Remarks by Gilbert G. Stamm, Assistant Commissioner of Reclamation
Department of the Interior, at the Delta Water Conference
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Resolving the Unique Problems of the Delta

I am delighted to be in California again to discuss with you the unique water resource problems of the Sacramento-San Joaquin Delta area, particularly since we now appear to be very near a solution.

I have been aware of the intricate problems of the Delta for many years. But I don't think I began really to appreciate their magnitude and complexity until after I was appointed by Secretary of the Interior Udall as chairman of a special 3-man study-panel in December 1962. Recognizing that an apparent impasse had been reached in negotiations with existing water users along the Sacramento River and in the Delta area, the panel was charged with making an objective and impartial appraisal of the long-standing and complex issues involved and to recommend a basis for their resolution by negotiation and mutual agreement.

At the time Secretary Udall appointed the special panel, the problem had already existed and remained
unsolved for 18 years, ever since the completion of construction of Shasta Dam. It was and is the view of the Bureau of Reclamation that since operation of Shasta Dam has increased the dependable flow of water in the Sacramento River and the Delta, the water users in these areas have been benefited and should agree to pay for benefits received. Along the river above Sacramento this means payment for the amount of water used over and above the amount that could have been used if Shasta had not been constructed, and in the Delta this means payment for benefits related to water quality rather than quantity.

Despite intermittent and sometimes intensive negotiations from the time the dam was completed in 1944 until the panel was appointed in 1962, no agreement had been reached on how much water diverters with prior water rights were entitled to use, nor on the amount which they should be obligated to pay. From time to time during those 18 years, massive litigation was suggested to resolve the problem, but even those who strongly supported that course recognized that it would be an awesome task,
take as much as 20 years, and splinter the cohesive character of the Sacramento Valley and the Delta.

The first step taken by members of the panel was to become familiar with the history of the Sacramento River and the Delta. Then we arranged a series of meetings with the diverters in both areas. During a 2-week period we talked with and listened to about 350 water users and representatives of water user organizations.

After intensive and careful consideration, we concluded that while it was quite probable that a basis could be found for early agreement with Sacramento River diverters north of the city of Sacramento, it was clearly evident that agreements patterned along similar lines would not appropriately fit circumstances prevalent in the Delta. I'll go into the reasons why we felt the Delta had to be treated separately and differently in a few moments.

Once we reached that conclusion we concentrated our efforts on the major issues that needed reconciliation before agreement on contract terms could be reached with the Sacramento River diverters.
Following approval by Secretary Udall of the panel's report and recommendations, the regional office staff participated in numerous meetings with water users and their representatives to negotiate the detailed language of contracts to which all could agree. Basically, these contracts establish the amount of water which diverters can take from the river annually and the amount for which they are committed to pay the Bureau of Reclamation—at the rate of $2.00 an acre-foot. The water for which payment is required is project water, made available by construction and operation of Shasta Dam.

The Bureau recognized in negotiating these contracts that there was no way physically to separate the water made available through the Central Valley Project from the water to which the diverter had a privately held right. Therefore, we agreed to the use of the so-called "commingling" concept in determining the acreage eligible to receive project water in accordance with the excess landownership provisions of Reclamation law. Under the commingling concept, the water requirements of the eligible land
are determined each year and the delivery of project water to eligible lands is controlled on a monthly basis as well as seasonally.

In March of 1964 the first Sacramento River diverter contract was executed. I am pleased to report that we now have signed contracts with 114 diverters covering 95 percent of the total amount of water diverted from the Sacramento River. We expect to complete negotiations with the remaining diverters this year. With the signing of these contracts, the diverters have attained rights to a firm water supply from the river.

It would have simplified the job if we could have offered the same types of contract to the Delta water users, but, as I mentioned previously, the circumstances were significantly different and therefore the river solution was not applicable in the Delta. On the Sacramento River itself, all diversions are measurable and it was possible to determine the entitlements of the diverters to water from natural flow of the river and the degree to which control of the river by Shasta Dam had made
additional water available for marketing under contract to the diverters.

Because the Delta is in a tidal zone of the Pacific Ocean, there always has been and always will be plenty of water available. Additionally, much of the agricultural water use in the Delta cannot be physically measured with any reasonable accuracy. Even if the Delta were cut off from the flow of the Sacramento and San Joaquin Rivers, there would still be water in the Delta channels, and a large portion of the area would still be susceptible to subirrigation. The only trouble would be that it would be salt water from the blue Pacific. Thus, it is obvious that the problem in the Delta is not one of water quantity, but rather one of water quality.

