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Mr. Thomas Lippe
Attorney at Law
329 Bryant Street, Suite 3D
San Francisco, CA 94107

Re: Final Napa River Watershed Sediment TMDL and Habitat Enhancement Plan

Dear Mr. Lippe,

I have reviewed the San Francisco Bay Regional Water Quality Control Board staff's final *Napa River Watershed Sediment TMDL and Habitat Enhancement Plan* (Napolitano et al., 2007) and the related proposed *Basin Plan* (SFBRWQCB, 2005) amendment. Unfortunately, I do not see appropriate response to my previous comments provided for you during *Napa River TMDL* development (Higgins, 2006, 2007) or to comments and recommendations of hydrologist Dennis Jackson (2006) or Dr. Robert Curry (2006).

Major problems in the final *Napa River TMDL* and *Basin Plan* amendment include:

- Implementation will be largely driven by voluntary actions,
- No recommendation or guidelines are set forth for limiting development or preventing increased road density to enable restoration of natural hydrologic function and flow regimes,
- Decreased base flows due to altered watershed hydrology are already negatively impacting steelhead and chinook salmon (including sedimentation of spawning beds) and continuing development will exacerbate these impacts,
- Failure to deal adequately with increased peak flow issues insures that bank erosion will continue, confounding successful TMDL implementation,
- Monitoring is restricted to spawning gravel permeability and scour depth of the stream bed gravels, which will be insufficient to gauge recovery, while more standard measures such as sediment grab samples, cross sections and longitudinal profiles, and turbidity are ignored,
- Site specific mitigations and implementation of Best Management Practices are the main tools for achieving Napa TMDL objectives, but cumulative watershed effects will likely confound success, and
- Areas above dams are exempt under the Napa TMDL despite the ability of sediment to pass through reservoirs and the need to protect remnant land-locked steelhead populations that still spawn in upper tributaries.

I have attached comments (Higgins, 2008) I recently prepared for the Redwood Chapter of the Sierra Club on the *Policy for Maintaining Instream Flows in Northern California Coastal Streams* (SWRCB WRD, 2007). In Table 5.2 the *Napa River TMDL* states that the State Water Resources Control Board Water Rights Division will “establish guidelines to maintain in-stream flow to protect salmonids,” but the *Policy* fails in this regard for the reasons stated in the attached comments.

Appendices to the *North Coast Instream Flow Policy* (Stetson Engineers, 2007) document major cumulative effects contributions from legal and illegal diversions that also compound sedimentation problems. They note that there are hundreds of diversions in the Napa River watershed and that more than half are unpermitted. Peer reviewers of the *Policy*, such as Band (2008), explained how downstream interactions of numerous diversions cause problems for salmonid spawning and I provide explanatory excerpts below (Higgins, 2008):

“Band (2008) described numerous cumulative watershed effects likely from the interaction of diversions, even if all were operating in accordance with minimum base flows (MBF). ‘The cumulative impacts of water diversions from all areas of the drainage network require consideration of the network as an entity, and not just the sum of all individual reaches.’

While each diversion might only capture less than 5% of the 1.5 recurrence interval flow at one location, Band (2008) calculated the interaction between diversions in the stream system could increase to 28% downstream. He sees the necessity of increasing model parameters “to analyze the impacts of sequential dependencies of reach conditions as they will not be randomly distributed.”

If interactions of multiple diversions are not factored into consideration, Band (2008) predicts “perturbations to the downstream hydraulic geometry, as well as bed sediment grain size, and seasonal variations in bed composition.” Of specific concern to Band (2008) is fine sediment delivery from early storms in streams where flow is depleted: ‘the first few increased flows of the year may flush fine grained sediment, perhaps without mobilizing coarser grain sizes, which may accumulate in reaches where discharge is drawn down.’ These reaches might be ones used for spawning.”

The interaction of early season diversions in various Napa River tributaries likely combine to deplete flow and cause fine sediment deposition in Chinook salmon redds in the mainstem reaches. This is another example of cumulative effects overlooked by the *Napa River TMDL* and yet another deficiency with regard to compliance with CEQA.

Conclusion

As noted above, many of the points raised in my initial comments remain unaddressed. The final report demonstrates that the SFBRWQCB staff continues to interpret their responsibility for the *Napa River TMDL* and *Basin Plan* amendment narrowly, which makes it unlikely that actions will prevent sediment pollution and allow restoration of Pacific salmon species in a timely fashion. Monitoring is insufficient in temporal and spatial extent to provide a feed back mechanism for meaningful enforcement through use of Waste Discharge Requirements, upon which the *Napa River TMDL* and *Basin Plan* extensively rely.

Sincerely,



Patrick Higgins

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