

APPENDIX

SUBJECT:

1. ACWA WATER RESOURCES MANAGEMENT AND DEVELOPMENT POLICY 11-18-88

ACWA WATER RESOURCES MANAGEMENT
AND
DEVELOPMENT POLICY

(11-18-88)

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WATER SUPPLY AND DEVELOPMENT IN CALIFORNIA

When measured simply in terms of runoff, California has more than enough water to meet the reasonable needs of its citizens for the indefinite future. The reasonable water needs of all water users, in fact, have been determined by the Department of Water Resources to be less than half the amount of runoff which occurs in the State, largely in its northern part. Nevertheless, in the near future, Californians are confronting the real possibility of water shortages even in normal water supply years because the development of water resources and the construction of transmission and distribution systems have not kept pace with the growing need for water. Indeed, major urban areas and some agricultural areas are already experiencing water shortages.

Virtually all Californians are dependent upon imported or stored water. More than eighteen million persons throughout California, for example, are served by the State Water Project (SWP). At its current level of development, however, the SWP has a firm water supply that is barely half the amount required to meet the long-term contractual commitments entered into by the State with its 30 SWP Contractors. Moreover, by the year 2010, California's population is expected to increase by 10 million persons or 37 percent. By then, without construction of new faci-

lities, the SWP will not meet the needs of the people it serves in about 7 out of every 10 years. Similar circumstances are expected to exist in other areas reliant upon imported or stored water. Not meeting these needs would have a devastating impact on the entire State.

Water supplies of local projects, the SWP and the federal Central Valley Project (CVP) are also crucial for a major segment of California's multi-billion dollar farm economy. These supplies are essential to the continued cultivation of nearly ten million acres of land for agricultural purposes. They have also been put to use to help alleviate large groundwater overdrafts throughout the Central Valley although groundwater overdrafting continues. Given current levels of project development, agricultural water shortages are already occurring and will increase in the near future. By 1990, for example, agricultural users in the lower San Joaquin Valley may be receiving 400,000 acre feet less water annually than their State contracts entitle them to. By 2010, without new facilities, those users will receive the water they need in only 1 out of 10 years.

There are, unfortunately, no quick fixes to counter the water shortages now facing the State. While a great deal of effort is being made to increase the use of water from sources other than the SWP and CVP, water from such sources is limited and extremely difficult to secure. Deli-

veries by the Central Arizona Project have already reduced dependable Colorado River supplies to California by almost 700,000 acre feet per year. A firm supply of Colorado River water will thus not continue to be available to help alleviate state-wide drought shortages as it did during the 1976-77 drought.

Similarly, challenges to the exercise of long-held water rights in the Mono and Inyo basins and other areas are threatening additional reductions in dependable supplies measurable in the hundreds of thousands of acre feet. Furthermore, existing groundwater supplies, even if not presently overdrafted, are ever more frequently being threatened by contamination that may seriously restrict those sources of supply and thus increase expected shortages.

Projections of impending water shortages already take into consideration increased amounts of wastewater reclamation and re-use as well as reasonable measures to increase urban water use efficiency and strengthen water management practices. A high priority must continue to be placed on strengthening urban and agricultural water conservation efforts and increasing the use of reclaimed water. It is, however, important to recognize that these valuable measures do not take the place of the need to develop additional water resources to meet future water needs, including dealing with water shortages caused by drought. Moreover, the fact that many such measures have already been under-

taken in response to the 1976-77 drought and continue in effect, means that those measures will not be available to cushion the blows dealt by future water shortages. Water transfers and exchanges may help but will not solve the water supply shortage.

In those agricultural areas where water is lost for further use, steps should be taken to eliminate that loss. It is unrealistic, however, to assume that the problem of water shortage in California can be corrected through the elimination of agricultural "inefficiencies." In fact, most of California's agricultural water use is very efficient. In the Central Valley, for example, water "lost" to an individual farmer either as runoff or as deep percolation to usable groundwater is the supply for another diverter or pumper. As a consequence, the most reliable estimate of potential water savings throughout the entire Central Valley is less than 300,000 acre feet per year -- an amount less than the water shortage facing agricultural, municipal and industrial water users in that area.

In light of the foregoing, and considering the enormity of the economic and social impacts associated with the water shortages that are confronting California, ACWA believes that an adequate water supply must be developed to help meet existing and future needs and accomplish the goals of the California Water Plan. The need to move forward with a balanced water development program is even more compelling

considering the lack of significant water development in recent years and the fact that 10 to 20 years is often required from the time a project is authorized until it comes on line.

