80,000	80,000
B. Study to identify an expensive, reliable moisture sensors	50,000	0
C. Centralized irrigation control system study	25,000	0
D. Other - unspecified	0	50,000

## 6. Pilot Projects

## A. Quantification of landscape water conservation savings:

1. Residential audit program	250,000	200,000
2. Schools - exterior and interior audit and retrofit (3-5 schools)	100,000	200,000
7. Miscellaneous	<u>20,000</u>	<u>115,000</u>
Total	\$925,000	\$1,480,000

\* Currently budgeted separately for fiscal year 1992-93.

\*\* Costs budgeted under item #2, Course Organizer/Coordinator.