

March 17, 2009

Mr. Matt St. John  
Regional Water Quality Control Board  
5550 Skylane Blvd., Suite A  
Santa Rosa, California 95403

**Re: Comments to North Coast's 2008 Proposed 303(d) List, Lake Shastina**

Dear Mr. St. John,

On behalf of the Montague Water Conservation District ("Montague"), we respectfully request that the Regional Water Quality Control Board ("RWQCB") decline to list Lake Shastina on its 2008 Clean Water Act section 303(d) list as recommended by RWQCB staff. Montague believes that water quality of the Shasta River must be adequately protected but does not believe the facts support a decision to list mercury for Lake Shastina and does not believe the proposed listing complies with the SWRCB/RWQCB Listing Policy.

The staff recommendation to list Lake Shastina for mercury is based on three samples collected in 2001 and documented in a report dated 2007 prepared by the Department of Water Resources ("DWR"). To ensure consistency in assessing whether a waterbody should be placed on the Clean Water Act section 303(d) list and thus be subject to development of a Total Maximum Daily Load program, the State Water Resources Control Board ("SWRCB") adopted "The Water Quality Control Policy For Developing California's Clean Water Act Section 303(d) List," ("Listing Policy") September 2004. This Listing Policy provides guidance for interpreting data and information as they are compared to beneficial uses, existing numeric and narrative water quality objectives, and antidegradation considerations. These data for Lake Shastina, however, do not appear to comply with the Listing Policy for several reasons, including the data does not represent either spatial or temporal independence, the information that is available does not show consistency with the Quality Assurance Management Plan for the State of California's Surface Water Ambient Water Monitoring Program ("SWAMP-QAMP"), and there is not enough information to determine whether consistency exists with other portions of the Quality Assurance Management Plan.

Cannot Determine Whether Data Collection is Consistent with Quality Assurance Management Plan

The Listing Policy provides that if it cannot be determined whether the data collection and analysis is supported by a Quality Assurance Project Plan ("QAPP") or equivalent, then the data and information "should not be used by itself to support listing or delisting of a water segment." (Listing Policy at §6.1.4.) Here, there are numerous instances where the SWAMP-QAMP indicates what should be included to ensure data quality

assurance but the information is not included in the report so it cannot be determined whether the report provides the necessary reliability to justify a listing decision. Unfortunately, there are no sampling reports, chain of custody documents, field notes, analytical laboratory reports, or quality assurance and control documents associated with the data. Without this information it is impossible to determine collection techniques, storage and handling information, sampling methodology, reporting limits, and a host of additional information needed to assess the data. Since it cannot be determined whether the data and analyses are supported by a Quality Assurance Project Plan (“QAPP”) or equivalent, then the data and information “should not be used by itself to support listing or delisting of a water segment.” Since this line of evidence is the only line of evidence for placement of mercury on the 303(d) list, mercury cannot be listed on the 303(d) list for Lake Shastina.

#### Collection of Data Inconsistent with Quality Assurance Management Plan

The Listing Policy provides that if the data collection and analysis is not supported by a QAPP or equivalent, then the data and information “should not be used by itself to support listing or delisting of a water segment.” (Listing Policy at §6.1.4.) Here, the collection of data collection is inconsistent with the SWAMP - QAMP. On its face it is uncertain whether any of these deviations from protocol rise to a level that would preclude the use of the data, but collectively the transgressions mandate that these data not be used. The SWAMP – QAMP provides that as a general rule, five fish of medium size should be collected for each composite sample. (p. 86.) This report did not collect the requisite number of samples when it collected only four samples to composite for the smallest of samples, and only three samples each for the other two composite samples. For sample preservation, the SWAMP-QAMP provides that fish will be wrapped in trace metal and organic free Teflon sheets and frozen for transportation to the laboratory. (p. 86.) This report indicated that samples, after collection, were immediately wrapped in aluminum foil before being placed on dry ice. (DWR at p.1.)

