

BEFORE THE
STATE WATER RESOURCES CONTROL BOARD

IN RE:	)	COMMENTS OF LLANO SECO
	)	RANCHO, MAXWELL IRRIGATION
	)	DISTRICT, MERIDIAN FARMS
REVIEW OF STANDARDS FOR THE	)	WATER COMPANY, NATOMAS
SAN FRANCISCO BAY/	)	CENTRAL MUTUAL WATER
SACRAMENTO-SAN JOAQUIN DELTA	)	COMPANY, PARROTT INVESTMENT
ESTUARY	)	COMPANY, RECLAMATION
	)	DISTRICT NO. 108,
	)	RECLAMATION DISTRICT NO.
THIRD WORKSHOP IN A SERIES,	)	1004, SOUTH SUTTER WATER
	)	DISTRICT, SUTTER MUTUAL
JUNE 14, 1994	)	WATER COMPANY, ZUMWALT
	)	MUTUAL WATER COMPANY
	)	(collectively the "Sacramento Valley
	)	Diversers")
)	

INTRODUCTION

The Sacramento Valley Diversers¹ support the policy of state primacy in the development and implementation of water quality standards for the Bay-Delta Estuary. They also support the State Water Board's decision to consider all factors, not just diversions, that affect Bay-Delta fish and wildlife resources. As discussed below, numerous factors have contributed to the decline of certain Bay/Delta fish and wildlife species. While the Sacramento Valley Diversers

¹ The Sacramento Valley Diversers hold some of the most senior water rights in the Sacramento Valley. Their water rights are summarized in the following exhibits from the D-1630 hearings: WRINT Maxwell #6, WRINT MFWC #17, WRINT NCMWC #17, WRINT LSR #17, WRINT RD 108 #17, WRINT RD 1004 #17, WRINT SMWC #17, WRINT SSWD #13, WRINT ZMWC #17).

believe that the principal cause of the Bay-Delta decline is the operation of the state and federal export projects (the impacts of which include direct loss by entrainment; impacts associated with reduced Delta outflow; and impacts associated with changes in flow patterns and volumes in the internal Delta), they also believe that other factors such as commercial and sport fishing, water pollution and the introduction of exotic species have contributed substantially to the decline.

We agree with the statement of the Department of Water Resources that a comprehensive examination by the Board of all factors that affect fish and wildlife resources in the Bay-Delta can form the basis for a comprehensive plan for the State that puts all planning, management and regulatory options on the table. In our view, the Board cannot solve the Bay-Delta problem by focussing on diversions alone.

While the State Board should not attempt to make specific water allocation decisions in its new water quality control plan (due process considerations and CEQA preclude this), the Board should take this opportunity to reaffirm that the water right priority system -- including area of origin and watershed protection statutes -- is alive and well. Understandably, the Board would prefer that the various affected parties reach a consensus on the development and implementation of new Bay-Delta standards. But if the agricultural water users that hold many of the senior rights on the system are to come together with more junior export users, there must first be a reaffirmation that water right priorities (including area of origin rights) will be honored. Absent such reaffirmation, a negotiated resolution will be extremely difficult to achieve.

RESPONSE TO KEY ISSUES

These comments will focus on key issues 1 and 3.

1. What factors, excluding diversions, contribute to the decline of fish and wildlife resources in the Bay-Delta Estuary?

As DWR Director David N. Kennedy recently observed, we do not know as much as we pretend to know regarding the causes of decline of fish and wildlife resources in the Bay-Delta Estuary. We need to recognize the existence of significant scientific uncertainty. Such recognition, in turn, suggests a cautious approach to the development of new standards and implementation measures.

A vast array of factors have probably contributed to the decline of the Bay-Delta ecosystem. These include:

- California's burgeoning population, which has gone from 1.5 million in 1900 to 20 million in 1970 to over 30 million today.
- Commercial and sport fishing
- Droughts
- Floods
- Forest practices in the upstream watersheds
- Industrial and municipal waste discharge to the Bay-Delta and the upstream waters
- Wholesale alteration of the Delta's species composition through the introduction of striped bass and other species.

Some factors, such as water pollution, are directly within the State Board's authority to control. Other factors affecting the Bay-Delta resources, such as commercial and recreational fishing, cannot be directly addressed by the State Board. While the State Board cannot directly regulate fishing, it should recognize that such regulatory measures have a direct impact on salmon and other species. The State Board can and should take an active role in advising and consulting with the appropriate regulatory agencies to implement a broad-based and coordinated program of resource protection. To do otherwise would render the State Board's other Bay-Delta actions meaningless.

Factors Affecting Chinook Salmon

Species such as chinook salmon pass through the Bay-Delta Estuary on their way to and from upstream spawning and rearing areas. The testimony of Steven P. Cramer to the State Board on July 9, 1992 on behalf of twenty Sacramento Valley and San Joaquin agencies showed that Delta exports and ocean harvest rates have impacted the chinook salmon resources of the Sacramento River.² Among the findings cited by Cramer were:

- 1) The annual variation in historic chinook salmon abundance is unrelated to water diversions upstream of the Delta. The amounts of water diverted and the timing of these diversions has changed little since before the decline of the Bay-Delta's fish and wildlife resources.

