



San Diego County Water Authority

3211 Fifth Avenue • San Diego, California 92103-5718
(619) 297-3218 FAX 297-0511

February 8, 1991

TO: Board of Directors
VIA: Water Policy Committee
FROM: Lester A. Snow, General Manager
RE: Drought Response Plan (Action)

SUMMARY

As a result of the continuation of the statewide drought into its fifth year, Southern California and the Authority's service area face water shortages of unprecedented magnitude. Attached is a Drought Response Plan for the Authority which outlines efforts to be taken by the Authority and recommendations for our member agencies during the drought. This plan coordinates all Authority activities with the implementation of the Incremental Interruption and Conservation Program as adopted by your Board in December of 1990. The intent of the Plan is to produce a flexible document which sets Authority policies and guidance for member agencies and the public which can be applicable as drought severity changes. A revised copy of the Plan is attached to this memo which supercedes the draft Plan dated January 1991 reviewed at the joint Water Policy and Public Information meeting on January 24.

FISCAL IMPACT

The activities proposed in the Drought Response Plan can be funded within the existing budget utilizing contingency funds with the exception of the proposal for additional public information activities. This proposal is presented as item # 4 on the Public Information Committee agenda.

RECOMMENDATION

That the Board approve the Drought Response Plan.

DETAILED REPORT

The attached drought response plan lays out the Authority's plan of action in the continuing drought. The Plan made up of four main components: 1) a drought response program, including implementation of the IICP, and a matrix of recommended water

MEMBER AGENCIES

CITIES
• Del Mar • Escondido • National City
• Oceanside • Poway • San Diego

COUNTY
• San Diego
(ex officio)

IRRIGATION DISTRICTS
• Santa Fe • South Bay

WATER DISTRICTS
• Helix • Otay
• San Dieguito

COUNTY WATER DISTRICT
• Vallecitos

PUBLIC UTILITY DISTRICT
• Fallbrook

FEDERAL AGENCY
• Pendleton Military Reservation

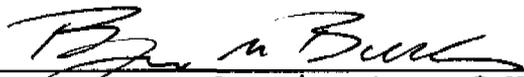
MUNICIPAL WATER DISTRICTS

• Buena Colorado • Rainbow
• Carlsbad • Ramona
• Olivenhain • Rincon del Diablo
• Padre Dam • Valley Center
• Yuima

management techniques for water users and member agencies; 2) Conservation programs; 3) Member Agency assistance activities; and 4) Public Information activities designed to explain the drought situation and encourage appropriate responses by the public.

The intent of the Plan is to reconcile and coordinate current CWA drought management programs with the implementation of the IICP, previously adopted by the Board. To that end, the Plan matches drought response water conservation actions (the matrix of Response Stage Actions) with IICP stages, thus avoiding confusion between the current model water management ordinance and the IICP. Member agencies can select items from each stage in the matrix and tailor an ordinance to their local situation.

The conservation activities proposed in the Drought Response Plan can be funded within the existing budget utilizing contingency funds with the exception of the proposal for additional public information activities. This proposal is presented as item # 4 on the Public Information Committee agenda. Those specific program activities described in Chapter 3 of the Plan which are not already approved will be brought before the Board for approval prior to implementation.

Prepared by: 
Byron M. Buck, Director of Water Resources Planning

Reviewed by: 
Charles N. Rhodes, Assistant General Manager,
Resources

Approved by: 
FOR Lester A. Snow, General Manager

attachment

San Diego County Water Authority

Drought Response Plan

February 1991

San Diego County Water Authority
Drought Response Plan

CONTENTS

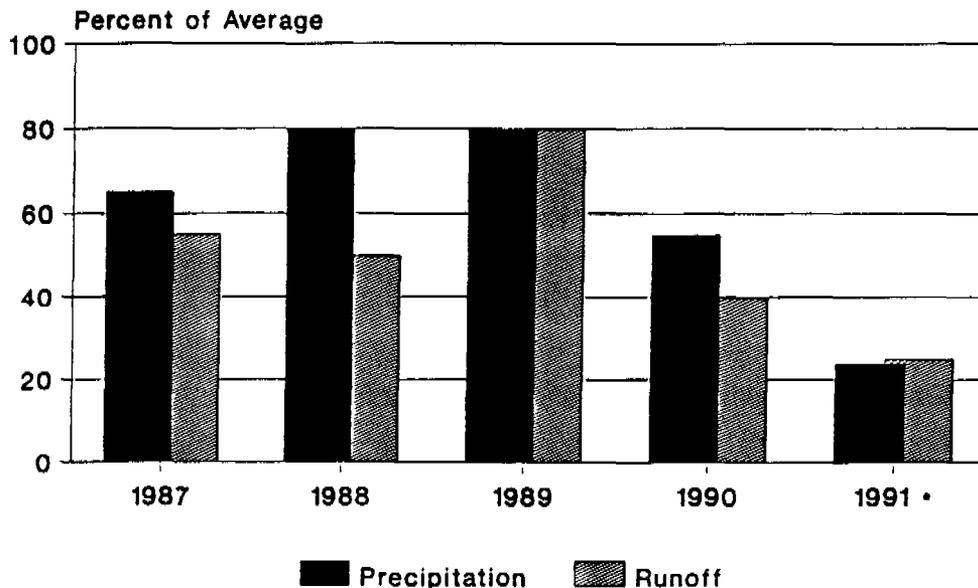
Section

1. Drought Management Overview
2. Drought Response Program
 - a. Member Agency 1990 Water Delivery Targets by Response Stage
 - b. Recommended Response Stage Actions
3. Summary of CWA Conservation Programs
 - a. Long-term Demand Management Programs Which Will Also Reduce Short-Term Consumption
 - b. Drought Related Activities
4. CWA Public Information Programs
5. CWA Member Agency Coordination and Assistance
6. Appendices

1. Drought Management Overview

California appears to be entering the fifth consecutive year of below-normal precipitation and runoff as shown below.

