April 25, 2011

Ms. Erin Foresman
U.S. Environmental Protection Agency
75 Hawthorne Street, WTR-3
San Francisco CA, 94105

Dear Ms. Foresman,

Thank you for the opportunity to review the very thorough and well-researched Advanced Notice of Proposed Rulemaking (ANPR) for which EPA is requesting public comment. We commend the EPA staff who clearly put much effort and time into documenting a significant number of uncertainties regarding an array of ecological health issues facing the San Francisco Bay Estuary.

About the San Francisco Estuary Partnership (SFEP)

As you are aware and note in the ANPR (pg. 17), the San Francisco Bay-Delta is one of 28 estuaries in National Estuary Program (NEP) – Congress established the NEP, Section 320 in the reauthorized Clean Water Act (CWA) of 1987 to address the declining state of the nation's estuaries. California's Governor nominated the San Francisco Bay-Delta as an "estuary of national significance" and the EPA officially added the SFEP to the program in December 1987. The Governor's nomination of the SFEP began the local-state-federal partnership, which developed the Comprehensive Conservation and Management Plan (CCMP) for the Estuary. The CCMP includes goals, objectives and recommended actions regarding the protection and enhancement of the San Francisco Bay-Delta.

Many of the questions raised in the ANPR call for detailed technical information and data beyond the expertise of the staff here at the San Francisco Estuary Partnership (SFEP). Nonetheless, the entire scope of the ANPR enquiry is reflected in the nine program areas of the CCMP and in at least some aspect of the CCMP's 200 actions. Therefore, EPA's process of reviewing and responding to the comments and issues raised through the ANPR will greatly inform and influence SFEP's future actions as we work to achieve our mission – to help protect and restore the health of San Francisco Bay-Delta system.

Two areas of the ANPR particularly speak to the current program priorities of the SFEP – the questions raised about freshwater flow needs and regulation of pesticides.

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Freshwater Flow Needs
We agree with EPA's findings that:

1) "…X2 is an effective indicator of ecosystem conditions from year to year" (p51-52);

2) "A number of factors are apparently important for the health of estuarine species, but the location of the low salinity zone (X2) plays a large role", a role that is still as important as it has been in the past (p. 52);

3) the position of the low-salinity zone (or a close correlate such as outflows or the strength of gravitational circulation currents) appears to have a strong influence on populations of pelagic fish and invertebrates in both the fall and spring months (p. 52-53).

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We note that EPA's statements about the importance of the position of X2 are supported by the new 2010 State Water Resources Control Board report, *Development of Flow Criteria for the Sacramento-San Joaquin Delta Ecosystem* regarding the need for additional fresh water flows into the estuary to support public trust resources of the Bay Delta system. Page 55 of the ANPR reminds the reader that after adoption of the 1995 Water Quality Control Plan (Control Plan), Delta smelt and striped bass populations began to rebound after years of decline. Starting in 2000 however, this promising trend stopped and pelagic fish began to suffer another major decline. We note that in the late 1990's, the Control Plan began to be implemented and the water years of 1995-2000 were unusually wet years. Therefore, during that period, freshwater inflows into the estuary in the spring were regularly in excess of the SWRCB's X2 standards.

According to information developed by Dr. Christina Swanson, since 2000 and over the past decade, annual inflows have been reduced by more than 50% (against estimated unimpaired flow) on average, and springtime inflows by nearly 60%. In 2010, only 31% of estimated springtime unimpaired runoff from the Bay's watershed actually flowed into the estuary. Both seasonal and inter-annual variability have been reduced and, in 2010, the frequency of peak flood flows was reduced by 90% (number of days with delta outflows greater than 50,000 cfs, compared to estimated unimpaired conditions). 2010 was the eighth year out of the past ten in which the total annual amount of freshwater flow into the estuary was the same (or less) than what it would have been under unimpaired conditions in a "critically dry" year. Despite above average runoff in the watershed, inflow conditions in 2010 were "very poor" and the Freshwater Inflow Index (under development by Dr. Swanson to be published in SFEP's 2011 *State of the Bay* report) was the lowest on record. In effect, based on the amounts and patterns of actual freshwater inflow to the Bay, the **estuary is being subjected to chronic drought conditions**.

Pesticides
The San Francisco Estuary Partnership manages the Urban Pesticides Committee (UPC), a twelve year-old, multi-stakeholder workgroup which for seven years has been part of

the grant-funded Urban Pesticide Pollution Prevention (UP3) Project to prevent water pollution from pesticides. UPC/UP3 has brought together water quality and pesticide regulators, municipal stormwater and wastewater interests, pest control industry representatives and pesticide manufacturers, researchers, IPM advocates, and community groups to examine pesticide-related water quality impacts. The UP3 Project has identified pesticide practices that contribute to toxicity in surface waters (broadcast or perimeter sprays onto impervious surfaces around structures, which may be homes or commercial buildings, often for ant control) and pesticides of concern for water quality (pyrethroids and fipronil lead the long list, summarized in UP3 Project reports[1]. Our website, www.up3project.org, contains a store of documents related to pesticides and water quality, including annual reports on pesticide science, sales and use, and regulatory activities.) The Project has examined causes of toxicity and ways to reduce toxic impacts to receiving waters throughout its existence. We commend EPA for examining pesticide toxicity in the Bay Delta Estuary and offer the following comments and recommendations based on our years of involvement with the issue.

