SENT VIA EMAIL/FIRST-CLASS MAIL

February 8, 2011

Charlie Hoppin
State Water Resources Control Board
1001 I Street
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Sacramento, CA 95812-2815

Re: Draft Technical Report Workshop-Predation

Dear Mr. Hoppin:

For years, the San Joaquin River Group Authority ("SJRGA") has attempted to bring the issue of predation by non-native species on endangered salmon and steelhead to the attention of the SWRCB. Finally, at the January 6-7, 2011 workshop to discuss the *Draft Technical Report on the Scientific Basis for Alternative San Joaquin River Flow and Southern Delta Salinity Objectives*, representatives from the National Marine Fisheries Service ("NMFS"), UC Davis, The Bay Institute and the Natural Resources Defense Council ("TBI/NRDC"), the US Bureau of Reclamation ("USBR"), the US Fish and Wildlife Service ("FWS") the Department of Fish and Game ("DFG"), the United States Environmental Protection Agency ("USEPA"), and the SWRCB staff, in its presentation, all acknowledged that predation by non-native species is an issue that can and should be addressed to aid the recovery of the endangered salmon and steelhead species in the Delta, the San Joaquin River and its tributaries. The only solution offered by the agency representatives, however, was simply to increase the San Joaquin River flow requirements.

The disconnect at the hearing between the acknowledgement of the predation problem and the proposed solution of more flows was appalling. Despite every panelist indicating that the environment in South Delta was "bad," "horrible" and "terrible" for migrating salmon smolts, none were able to articulate the reasons for this. Clearly the environment in the South Delta is "bad" because salmon smolts are dying at an unprecedented rate. You did not hear at the workshop that the salmon smolts are dying because of insufficient food supply, are dying because the water temperature is too hot, are dying from toxic substances or contaminants in the water, are dying because the dissolved oxygen level is too low, or are dying from entrainment.

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The reason the salmon smolts are dying in the South Delta is: PREDATORS ARE EATING THE SMOLTS.

Rather than address predation directly, the panelists cling to their ideology that more flow is better. Why is more flow better? The panelists indicated that more flow will (1) increase turbidity, which makes it harder for the non-native species to seek out and prey on the endangered species; (2) lower water temperatures, which suppresses the appetites of non-native predators; (3) increase velocity to (a) propel salmon smolts past the predators, (b) flush the predators out of the South Delta so they cannot feed on the salmon smolts, and (c) reduce the warm lake-like habitat favorable to non-native species. In almost every instance, the desire for more flow was justified by the panelists on the grounds that it would address the predation problem.

The rationale that increased flows may potentially reduce predation, however, lacks a foundation in science. Contrary to the panelists' assertions, turbidity can be increased by non-flow measures, additional flows will not effectively lower water temperature such that predation will be reduced, and higher flows and colder temperatures have not deterred non-native predatory fish from swimming upstream in the Stanislaus River. Thus, increasing flows to address predation simply because it may "possibly" help the situation does nothing more than attempt to alleviate the symptoms rather than truly address the actual problem. Predation is an issue by itself and needs to be treated as such. Even assuming that increased flows would have a positive impact in reducing predation, the application of more water is far too costly a method to employ, and, as the DFG is responsible for introducing these piscivorous non-native species, the DFG should be responsible for eradicating them.

Sixty-nine percent of the non-native predatory fish were introduced to California waters by the DFG and the California Fish and Game Commission ("FGC"), and at present, these non-native fish vastly outnumber the native fish in the Delta. The DFG and FGC continue to employ methods that encourage not only the mere survival of these non-native species but also further promote their abundance. Despite recommendations in both the 1995 and 2006 Water Quality Control Plans (Water Quality Control Plan for the San Francisco Bay/Sacramento-San Joaquin Delta Estuary 1995, p. 36; Water Quality Control Plan for the San Francisco Bay/Sacramento-San Joaquin Delta Estuary 2006, p. 36-37) to reduce impacts of introduced species on the native species in the Delta, these non-native species remain heavily regulated to maintain their populations, and until the early 1990s, the DFG continued to stock several of these non-native predatory species in California waters.

