



San Diego County Water Authority

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

COUNTY
• San Diego
(ex officio)

IRRIGATION DISTRICTS
• Santa Fe • South Bay

WATER DISTRICTS
• Helix • Olay
• 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

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%

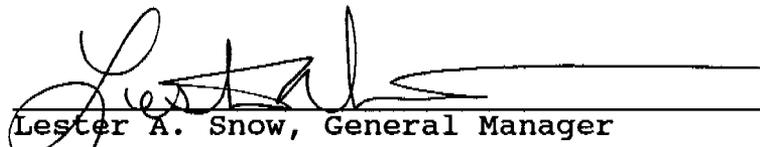
The Water Authority will use the following guidelines in administering the Plan.

**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

**MWD**

METROPOLITAN WATER DISTRICT OF SOUTHERN CALIFORNIA

November 20, 1990

To: Board of Directors (Engineering & Operations Committee--Information)
(Water Problems Committee--Action)

From: General Manager

Subject: Incremental Interruption and Conservation Plan

Summary

The water supply situation for 1991 is uncertain at best. The State project reservoirs will be critically low starting the year, and although we are working on several supply augmentation plans, we could have less than a full Colorado River Aqueduct. Because of this, it is appropriate that Metropolitan put a plan in place that will allow us to respond to a continuation of the drought in a measured way. Staff, in conjunction with the member agencies, has developed a consensual "Incremental Interruption and Conservation Plan" which begins using water in the interruptible program, in concert with conservation, to meet needs during the remainder of the drought.

The plan assigns each member public agency a monthly conservation target of water from Metropolitan. Agencies using less than the target quantity would receive an incentive payment based on the extent their water use falls below their target quantity. Stage I is a voluntary program to encourage consumer conservation and should be put into effect immediately. Stages II through V couple conservation objectives with reductions in non-firm service (Interruptible Service and Seasonal Storage Service for long-term storage). These later stages may be necessary in future months should the drought continue. In Stages II through V, agencies exceeding the target quantity would face a disincentive charge on the amount of Metropolitan water used over their target. It is recommended that the disincentive charge be twice the noninterruptible rate (currently \$394 per acre-foot) and the conservation incentive payment be one-half the noninterruptible rate rounded to the nearest dollar (currently \$99 per acre-foot). Adjustments would be made to the target quantities to reflect growth and development, changes in local water supplies, and significant conservation

programs. All adjustments would be reported to your Board. An appeal process would be provided whereby member public agencies could request your Board to review the agency's assigned monthly conservation target.

The Interruptible Program was originally conceived to deal with an acute shortage of imported supplies occurring at a time when the longer term water supply for Metropolitan would be more favorable. However, the present situation is different than was contemplated at the time the interruptible program was created. The past four years of drought have already caused a substantial draft of the groundwater and surface storage reserves in our service area, and should 1991 prove dry the prospective shortages for later years only increase. These circumstances are believed to be exceptional within the meaning of Section 4603(b) of the Administrative Code, requiring both that service interruptions be shared equally among all interruptible water users and that conservation by retail consumers must accompany service interruptions to preserve interruptible reserves for possible use in a continuing drought. A resolution of the Board which determines that such exceptional circumstances indeed exist is included as part of the recommended action for the Board to adopt the Incremental Interruption and Conservation Plan.

The discussions that have taken place with the managers of the member agencies regarding the possible adoption of the Incremental Interruption and Conservation Plan has led to considerable interest in participation by the member agencies in a review of the Interruptible and Seasonal Storage Service programs and possible revisions to the Administrative Code to clarify Metropolitan's Drought Contingency Program. I intend to create a task force consisting of invited member agency managers and selected Metropolitan staff to develop and recommend revisions that the task force may consider desirable in the current Interruptible Service and Seasonal Storage Service programs, and in the Incremental Interruption and Conservation Plan. After review of those recommendations, I would then propose that the Board adopt appropriate amendments to the Administrative Code.

This action is believed to be exempt from the California Environmental Quality Act.

Recommendations

1. That the Board adopt the attached form of resolution stating its determination that exceptional

circumstances exist that make application of Administrative Code Section 4603(a) unreasonable;

2. That the Board adopt the Incremental Interruption and Conservation Plan as outlined in this letter; and

3. That the Board declare Stage I of that plan calling for voluntary conservation providing incentive payments for conservation to be in effect December 1, 1990.

Detailed Report

Background

On a statewide basis the water situation is serious. Carryover storage in Oroville and San Luis Reservoirs on October 31, 1990 is now projected to be 1.2 million acre-feet lower than last year and only 200,000 acre-feet above minimum operating storage for these reservoirs. Another dry year in California would have serious consequences. The Department of Water Resources estimates that there may be a 60 to 70 percent reduction of agricultural deliveries and a 10 to 20 percent reduction of municipal and industrial deliveries next year.