California Annual Precipitation and Runoff 1987-1991



* as of January 8, 1991

While Southern California has been insulated from the first four years of drought due to prudent supply management, a fifth year of drought will have a much greater impact upon our water supply. Actions must be taken to both respond to the current shortage and guard against potentially devastating effects of a sixth year of drought. Other areas of the state including the Bay area and Central Coast have been more severely affected by the drought and have had to respond with specific programs limiting the availability of the water, intensively informing the public and increasing marginal water prices (see appendix 1). General observations from these programs are that:

- 1) The situation must be portrayed clearly and the public must realize they must respond as individuals;
- 2) Water management programs need to be concise and clearly understood;
- 3) Water management programs need to be perceived as necessary and equitable; and,
- 4) Programs need to respond to local circumstances.

2. Drought Response Program

The San Diego County Water Authority supplied 95% of the water used in the region during 1990. All of this water was purchased from the Metropolitan Water District of Southern California. Metropolitan has established water delivery reduction goals and a financial incentive and penalty system known as the Incremental Interruption and Conservation Program (IICP) to help achieve those goals for its member agencies such as the Water Authority. As such, it is important that the Authority respond to the current drought in a clear, concise and definitive fashion consistent with meeting the IICP water delivery reduction goals set by Metropolitan. However, recognizing that the Authority is a regional water wholesaler, it is important to provide flexibility such that member agencies are able to respond to the unique water use patterns and circumstances of their customers. In order to achieve this balance, a two part response program has been prepared setting the staged delivery reduction targets to Authority member agencies and outlining conservation methods for member agencies and their customers to consider employing, consistent with those reduction stages.

a. Water Authority and Member Agency Water Delivery Reduction Targets

The most clear and concise expression to a Water Authority member agency of what is expected in a drought is to assign water delivery reduction targets. In order to emphasize the importance of achieving the targets a price incentive and penalty system was established by the Authority Board of Directors on December 13, 1990 (resolution 90-59). This resolution, which appears in the appendices, authorizes and directs the Authority's General Manager to implement guidelines for achieving IICP water delivery reduction goals of the Authority.

The IICP reduction goals for the Authority are divided in stages consistent with MWD's stages. In accordance with the Board's resolution reductions in water deliveries from MWD have been calculated region wide and are imposed uniformly upon CWA member agencies in the following stages.

Stage I (voluntary)	5%
Stage II	7.8%
Stage III	14.7%
Stage IV	21.6%
Stage V	28.5%

Based upon 1989-1990 water deliveries as adjusted by previous local conservation efforts and expected growth in deliveries, each Water Authority member agency has been assigned a water delivery reduction target for each stage as indicated below. Member agency water deliveries below reduction targets will receive incentive payments of \$99/AF (one half the regular raw water rate). Deliveries exceeding targets will receive a penalty surcharge of \$394/AF (twice the raw water rate) in addition to the regular water rate. Should raw water rates be increased by Metropolitan, incentive and penalties will increase as the one half price and double price multipliers will be assessed respectively. Incentives and penalties will be assessed monthly. If agencies accumulate both incentives and penalties over the course of program implementation, a reconciliation will be made at the end of the program or annually every September 30th while the program is in effect.

ESTIMATED CWA MEMBER AGENCY BASE YEAR IICP ALLOCATION SUMMARY

AGENCY	89-90 BASE ALLOCATION TOTAL	MAY/JUNE CONSERVATION ADJUSTMENT	ADJUSTED BASE YEAR TOTAL	STAGE 1 TOTAL (5.0%)	STAGE 2 TOTAL (7.9%)	STAGE 3 TOTAL (14.8%)	STAGE 4 TOTAL (21.8%)	STAGE 5 TOTAL (28.7%)
BUENO COLORADO	19,083.8	334.3	19,418.1	18,447.2	17,877.8	16,534.7	15,191.6	13,848.5
CARLSBAD	17,918.8	281.5	18,200.3	17,290.3	16,756.6	15,497.7	14,238.9	12,980.0
DEL MAR	1,449.9	18.3	1,468.2	1,394.8	1,351.7	1,250.2	1,148.6	1,047.1
ESCONDIDO	26,048.4	525.8	26,574.2	25,245.5	24,466.2	22,628.2	20,790.1	18,952.1
FALLBROOK	17,271.4	261.3	17,532.7	16,656.1	16,141.9	14,929.2	13,716.6	12,503.9
HELIX	42,988.4	438.4	43,426.8	41,255.5	39,982.0	36,978.3	33,974.6	30,970.9
OCEANSIDE	28,763.1	530.3	29,293.4	27,828.7	26,969.7	24,943.6	22,917.5	20,891.3
OLIVENHAIN	13,480.8	153.9	13,634.7	12,953.0	12,553.1	11,610.1	10,667.0	9,723.9
OTAY	22,951.8	257.1	23,208.9	22,048.5	21,367.9	19,762.6	18,157.3	16,552.0
PADRE DAM	21,068.2	373.3	21,441.5	20,369.4	19,740.7	18,257.6	16,774.6	15,291.5
PENDLETON	156.8	1.1	157.9	150.0	145.4	134.5	123.5	112.6
POWAY	13,631.0	236.2	13,867.2	13,173.8	12,767.2	11,808.0	10,848.9	9,889.7
RAINBOW	33,417.4	623.1	34,040.5	32,338.5	31,340.2	28,985.8	26,631.3	24,276.8
RAMONA	14,480.2	736.7	15,216.9	14,456.1	14,009.8	12,957.3	11,904.8	10,852.3
RINCON	8,740.6	147.6	8,888.2	8,443.8	8,183.1	7,568.4	6,953.6	6,338.8
SAN DIEGO	254,182.4	4,754.6	258,937.0	245,990.2	238,396.9	220,487.1	202,577.3	184,667.5
SAN DIEGUITO	7,465.9	111.0	7,576.9	7,198.1	6,975.9	6,451.8	5,927.7	5,403.7
SANTA FE	10,691.7	235.9	10,927.6	10,381.2	10,060.8	9,304.9	8,549.1	7,793.3
SWEETWATER	32,629.6	238.2	32,867.8	31,224.4	30,260.6	27,987.2	25,713.9	23,440.5
VALLECITOS	13,461.6	242.7	13,704.3	13,019.1	12,617.2	11,669.3	10,721.4	9,773.6
VALLEY CENTER	52,534.8	1,010.9	53,545.7	50,868.4	49,298.2	45,594.6	41,891.0	38,187.5
YUIMA	2,166.5	10.2	2,176.7	2,067.9	2,004.0	1,853.5	1,702.9	1,552.4
TOTAL:	654,583.1	11,522.4	666,105.5	632,800.2	613,266.9	567,194.6	521,122.3	475,050.0

