
Colorado River Basin Regional Water Quality Control Board

March 4, 2014

Carol A. Roberts, Division Chief
Environmental Contaminants/Federal Projects
Carlsbad Fish and Wildlife Office
2177 Salk Avenue, Suite 250
Carlsbad, CA 92008

Dear Ms. Roberts:

SUBJECT: RESPONSE TO COMMENTS, FWS-2014-EC-1103, ON PROPOSED REVISIONS TO THE CLEAN WATER ACT SECTION 303(d) LIST OF IMPAIRED WATER BODIES IN THE COLORADO RIVER BASIN REGION

Thank you for your email received on February 18, 2014, regarding proposed revisions to the Clean Water Act Section 303(d) List of the impaired water bodies in the Colorado River Basin Region. Your comments (in *italic*) are addressed below in the order that they were presented in your letter.

Comment 1

No objections to most of the changes proposed for the list. However, we are concerned about the proposed delisting of the Colorado River and the Salton Sea for selenium.

Response 1

We disagree with your recommendation for not delisting the Colorado River and the Salton Sea for Selenium due to a following reason: Selenium in the Colorado River and Salton Sea were assessed only for protection of beneficial use of Commercial and Sport Fishing (COMM), and none of the data exceeded the evaluation guideline to interpret the narrative water quality objective.

Pursuant to section 6.1.3 of the Water Quality Control Policy for developing California's Clean Water Act Section 303(d) List (Listing Policy), narrative water quality objectives shall be evaluated using evaluation guidelines. Selenium in the Colorado River and Salton Sea was assessed based on a guideline published by the Office of Environmental Health Hazard Assessment (OEHHHA) Fish Contaminant Goal (FCG) for protection of beneficial use of COMM. COMM beneficial uses are "Uses of water for commercial or recreational collection of fish, shellfish, or other organisms including, but not limited to, uses involving organisms intended for human consumption or bait purposes." As defined, COMM uses are focusing on human consumption of fish, and the OEHHHA guideline of FCG for human consumption is used to

evaluate COMM beneficial uses. Although both Colorado River and Salton Sea have the beneficial use of Wildlife Habitat (WILD)¹ that include protection of fish-eating birds and wildlife, selenium was not assessed for this beneficial use because no evaluation guideline was available.

Selenium in the Colorado River was listed in 2006 due to impairment caused by the fish tissue, while selenium in Salton Sea was listed prior to 2006 due to impairment caused by water. The evaluation guideline used to assess for fish tissue in Colorado River was 20 mg/kg of California Lakes Study Screening Values (CLS-SV) published by the OEHHA in 1999. This CLS-SV of 20 mg/kg erroneously considered as 2 mg/kg, and this error resulted in listing of selenium in 2006 for the Colorado River. Twelve filet fish tissue samples were collected from 1987 to 2004, but only largemouth bass were considered for the assessment. Selenium content in these five largemouth bass filet samples ranged 1.6 ~ 2.7 mg/kg. In 2008, OEHHA published a guideline of FCG for human consumption, and the recommended value was 7.4 mg/kg. Based on section 4 of the Listing Policy, the listing of Colorado River was reevaluated with this FCG of 7.4 mg/kg. Data exhibits that none of exceedances were identified in the Colorado River for COMM uses, and therefore delisting of Colorado River for selenium was recommended.

For Salton Sea, selenium was listed prior to 2006 due to exceedances in water samples. Since no record can be found details of this listing, such as how many data, when/where it was collected, its QA/QC, and etc, only newer data from 2002 collected by the Surface Water Ambient Monitoring Program (SWAMP) is considered. Water data ranges from 0.28 to 4.26 ug/l with mean value of 1.22 ug/l, and none of forty-seven water samples exceed Colorado River Basin Water Quality Control Plan (Basin Plan) water quality objective for selenium of 5 ug/l for Salton Sea. In addition to water samples, total of 39 fish tissue fillet samples were collected from 1984 to 2007, and none of 39 tissue samples exceeded OEHHA FCG. No evidence of impairment caused by selenium was identified in readily available data, thus delisting of Salton Sea for selenium was also recommended.

Comment 2

Exclusive use of the OEHHA FCG of 7.4 mg/kg is inappropriate to protect fish-eating birds and wildlife for the Colorado River and Salton Sea for selenium.

Response 2

We believe that selection of OEHHA FCG as an evaluation guideline for COMM uses is appropriate. As mentioned in response to comment 1, WILD uses which includes protection of fish-eating birds and wildlife are not assessed because no evaluation guideline was available. Since listing of selenium in fish tissue samples in Colorado River and Salton Sea were based on COMM uses, using OEHHA FCG as an evaluation guideline for human consumption was appropriate.

¹ Wildlife Habitat (WILD): Uses of water that support terrestrial ecosystems including, but not limited to, preservation and enhancement of terrestrial habitats, vegetation, wildlife (e.g., mammals, birds, reptiles, amphibians, invertebrates), or wildlife water and food sources.

Comment 3

While we acknowledge that the data provided for fish in these water bodies did not exceed the 5 mg/kg level, it is not clear from the information whether the samples were fillets or whole fish.

Response 3

All fish samples included in this and previous assessments were fish fillet samples, and none of them were analyzed as a whole fish.

Comment 4

For future, it is recommended that samples be collected of whole fish for assessment of risks to aquatic-dependent wildlife, and that those results be compared to the 5mg/kg benchmark.

Response 4

We agree with your recommendation that future sample collection should include whole fish. We look forward to when Fish and Wildlife Service publishes its document with the 5 mg/kg benchmark for aquatic-dependent wildlife and its scientific background for the benchmark. We believe that this document would serve as a great evaluation guideline for assessment of the WILD beneficial uses.

In conclusion, we will be recommending the proposed changes as prepared by staff to our Board at the March 20, 2014 meeting in Brawley. If you have further questions or comments please contact me at (760) 776-8942, or Dr. Jeong-Hee Lim at (760) 776-8940.

Sincerely,



Nadim Shukry-Zeywar
Senior Environmental Scientist
Colorado River Basin
Regional Water Quality Control Board

JHL/tab

cc: Tom Vandenberg, Office of the Chief Counsel, SWRCB

File: 2012 Section 303(d) List