December 5, 2005
Selica Potter, Acting Clerk to the Board
State Water Resources Control Board, Executive Office
1001 I Street, 24th Floor
Sacramento, CA 95814

Craig J. Wilson, Chief
Water Quality Assessment Unit
Division of Water Quality
State Water Resources Control Board
P.O. Box 100
Sacramento, CA 95812-0100

RE: 2004 Clean Water Act Section 303(d) List Laguna de Santa Rosa Phosphorus & Nitrogen

Dear Mr. Wilson,

I am writing to strongly oppose the proposal to de-list the Laguna de Santa Rosa for Phosphorus & Nitrogen. We oppose the delisting because Phosphorus and Nitrogen are biostimulatory substances that clearly promote aquatic growths that clearly cause nuisance and adversely affect beneficial uses and thus violate the Region 1 Basin Plan.

1. Phosphorus and Nitrogen are biostimulatory substances.

It is clear from all limnology texts that Phosphorus and Nitrogen are biostimulatory substances and according to EPA's Office of Water Education both are listed as biostimulatory.

2. Phosphorus and Nitrogen promote aquatic growths in the Laguna de Santa Rosa.

It is clear that Phosphorus is abundant in the Laguna de Santa Rosa from the City of Santa Rosa's data submitted and is present in excess of eutrophic levels and thus responsible for promoting current aquatic growths such as Ludwigia Hexapetela and Blue-Green Algae. Due to the abundance of Phosphorus and presence of blue-green algae species, nitrogen is not the limiting nutrient in the Laguna due to blue-green algae's ability to fix nitrogen from the atmosphere. Thus Phosphorus and Nitrogen are present in highly eutrophic levels and promote aquatic growths.

3. Aquatic growths due to Phosphorus and Nitrogen cause nuisance and adversely affect beneficial uses in the Laguna de Santa Rosa.

I will forgo discussion of low dissolved oxygen as a nuisance or adverse affect on beneficial uses as the State Board staff understands this well. Apart from low D.O. in the Laguna, the
Aquatic growths in the Laguna also migrate out of the Laguna and cause impacts well down the mainstem of the Russian River. Increased aquatic growths cause higher temperatures in the Laguna and downstream due to increased light reflection and higher turbidity due to increased algae inhibiting fish ability to feed. The Laguna is a tributary to Mark West Creek and nutrient loads and nutrient impacts continue well beyond the Laguna through the lower portion of Mark West Creek to the mainstem Russian River, Santa Rosas data clearly support this fact. The State Board staff’s contention that listing for low D.O. will “get at” the nutrient problem ignores the migratory impacts of Phosphorus and Nitrogen beyond the Laguna de Santa Rosa.

The largest recent nuisance is due to the explosive growth in recent years of Ludwigia Hexapetela, an apparent non-native water primrose that covers sections of the Laguna providing refuge for West Niles Virus carrying mosquitoes. Ludwigia also has made navigation of the Laguna almost impossible by canoe in the last two years, adversely affecting REC2 beneficial uses.

4. Based on the nuisance and adverse affects to beneficial uses Phosphorus and Nitrogen warrant continued listing under CWA section 303(d) and current State listing policy.

It should be said that the Laguna is a very sensitive receptor for nutrients due to it’s low gradient that doesn’t allow scouring of resident sediments. This fact makes it even more urgent to list the Laguna in order to start the clean-up process. Listing only for Low Dissolved Oxygen will make it much harder to address nutrient pollution via a TMDL as permitted discharges contain Phosphorus and Nitrogen not low dissolved oxygen. Low D.O. is a symptom not the cause so let’s address the cause of the impairment….. Phosphorus and Nitrogen by continuing to list them as impairments to the Laguna de Santa Rosa.

Thank you for your consideration of our comments.

Sincerely,

[Signature]

Don McEnhill
Russian Riverkeeper