Statement of the California Department of Fish and Game Presented by Dr. Perry L. Herrgesell Bay Delta Water Policy Coordinator At

Workshop to Receive Recommendations to Improve Fishery Resources, Including Actions to Slow or Stop the Decline of Delta Smelt, and Improve Water Quality Conditions in the San Francisco Bay/San Joaquin Delta Estuary

Tuesday, June 19, 2007

The Department of Fish and Game appreciates the opportunity to provide input to the Board on the important and urgent matter of declining fishery resources in the San Francisco Bay/San Joaquin Delta Estuary. Of particular concern to us is the recent serious and unexpected decline (approximately 90%) in young Delta smelt produced this season. As alarming as the reduced numbers are, this decline is only part of a more generally observed decline in other important fish and aquatic resources in the estuary. We have participated in previous workshops held by you and provided scientific information and findings on this decline of pelagic organisms. We think your involvement is crucial to developing a comprehensive and long term solution to fix the "broken Delta".

There are probably many causes for the decline in pelagic organisms and our understanding of the causes is limited. That is why Governor Schwarzenegger has initiated a comprehensive Delta Vision effort. In addition, many state and federal agencies, along with a growing number of environmental groups, signed a formal Planning Agreement in September 2006 and are developing the Bay Delta Conservation Plan (BDCP) for at-risk fish species under the provisions of the State Natural Community Conservation Planning Act (NCCPA) and Section 10 of the federal Endangered Species Act that allows for Habitat Conservation Plans (HCP). These efforts will provide a framework, plan, and commitment for future action. We encourage your board to be involved in these efforts as they evolve.

As you recall from our earlier POD presentations, there are three categories of stressors that are associated with the decline of pelagic species. They are: water diversions, invasive species and toxics. Board actions could be taken in each of these areas.

Water Diversions

Clearly water diversions from the Delta can cause direct and indirect mortality of Delta smelt and other aquatic organisms. For this reason, the Department of Fish and Game and other fishery agencies have worked with the Department of Water Resources (DWR) to put in place several measures that reduce the effects of these export diversions. This year, by late May over 300 TAF of Environmental Water Account water was used to implement fish protection actions during this water year. During winter and early spring

the agencies collectively made decisions to reduce net upstream flow in Old and Middle Rivers during spawning of Delta smelt. Project operators accomplished this by reducing export pumping. When juvenile smelt take occurred at the SWP intake facility in late May, DWR and the Department of Fish and Game (DFG) jointly announced further curtailment of SWP Delta diversions and DFG requested voluntary curtailments by other Delta diverters. DWR stopped SWP Delta diversions entirely on May 31 for 12 days with future protective actions continuing to be guided by the best science and adaptive management. On June 1 DFG wrote to over 300 water diverters in the Delta asking them to "voluntarily cease or substantially reduce your diversions from the south delta channels..." DFG also restricted all non-essential scientific studies and fish sampling/monitoring that may incidentally take Delta smelt.

As you are aware, there are several legal challenges currently in the court system regarding the state and federal water project operations and their effects on the endangered Delta smelt. DFG is involved in deliberations designed to develop operations remedies to provide to the judge on one of these lawsuits and because of confidentially agreements we are unable to discuss operational solutions. However, we can suggest that your board should continue to follow the progress of scientific investigations and results developed in the synthesis report being developed by the POD studies team and reserve jurisdiction and consideration for taking appropriate water rights actions as information regarding the effects of the state and federal pumps evolves. In this context, we feel that it is important for the Board to consider adjusting the terms and conditions of the water rights permits for the State and Federal water projects when those permits are modified during any future reviews. These permits have not been recently adjusted and funds to support needed and urgent monitoring and scientific studies in response to the POD have been redirected from other important monitoring in the estuary being carried out by the Interagency Ecological Program (IEP). We suggest that the terms and conditions of these water rights permits should be modified to require a greater obligation of the water projects for monitoring the Pelagic Organism Decline. POD monitoring should be a required condition of the water rights permits. We stand ready to work with our IEP partners to provide you with suggested monitoring needs for inclusion in water project permits.

Your board could take one action immediately that could assist in reducing impacts on smelt. We agree with the State Water Contractors recommendation in their June 5, 2007 letter to the Honorable Darrell Steinberg and Lois Wolk that your Board "… review the effect of in-Delta pumping on smelt and develop appropriate actions to reduce those effects." We have already notified most of the local diverters about the need to reduce pumping during times of smelt presence. We would support you having a hearing to consider implementing an action plan to reduce pumping by individual ag diverters in the Delta at least by the delta smelt spawning season next spring.