Rather than increasing San Joaquin River flows to reduce predation, which, to date, has not been proven successful, predation can be addressed immediately by eliminating the sport-fishing regulations which currently protect the non-native piscivorous fish. Thus, predation by non-native species can be reduced effectively and inexpensively by allowing more of these non-native species to be taken by anglers. Both NMFS and the DFG believe that deregulation of the non-native predatory species would be a successful non-flow method of direct predator suppression to implement in California. Recently NMFS advised the FGC to deregulate the non-native predatory striped bass by eliminating the bag limit and minimum size limit and by expanding open season to year-round in an effort to reduce their predatory impact on the native species. (May 13, 2010 letter from Maria Rea of NMFS to Jim Kellogg of the FGC.) The DFG

too has commented that striped bass predation on endangered salmon would be reduced by deregulating striped bass because maintaining the current striped bass sport-fishing regulations protects the striped bass population and increases predation. (Dep. of Marty Gingras, Cal. Dep't of Fish & Game Rule 30(b)(6) Designee, *Coalition for a Sustainable Delta, et al. v. McCamman*, Case No: 1:08-CV-00397-OWW-GSA at 612:2-9 (2010).)

Similarly, focused predator control in high predator density locations has been recommended in the draft Bay Delta Conservation Plan ("BDCP"). The BDCP suggests conducting site-specific predator eradication, which consists of "hot spot" predator removal via large purse seine nets and removal of abandoned structures and vessels that enable predators to prey on endangered species more easily. In addition to reducing the number of the fish directly by eliminating the protective regulations and/or conducting site specific eradication of these non-native species, predation could also be reduced by classifying the non-native piscivorious fish as aquatic invasive species and implementing long-term control and management activities under the established Aquatic Invasive Species program.

As other non-flow methods of direct predator suppression have effectively been employed to treat predators in other states, such methods can and should be applied in California instead of increasing San Joaquin River flows. For example, fish bounties, restaurants featuring predators on the menu and cookbooks containing recipes for predators are gaining popularity because they not only help protect the endangered species, but they also allow the general public to participate. Since 1990, the Bonneville Power Administration in the Pacific Northwest has paid anglers to remove more than 3.5 million large northern pikeminnow from the Columbia and Snake rivers, thus reducing pikeminnow predation on young salmon by about 4 million to 6 million a year or an estimated 37 percent. Additionally, the National Oceanic and Atmospheric Administration is presently working with chefs, spear fishermen and seafood distributors on a campaign to eat the Indo-Pacific lionfish until it no longer exists outside its native habitat, as the lionfish, which is not native to the Atlantic Ocean, is harming reefs by rapidly reproducing and voraciously consuming native species. In the same fashion, to combat the population escalation of the Chesapeake Ray, which has resulted in increased consumption of valuable Chesapeake oysters, clams and scallops in the Chesapeake Bay, the state of Virginia is promoting its Eat a Ray, Save the Bay program to create a market for the ray.

Water is a precious resource in California, so precious that the state constitution prohibits its waste and unreasonable use, and thus it should not be used carelessly to resolve predation. First, increasing flows has not been proven a successful method for reducing predation by non-native predatory fish on endangered salmon and steelhead. Second, cost-effective non-flow methods that have been proven to work can easily be employed. Third, predation should not be dealt with at the water right holders' expense. The DFG and FGC created the predation problem by introducing and encouraging the abundance of non-native predatory species, not the water right holders. Fourth, DFG and FGC should be responsible to remedy the predation problem as it is not only a consequence of their actions but also, they are in the best position to take action because they can immediately deregulate the non-native species, address the non-native species as aquatic invasive species, implement site specific control methods, and authorize fish bounties.

Water is far too valuable a resource to be squandered on a theory that may only probably reduce predation by non-native piscivorious fish on endangered species, especially since other proven, economical, non-flow methods can easily be employed instead. Rather than continuing to evade

the issue by merely applying more water in hopes that the situation will resolve itself, it is time that predation is approached directly.

Very truly yours,

O'LAUGHLIN & PARIS LLP

TIM O'LAUGHLIN

TO/tb

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