A critical component of the QAMP is the methodology by which the laboratory analyzes the samples. The SWAMP-QAMP provides that the laboratory analyses and determinations must be performed by qualified personnel in conformance with the United States Environmental Protection Agency (EPA) or DHS approved test procedures described in the current Code of Federal Regulations (CFR) (Title 40, Part 136); "Test Methods for Evaluating Solid Waste," SW-846; or Title 22, CFR, Article 11, as appropriate. Here, the report indicates the analyses were performed by one of three laboratories, although it is unknown which laboratory performed any particular test. Furthermore, none of the methodologies appear to be in compliance with EPA or DHS approved procedures. Analytical procedures of the DFG laboratory “generally followed” those used in the Toxic Substances Monitoring Program conducted by the State Water Resources Control Board and DFG (unknown what “generally followed” means); West Coast Analytical Services analysis differed by performing mercury analysis using inductively coupled plasma-mass spectrometry (the report gave no indication of whether this was an EPA approved methodology; and Frontier Geosciences used a “modified” U.S. Environmental Protection Agency method 1631. (DWR at 2.) Since none of these

analysis methodologies appears to have been performed in conformance with an approved EPA method, and several of the other sample collection methods did not follow the SWAMP-QAMP, this line of evidence should not be used by itself to list a water segment.

#### Data Not Spatially Independent

The Listing Policy states that samples should be spatially representative of the water body. (Listing Policy at §6.1.5.2.) Here, each of the three samples was collected from Lake Shastina near the dam. Collecting all of the samples from near the dam is not spatially representative of the entire reservoir. As the single line of evidence, these data should not be used to support the listing decision.

#### Data Not Temporally Independent

The Listing Policy mandates that samples used in the assessment must be temporally independent and that “if the majority of the samples were collected on a single day or during a single short-term natural event, the data shall not be used as the primary data set supporting the listing decision. (Listing Policy at §6.1.5.3.) “In general, samples should be from two or more events....” (Listing Policy at §6.1.5.3.) Here, the three samples were collected over a period of 12 days and is the only data set used to justify this listing. Three samples over a period of 12 days is not a temporally independent assessment, does not represent two or more seasons or two or more events, and cannot be used as the primary data set supporting the listing decision.

The RWQCB had the opportunity to investigate the concerns related to mercury as a result of the petition filed by Mr. Felice Pace in July 2007. At that time, Mr. Pace voiced his concern about the presence of dioxins but also about the presence of mercury as a result of the 2001 analyses and requested additional analyses. Montague concurred with this request. It is unclear to Montague why the RWQCB chose to perform the dioxin testing in 2008 while choosing not to sample for mercury yet recommend its inclusion on the 2008 303(d) list.

#### Data Protecting Non-existent Beneficial Use

Finally, the premise by which the RWQCB is attempting to list Lake Shastina for mercury is flawed because the methodology of exposure does not exist as a beneficial use. The purpose of using composite samples of fish fillets to assess for methylmercury is because the EPA has determined that consumption of fish is the major pathway of human methylmercury exposure. (DWR at 3.) The Basin Plan, however, does not designate Lake Shastina for Commercial and Sport Fishing (uses of water for commercial and recreational collection of fish, shellfish or other aquatic organisms including uses for human consumption). To utilize a methodology for assessment based on consumption of fish should not be condoned when that beneficial use is not recognized by the Basin Plan.

### Conclusions

The sole report the RWQCB relies on to justify the listing decision indicates that the California Office of Health Hazard Assessment established the screening values used in the report to identify chemical contamination that may be a human health concern for frequent consumers of sport fish. The screening values are not intended to serve as levels at which fish consumption advisories would be issued, but to identify fish species and chemicals for which more intensive sampling, analysis, or health evaluations are needed. (DWR at 2-3.) Siskiyou County contacted the Office of Environmental Health Hazard Assessment and they indicated that they do not have good sampling or adequate data to develop even an advisory for any lake or water body in Siskiyou County. For these reasons, Montague encourages the collection of additional data following an adequate QAPP that would help to assess the potential for water quality concerns but objects to the reliance on this report as the sole line of evidence to justify the listing decision for the reasons noted above. We encourage the Board to use the standards developed by SWRCB (Listing Policy, 2004) and avoid the appearance of listing water bodies without sufficient evidence or process.

Please contact me if you have any questions.

Yours truly,

Mike Crebbin, Board President  
Montague Water Conservation District

Cc: Siskiyou County  
Cc: Senator Sam Aanestad  
Cc: Assemblyman Jim Neilsen