We have consistently asked your board to assist in providing more flows from the San Joaquin River to improve the survival of migrating juvenile Chinook salmon. Higher flows over a longer period of time in the spring would not only help salmon and steelhead, but also would be valuable in contributing to flow conditions in the south delta

that would be beneficial for delta smelt. We have provided you information in the past regarding VAMP and its success or lack thereof in meeting San Joaquin river salmon flow needs. Again we agree with the State Water Contractors (June 5 letter) that DWR should be directed "to work with the Bureau to augment or redirect San Joaquin flows to better protect smelt." Your board should work to facilitate such coordination between the State and federal projects. Finally, we recommend that you consider making additional water available from the San Joaquin Valley for at least a 5 to 10 year period to be used for South delta habitat improvement for smelt, but in a salmon friendly manner. We encourage the Board and our many partners to consider the importance and the upcoming opportunities to integrate Delta and Delta tributary operations as a key element to addressing POD declines, and ultimately assuring successful implementation of the NCCP/HCP now under development, or as an interim strategy. We note the recent purchase of additional water supplies from Oakdale Irrigation District and Merced Irrigation District as two examples that perhaps can be formed into a longer term framework of additional water supplies to implement protective conditions in the Delta and the tributary of origin. Second, we urge the Board to help all parties integrate the independent activities, administrative actions and permitting efforts upstream of the Delta (above I St on the Sacramento and Vernalis on the SJR) with the expanding efforts in the Delta such that solutions of a "watershed" scale can and will become active components of the Delta solutions. Water quality certifications, water right conditions, FERC relicensing, TMDL's, water exchanges, development of new and more reliable surface supplies thru surface and groundwater from local conjunctive use projects, water use efficiency, focused grant and contractual work and many other strategies upstream of the Delta could prove extremely valuable tools in a more reliable water supply for all beneficial uses......each piece contributing measurable benefits. Limiting the focus of a solution only to the Delta may not be effective. We stand ready to work with your staff and others to solidify a specific program to accomplish this.

Invasive Species

The Bay/Delta Estuary has been called the most invaded estuary on earth. Among the hundreds of introduced species, many cause competition, predation, or habitat modification that are detrimental to Delta smelt. Collectively all of these species are profoundly affecting the ecological functioning of the estuary. We recommend that your board do all it can to reduce the introduction of these new and detrimental species to the system. Specifically, any actions you could take to limit or eliminate ballast water discharge from ships visiting the estuary would be critical. DFG and DWR are working aggressively to prevent new invasions. Our two agencies responded swiftly when the quagga mussel *Dreissena* was discovered in Lake Mead and the Colorado River.

<u>Toxics</u>

Since 2005, POD scientists have been conducting toxicity screening of the waters in the Delta and Suisun Bay. Studies in 2005 and 2006 focused on the summer months when juvenile smelt are present in the Delta. To better characterize toxicity during the smelt spawning period, bi-weekly sampling and aquatic toxicity testing was initiated in January

2007. Preliminary evidence indicates potential toxicity in the Delta this winter and spring. The most troubling fact about these detections is that they occurred in the spawning area for Delta smelt this year when both adults and their young were present. Although there is no evidence of direct toxicity to the delta smelt, water toxicity could affect food availability for the species.

Researchers have initiated toxicity testing of hatchery spawned delta smelt and are collecting samples upstream of the toxic sites in an attempt to identify the source and cause of the toxicity. We understand that your staff and the Central Valley Regional Water Quality Control Board are actively evaluating all of this year's information to identify any necessary actions to prevent this type of toxic effect on endangered species from happening in the future. We encourage you, as does the State Water Contractors (June 5 letter) to make this work a high priority and recommend that you direct the Central Valley RWQCB to review impacts on smelt and associated effects of wastewater discharges from wastewater treatment plants in the Delta and develop actions to reduce the effects of those discharges on smelt."

Finally, a word about tradeoffs. Whatever actions your Board takes we encourage you to seek input from all parties of interest. As you know, there are no independent actions that can be taken in this complex system. Fishery agencies constantly balance needs of various listed species (for example, delta smelt, winter-run and spring-run salmon, steelhead) and important non-listed species (for example fall run salmon). Actions that affect the water projects also can potentially affect other users of water in the valley including State and federal wildlife refuges. Before any actions are implemented ample review of associated impacts is needed.

DFG is supportive of your board taking actions to protect the pelagic species and in particular the Delta smelt. We will work with you and your staff to accomplish this important result.