NOTE: Phase totals for the IICP are based on overall percentage reductions from the base year totals. Actual allocations will be made monthly, and will be adjusted for growth and loss of local supplies, as approved under guidelines adopted by the Authority's Board of Directors.

b. Recommended Response Stage Actions

In order to achieve the savings necessary to manage a water supply during a drought, specific actions by water users must occur. Based upon experience of the Authority in development of a model water management ordinance, experience of member agencies in implementing water management ordinances and experiences of other regions in the state which have had to implement drought related water reductions, the Authority has compiled water management techniques in a matrix. These techniques are arrayed in accordance with the staged reduction levels as set by the IICP. Under each stage the corresponding techniques are recommended to be implemented by member agencies, specific water users and the general public as means which will help achieve the identified level of water savings. Actual savings by agency will vary due to local circumstances, publicity and enforcement of water management measures. As each stage of the Drought Response Program are instituted, the corresponding Response Stage Activities are recommended.

While the response stage activities in the matrix are designed to complement the target savings of the IICP, the activities would be appropriate for use during any situation where increased levels of water savings were needed.

Authority Drought Response Program

R E S P O N S E S T A G E A C T I O N S

User Type	Stage I	Stage I	Stage II	Stage III	Stage IV	Stage V	Stage VI	Water Emergency
<p>Household and household members</p>	<p>INDOOR Check toilets for leaks and repair. Don't use toilets as ashtrays or waste baskets. If you have an older toilet, install a weighted plastic bottle in toilet tank which does not interfere with flush mechanism.</p> <p>Limit shower time. Install water saving showerheads.</p> <p>Replace old toilets with ultra-low flow 1.6 gal./flush toilets.</p> <p>Run only fully loaded dishwashers, washing machines.</p> <p>Keep bottle of water in refrigerator for drinking.</p> <p>Shut off faucet while brushing teeth and shaving.</p> <p>If hand washing dishes, use one full basin to rinse rather than running water.</p>	<p>OUTDOOR Water lawns only during morning, evening and nighttime hours. Avoid overwatering - if your lawn springs back when stepped on, it doesn't need water. When lawn watering, deep soak infrequently - rather than using sprinklers frequently aereate and dethatch lawns. Aim sprinklers so they water lawn and garden not pavement. Use mulch around trees and plants. Use a broom to clean paved areas - never a hose.</p> <p>Check irrigation/sprinkler system for leaks and repairs. Reset irrigation clocks by season - water once a week in winter, no more than 3 times a week in summer.</p> <p>Turn system off during rainy periods. Reset if power outage occurs.</p> <p>Install pool/spa covers.</p> <p>Wash vehicles with hand held hose with positive shut off nozzle and bucket only. Avoid mid-day hours.</p> <p>Replace inactively used turf areas with drought-tolerant landscaping.</p>	<p>Same as Stage I actions. Defer renovation of existing landscape unless xeriscape principles applied.</p>	<p>Same as Stage II plus respond to penalty pricing of retail agency.</p>	<p>Same as Stage III plus water no more than twice per week.</p> <p>Capture shower, sink warm-up water with bucket and use outdoors or to flush toilets.</p> <p>Turn off or disconnect home reverse-osmosis water treatment units and water softners which discharge water.</p>	<p>Same as Stage IV except outside watering with a hand-held hose with positive shutoff or drip irrigation systems only. Eliminate sprinkler use.</p>	<p>Same as V and no outside irrigation except with water reclaimed from indoor use with hand held bucket to effect a 40% cutback.</p>	<p>Water Emergency No outdoor watering or vehicle washing at home. Save bath/shower water for flushing toilets. Flush toilets for solids only. No refilling of pools, spas, fountains.</p>

Authority Drought Response Program

R E S P O N S E S T A G E A C T I O N S

User Type	Stage I	Stage II	Stage III	Stage IV	Stage V	Stage VI	Water Emergency
Agriculture	<p>Use drip irrigation and micro sprinklers for perennial crops and all nurseries.</p> <p>Check system for malfunctions.</p> <p>Utilize CIMIS irrigation demand climate information: Call 1-800-339-9954 for daily information or 1-800-336-3023 for weekly data.</p> <p>Request an audit of your irrigation system. North County: (619) 728-1332.</p>	<p>Same as I. Increase surveillance of irrigation system.</p> <p>Effect a 10% cutback.</p>	<p>Same as II, but effect a 15% cutback on normal demands through sustenance watering of less productive perennial plants, pruning and stumping.</p>	<p>Same as III, but effect a 20% cutback.</p>	<p>Same as III, but effect a 30% cutback.</p>	<p>Same as III, but effect a 40% cutback.</p>	<p>Temporarily discontinue all irrigation depending upon circumstances of emergency.</p>