The UP3 Project finds that the root of pesticide-related surface water toxicity issues, and the problem that most needs a solution, is a regulatory gap: pesticides may be registered through USEPA's Office of Pesticide Programs (OPP) under the Federal Fungicide, Insecticide, and Rodenticide Act (FIFRA) that will cause water quality impairment and exceedances enforceable by USEPA's Office of Water (OW) under the Clean Water Act (CWA).[2]

The UP3 Project has worked to communicate this gap to regulators. The UP3 Project has prepared comments for regulatory review periods for current pesticides of concern to water quality, through a resource-intensive pattern of reviewing work plans and communicating water quality concerns for each individual regulatory review. The UP3 Project has had successes in securing changes to label directions or allowed use patterns through these methods, and in general we believe that state and federal regulators are much more aware of water quality issues related to pesticide toxicity as a result of the decade of effort by the UPC. However, a more streamlined and far-reaching way to reduce pesticide-related toxicity in the Bay-Delta Estuary would be to address the source: contradictory authorities leading to contradictory actions by different divisions within EPA.

Under the Clean Water Act, pesticide-related toxicity leads to management issues and resultant costs (such as water quality monitoring) for NPDES permittees. The ANPR seeks input on the effectiveness of additional regulation for current NPDES permittees. However, most NPDES permittees do not have control over pesticide sales or use, and can make very little impact on pesticide applications within their jurisdictions. Prevention

[1] TDC Environmental, LLC, for UP3 Project, "Pesticides in Urban Runoff, Wastewater, and Surface Water: Annual Summary of Regulatory Activities to Protect Water Quality 2010," http://www.up3project.org/documents/UP3ScienceReport2010Final.pdf, p. 6.

[2] Summarized in TDC Environmental, LLC for UP3 Project, Pesticides in Urban Runoff, Wastewater, and Surface Water: Annual Summary of Regulatory Activities to Protect Water Quality 2008, http://www.up3project.org/documents/UP3RegAnRpt2008.pdf, p. 2-3.

of aquatic life impacts at initial registration of pesticides is a much more effective strategy than imposing additional conditions to NPDES permits. We echo several points made by the California Regional Water Quality Control Board, Central Valley Region in its letter responding to this ANPR: Every pesticide used in California must be approved by USEPA's OPP and the California Department of Pesticide Regulation (DPR). Thus, pesticide use regulation by OPP and DPR can potentially prevent pesticide impacts to aquatic life before they occur. We believe the most effective use of regulation to reduce pesticide-related toxicity in the Bay-Delta Estuary would be to address the regulatory gap that allows pesticides that cause water quality problems to be sold and used.

The OPP-OW "harmonization" effort, or Common Effects Characterization Methodology initiative, within EPA aims to integrate EPA's aquatic effects characterization methods and provide a common basis to achieve the water quality protection goals of the Clean Water Act and FIFRA. We join many other agencies in strongly supporting the OPP-OW effort. We encourage EPA Region 9 to work with the OW-OPP effort to ensure that the concerns that led to this Bay-Delta water quality ANPR are being addressed by the OW-OPP effort, since they may not directly be part of the original scope of the harmonization.

We recommend these further changes to help close the regulatory gap that allows pesticide toxicity in surface waters. Attaining water quality standards established under the Clean Water Act should be a goal of OPP in regulating pesticide use. Non-attainment of water quality standards should be considered an unreasonable adverse effect under FIFRA.

We recommend that USEPA require pesticide registrants to provide pesticide monitoring and research information under FIFRA, including more complete fate and toxicity data at registration (including water quality data that can be used to verify assumptions used in registration and the toxicity data needed to generate water quality criteria). We believe EPA should require the generation of improved analytical methods for pesticides which can be toxic at very low concentrations.

We encourage pesticide registration to require use of the most sensitive test species. Toxicity was likely under-predicted in the registration process for current pesticides of concern to water quality because of the limited species data used in registration.

The UP3 Project has also attempted to encourage incorporation of cumulative toxicity for aquatic organisms into risk assessments. Cumulative risks (additive, or greater-than-additive effects based on the common occurrence that aquatic organisms are exposed to not just one but a cocktail of pesticides) are not currently accounted for except in human health effect calculations.

The most significant water quality improvements we have seen came from the urban use phaseout of diazinon, which led to measurable improvements in stream water quality. A measure which would likely lead to significant water quality improvements would be to eliminate the pesticide uses that are currently causing exceedances of water quality standards.

Lastly, we agree with the San Francisco Regional Water Quality Control Board's assessment that long-term reduction in pesticide-related impairment cannot be achieved without changes to EPA's pesticide approval process. We suggest that the future Bay-Delta water quality improvement efforts focus on changes to pesticide registration, as noted above, in order to reduce the toxic impacts of pesticides in the Bay and Delta.

In Summary

The San Francisco Estuary Partnership will continue to work on issues related to pesticides and flow needs of the San Francisco Bay Delta Estuary as we implement our Comprehensive Plan to support the health of the Estuary. We thank you for the opportunity to comment on this Advanced Notice of Proposed Rulemaking and for your work to address the many factors that threaten this Estuary of national significance. We look forward to continued involvement in the rulemaking process.

Sincerely,

Judy A. Kelly, Director