ACWA thus supports the continued development of the State's water resources, the pursuit of measures to maximize the efficiency of existing water systems and management programs, the expansion of reclaimed water projects, and the construction of additional projects to provide enough water to meet existing and future needs. Such development will be costly and should require that storage and conveyance projects demonstrate economic, financial and environmental feasibility. ACWA also believes that such development must be balanced with consideration for and protection of existing water rights, area of origin rights, fish and wildlife needs, and other beneficial uses.

Finally, ACWA believes that geographic and other competing water interests in our State can and must be reconciled in the interest of the State as a whole and that partisan politics should play no part in addressing water issues.

In consideration of the above factors, ACWA endorses the following principles:

WATER QUALITY

ACWA believes that providing good water quality is essential and that water quality considerations apply to both surface water and groundwater. Surface and groundwater sources must be protected from contamination. ACWA therefore supports water quality policies, programs, and standards that contribute to meeting the reasonable and beneficial water use needs of all Californians, and believes that priority should be given to providing the highest quality water for human consumption that is reasonably obtainable.

ACWA thus supports a comprehensive approach to water quality protection:

- Water development for domestic or municipal purposes should be from the highest quality source which is reasonably available.
- Water sources, particularly sources utilized for human consumption, must be vigorously protected against contamination or other water quality degradation.
- The most appropriate water treatment techniques for the particular use or uses involved should be applied.

- Blending of water supplies may be an appropriate measure to improve water quality in order to meet requirements for domestic purposes. This may require additional supplies of water to be made available.
- Technically sound and economically achievable water quality standards should be promulgated and enforced for the protection of water quality.
- Water quality standards should maintain a reasonable relationship between measurable public benefits and the cost of achieving those benefits.
- Research and development should be aggressively pursued for the purpose of developing alternative ways of meeting Safe Drinking Water Act requirements and increasing domestic water supplies.
- Water pollution source control should be the primary method of achieving instream water quality goals.

RESOLVING DELTA PROBLEMS

Resolution of transfer capacity problems in the Sacramento-San Joaquin Delta is an essential element in achieving a satisfactory solution to California's long-term

water supply problems. Present Delta operations of the SWP and CVP are dependent on the integrity of certain levees, are limited by inadequate channel capacity, require the release of excessive amounts of stored water and have an adverse effect on fishery resources. Export of additional surplus winter flows for storage south of the Delta is limited until Delta transfer system improvements are made.

In dealing with Delta transfer issues, ACWA takes the position that:

- Construction of Delta transfer facilities and development of water storage to capture winter run-off would effectively conserve additional water, improve water quality for both export and local use, and increase the operational flexibility of the State and federal water projects. This added flexibility could greatly decrease adverse impacts on fish and wildlife resources.
- Delta transfer facilities should be constructed and operated so as to minimize or, if possible, eliminate reverse flows in the Lower San Joaquin river. In conjunction with the construction of Delta transfer facilities, ACWA supports the Department of Fish and Game and the Department of Water Resources agreeing to implement measures to offset the State Water Project's impacts on Delta fisheries.

- In light of increasing pressures on public water supplies, it is essential that EPA and other federal agencies developing National Estuary Implementation Plans fully recognize the need to protect public water supplies developed from streams flowing into the estuary as well as other resources; and allow State, local and regional agencies that rely on those public water supplies to participate fully in developing those plans.

SAN FRANCISCO BAY - SACRAMENTO, SAN JOAQUIN DELTA ESTUARY

San Francisco Bay is an ecosystem greatly changed from the relatively undisturbed Bay which existed when the Spanish explorers first arrived. Changes have included sedimentation from hydraulic mining, municipal and industrial development and related filling of bay and wetlands areas, dredging for navigation, over-fishing, pollutant discharges from the Bay Area's burgeoning population and the introduction of non-native fish and aquatic organisms.

Despite these changes, however, the Bay is neither in a state of crisis nor facing imminent ecological collapse. To the contrary, the quality of San Francisco Bay waters has markedly improved in the last 20 years, primarily through the expenditure of billions of dollars in government grants to upgrade publicly owned sewage treatment facili-

ties. Further, there has been no reduction in annual freshwater inflow to the Bay as a consequence of flood control and water development projects. Not only were freshwater inflows to the Bay prior to Gold Rush days far less than previously believed, but actual inflow data show that, since the 1920's, freshwater inflows have actually increased because of wetter weather.