Authority Drought Response Program

R E S P O N S E S T A G E A C T I O N S

User Type	Stage I	Stage II	Stage III	Stage IV	Stage V	Stage VI	Water Emergency
Restaurants and food service	Serve water only upon request. Use brooms to clean outdoor paved areas. Spot clean with water only.	Wash vegetables and prepare foods in tubs of water where possible - no running water. Effect a 10% cutback.	Stage II plus reduce landscape irrigation. Effect a 15% cutback.	Same as Stage III. Limit landscape, irrigation to twice a week. Effect a 20% cutback. Turn off or disconnect reverse osmosis water treatment units and water softners which discharge water.	Same as Stage III. Effect a 30% cutback.	Same as Stage III. Effect a 40% cutback.	Eliminate outdoor irrigation. Use disposable table service.
Car washes	Use water recirculation pumps. Check for leaks in system.	Same as Stage I. Effect a 10% cutback.	Same as Stage I. Effect a 15% cutback.	Same as Stage I. Effect a 20% cutback.	Same as Stage I. Effect a 30% cutback.	Same as Stage III. Effect a 40% cutback.	Terminate operations if so directed.
Hotels and other lodging facilities	Check for plumbing leaks. Start replacement of non-conserving toilets and showerheads. Reduce outside irrigation.	Same as Stage I plus reduce air conditioning system water use. Effect a 10% cutback.	Same as Stage I but reduce consumption by 15% through flow restriction or operational hours limitation.	Same as Stage III plus reduce consumption by 20%.	Same as Stage III plus reduce overall consumption by 30%.	Same as Stage III. Effect a 40% cutback.	Eliminate outdoor irrigation. Post emergency notices in rooms asking limited water use.

Authority Drought Response Program

R E S P O N S E S T A G E A C T I O N S

User Type	Stage I	Stage II	Stage III	Stage IV	Stage V	Stage VI	Water Emergency
Landscape (except residential)	Irrigate only during evening, night and morning hours. Check irrigation systems for leaks, broken parts and sprinkler aim. Repair as necessary. Set irrigation schedules appropriate to season. Call for a landscape audit (728-1332 North County and 442-0559 South County). Conversion of non-functional turf areas to drought tolerant plants (i.e., those areas not used for activities). Convert shrubs and planter areas to drip irrigation.	Stage I actions plus reduce watering of low use areas. Effect a 10% cutback.	Stage II plus eliminate water of non-functional turf areas (i.e. areas not used for activities). Effect a 15% cutback.	Stage III plus irrigate no more than twice per week. Effect a 20% cutback.	Eliminate watering of ornamental turf areas. Water only actively used turf area no more than twice per week. Effect a 30% cutback.	Stage V plus irrigate playing fields only. Effect a 40% cutback.	No outdoor watering

3. Summary of CWA Conservation Activities

The Authority has underway programs which will effect reduced water use during the coming year. Most of these programs are efforts designed to improve the efficiency of water use in the long run. These efforts focus on physical system changes such as retrofiting older plumbing fixtures with water efficient fixtures and services which educate certain water users about efficient water management e.g., large turf irrigators and growers. These programs are oriented toward achieving long term reliable water savings. Additionally, the Authority will be implementing additional water saving programs which are intended strictly for short-term drought response. These two types of programs are summarized below.

a. Long Term Demand Management Programs Which Will Have an Effect Upon the Drought

(1) Agricultural and Turf Audit - In cooperation with MWD, the Authority and its member agencies are involved in funding four ongoing teams of irrigation experts who provide audits for large users of irrigation water. Two of these teams provide assistance solely to urban irrigators: primarily parks, cemeteries, golf courses and large multi-family residential users. Another team serves agricultural irrigators in the north county area. A final team evenly divides its efforts between both types of users. Authority cost: \$98,000.

(2) Toll free CIMIS information - Information valuable to irrigators in determining optimal irrigation schedules is provided through the California Irrigation Management System (CIMIS). The Authority is funding a toll free number to provide that information, which is updated every twenty-four hours, to local irrigators. The ongoing toll free number complements the irrigation audit programs mentioned above. Authority cost: \$5,000.

(3) Multi-family Plumbing Replacement - A project co-funded by the Authority, MWD and the City of Escondido will target multi-family residential users in the City of Escondido for plumbing replacement. The project will result in the replacement of 500 non-conserving toilets and showerheads with new water saving fixtures. It is anticipated that the projects will be implemented in February 1991. Authority cost: \$25,000.

(4) SDG&E Showerhead Project - Phase II of the SDG&E/Authority showerhead replacement project is scheduled for implementation in the spring of 1991. The project will involve funding from the Authority, participating member agencies, SDG&E and MWD. Pending final approval from SDG&E, the project would result in 40,000 non-conserving residential showerheads being replaced with conserving heads. Authority cost: \$58,000.

(5) Toilet Rebates - With funding assistance from the member agencies and MWD, the Authority will implement an ultra low flush toilet rebate program in May 1991. Through the program users will be eligible for up to a \$100 rebate toward the cost of a new toilet using no more than 1.6 gallons per flush. The over 13,000 rebates will be offered during two fiscal years to customers of the fifteen participating member agencies. Authority cost: \$125,000. The fifteen participating member agencies are listed below.

Carlsbad MWD	City of Escondido
Helix WD	City of Oceanside
Olivenhain MWD	Otay WD
Padre Dam MWD	Rainbow MWD
Ramona MWD	Rincon Del Diablo MWD
City of San Diego	San Dieguito WD
Santa Fe ID	Sweetwater Authority
Valley Center MWD	Vista ID

(6) Single Family Surveys - A project to offer single family home surveys will be developed by May 91. The home survey includes showerhead replacement, examination of toilets for leaks, distribution of faucet aerators and analysis of outdoor water use. It is anticipated that the cost of the program will be divided among the Authority, participating member agencies and MWD. Authority cost: \$70,000.

