



Biological Opinion for the Environmental Protection Agency (EPA) on Oregon Water Quality Criteria for Toxic Chemicals Questions and Answers

Why did the Service issue a biological opinion?

Biological opinions analyze the effects of Federal actions on threatened or endangered species to determine whether the actions would jeopardize the continued existence of the species or destroy its designated critical habitat. In July 2004, the Oregon Department of Environmental Quality requested that EPA approve Oregon's revised water quality criteria for toxic chemicals. In April 2006, Northwest Environmental Advocates (NWEA) sued EPA for violating their non-discretionary duties under the Clean Water Act to either approve or disapprove the criteria. On January 16, 2008, the Service received a biological evaluation (BE) from EPA along with a request for formal consultation. On May 26, 2009, NWEA filed a Notice of Intent to sue for unreasonable delay in completing a biological opinion (BO) and on August 18, 2010, the Service entered into a settlement agreement with NWEA to complete the BO by June 2012. A 30-day extension was granted by the court with a final delivery date of July 30, 2012.

A parallel consultation is underway between EPA and the National Marine Fisheries Service (NMFS) to analyze effects of EPA's action on the species under NMFS' jurisdiction (generally, ocean species, including salmon and steelhead). A BO from NMFS is due approximately August 15, 2012.

What was analyzed in the biological opinion?

The likely effects of EPA's approval of the State of Oregon's water quality criteria for 19 toxic chemicals to 14 species under the jurisdiction of the Service.

How did the Service complete the analysis for the biological opinion?

The Service first considered if the listed species occurred in the same location where sources of chemicals were known or suspected and where water quality could be affected by chemicals with Statewide water quality criteria (i.e., criteria chemicals). If so, we considered exposure was likely and assumed it would occur at the concentration of the water quality criteria. Although it is unlikely that the chemicals would be at criteria concentrations at all times, we wanted to evaluate a reasonable worst case scenario given we have no way of knowing exactly what future water quality conditions will be in any given place at any given time. The Endangered Species Act regulations require that we give the species the benefit of the doubt and assume a reasonable worst case analysis when more accurate data are lacking. To determine what the response of each species would be to these conditions, we reviewed the scientific literature for toxicology studies showing how the closest-related surrogate species (or listed species if data were available) respond to the criteria chemicals in laboratory toxicity tests. In

most cases, these models gave us sufficient information to make a well informed estimate of the severity and extent of impacts to listed species and their designated or proposed critical habitat.

What did the Service biological opinion find?

We determined the approval of the revised water quality criteria for toxic pollutants may affect, and is likely to adversely affect, six listed species and five final or proposed critical habitat designations under the jurisdiction of the Service as follows:

Species / Critical Habitat	Status
Bull trout (<i>Salvelinus confluentus</i>)	Threatened
Bull trout critical habitat	Designated
Oregon chub (<i>Oregonichthys crameri</i>)	Threatened
Oregon chub critical habitat	Designated
Lost River sucker (<i>Deltistes luxatus</i>)	Endangered
Lost River sucker critical habitat	Proposed
Shortnose sucker (<i>Chasmistes brevirostris</i>)	Endangered
Shortnose sucker critical habitat	Proposed
Vernal pool fairy shrimp (<i>Branchinecta lynchi</i>)	Threatened
Vernal pool fairy shrimp critical habitat	Designated
Marbled murrelet (<i>Brachyramphus marmoratus</i>)	Threatened

Furthermore, we found that EPA’s approval of the revised water quality criteria will not jeopardize the continued existence of bull trout, Oregon chub, Lost River sucker, shortnose sucker, vernal pool fairy shrimp or marbled murrelet, nor will it destroy or adversely modify designated or proposed critical habitat for bull trout, Oregon chub, Lost River sucker, shortnose sucker or vernal pool fairy shrimp.

Are there differences in findings among the species in the biological opinion, and if so, why?

The Endangered Species Act requires that each species and each critical habitat be independently analyzed for the potential effects. The effects analysis takes into consideration the unique biological and life history characteristics of each species, and each species may respond differently to the action being reviewed. Some species under our jurisdiction are not likely to have any adverse effects to the proposed water quality criteria, while others, perhaps with a greater exposure to chemicals of higher toxicity, may have adverse effects including some mortality.