On the Colorado River, the Bureau of Reclamation's (Bureau) Annual Operating Plan projects 940,000 acre-feet of Colorado River water available for Metropolitan in 1991. Through several efforts which have been reported to your Board, we expect to have more Colorado River water than the Bureau now projects. However, for planning purposes, we must take note of the Bureau's projections.

Because of the uncertain water supply picture, it is necessary to make plans for another year of drought and prepare ourselves for future shortfalls. This letter presents a recommended water management plan along with a description of some possible alternatives. The philosophy behind the presented plan, which is called the "Incremental Interruption and Conservation Plan", is to begin using waters in the interruptible program, in concert with conservation, to meet needs during shortfalls such as the present drought. It is structured so it can be staged or phased, always holding as much water in reserve as possible for the eventuality of an even longer drought. The recommended plan is consensual in nature. It has been developed in conjunction with our member agency managers and represents a mutually agreed upon plan designed to respond

to a continuation of the drought. Nothing in the plan is meant to affect the rights of a member public agency or the provisions of the Metropolitan Water District Act.

The Incremental Interruption and Conservation Plan

The Incremental Interruption and Conservation Plan establishes for each member public agency a monthly target quantity of water available from Metropolitan. The target quantity would be calculated for each member public agency based on a percentage of the total amount of water taken from Metropolitan during the same month in the base year of 1989-90. Target quantities of agencies who received non-firm water (Interruptible Service and Seasonal Storage Service for long-term storage) in the base year would be further reduced in proportion to the amount of non-firm water they received. It is envisioned that the program would be implemented in stages by further reducing the target quantities for each member public agency. Your Board, based on expected aqueduct flow, demands, and storage conditions, would determine in the future, by specific action, the appropriate stage. All interruptible classes of water (agricultural, groundwater replenishment, seawater barrier and reservoir storage) would be reduced uniformly. Similarly, water that is delivered under the Seasonal Storage Program and used for long-term storage would be reduced. Adjustments would be made to the target quantities to reflect growth and development, changes in local water supplies, and significant conservation programs. The Plan provides that all adjustments would be subject to your Board's approval.

In Stages II through V, agencies exceeding the target quantity would face a disincentive charge for the water used over their target quantity, plus the applicable water rate, while agencies using less than their target quantity would receive an incentive payment. It is recommended that the disincentive charge be twice the noninterruptible rate (currently \$394/AF) and the conservation incentive payment be one-half the noninterruptible rate rounded to the nearest dollar (currently \$99/AF). In all cases the conservation payment and charges would only apply to deliveries from Metropolitan and not to total water usage.

Stage I of the Incremental Interruption and Conservation Plan would be voluntary. Member public agencies who reduce their use of water from Metropolitan

below 95 percent of the base year and certify that they did not increase the use of local water to do so, would be eligible to receive the incentive payment. In Stage I there would be no disincentive charge. Based on water supply conditions and continuing high demands, this letter recommends the Board determine Stage I to be in effect December 1, 1990.

The program is illustrated in the following table and example:

REDUCTIONS FROM BASE YEAR

STAGE	REDUCTION IN NON-FIRM DELIVERIES	PLUS CONSERVATION OF FIRM DELIVERIES	EXPECTED SAVINGS AFY
I	Voluntary	Goal 10%	100,000
II	20%	5%	260,000
III	30%	10%	430,000
IV	40%	15%	600,000
V	50%	20%	770,000

As an example, if a member public agency, in a certain month in the base year, received 100 acre-feet of water from Metropolitan of which 10 acre-feet were in non-firm service, then the agency's target quantity under Stage II would be 100 acre-feet minus 2 acre-feet minus 4.5 acre-feet or 93.5 acre-feet. If the agency took less than 93.5 acre-feet, the agency would not only avoid purchase of this water but in addition Metropolitan would provide an incentive payment of \$99 per acre-foot. On the other hand, if the agency took more than 93.5 acre-feet, a disincentive charge of \$394 per acre-foot would be applied to the amount taken over the target quantity in addition to the applicable water rate.

Accounting and Reconciliation

At the end of each "water year" (September 30) in which Stages II through V were in effect, or following the Board's determination that Stages II through V are no longer in effect, whichever is earlier, there will

be reconciliations of the disincentive charges and the incentive payments for delivery during that year or partial years. At this reconciliation, agencies may use conserved water for which they received incentive payments to offset overages on which they paid the disincentive charge. For such offsets, Metropolitan would credit the agency the difference between the disincentive charge and the incentive payment. Therefore, if, at the end of the reconciliation period, a particular member agency overused in some months and underused in other months in such quantities that the over and under use equaled each other on an acre-foot basis, that member agency will have evened out its account. The end result in this case would be an adjustment of previous billings for delivery in that period so there would be no disincentive charge and no incentive payment.