(7) Industrial Audits - The industrial audits program will target approximately 100 industrial users for water efficiency surveys. The Authority will contract with a consultant to review process water uses, then assist them in developing methods to increase water use efficiency. It is anticipated that the Authority will fund the project and implement it in cooperation with its member agencies. Authority cost: \$140,000.

b. Drought Related Programs

(1) Showerheads for Member Agencies - Last year the Authority supplied showerheads kits to its member agencies for distribution within their service areas. Approximately 10,000 additional kits will be purchased for a similar distribution program this year. Authority cost: \$30,000.

(2) Enforcement Training - As member agencies prepare to implement more stringent water use restrictions, the need for adequate enforcement is obvious. The Authority can assist member agencies by assisting in providing training for personnel charged with those enforcement responsibilities. That training could start in April 1991 and address: communication skills, the agencies' legal authority and other relevant topics. Authority cost: \$15,000.

(3) Assistance to Public Institutions - Many public institutions, school and community college districts, park

departments, and government buildings are visible consumers of large amounts water, while at the same time often faced with limited water management resources, a special project to assist them could be implemented. The project would include assistance in repairing and increasing the efficiency of irrigations systems, installing devices to shut off irrigation systems during rains, manpower to repair minor plumbing leaks and low flow showerheads for use in the schools. A plumbing and irrigation contractor would be hired on an contract basis at a basic hourly rate. Letters would be sent to candidate institutions publicizing the program and offering assistance. Respondents would fill out a form stating their problems in not being able to effect the conservation repairs and detailing the services needed. Upon evaluation by Authority staff, the plumbing contractor would be dispatched to perform authorized services. Respondents would be required to verify that the services were performed. Spot check audits by the Authority staff would be performed periodically. It is estimated that this project could be implemented by July 1991. Authority cost: \$100,000.

4. CWA Public Information Programs

The Public Information Program for the Authority is intended to educate people on the source of supply, local, regional, and statewide water supply problems and to change behavioral patterns of water use by conveying messages that motivate people into positive actions. The program must be flexible in design to allow for change in focus as new information is received. The program is two-fold in nature. The first emphasis is on the current drought situation and the need for immediate cutbacks in water usage. The drought is a catalyst to draw attention to the need for both short-term and long-term conservation habits. The second emphasis of the program is to develop continuing methods of assisting the member agencies and educating the public on all aspects of the water supply.

Program Components

The Public Information Program is divided into five basic components:

1. News coordination
2. Community relations
3. Public education
4. School program
5. Advertising

News Coordination

This section deals with educating and interacting with newspaper, television, and radio reporters and their editorial boards. Developing a two-way exchange of information and a willingness to cooperate is the major emphasis.

Community Relations and Promotions

The community relations component is focused on member agency assistance and training. The programs center around:

- Survey of programs and needs assessment of member agencies to develop a list of areas where the Authority can be of assistance.
- Co-op advertising programs with their local newspapers.
- Issue papers that explain single issues and the Authority's position.

- Direct mailing of all news releases and additional items of interest to each member agency.
- Development of "canned" audio/visual presentations with slides and prepared script for specific areas of interest and need.
- Speakers for presentations to specific Boards, City Councils, or interest groups.

The promotions are specific actions that create interest and enthusiasm and provide information.

- San Diego Home/Garden and Water Authority Water(Less!) Garden Contest held each year
- Drought seminars
- CIMIS 1-800 Number
- Nursery promotions on Xeriscape materials, landscaping ideas, and brochures

Additional projects are being discussed, such as:

- Del Mar Fair specific Xeriscape Category
- Natural History Museum Exhibit
- Historical Society section addressing California's water supply
- Dancing Waters Exhibit at Balboa Park
- Del Mar Schools Xeriscape Garden

Public Education

Public education is a broad category of specific programs designed for specific audiences supported by the broader and more general information arenas.

An example of the programs are:

- CWA Drought Hotline

- Speakers at specific functions
- Hotel/Motel Guest Information
- Restaurant Table Tents
- "Waterhog Haven" film
- Literature distribution
- Public service announcements
- Grocery bag messages
- Bus public service cards
- Condo/Apartment Owners Association

School Program

The current school program consists of:

- Classroom presentations
- Repertory Theater General Assemblies
- In-Service Teacher Training
- Special school projects
- "Waterhog Haven" film distribution
- Administrative Liaison

Advertising

When MWD announced a Stage III, effective February 1, 1991, staff requested ADC Stoorza to design a program of advertising that would, in their estimation, reach the largest number of people in the county. The central theme for the campaign is the current drought situation and what response is needed from all residents.

The current budget for advertising has approximately \$75,000 that is unallocated and \$100,000 contingency fund for the fifth year drought. Thirteen (13) weeks of Metro Traffic Radio announcements have been reserved beginning in February at a cost of \$45,500. This is included in the ADC Stoorza proposed advertising program.

Drought-Related Objectives

The Water Authority's Public Information Program during the drought emergency is designed to:

1. Use a wide variety of free and paid programs to reach the greatest number of people with specific messages.
2. Raise awareness among identified publics of the need for and methods of water conservation. A partial list of important publics includes homeowners, renters, property managers, business and political leaders, mass media representatives, educators, students, restaurant operators, hotel/motel operators, business people, mass media representatives, water suppliers, agriculturalists, and green industry people.
3. Convey specific conservation methods that can be used to achieve identified levels of conservation.
4. Motivate people to take immediate action to conserve.
5. Supplement the continuing long range conservation education effort that is designed to create and maintain a conservation ethic among all people in San Diego County.
6. Provide CWA member agencies with assistance in meeting their conservation and public information programs.

Drought-Related Messages

The following is a partial list of the type of messages that would be used during the drought activities:

1. San Diego County is more dependent on imported water than ever before. In 1990, 95% of our water was imported and our dependence on imported water will increase through the years.
2. Our imported sources of supply are less reliable than ever before. Environmental, legal, storage,

and other issues are limiting our ability to increase the quantity of imported water delivered to San Diego County.