Some problems do remain for the Bay. These include relatively uncontrolled urban runoff, remobilization of pollutants by dredging activities and some inadequately controlled point-source discharges. The solution to these problems, however, is more thorough control of pollutants at the source, not more freshwater inflow. Indeed, since pollutants can and should be controlled at the source and will, in any event, be subject to the flushing action provided by the wind and tides, ACWA believes it is unreasonable within the meaning of the State Constitution to require the use of freshwater to flush pollutants from San Francisco Bay.

As a matter of policy, ACWA believes that the following should apply to the waters of the San Francisco Bay-Sacramento, San Joaquin Delta Estuary:

- Standards adopted by the State Water Resources Control Board should balance the protection of all reasonable and beneficial uses of Bay-Delta waters, including the use of water flowing into or exported from the Delta.

- Pollution from point and non-point sources into the Bay and Delta should be controlled as stringently as practicable.
- Enhancement of Delta water quality should be supported, where practicable, subject to statutory requirements that project benefits be paid for by the beneficiaries.
- Programs and facilities to assure safe drinking water for regions importing water from the Delta should be supported.
- Studies of the general and long-term condition of the Bay-Delta system relative to the effects of Delta freshwater outflow; municipal, industrial, agricultural and military point and non-point discharges; and dredging and filling activities, should be supported.
- The State Water Resources Control Board should provide for the continued monitoring of contaminants in the Delta.

AGRICULTURAL AND URBAN WATER MANAGEMENT AND CONSERVATION

Water agencies serving the people of California and most of the state's irrigated farmland have active water conservation programs.

Based upon the experience and success of these programs, ACWA, as a matter of policy, believes as follows:

- Conservation, reclamation and other refinements in water management practices should be an essential part of all water supply programs, but cannot substitute for water supply development.
- Conservation and reclamation efforts should be feasible and economic and should be focused on areas that will achieve real water supply savings; e.g., where water otherwise would unnecessarily, (a) discharge to the ocean or a saline body, (b) seep from unlined canals into unusable groundwater, or (c) escape into the atmosphere.
- Cities, counties and special districts should be encouraged to develop water conservation ordinances and guidelines that include water metering or other appropriate measures that can be implemented through the land-use planning or other administrative processes.

GROUNDWATER MANAGEMENT

Many beneficial groundwater management practices are currently being followed in California. Examples are long-practiced programs of conjunctive use of both local and imported surface water supplies and groundwater supplies and the protection of groundwater basins from toxic contamina-

tion or salinity intrusion. Successful management programs need sufficient supplemental surface water to recharge groundwater basins and provide a balanced total water supply.

Local groundwater management programs are effective and best administered at the local level in response to specific needs and conditions. State and federal involvement in developing groundwater management plans should be limited to providing financial and technical assistance.

ACWA supports and encourages groundwater management programs developed and implemented by existing local water entities or by new water entities formed by water users for the purpose of groundwater management. ACWA also believes that the development and conveyance of additional supplemental surface water supplies is needed for effective groundwater management.

Effective local groundwater management programs should address the following concerns:

- Recovery of degraded basins where recovery is feasible.
- Replenishment of overdrafted basins where replenishment is feasible.
- Protection of basins from contamination or degradation resulting from toxic materials, landfills, quarries or salinity intrusion.

- Use of available storage basin capacity where water banking is feasible.
- Management of basins with adequate water supplies so that overdraft does not occur.
- Conjunctive use development of under-utilized groundwater basins to augment surface supplies during years of low stream run-off.

AGRICULTURAL DRAINAGE

Salinity and drainage problems have confronted agriculture in California from the time irrigation was introduced in the second half of the nineteenth century. The buildup of salts in soil now threatens, for example, more than a million fertile acres in the Central Valley. Adequate drainage is of critical importance to the continued survival of agriculture in California.

Implementation of solutions to the drainage problem has always been difficult. Recently, however, solutions have become more complicated by the detection of potentially toxic elements in drainage water. Solutions to this complex problem must be found to ensure the viability of California agriculture, to protect public drinking water supplies and to protect the environment as well.

ACWA believes that any solution for treating or disposing of subsurface agricultural drainage water must be environmentally sound and economically feasible. The solu-

tions also must have long-term practicability -- something that will endure.

ACWA supports the research and development of environmentally safe and cost-effective drainage facilities.

In addition, ACWA recognizes the importance of on-farm and water district efforts to reduce or dispose of, through efficient irrigation water management, the amount of drainage water needing treatment.

ACWA actively supports efforts by farmers, water districts, local, State and federal government, and the academic and private sector to achieve these goals.

