1983 LAFCO Special Study on Water Conservation in the Chino Basin

Attachment 4

A POSITION PAPER EXPRESSING CONCERN FOR THE WATER CONSERVATION PROGRAM WITHIN THE CHINO BASIN

At a time in which the Metropolitan Water District and the State Department of Water Resources are issuing dire predictions of future water shortages in Southern California, and with the knowledge that the Chino Basin is one of the largest storage basins for underground water in the Southland, thousands of acre feet of natural water in the Chino Basin are being, and will continue to be in ever increasing larger amounts, allowed to flow off the land, through flood control channels and into the Santa Ana River -- and lost to the Basin's underground supply for lack of a Basin-wide water conservation plan to preserve these waters.

Consider the Following:

- While agricultural acreage within the Basin replaced with urban development will release some available water which can then be used for domestic purposes, every housing tract, commercial and industrial development, new streets, and flood control channel constructed adds to the total roof top and concrete surface of the basin.
  Every new development planned for the west end will add to its flooding problems, will speed the flow of natural water out of the basin, and reduce the amount of water which historically has been returned to underground storage.

- There is currently being considered a flood control project involving Day Creek, Etiwanda Creek, and San Sevaine Creek flood flow areas, which if constructed will reduce present and future flood damage in the currently developed and future developingareas within the Chino Basin and in Riverside County.
  This flood protection must be provided if the Chino Basin area is to continue to develop in the manner the Cities and the County have planned for it to grow.

However, unless this project is constructed with complete and detailed attention to water conservation, many thousands of acre feet of natural water will be exported out of the basin -- and a valuable resource will be lost.

- Even if this flood control project is not constructed, a great amount of native water is flowing now and will continue to flow through natural drainage channels across private lands, damaging and flooding developed areas, and much of this water will flow out of the basin area and be lost.

These facts are not new information to the Public Bodies of the County's West End, the problem is that too little attention is being given to them.

The Chino Basin is being projected as one of the busiest areas in the State for growth and development, and yet in every inquiry as to the status of Chino Basin water conservation, it was evident that water conservation efforts are limited, with no reference to an overall basin plan, and an absence of leadership designated to provide one.

What are the current actions or plans to prevent the Watr Basin's Depletion?

1. At the present time the Chino Basin Municipal Water District, acting in its role as Water Master, is engaged in a program of purchasing California Aqueduct water and filtering it into the underground at the upper end of the basin in an amount designed to keep the basin at a "safe yield" level for the multiple users who pump water out. It is participating in few -- if any -- efforts for natural water retention and infiltration.

2. Many of the water suppliers of the West End are considering plans to construct a filtration plant which will permit the receiving of State Project Water and provide for its delivery

(after filtering) directly through the various water systems to users. Few of these suppliers are engaged in any substantive way in natural water conservation.

3. The Metropolitan Water District is considering a plan to purchase and store large quantities of California aqueduct water in the large Chino Basin underground storage area to provide for an adequate water supply in future dry years.

   Considering the difference in cost now -- and especially in the future -- of an acre foot of California Aqueduct Water, as compared to the cost of pumping an acre foot of natural water out of the underground storage, considering the diminishing amounts of natural recharge which will be reduced by roof tops and concrete, and considering that the basin may need to purchase imported water in future dry years at the then higher cost of such water -- it would seem wise for the water interests in the West End to cooperate in a water conservation program to preserve every acre foot of natural local water which might be preserved in a reasonable cost effective program.

   This seems so evident that citizens should question: Why are not the Water Agencies within the Chino Basin now engaged in a coordinated conservation program of local water?

There are several reasons:

1. A Water Conservation Program is expensive, and involves not only the acquisition of land for retention and percolation basins and the facilities to operate these, but also, the program must provide for the cost of monitoring, maintaining, and operating those facilities.
   No one has been designated the authority to implement a Basin-wide water conservation program, and no agency, by itself, has the funds to pay for it.

2. Multipurpose bodies, such as cities and regional districts, have other obligations, with limited funds, so water conservation has low priority as long as there is plenty of water now.

3. No one knows just how cost effective a full scale water conservation program might be, so the expedient known cost solution is used through the purchase of State Water, and planning for future water assurance is deferred.

4. Cooperation between fourteen benefiting agencies is an enormous task and no one wants to tackle such an effort.

However, these answers notwithstanding, there seems to be a consensus that there needs to be a coordinated approach to a basin water management program -- which would include all the entities which would benefit from the program.

Are there possible solutions to consider?

Several ideas have been proposed by those concerned:

As to Funding:

1. If the Chino Basin, acting as Water Master, could determine the amount of natural water which is preserved by the present natural recharge and present water conservation efforts, and with the permission of all water appropriators, claim for the Water Conservation Program ownership of water derived from additional water conservation efforts, then the sale of this additional water could be used to finance the Conservation Program.
   In all likelihood the Conservation Program could sell the water preserved to those who need supplemental water at less than the present cost.

2. The Chino Basin MWD, acting as Water Master, has the authority

to impose a pump tax on some water providers for excess water pumped out of the basin. If it could be shown that additional water conservation efforts could provide additional underground water to assure an adequate supply in future years, a small pump tax could be levied on all water appropriators to pay for the additional water conservation efforts.

3. Sewage treatment plants which export the treated effluent remove enormous quantities of water from the basin from which these waters originate. The recharge of this treated water back into underground storage, or its use for agricultural irrigation, or industrial use is a necessary element of an intelligent water basin management and conservation program.
   This water saved reduces the need for higher priced imported water and could provide a source of funding for the Water Conservation Program.

4. Or, the cost could be prorated to all Water Agencies, based on a level of benefit.

5. Or, a small surcharge could be added to every water bill to fund the program.

There are probably other ways to fund a Water Conservation effort which the participants should consider.