3. This is the fifth consecutive year of drought and one of the driest in recorded history.
4. In 1991, water use should be reduced by (a stated percentage) among all categories of water users: residential, commercial, industrial, and agricultural.
5. Individuals can and do make a difference and everyone must participate. People must take individual responsibility for their water use, regardless of their circumstances, and regardless of whether they are at home, work, or play

As a result of the Joint Water Policy and Public Information Committee Meeting held on January 14, 1991, Directors Krauel and Thompson were asked to meet with Stoorza, Zeigaus, & Metzger to review the current drought situation, the overall Public Information program, and the proposal developed by ADC Stoorza. This meeting was held on January 22, 1991.

The advertising proposal, as designed by ADC Stoorza, is included in the appendix to this report.

5. Member Agency Coordination and Assistance

The Drought Response Plan programs are designed to provide member agencies and the public with clearly stated conservation objectives (i.e. reduction targets) and water management techniques designed to help achieve the targets (Response Stage Activities). The Authority is providing additional assistance to member agencies in managing drought responses in addition to those programs in Sections 3 and 4 of the Plan which include member agency participation. These activities are as follows.

- a. White paper summarizing research on retail penalty pricing methods.
- b. Member agency workshop on penalty pricing methods featuring representatives of California retail agencies with penalty pricing experience.
- c. A Personal Computer based water-waster database tracking system which allows member agencies to keep track of water waste complaints/violations.
- d. General Manager's and Operating Heads meetings.
- e. Joint Public Information Council meetings.

Appendices

RESOLUTION NO. 90- 59

RESOLUTION OF THE BOARD OF DIRECTORS OF THE SAN DIEGO COUNTY WATER AUTHORITY PROVIDING FOR THE IMPLEMENTATION OF THE INCREMENTAL INTERRUPTION AND CONSERVATION PLAN

WHEREAS, four consecutive years of drought conditions throughout the State of California and the Colorado River Basin have created an unprecedented threat to the sufficiency of the imported water supply of the Authority; and

WHEREAS, the Metropolitan Water District of Southern California has evaluated the groundwater and surface storage reserves of its member agencies and has found them to have been substantially depleted by the drought; and

WHEREAS, the San Diego County Water Authority has determined that the local storage reserves of its member agencies have also been substantially depleted by the drought; and

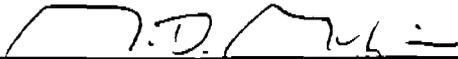
WHEREAS, the Metropolitan Water District of Southern California has implemented a plan of interruption and conservation of its limited water supply in a manner that will protect to the extent possible an adequate supply not only for 1991 but also thereafter if the drought conditions should continue; and

WHEREAS, the Authority, as a member agency of the Metropolitan Water District of Southern California, shall be subject to the terms and conditions of the District's plan of interruption and conservation.

NOW, THEREFORE, The Board of Directors of the San Diego County Water Authority does hereby authorize and direct the General Manager to implement the guidelines for the Incremental Interruption and Conservation Plan

as defined in the General Manager's letter dated November 29, 1990, in order to effectively provide assurance of an adequate water supply for 1991 and subsequent years.

PASSED, APPROVED and ADOPTED this 13th day of December 1990.



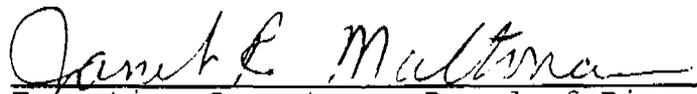
Chairman, Board of Directors
San Diego County Water Authority

Attest:



Secretary, Board of Directors
San Diego County Water Authority

I, Janet Maltman, Executive Secretary of the Board of Directors of San Diego County Water Authority do hereby certify that the above and foregoing is a full, and correct copy of said Resolution of said Board and that the same has not been amended or repealed.



Executive Secretary, Board of Directors
San Diego County Water Authority



San Diego County Water Authority

3211 Fifth Avenue • San Diego, California 92103-5718
(619) 297-3218 FAX 297-0511

November 29, 1990

TO: Board of Directors
VIA: Water Policy Committee
FROM: Lester A. Snow, General Manager
SUBJECT: MWD's Incremental Interruption and Conservation Plan (Action)

SUMMARY

On November 20, 1990, the Metropolitan Board of Directors adopted the Incremental Interruption and Conservation Plan, as well as declaring the first phase in effect on December 1, 1990. Please refer to attached MWD Board Letter dated November 20, 1990. The Water Authority needs to establish guidelines for the operation and administration of this program.

FISCAL IMPACT

The fiscal impact of this program will depend upon the mix of incentives and disincentives passed through to member agencies. Any gains from this program will be credited to the Authority's account for storage and conservation.

RECOMMENDATION

It is recommended that the Board adopt the attached resolution.

DETAILED REPORT

The Incremental Interruption and Conservation Plan is designed to begin using water in the interruptible program in concert with conservation, to meet needs during the remainder of the drought. The plan establishes five phases or levels of reduction depending on drought and water supply conditions.

The first phase is voluntary and provides for incentives to be credited to agencies that conserve more than 95% of their 1989-90 water use after adjusting for growth. Phase I will be administered by MWD on the subagency level and will pay incentives to our member

MEMBER AGENCIES

CITIES
• San Marcos • Escondido • National City
• Poway • Vista • San Marcos

IRRIGATION DISTRICTS
• Santa Fe • South Bay

COUNTY WATER DISTRICT
• Vallecitos

MUNICIPAL WATER DISTRICTS
• Buena Vista • Rainbow
• Escondido • Ramona
• Olivenhain • Rincon del Diablo
• Padre Dam • Valley Center
• Yuma

COUNTY
• San Diego
• Official

WATER DISTRICTS
• Mesa • Gray
• San Dieguito

PUBLIC UTILITY DISTRICT
• Fallbrook

FEDERAL AGENCY
• Pendleton Military Reservation

agencies who can demonstrate actual water conservation in any month that Phase I is in effect.