This problem is not new in the Delta. Historically, during periods of low Delta outflow, the ocean salinity has crept into the Delta channels through Suisun Bay. Even before construction of Shasta Dam, water resource developments in the Sacramento and San Joaquin Valleys had increased
the consumptive use of water upstream from the Delta sufficient to aggravate noticeably the seasonally low natural inflow to, and outflow from the Delta. The maximum recorded extent of salinity intrusion occurred in 1931, causing most of the Delta channels to be adversely affected with salt water from the ocean.

Since Shasta Dam became operational in 1944, controlled reservoir releases have been made during the normally dry summer months. These releases, required for maintenance of suitable quality water at the intakes of the Delta-Mendota and Contra Costa Canals, create a hydraulic barrier which holds back the intrusion of saline waters that would otherwise degrade water quality in the channels of the Delta. With the influence of Shasta Dam operations, saline water containing more than 1,000 parts per million of chloride has never affected more than 6 percent of the Delta area.

That situation had prevailed from 1944 and still prevailed as we began to negotiate seriously with Delta water users in 1964 following the successful
contract negotiations with Sacramento River diverters. But it is a situation which we and the Delta water users know could be changing in the near future.

While the Bureau of Reclamation is now exporting approximately one and one-half million acre-feet of water annually from the Delta for use in the San Joaquin Valley and in the Contra Costa Canal area, within a few years when additional elements of the Central Valley Project and the initial units of the California Water Project have gone into operation, some 9 million acre-feet of water from natural sources and from storage releases will be exported from the Delta area for use in other areas of the State.

The Bureau of Reclamation will increase its exports to serve customers on the west side of the San Joaquin Valley after completion of San Luis Dam and the San Luis Canal, and, later, for delivery through the Bureau's proposed Kellogg Unit and San Felipe Division. Additional quantities will be needed for diversion upon completion of the East Side Division. The State of California will be making diversions for its North Bay, South Bay, and California Aqueducts.
At the same time that these diversions are being increased, more and more water is being and will be put to consumptive use in the Central Valley, which will result in further diminishing natural flows into and through the Delta.

The Bureau of Reclamation and the State of California are now considering the construction of a peripheral canal which will take water from the Sacramento River around the eastern periphery of the Delta to their pumping plants near Tracy, in order to assure a high quality of water for export southward. While the canal will not of itself affect the quantity of fresh water available for use in the Delta, its construction and operation will affect the complex hydraulics of the Delta channels. This aspect of future operations must be considered in negotiations with the Delta diverters. You'll hear more about the peripheral canal from other speakers today, so I won't go into detail now—but I want to point out that our negotiations must include consideration of conditions that would exist both with and without the canal.
The far-reaching impact of these future events has convinced negotiators on both sides that they should focus their attention on the quality of water available to the Delta, since quantity is not a problem with or without the planned export facilities.

With this as the objective, we have narrowed the scope of discussions to the consideration of three fundamental problems. They are:

First, the determination of water quality criteria and the points at which the water quality should be measured and maintained;

Second, the determination of the charge to be made by the United States for maintaining the quality agreed upon, and the determination of how and by whom payments would be made; and,

Third, a determination of how the excess land provisions of Reclamation law would apply in the Delta.

Negotiations have been carried out primarily with three organizations: namely, (1) the Sacramento River and Delta Water Association,
representing diverters in Sacramento, Yolo, and Solano Counties, and part of Contra Costa County; (2) the San Joaquin Water Rights Committee, mainly representing diverters in San Joaquin County and another part of Contra Costa County; and (3) the Negotiating Committee for Contra Costa County's Water Requirements. The State of California has also participated in these negotiation sessions through officials of the Department of Water Resources.

I am happy to report today that, after many meetings, we appear to have resolved most of the issues and are nearing agreement with representatives of the majority of the Delta diverters.

With regard to the water quality (the first-mentioned fundamental problem area), it has been agreed with the San Joaquin Water Rights Committee and the Sacramento River and Delta Water Association that, with certain stipulated permissible variations, water quality of not to exceed 1,000 parts per million of chlorides should be maintained at Jersey Point on the San Joaquin River and at Emmaton on the Sacramento River.
It has also been agreed that at certain points in the various sloughs and channels in the Delta, a quality of not to exceed 500 parts per million of total dissolved solids will be maintained on a monthly basis, again with certain variations allowable.