Adjustments

Regarding the target quantity adjustments to account for changes in local water supplies, growth and development, and significant conservation programs; staff has developed guidelines to be used in the adjustment process. Because of the wide variety of circumstances, discussions will be necessary with a number of agencies in order to complete the adjustments. In all cases, adjustments to target quantities will be reported to your Board. Any member public agency could request your Board to review the agency's assigned monthly conservation target. The following are the guidelines we propose to use in making adjustments.

- (A) Local Water Supply - adjustments to target quantities will be recommended if:
1. A well, reclamation plant, aqueduct, reservoir, pipelines fails.
 2. There is less surface water because of drought.
 3. Court order, regulatory order, or negotiated agreement limits the use of local supplies.
 4. No adjustments would be made to account for routine or elective maintenance.

- (B) Conservation - adjustments will be recommended if an agency uses less water because of a significant conservation effort in the base year consisting of:
1. A mandatory water conservation program.
 2. A major water management program with demonstrated results.
- (C) Growth and Development - agencies' target quantities will be adjusted for growth based on:
1. The number of new service connections.
 2. A demonstrated change in the mix of service connections toward larger sized connections.
 3. The establishment or expansion of a major industrial water user after the base year.

Stages II through V constitute an implementation of service interruptions in conjunction with a requirement for increasing conservation by the member public agencies. In Stage II for example, conservation at 5 percent noninterruptible service would be mandated in conjunction with a ~~15~~ percent interruption in interruptible service thereby reducing future interruptible obligations by ~~15~~ percent. The reduction in future interruptible obligations would be controlled solely by the amounts by which target quantities were reduced owing to past purchases of interruptible service. Agencies that did not meet their interruptible obligations to Metropolitan would pay the applicable water rate plus the disincentive charge thus amounting to payment of the emergency rate for an inability to sustain a service interruption. Conversely, agencies that reduced their use of interruptible service by amounts greater than the call of an interruption by Metropolitan would receive the \$99 incentive payment but would not reduce future interruptible obligations.

By requiring increased conservation as interruptions are implemented, we ensure that depletion of Metropolitan's interruptible storage reserves is accompanied by austerity in water use. This balanced use of conservation and interruptions recognizes the potential for continued shortages. Although the prospects for shortages in 1991 are a matter of concern, there is still a need to maintain regional storage reserves under the long-term

seasonal storage and interruptible water service programs to protect against more serious supply deficiencies in the future. Not only would demands likely increase in later years of a continuing drought, but dry conditions in 1991 that could cause a potential shortfall in supplies would substantially worsen prospective water supplies for later years.

On the State Water Project for example, the potential serious shortages to Metropolitan in 1991 are lessened by the ability to impose deficiencies to agricultural contractors of up to 50 percent prior to imposing deficiencies on municipal and industrial contractors. However, if such a deficiency were imposed on agricultural contractors in 1991, municipal and industrial contractors collectively would be on equal footing with agricultural contractors to share in any deficiencies in 1992 through 1996. This is because the combined 1990 and 1991 deficiencies to agricultural users would have reached one year's entitlement which is the maximum for any seven-year period. Thus, preserving regional storage reserves under the interruptible and seasonal storage service programs for potential use in 1992 and later years is a primary consideration in developing mitigation plans for 1991.

Alternatives

At the October 8, 1990 meeting of the Water Problems Committee, Mr. Donald Harriger, General Manager, Western Municipal Water District discussed the Incremental Interruption and Conservation Plan (IIC) and presented an alternative plan. This alternative is modeled after the plan contained in this letter, but differs in that it eases the penalty for failure to meet the conservation target and interrupts different classes of interruptible service by different amounts.

The alternative reduces the disincentive charged from \$394/AF to \$200/AF and provides for overuse above the allocation of 5 percent before the penalty is applied. The alternative plan also increases the incentive for conservation to \$200/AF. In staff's opinion, the easing of the disincentives for overuse will likely result in an easing of agencies' conservation efforts. Because of this the expected savings projected in the Harriger alternative are too high and should be reduced by 40 to 50 percent.

A note is appropriate regarding the \$394/AF disincentive charge proposed in the IIC. This charge is not designed to collect revenue. Its purpose is to send a strong signal encouraging conservation. The IIC provides flexible use of conservation to cover overages that may inadvertently occur. The disincentive charge is designed to encourage those who might not otherwise participate in water conservation to join in and do their share. The disincentive charge has the advantage of matching the District's emergency rate and avoids the potential problem of charging different rates for the same class of service.