Phases II through V of the Plan will be administered by MWD on the member agency level and monthly targets for imported water use will be established for each phase, depending on the level of reduction required. The Water Authority will pass through a uniform reduction to all member agencies. Agencies that use less than their target will receive an incentive payment while agencies that use more than their target will receive a disincentive charge. The incentive payment will be one-half of MWD's untreated, noninterruptible rate rounded to the nearest dollar (currently \$99 per acre foot). The disincentive charge will be twice MWD's untreated, noninterruptible rate (currently \$394 per acre-foot).

In setting the targets, this plan will use 1989-90 as the base year for the Authority and its member agencies. MWD will approve adjustments to the base year for reductions in local water, previous conservation efforts and growth. The target set for the Water Authority will be used to compute a uniform reduction for all of the Authority's member agencies. The following table shows the MWD reductions by class of service and the estimated uniform reduction that would be applied to CWA's member agencies.

	<u>MWD Reductions</u>		<u>Estimated CWA Reductions</u>
	<u>In Non-Firm Deliveries</u>	<u>In Firm Deliveries</u>	
Phase I (Voluntary)	5%	5%	5.0%
Phase II	20%	5%	7.8%
Phase III	30%	10%	14.7%
Phase IV	40%	15%	21.6%
Phase V	50%	20%	28.5%

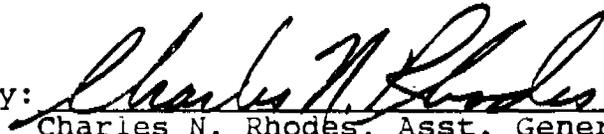
The Water Authority will use the following guidelines in administering the Plan.

**Water Authority Guidelines
Incremental Interruption and Conservation Plan**

1. During Phase I, all incentive payments will be passed through to CWA member agencies.
2. For the base year, actual imported water deliveries for 1989-90 for CWA member agencies will be used.
3. Adjustments to base year water use will be made according to MWD guidelines.

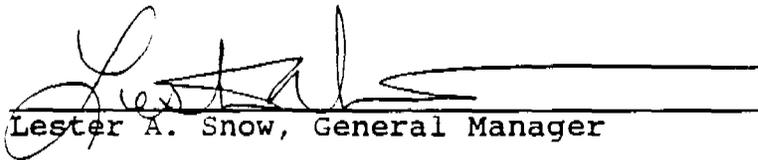
4. The impact of an MWD phased reduction will be calculated regionwide and imposed uniformly on all CWA member agencies.
5. MWD's incentives and disincentives will be applied to CWA member agencies relative to their success or failure to achieve their monthly targets.
6. An end of period reconciliation will be made whenever MWD makes its reconciliation.
7. Any revenues gained from this plan will be dedicated to the Authority's account for storage and conservation as established by Board Resolution 90-23 on May 17, 1990 and defined in Administrative Code Section 15.7.

Prepared by:



Charles N. Rhodes, Asst. General Manager, Resources

Approved:



Lester A. Snow, General Manager

Attachments

LAS:CNR:aa

Alameda County

East Bay Municipal Utility District

Population: 1.2 Million

Irrigated

Acres: 0

Demand: 210,000 AF

Supply: Local Reservoir and Mokelumne Project -- 210,000 AF

✓ The District does not presently anticipate any shortage, however, it is encouraging conservation with a goal of 15 percent demand reduction.

✓ If conditions change, rationing may be used.

✓ District has an ongoing public information and education program.

August 1990 Update

✓ Voluntary conservation is exceeding the 15 percent goal.

✓ If 1991 is dry, the District will continue with its present procedure.

Monterey County

California Water Service Company - Salinas

Population: 70,000

Irrigated

Acres: 0

Demand: 12,000 AF/Year

Supply: Ground Water -- 12,000 AF

✓ The Company will implement a combination of Stages 1 and 2, as suggested in the Department of Water Resources' Model Drought Management Plan, if water conditions continue to degrade.

✓ The Company participated in school and community awareness programs.

✓ Sea water intrusion is increasing. Also, iron and manganese were found in two new wells.

August 1990 Update

Not Available

Monterey County Flood Control & Water Conservation District.

Population: 175,000

Irrigated

Acres: 210,000

Demand: 550,000 AF

Supply: Ground Water -- 550,000 AF

✓ The District does not supply water; overlying land owners pump from ground water.

✓ Water quality problems include increasing salinity intrusion, nitrates, and high TDS.

✓ The District operates Nacimiento and San Antonio Reservoir to regulate runoff to recharge Salinas Valley ground water. The current drought has severely limited recharge amounts.

✓ The District is initiating a Mobile Irrigation Laboratory.

✓ The District coordinated a water awareness committee and conducted AIMS workshops.

August 1990 Update

✓ The District estimates "normal overdraft" of Salinas Basin at 50,000 AF/year. Overdraft for 1990 is estimated at 300,000 AF.

✓ If 1991 is dry, the District will work to implement a rationing plan, currently under development.

Monterey Peninsula Water Management District

Population: 105,000

Irrigated

Acres: 300

Demand: 16,500 AF

Supply: Ground Water 13,600 AF
Carmel River 2,900
15,500 AF

- ✓ Iron and manganese effect water quality on the lower Carmel River.
- ✓ The mandatory conservation target is 20 percent below 1987-88 use.
- ✓ The District is sponsoring drought survival conferences.
- ✓ The District use press and radio advertisements promoting conservation with specific hints.
- ✓ The District is working toward golf course irrigation with reclaimed water.

August 1990 Update

- ✓ The District is exceeding conservation goals reducing demand 30 percent.
- ✓ If 1991 is dry, the District will continue with mandatory 20 percent conservation.

Santa Barbara, City of

Population: 83,000

Irrigated

Acres: 0

Demand: 8,927 AF

Supply: Ground Water -- 2800 AF
Lake Cachuma -- 7,609 AF
Lake Gibraltar -- 500 AF

- ✓ The City is reducing demand 45 percent with mandatory conservation including no outdoor water use except from a pail or bucket.
- ✓ 2,200 AF from Lake Gibraltar was received in 1989 City water year.