As to the Water Conservation Program

1. The first effort would be to increase the effectiveness of present water conservation facilities, percolation ponds, and water spreading basins by monitoring these carefully and performing the necessary maintenance work -- to insure that these are all operating at maximum efficiency.

2. In connection with every existing flood control facility, and in all future flood control projects there should be cooperative

efforts and extra funding to slow flood water and provide for retention and infiltration basins. There must also be provisions for the monitoring, maintenance, and operations of these.

3. Every added residential, commercial, and industrial development adds to natural water flow downstream. This compounds flood control problems, and exports much of this water.
   By reasonable planning and development requirements, much of this water could be preserved and percolated into the ground within the project, or,
   -- Another, and perhaps a more practical way to preserve roof top and concrete downstream runoff would be to locate scattered retention basins, close to the highly developed areas, adjacent to drainage and flood control channels. These would then be public facilities with scheduled clean up and maintenance.

4. The preservation and reclamation of treated sewage wastewater can be both a source of funding for, and a vital element of a water conservation program.
   The "Ontario" plant has the potential of either using its wastewater for agricultural irrigation or mixed with natural flood waters and filtered through spreading basins into the underground.
   The proposed Plant #4 being proposed for the upper part of the basin has the potential to have its treated wastewater used for industrial purposes or mixed with natural water and returned to underground storage.
   These programs are being actively pursued and both offer major sources for water reclamation, but neither is operational now.

5. The State Water Resources Control Board and local Conservation Districts are actively promoting citizen education in water conservation. A centralized or coordinated Chino Basin Water Conservation program is a natural vehicle through which such educational programs could be channelled.

What are the Precise Benefits from Water Retention and Infiltration Efforts?

No one really knows the level of effectiveness of current natural basin recharge on open lands and current flood water retention and infiltration programs,and no one knows precisely how much more natural water could be preserved for the Basin with additional effort.
-- However, everyone agrees that with additional development and new flood control channels, the natural recharge will diminish and every water expert believes that large amounts of natural water could be preserved by a Basin-wide centralized or coordinated water conservation plan.

A group consisting of the City of Ontario, the Water Conservation District, private developers, the Cucamonga CWD and the Chino Basin MWD has proposed a study which would use all the present and past reports which have been written on the Basin's water retention possibilities and produce a new estimate of present basin natural recharge and the effectiveness of additional effort.

This is a study which will provide valuable updated information, but it is not intended to propose an organizational solution to the problem.

CONCLUSIONS:

With the Department of Water Resources and the Metropolitan Water District warning Southern California of probable water shortages in future years,

-- With the natural underground water recharge in the Chino Basin diminising with every significant development project,

-- With flood control and drainage facilities being planned and constructed which will export natural water out of the basin,

-- With power costs increasing the cost of imported water and the assurance of that water at any cost in doubt, and,

-- With the Chino Basin having available one of the largest underground water storage basins around,

It seems irresponsible not to preserve the flow of native water for present and future use by infiltrating these waters into the underground through a Basin-wide water conservation plan.

How Might it be Accomplished:

1. All of the public and private bodies who depend on a water source could get together and either select a Committee of several representative people expert in water conservation, or, select a single Agency, and authorize this choice to design, implement, and manage a Basin water preservation effort.

   Each participant would need to agree to pay their pro-rata share of the cost based on some equitable measure of benefit.

2. The Chino Water Conservation District could be expanded to encompass the entire basin, and given assurance that the cost of capital projects, basin management and maintenance would be reimbursed by some formula. The one constraint for this option is that its staff and resources are limited.

3. The Chino Basin Municipal Water District, and in its role as Water Master, is the only agency which covers the entire basin with present responsibility, authority, and resources to provide for the entire water infiltration and recharge facilities, maintenance and operation. With cooperative support from all who would benefit from water conservation, this agency could implement and manage the program.

4. The County Flood Control District has the legal responsibility for flood control in the Chino Basin. It is involved with and constructs most of the flood control facilities. It is also involved in water retention and infiltration, and owns a great deal of land suitable for catch basins, and water retention and infiltration projects. The primary mission of the Flood Control District is to prevent flood damage, and while it has a peripheral

concern for water conservation, it doesn't have adequate funds for flood control, much less the extra funds and staff needed for water conservation.
Properly organized and funded it could perform the water conservation task for the basin.

5. With the present interest in all the All River Plan to protect against floods in the Santa Ana River, it might be possible to enlist the support of SAWPA and the Corps of Engineers. Either or both of these bodies, in connection with flood control programs, might assist in water retention projects which could, with local support, result in basin water preservation.

To devise a Basin-wide plan for water retention, preservation, and recharge and to implement the plan, construct the facilities, maintain and operate the facilities will be a major undertaking, and require major funding.

The problem is that not to have a coordinated water conservation plan will also be expensive and will threaten the possibility of a continuing water supply.

If development is to occur -- and it will -- then the flood control facilities must be constructed. Not to add these projects, and to existing flood control facilities, the facilities for water retention and reclamation is folly.

In examining the options for solution, considering expertise, staffing and resources,this study indicates that the two agencies best suited to do the job are the Chino Basin Municipal Water District and the County Flood Control District -- but neither of these will want the assignment without an assurance of full support from all the other benefitting agencies.

A joint Powers Body has been suggested and could work but it would need a lead agency and this large group of jurisdictions, each wishing to retain a veto, becomes unwieldy and difficult to manage.

The findings of this paper support the position that an intelligent water conservation plan is something the Chino Basin must have. There is no plan now, so the fourteen public bodies who will benefit must decide how to provide one.

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Executive Officer

LHH:cl
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