WATER TRANSFERS AND EXCHANGES

ACWA supports the concept of voluntary transfers and exchanges of water or water rights where such transactions recognize existing water rights and take into consideration potential adverse impacts on others. For many years, water exchanges have occurred among farmers and agricultural water agencies in the San Joaquin Valley, as well as among groundwater producers in the urban areas of Southern California. During the 1976-1977 drought, transfers and exchanges were part of the response by Federal, State and local agencies to these extremely dry years.

In the future, transfers and exchanges will be increasingly important as water managers strive to cope with droughts, limited water supply facilities and growing

demands for reliable water supplies. These strategies should continue to be part of a balanced state-wide water management approach that includes the sensible development of California's water resources.

However, water transfers and exchanges must be structured to resolve the legal, institutional, technical, economic and social issues that these transactions raise. Unlike rights to some other natural resources, water rights are rights to reasonable and beneficial use. California's water law reflects the complexities of this natural resource and the long-held objectives of California's citizens and lawmakers.

For these reasons, water is not well-suited to simplistic solutions that attempt to treat this essential resource "just like any other commodity." All water transfer and exchange proposals must be treated on a case-by-case basis. Virtually all proposals will face formidable legal, institutional, technical, economic and social issues in implementation -- issues that reflect the concerns of others who may be adversely affected by the proposed transfer or exchange, including other water users in the system and members of the surrounding community. Particularly in emergency circumstances such as droughts, ACWA believes that all public agencies should act expeditiously to accomplish necessary transfers.

PUBLIC TRUST

The California Supreme Court's Audubon decision in 1983 applied the public trust doctrine to the State's waters. As the public trust doctrine is integrated into California's water system, ACWA believes the courts, the Legislature and concerned governmental agencies should be guided by the following principles:

- Demand for public trust uses of water must be balanced along with all other competing demands for water without a preference or a shifting of any burden of proof.
- Once appropriative water rights have been subjected to a proper balancing of competing interests and any equitable adjustments made, then they should be issued and protected for consumptive uses, even though there may be foreseeable harm to public trust uses.
- Public trust uses must meet the same standards of reasonableness as other water uses and trustees of public trust uses must be required to demonstrate that water management principles have been applied to such uses in a manner consistent with requirements for other water uses.

- Many public trust uses are also protected by the modern water rights system, which requires balancing of the relative benefits of all beneficial uses, broad consideration of the public interest, and the exercise of continuing jurisdiction.
- Public trust limitations should not be applied to water supplies made available by man-made systems (e.g., reservoirs, and waterways conveying stored water) created in reliance upon, and for the purpose of implementing, lawfully-issued appropriative rights and adjudicated rights.
- The Legislature has the authority and responsibility to accomplish a public trust balancing and, if it does so in the future, the resulting legislation should expressly indicate that the determination encompasses the balancing process and fulfills the public trust obligation.
- Once a public trust determination has been made, subsequent rebalancing should only be conducted if significant changes have occurred.

- Public investment in and reliance on water supply systems should be given great weight in balancing the factors to be considered in making a public trust evaluation.
- A high degree of certainty is required in the establishment of water rights in order to provide the security necessary for adequate financing of required development.

FISH AND WILDLIFE PROTECTIONS

Storage, conveyance, and many uses of water inevitably involve fish and wildlife resources. Water systems may benefit fish and wildlife, but adverse impacts may also occur. While supporting continued development of water resources, pursuit of efficiency in existing systems and programs, and construction of new facilities to meet present and future water needs, ACWA recognizes that coordination of fish and wildlife needs is also essential. In seeking the proper balance between water development and protection of fish and wildlife resources, ACWA believes in the following principles:

- Protection and maintenance of fish and wildlife habitat, resources, and their beneficial use (both commercial and recreation) should be supported.

- Reasonable protection and mitigation measures for fish and wildlife resources affected by a water project should be incorporated into or constructed as a part of the project, preferably on-site, and costs should be borne by project beneficiaries.
- Where feasible, enhancement of fish and wildlife resources is a proper objective, and the cost of enhancement measures should be borne by those sponsoring or requiring the measures.
- Fish and wildlife beneficial uses must participate in the balancing process and must meet the same standards of reasonableness as all other uses.
- Fish and wildlife resources must be managed to meet the same responsibility and standards of reasonableness as all other water uses, including conserving water for other uses.
- As is true with other beneficial uses, water for fish and wildlife resources should vary with the available water supply in any given year.
- In the construction, operation and management of reservoirs constructed primarily for storage of drinking water, fish and wildlife resource uses in the reservoir should be