## WATER DEVELOPMENT - A POLICY EXERCISE

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Defining water development as "creating or allowing water to exist in a place where it has not existed previously for some technological, economic, political, or institutional reasons opens the door to conflicting policy issue stands concerning the identification of present stocks of water and future flow allocations.

Differing notions about future water deficiencies seem to be the driving force behind most water development policy issues. The fact that water development is costly — and that these costs are not perceived to be borne equally by those who are seen to benefit from the development — creates a set of policy issues based on equity which overlays questions about the necessity or technical possibility of water development.

Different perceptions about water scarcity and the future also lead to different views of risk. Private (profit oriented) and public (service oriented) entities see their water roles in society differently.

If one puts these factors into a policy problem solving context, the situation resolves into this: the field of water development historically has been pretty much confined to engineers and attorneys. These people have acted to serve a relatively limited number of economic and agricultural interests. The "older" actors must now share their turf with emerging interests of environment, recreation, energy, health, and concerned private citizens. These "new" entrants have limited technical and legal knowledge about the water industry, yet they bring aspects of value, ethics, and concern to the water policy arena which have often been greatly discounted or even dismissed in the past. Since there are many more voices debating the policy resolution of water issues, the process has become increasingly complicated, time consuming, and frustrating. It is difficult to come to a concensus about either the immediate problems or the alternative solutions to those problems.

Surprisingly, it has not been overwhelmingly difficult to establish generally agreed upon goals of water policy. One such goal is to provide enough water for future generations in the places they need it for various uses at costs they can afford.

The policy problem is how to accomplish this goal. Alternative water

development solutions include technical and physical ones such as building new dams and storage facilities. Esoteric methods include iceberg towing, desalination, and weather manipulation. Economists suggest modifying the pricing structure and letting the market sort out how much supply should satisfy which demand. And the institutionalist advocates changing the rules of the game such as mandating conjunctive use, revising water contracts, and changing water right allocations. While the criteria are different, each alternative could accomplish the goal.

The educational responsibility is to help facilitate the entire process by providing the analytical effort required to identify the consequences of various policy alternatives and by discussing the results with representative groups of concerned citizens.

The situation in California is this: after the sound defeat of two statewide water development and transfer initiatives, Cooperative Extension (CE) decided to take another educational tack. Director Siebert appointed a Water Task Force (WTF) made up of CE personnel with a county director as chair. The objective of this WTF was to initiate an educational program to knock down the walls of distrust and noncommunication among groups which had apparently solidified policy positions and stalemated each other. The WTF, composed of an interdisciplinary, knowledgeable group of eight people trained in water technology, policy, and communications, was given adequate budget for meetings.

Regional meetings were held throughout the state and involved all 58 county directors and staff members working in water/irrigation. The purpose of these meetings was to highlight the water policy issues, increase understanding about their possible resolutions, and organize channels of communication for future program efforts. It was also to get feedback on regional interpretation of the issues, pinpoint CE leadership potential in water studies, and inventory educational resources for future programs.

The WTF has been responsible for many meetings among CE staff. Tours have been conducted in all of the major agricultural and urban areas of the state: the San Joaquin Valley, Southern California/Los Angeles Basin, Sacramento Valley in the north, and from the Sierra foothills through the Delta to San Francisco Bay. The latter "Delta Tour" took participants from the source of the Bay Area's water to the sewerage treatment plants where it ends up. We observed solid waste disposal land fill projects, which carefully monitor the water runoff for water quality, and water reclamation projects involving the greenhouse cut flower industry and golf course irrigation.

The WTF also wrote several pamphlets on specific issues such as conservation, the Delta levees, and salinity. These have served as technical bases for discussing sensitive issues upon which there is known disagreement.

By involving interested people in the tours we, in effect, established a large extension demonstration plot. Director Siebert underwrote much of the expense of the tours, providing scholarships for those in groups which could not fund member travel. In addition, bus costs were defrayed by some of the local water entities and the State Department of Water Resources. Dinners and lunches were often supported by farm and nonfarm groups interested in water policy.

The end result of these meetings, tours, pamphlets, radio, TV, and legislative contracts has been a slow but sure movement toward consensus about water policy. It is slow and painful, and involves giving as many interests as possible the chance to state their opinions - once.

The open process of listening and giving full value to any individual's or group's opinion about water policy has given a new credibility to the University's involvement in water policy. Prior to the WTF, CE had been viewed as capable of providing only technical expertise rather than showing any policy leadership. CE is now seen as providing an objective forum which not only tolerates dissent but encourages full participation and respect for differing points of view, all of which are subject to technical comment and analysis.

This credibility was hard won. There were many people, primarily agriculturists, who thought the University had no business getting involved in educational programs about "politics." Specifically, CE set up and ran two statewide conferences each attended by about 120 people which taught the political process as it applies to water. An outside facilitator was hired to conduct the conferences. He received rave reviews because he stuck to principles of political science, was experienced enough to provide examples from almost any political setting to illustrate his points, and demonstrated the practicalities of seeking political solutions whether the subject involved water, air, or tin cans.

Even some CE technical people thought CE should not get involved in political strategems, values, and ethics but stick to what it knew about things such as water flow rates, erosion possibilities, or salinity coefficients. The seminar results, however, made them supporters of the WTF's policy approach just as participating in the seminars reversed the opinion of some of the "hard line" agricultural organizations.

In addition to other efforts, another private university system cosponsored with CE two statewide Water Forums aimed at creating interaction between the business/industry community and traditional water interests. While this had limited success in involving the industrial sector in water issue resolution, it was tremendously successful in bringing together two educational systems and their different clientele to discuss water policy.

Legislators and their staffs were involved from the very first. They

have acted as sounding boards, as critics, as sources of information and legitimization, and as a support group. At no time did the WTF attempt to usurp the decision making function of the legislature. Indeed, it was made explicit that the purpose of the WTF was to help identify the water policy issues, analyze alternative solutions, and offer them for discussion so that the political process could function on a more informed basis than it had been able to do.

General agreement has been obtained on several points. One is that there is enough water in California now, but that there will likely not be enough at some point in the future. Also, any future difference between effective demand and supply will vary from region to region. The process also legitimized different points of view about water. People discovered that in many ways each geographic area of the state had legitimate fears about future water supplies.

Perhaps the most significant result to date has been a general acceptance that different regions can have different answers for the same problem. This has profound policy ramifications in terms of regional reaction to a general law. For example, most everyone can agree that one policy goal is to conserve water wherever and whenever possible. When asked in the most recent Water Policy Forum whether conservation would permit the building of dams, most of the audience said no. However, the mountain counties said yes. The river was flowing by them and if they did not develop some water there would be none to conserve. Among the nodding heads we found the San Joaquin Valley counties which thought their answer to conservation revolved around recharging groundwater acquifiers and improving irrigation water saving techniques. The southern Californians said that they preferred recycling and reduced use, and one lobbyist spoke up for wilderness areas with no use of water allowed until some time in the future.

The means of articulating these solutions depended wholly or in part on technology, price/cost relationships, or changes in the institutional rules of the water game. Such ideas as these were listened to and debated by 22 different representatives of groups interested in water policy at our last Water Forum. People who previously could not even tolerate being in the same county with each other were sitting and talking together.

It is hoped that in the future, the CE/WTF will simply become an ongoing problem oriented work group, whose goal is to integrate water policy analysis into the everyday CE educational business within the counties' and the specialists' programs.



## DISTRIBUTION ISSUES IN FOOD & AGRICULTURAL POLICY