12 July 2016

Central Valley Regional Water Quality Control Board
11020 Sun Center Drive, Suite 200
Rancho Cordova, CA 95670-6114
Sent Via Email

RE: Pyrethroid TMDL and Basin Plan Amendments for Sacramento and San Joaquin River Basins

Dear Central Valley Regional Water Resources Control Board,

Thank you for the opportunity to jointly comment on the proposed Pyrethroid TMDL and Basin Plan Amendments for Sacramento and San Joaquin River Basins. The Pacific Coast Federation of Fishermen's Associations (PCFFA) is the largest trade association of commercial fishermen on the West Coast. For forty years, PCFFA has led the industry in assuring the rights of individual fishermen and fighting for long-term survival of commercial fishing as a productive livelihood and way of life. As PCFFA's sister organization, the Institute for Fisheries Resources (IFR) is dedicated to the protection and restoration of fish resources and the human economies that depend on them. By establishing alliances among fishing men and women, government agencies, and concerned citizens, IFR unites resource stakeholders, protects fish populations, and restores aquatic habitats. A critical component of both organizations' missions is robust protections for water quality in surface waters that support salmon.

PCFFA and IFR appreciate the Board's effort to propose amendments to the Water Quality Control Plan for the Sacramento and San Joaquin River Basins for the control of Pyrethroid Pesticide discharges. It is obvious from reading the staff recommendations that this effort is necessary and that Pyrethroid chemicals are bioaccumulating within the sediments of the Sacramento and San Joaquin Rivers and their tributaries, and already impacting aquatic life. PCFFA and IFR represent commercial fishermen that rely on the Sacramento River, San Joaquin and Bay Delta Salmon for their livelihoods and the crash of the fishery has put our fishermen on the ropes this year.

PCFFA and IFR are concerned about Pyrethroid pesticides and the cumulative impacts on fisheries from Pyrethroid when couple with other water pollution and low flows. The Sacramento River Fall Chinook ocean abundance projection declined from 652,000 in 2015 to around 300,000 in 2016. The number of salmon-permitted vessels has declined from approximately 5000 in 1980 to approximately 1100 today. In 2015, only 585 vessels actually

landed salmon in California. This year's harvest is not close to meeting expectations. Fisheries and fishery-dependent coastal communities are suffering through back-to- back-to- back resource crises, with a poor salmon season in 2015, loss of half of the crab season, and another poor salmon season this year. Sacramento Fall chinook are not overfished. Their abundance declines are due to drops in river productivity. Yet fishermen bear the brunt of fisheries declines while we propose more subsidies, through drainage to farmers that are heavily polluting our rivers while farming land that has become uneconomical to farm.

Our main concern with the impacts to fisheries and other aquatic life from Pyrethroid chemicals is due to their toxicity and with impacts to the food chain. We are concerned that nearly all samples taken so far that tested positive for Pyrethroids showed major exceedances, which most likely means that fisheries are already being impacted by these highly toxic chemicals. The Basin Plan states that no individual pesticide or combination of pesticides shall be present in concentrations that adversely affect beneficial uses, and discharges shall not result in pesticide concentrations in bottom sediments or aquatic life that adversely affect beneficial uses. It is apparent that Pyrethroid discharges are doing both.

We are especially concerned with the cumulative impacts of Pyrethroid pesticides with other chemicals that are entering the watershed such as Diazinon and Chlorpyrifos, and with other water quality pollutants such as selenium, nitrates, salts, temperatures, poor PH and phosphates. We request that an analysis of the cumulative effects of introduction of these various chemicals on water quality be included in further TMDL and basin amendment documents.

It is clear that the problems for fisheries in the Delta are equivalent to a death by a thousand cuts, and many of those cuts are caused by agricultural pollution or diversions. Many of the impacts to fisheries from water quality issues such as Pyrethroid discharges are cumulative and there is uncertainty regarding the impacts of Pyrethroid in degraded watershed. The requested cumulative effects analysis is absolutely necessary to this process.

Due to the extremely high toxicity to aquatic life from Pyrethroid pesticides, the extant cumulative impacts from poor water quality to fish in the TMDL area, and the scientific uncertainly related to impacts from Pyrethroids, PCFFA supports Alternative 2, which calls for no discharge of Pyrethroids. Prohibiting further concentration of Pyrethroids in sediments or in the water column is the only safe alternative.

The Central Valley Regional Water Quality Control Board staff report shows that Hyalella azteca populations, which are used as an indicator species in this process are already mutating and have been exposed to a large concentration of Pyrethroid chemicals over long periods of time. Though Pyrethroids have a short half life, the lack of natural flushing due to the large number of dams in the Sacramento River, Bay Delta and San Joaquin River means that sediments are stagnant. Therefore bioaccumulation is a concern. Studies of Pyrethroids in sediments show this concern is warranted. Moreover, studies by the U.S. Fish and Wildlife Service show salmon can have similar responses to Pyrethroids as do Hyalella azateca.

This TMDL focuses on water column impacts and numeric limits. We do not think this goes far enough. Sediments could be stirred up from processes such as dredging, mining, and diversion related activities, or even from spawning, which could in turn release large

concentrations of Pyrethroids into the water column. The fact that less is known about allowable levels of Pyrethroids in sediments then in the water column and the fact that staff is suggesting not adopting numeric standards for sediments further demonstrate the need for a no discharge alternative. Further accumulations of Pyrethroids in sediments is not an acceptable risk.

The staff report also demonstrates that mutations of Hyalalla Azteca that allow them to handle higher levels of Pyrethroids can make species more susceptible to other water quality stressors, which the Sacramento River is full of. Because of the bioassessability of Pyrethroids in sediments, we may be dealing with a toxic legacy of Pyrethroid use and violations of the toxicity narrative standards in sediments for years to come. When coupled with the scientific uncertainty around the impacts and safe levels of this chemical, it is clear the TMDL discharge standard must be zero. Alternative 2 is the only alternative that will not lead to violations of the Basin Plan and further impacts to aquatic life.

PCFFA/IRF does not agree with staff's assessment that this is not easily attainable and therefore not the best alternative. We recommend measures be taken to make a no discharge alternative possible, whether it be localized or statewide bans on use of Pyrethroids, weather specific criteria for application, surface water buffer zones, a requirement for certified applicators, or a moratorium on certain application methods.

We also request that this TMDL includes a robust monitoring plan that includes on-site storm water monitoring along with monitoring that demonstrates individual discharge, and this plan does not allow for monthly averaging. This is an extremely dangerous toxin for aquatic life and therefore exceedances cannot be shown as averages. We understand the issues related to monitoring and applaud the Board for its efforts to address these issues. The existence of those issues is an additional reason that a no further discharge alternative to be chosen.

Again thank you for your important work on this TMDL and basin plan amendment. We regret that we are not able to attend all the upcoming meetings and workshops on this issue, but we will be providing written comments when we cannot attend. Please let us know when calling into these meetings is possible. We look forward to working with you on this important issue in the future.

Sincerely,

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