August 1990 Update

- ✓ The City continues to make a 45 percent reduction in demand.
- ✓ City has increased ground water use to about 2,800 AF to 3,000 AF. Lake Gibraltar's contribution was reduced to about 500 AF.
- ✓ Ionics, Inc. has been selected to develop a desalter for the City. A contract is expected in September.
- ✓ If 1991 is dry, the City will continue conservation, and depend on SWP emergency supply to augment its local sources to meet its reduced demand.

Santa Clara Valley Water District

Population: 1.4 Million

Irrigated

Acres: 32,000

Demand: 330,000 AF

Supply: Local Supply Including Surface
 and Ground Water 78,000 AF
 CVP-San Felipe 76,000 AF
 Hetch Hetchy Reservoir 50,000 AF
 SWP Entitlement 92,000 AF
 Yuba County Water Agency 29,000 AF

- ✓ CVP-San Felipe supply reflects a 50 percent deficiency.
- ✓ Hetch Hetchy supply reflects a 25 percent deficiency.
- ✓ Local reservoirs are at 15 percent of capacity compared to a normal of 50 to 80 percent.
- ✓ Current restrictions on use are 20 percent in North County and 25 percent in South County between April 1, 1990 and October 1, 1990.
- ✓ Financial incentives through rate structure vary from city to city.
- ✓ A ground water extraction charge imposed by the District has been increased.

August 1990 Update

- ✓ In June 1990, conservation achieved 30 percent demand reduction and in July 1990 achieved 25 percent.
- ✓ The systemwide conservation goal from April 1 to July 1 was 20 percent, and 21 percent was achieved.
- ✓ District has hired a media consultant and the Smothers Brothers to do a commercial, buying large amounts of radio and television time. The District attributes use reduction to people knowing there is a real problem.

San Francisco County

San Francisco Water Department

Population: 2.3 Million

Irrigated

Acres: 0

Demand: 325,000 AF

Supply: Current Storage (May 1990): Local -- 120,000 AF
 Hetch Hetchy -- 375,000 AF

- ✓ SFWD supplies water to San Francisco and 33 other cities in San Mateo, Alameda and Santa Clara Counties.
- ✓ SFWD has adopted a 25 percent systemwide reduction goal based on 1988 use and an excess use charges would be imposed to motivate compliance.
- ✓ SFWD is contracting to develop a comprehensive conservation program for all schools in the service area.
- ✓ If current efforts prove inadequate, SFWD may try to purchase water.

August 1990 Update

Not Available

San Diego County Water Authority

Advertising Proposal

February - June 1991



Presented by
ADC Stoorza and Stoorza, Ziegus & Metzger, Inc.
225 Broadway, Suite 1600, San Diego, California 92101

San Diego County Water Authority
 Budget Recap
 February - June 1991

I. Media

General Market Radio	\$	63,500	
Hispanic Radio		11,575	
Metro Traffic*		45,500	
General Market Newspaper		23,100	(Net)
Hispanic Newspaper		<u>3,600</u>	(Net)
Total Media	\$	147,275	

II. Creative Development/Production

Newspaper Ad	\$	7,960	
Hispanic Newspaper Ad		2,500	
Radio Commercial		6,560	
Hispanic Radio Commercial		1,800	
Revise Waterhog Radio Spots			
Announcer Copy		2,000	
Creative Campaign/ Strategy Development		<u>6,900</u>	
Total Creative/Production		<u>27,720</u>	Total
Total Cost	\$	174,995	

*Already purchased

San Diego County Water Authority
Creative Strategy

Message Strategies

- o Describe the immediate specific issues and challenges that currently face all San Diego County residents.
- o Address the problem itself in order to further develop an appreciation by the public, but emphasize the solution to the problem.
- o Communicate that relatively minor changes in water conservation now can prevent major lifestyle inconveniences in the future.
- o Convince the public that they can (and have in the past) made a significant difference.
- o Encourage individuals to participate in water conservation. Make it easy and inviting.
- o Position the San Diego County Water Authority as a well managed, responsible agency.
- o Maintain the ability to adapt and revise the message quickly to accommodate future issues and specific situations.

Tone and Manner

- o Clear
- o Direct
- o Authoritative
- o Believable
- o Convincing
- o Compelling

San Diego County Water Authority

Media Strategy

- o Utilize broad reach mediums that create immediate high levels of awareness among the general population
- o Channel a percentage (approximately 15%) of the total media budget towards reaching the County's Hispanic population who are not adequately impacted by general market media
- o Utilize mediums that allow for a lengthy creative message
- o Concentrate in media that allows for flexibility to effectively and efficiently revise creative as conditions change

Media Recommendations

A. MEDIUMS

- 1) Radio-- :60 commercials
 - o General Market
 - o Hispanic
 - o Metro Traffic Sponsorships

- 2) Newspaper-- :75" ads
 - o Union-Tribune
 - o La Prensa

B. MEDIA PLAN

<u>Medium</u>	<u>Vehicle</u>	<u># weeks</u>	<u>Approx. # of spots/ insertions</u>	<u>Total Impressions</u>
General Market Radio	5-7 major San Diego stations (e.g., KFMB, KSDO, KYXY, KJQY, etc.)	7	450	13,950,000
Hispanic Radio	2-3 Spanish Language Stations	6	90	1,124,500
Metro Traffic* Sponsorship	Major sponsorship on 20 stations	13**	1,250	19,375,000
General market Newspaper	Union-Tribune	4	5-Union 5-Tribune	1,600,000
Hispanic Newspaper	<u>La Prensa</u>	4	4	<u>40,000</u>
Totals	n/a	n/a	1,825-radio 14-newspaper	36,089,500

*30% of Metro Traffic stations are Spanish language

**Already purchased