The agreement provides also that after 1980 the quality criteria at the two main river measuring stations may be revised on the basis of undue hardship to either party.

The proposed peripheral canal, according to the agreement, will be operated so as not to violate these objectives. In fact, the Bureau's plans contemplate that the canal will be operated to release excellent quality water from the canal directly into the sloughs and channels of the Delta, thereby achieving a much greater control over Delta water quality than is otherwise possible.

Finally, the water quality criteria agreed upon includes the operation of New Melones Dam on the Stanislaus River to provide a quality of water in the San Joaquin River at Vernalis of not to
exceed 500 parts per million of total dissolved solids.

The second basic problem was the matter of payment for the benefits received from the Central Valley Project. In this connection, discussions among representatives of the Bureau, the Sacramento River and Delta Water Association, and the San Joaquin Water Rights Committee indicate that agreement can be reached on an annual payment which can justifiably be recommended to the Secretary of the Interior and to the voters of the water user organizations. In fact I understand that local agreement has been reached on a figure of $200,000 annually.

The manner in which the annual payment will be collected and the designation of a contracting entity with the Federal Government has not yet been determined. Because of the complexity of the water rights, the inability to withhold water from individual diverters, and the inability to make good quality water available to one diverter and withhold it from his neighbor, it is highly desirable from
the standpoint of both the local interests and the United States to have a single local public agency represent the Delta. If a single agency cannot be organized, possibly the same objective could be reached if the water users preferred to form several public organizations which together would encompass the benefited Delta lands. Although such an entity or entities do not exist at present, I understand an attempt in this direction will be undertaken soon. I hope this can be accomplished so we can proceed rapidly with the drawing up and signing of contracts.

The third major area of discussion during the negotiations has centered around the excess land provisions of Reclamation law. Since most of the water use in the Delta is for irrigation, the land limitation provisions of the law must apply. But they apply only to project water furnished, and not to water available through prior entitlements or non-Federal sources.

As I mentioned earlier, physically separating project water from nonproject water is a large part
of the Delta simply cannot be done. It seems probable that the final contract language approved by the Bureau of Reclamation and the Department of the Interior will invoke once again the commingling principle.

We know that there is more than enough eligible land in the Delta to result in compliance with the excess land provisions if the Delta is treated as a whole and if the Sacramento River contract formula is applied. The Delta situation is unique because the objective is to maintain an adequate quality of water while historically both the acreage limitation article of Reclamation law and the implementing provisions of water user contracts have been in terms of water quantities. I am optimistic that this problem can be resolved to the mutual satisfaction of all concerned.

You have probably noted that I did not include the Negotiating Committee for Contra Costa County among the water user groups with which we have reached agreement in principle. The problem of maintaining water quality in the western extremity
of the Delta is much more difficult than the problem in the main Delta.

Some water users represented by that negotiating committee have requested that we release enough water from the Central Valley Basin into the Delta to provide water in the river channels at the western tip of the Delta of good enough quality to meet municipal, industrial, and agricultural needs. Unfortunately, we have found that releases necessary to accomplish this end would be disproportionately large in relation to the quantity of usable water to be provided as to make this course unjustifiable.

Below Emmaton and Jersey Point, deterioration of water quality accelerates progressively at an extremely rapid rate. Attempting to maintain quality in the western Delta by pouring good water into the northeastern end is comparable to pouring thousands of gallons of water through a leaky garden hose in order to use only the trickle coming out of one of the holes.

We believe that the needs of the western end of the Delta can best be met by deliveries through the existing Contra Costa Canal and later through
the proposed Kellogg Unit which will insure Contra Costa County of water adequate in both quality and quantity to meet its reasonable future needs.

Resolving the problems of the Delta once seemed like an all but impossible task. While we have not yet developed agreed upon proposals to resolve them in their entirety, I am confident that at least for the major agricultural areas of the Delta, we jointly have developed a basis for a fair and workable agreement.

The major stumbling block to the speedy execution of contracts guaranteeing Delta irrigators a consistent supply of good quality water and providing for appropriate payment for maintaining that quality appears to be the formation of a suitable contracting organization.

I understand that legislation may soon be introduced in the State Legislature to create such a public entity. I hope the necessary legal steps can be accomplished rapidly.

I expect that by the time such a contracting agency has been created, the Bureau of Reclamation
and local interests will have reached agreement, at least informally, on a mutually acceptable contract that will finally resolve the unique water problems of the Delta area.

Assuming so, this will conclude another important chapter in the water resource development history of this fabulous State of California.

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