Another feature of the alternative plan is that it interrupts different classes of interruptible service by different amounts; direct replenishment would suffer the greatest cutback, agricultural the lightest, and seawater barrier none-at-all. Staff examined a similar approach and concluded that it was best to cut all classes of interruptible service equally, for the following reasons:

1. Four years of drought have depleted local groundwater basins. It is important that as much water as possible be maintained in these basins in case of a longer drought;
2. To maintain as much water in reserve as possible, equal sharing of the shortage through equal interruption is the best management approach;
3. Equal interruptions offers flexibility to member agencies; each can choose how the cut is distributed within the agency. Cutting by class of service would require an audit by Metropolitan to see that each class is cut as specified. Calling for a cut in all interruptible service does not require such an audit; and
4. Equal interruptions provides fair, flexible, and simple administrative measures. In a time of shortage, simple, understandable rules are each agency greatest assurance of consistent, equitable application.

A straight interruption in service without any penalties or incentives for conservation was also considered as an alternative. It was determined that this approach would lead to the use of our reserves too early. Staff felt that depleting groundwater and storage surface

water reserves, crippling the agricultural community, and perhaps collapsing the seawater barrier, without calling for general conservation was not a measured approach to extending our supplies through a drought of uncertain length.

Exceptional Circumstances

The continuing drought has caused an exceptional need to maintain local storage reserves for possible future use. This is in contrast to the objectives for drought mitigation that were proposed at the time the interruptible program was implemented. The interruptible program was designed on the premise that local storage reserves could be utilized without specific regard to the need for retail conservation and that storage reserves could be relied upon more substantially than other types of interruptible service to offset an acute shortage of imported water. In this context then, the need to share interruptions equally between all classes of interruptible service and the need to moderate the current use of service interruptions in order to preserve the ability to impose service interruptions in a future year constitutes exceptional circumstances. The proposed resolution of the Board which adopts the Incremental Interruption and Conservation Plan takes note of these exceptional circumstances to offer some clarity as to why alternative means of implementing a service interruption, which may in the past have seemed appropriate, would not be prudent as a current mitigation schema.

Member Agency Task Force

There is considerable interest on the part of the member agencies in participating in a review of the interruptible and seasonal storage service programs and possible revisions to the administrative code to clarify Metropolitan's drought contingency program. I intend to create a task force on which member agency managers will be invited to participate jointly with Metropolitan staff to develop and recommend desirable revisions to the interruptible service and seasonal storage service programs and to the Incremental Interruption and Conservation Plan.

California Environmental Quality Act (CEQA)

This drought is of unknown duration which, if it continues, presents a clear and imminent danger to water

service if steps are not taken to mitigate its impacts. Consequently, while not free from doubt, it is believed that this action is exempted from CEQA both by Public Resources Code Section 21080 (b)(4) as necessary to prevent or mitigate an emergency as well as under Section 15301 of the Secretary for Resources Guidelines implementing CEQA since this action simply provides for the continued operation of existing facilities with no expansion of use beyond that previously existing.


Carl Boronkay

DLA/KRH:aj

Attachment

RESOLUTION _____

RESOLUTION OF THE BOARD OF DIRECTORS OF THE
METROPOLITAN WATER DISTRICT OF SOUTHERN
CALIFORNIA 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 District; and

WHEREAS, the carryover storage in Lake Oroville and San Luis Reservoir is only 50 percent of that of the previous year and only 200,000 acre-feet greater than minimum operating storage of these reservoirs; and

WHEREAS, shortage provisions in the State water contracts call for agricultural uses to absorb deficiencies of up to 100 percent of annual entitlement over a seven-year period prior to the Department of Water Resources imposing deficiencies upon other uses; and

WHEREAS, a 50 percent deficiency was assigned to agricultural uses in 1990, and there is a strong probability that at least another 50 percent agricultural use deficiency

will be assigned in 1991, thus placing all State project entitlement uses at the same level for the remaining portion of the seven-year period and thereby raising the probability that if the drought conditions continue through 1991 and beyond the District will be faced with even more severe reductions in 1992 and thereafter in supply from the State Water Project; and

WHEREAS, the Bureau of Reclamation's current annual operating plan projects the availability of only 940,000 acre-feet of Colorado River water for Metropolitan in 1991, a reduction of approximately 25 percent from supplies available in recent years; and

WHEREAS, the groundwater and surface storage reserves of Metropolitan's member agencies have been substantially depleted by the drought; and

WHEREAS, these unusual circumstances make it imperative that the District implement 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 for 1992 and thereafter if the drought conditions should continue.

NOW, THEREFORE, the Board of Directors of The Metropolitan Water District of Southern California finds and

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S. D. COUNTY WATER AUTHORITY
Executive Secretary
Daniel R. McArthur

ICCP