² This testimony was presented in the following exhibits: WRINT NCMWC # 19, WRINT RD 1004 # 19, WRINT RD 108 # 19, WRINT LSR # 19, WRINT MFWC # 19, WRINT SMWC # 19, WRINT SSWD # 14, and WRINT ZMWC # 19.

- 2) The key factor that influences Sacramento River chinook salmon survival is temperature, not flow.
 - 3) Ocean harvest rates have exceeded the rates that naturally-produced stocks can withstand.
 - 4) The combination of drought and expanded water exports has altered the salinity patterns in the Delta.
 - 5) Predation may be a significant cause of juvenile chinook salmon losses.
3. **What effect do upstream water projects, other than the CVP and SWP, have on the fish and wildlife resources of the Bay-Delta Estuary?**

The Sacramento Valley Diverters take exception to the characterization of this issue as expressed in the Notice of Public Workshop. The Sacramento Valley Diverters are not aware of any evidence linking their beneficial uses of water with the decline of Bay-Delta resources that has occurred since the mid-1960's. The annual diversions by Sacramento Valley Diverters have remained relatively constant over the last 30 years. The evidence indicates that these historical diversions did not adversely affect Bay-Delta fish and wildlife populations.

The decline of the Bay-Delta fish and wildlife resources are a direct result of the SWP and CVP operations in the Delta. The greatest change in water development conditions affecting the Estuary since the mid-1960's has been the increase in Delta exports and related changes in export project reservoir operations and flow regulation. CVP and SWP exports have impacted the biological resources of the Estuary by changing the volume of water and the direction of flow in Delta channels, by directly entraining fish at the project export pumps, and by

contributing to an overall reduction in Delta outflow. Despite the obvious effects of exports on Delta hydrology and aquatic resources, there continues to be an unbalanced emphasis placed on salinity/outflow relationships. The result of this kind of "habitat-based" approach is that it fails to come to grips with an essential element of the habitat, namely the overwhelming impact of the CVP and SWP export pumps.

The linkage between Delta exports and the 2 part per thousand isohaline standard in Suisun Bay is acknowledged in EPA's proposed rule for water quality standards for the Bay-Delta Estuary: "Dr. Peter Moyle testified to the State Board that nursery habitat (represented by areas of low salinity) in Suisun Bay is now more important than it was historically due to the high risks of entrainment faced by fishes in the Delta." (59 Fed.Reg. 816.) In other words, under pre-project conditions and probably under conditions of limited export pumping, the Delta itself provided a valuable nursery area. Moyle and the co-authors of a 1992 paper on Delta smelt made a similar point when they wrote:

Increased diversion of fresh water from the estuary has altered both the location of the mixing zone and the flow patterns through the Delta during much of the year During the months when Delta smelt are spawning, the changed flow patterns presumably lead to greater entrainment of spawning adults and newly hatched larvae into water diversions. The combined effects of habitat constriction and fish entrainment provide the most likely explanation of the decline in abundance. (WRINT-USFWS 28, at p. 75.)

Even if outflows and salinity conditions had not changed since the historic reference period used by EPA, increased CVP and SWP exports since that time still would have caused the recent declines in species like striped bass or Delta smelt that frequent western Delta waters influenced by the pumps. If the goal is to protect estuarine resources -- as opposed to protecting

estuarine salinity -- then the protective criteria must focus on the primary factors affecting those resources, i.e., entrainment and reverse flows caused by export pumping.

Although EPA's proposed estuarine habitat standard ignores exports, the agency proposes to rely on salmon smolt survival models that are in large part export-driven. If the fate of salmon migrating through the Delta is linked to export pumping, then "estuarine habitat" protection should directly address the impact of export pumping. All the participants at the SWRCB's April 26 workshop urged the State Board to take an "ecosystem" approach to the Bay-Delta rather than a fragmented, species-by-species approach. The Sacramento Valley Diverters also recommend that the State Board develop a unified and comprehensive approach to estuarine protection, rather than one that compartmentalizes protected uses and selectively ignores factors that contribute to the decline of many aquatic resources.

Area of Origin Laws

The area of origin laws were designed to prevent the CVP and the SWP from taking water needed in an area of origin for delivery to export customers; that is, they provide protection from the direct impacts of the export projects. Additional upstream water necessary to overcome the impacts of Delta exports must be considered as part of the export projects' "overhead." The protection accorded areas of origin limits the right to export water-deficient areas to water that is surplus to the needs of the area of origin. Protected needs of areas of origin include both beneficial uses and water needed by public trust resources. Water required for existing beneficial uses and for public trust resources upstream of the Delta, as well as the water required for salinity control in the Delta, is not surplus to the needs of the areas of origin

and may not be exported. Because water exporters are limited to surplus water, additional water needed to protect Bay-Delta resources must be obtained by reducing exports or providing new sources of water.³

CONCLUSION

The Sacramento Valley Diverters appreciate the opportunity to submit these comments.

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³ One of the most original purpose of the CVP, and later the SWP, was the protection of the Delta against salinity intrusion. Delta protection was an underlying part of the project design and authorization, and has been a key consideration in the operation of the CVP and SWP. Allocation of responsibility for water quality to protect Delta uses should take into consideration the fact that one of the primary purposes of the CVP and SWP was Delta water quality protection from salinity intrusion.