



United States Department of the Interior

IDAHO FISH AND WILDLIFE OFFICE

Eastern Idaho Field Office
4425 Burley Dr., Suite A
Chubbuck, Idaho 83202
Telephone (208) 237-6975
<http://IdahoES.fws.gov>



Paula Wilson
Idaho Department of Environmental Quality
1410 N. Hilton
Boise, Idaho 83706

Subject: Negotiated Rulemaking - Water Quality Standards Selenium Criteria for Aquatic Life, Docket No. 58-0102-1701 (01EIFW00-2017-TA-1207)

Dear Ms. Wilson:

These comments are being provided in response to information presented at the Idaho Department of Environmental Quality (IDEQ) negotiated rulemaking meetings, as well as questions presented on whether the proposed adoption of the Environmental Protection Agency (EPA) 2016 National Recommended Aquatic Life Criteria for selenium would be consistent with the 2015 U.S. Fish and Wildlife Service (FWS) Biological Opinion submitted to EPA for the Idaho Water Quality Standards for Numeric Water Quality Criteria for Toxic Pollutants (BiOp).

During the 27 June 2017 negotiated rulemaking meeting, IDEQ presented their proposed approach for setting the selenium criteria for sturgeon-occupied (8.5 mg/kg dw) and non-sturgeon waters (9.5 mg/kg dw). IDEQ is also proposing to include anadromous salmonid critical habitat, in addition to the sturgeon-occupied waters, in the conservative 8.5 mg/kg dw criteria. The FWS is requesting IDEQ take a similar conservative approach with bull trout, as is being proposed for anadromous salmonids, and adopt the sturgeon-occupied 8.5 mg/kg dw criteria for bull trout critical habitat waters. Our rationale for this approach, including consistency with the 2015 BiOp referenced above, follows.

The FWS found in the 2015 BiOp that the EPA's approval of the Idaho 5 µg/L selenium chronic criterion would result in jeopardy to bull trout and adverse modification to bull trout critical habitat. Given IDEQ's geographic approach to the selenium aquatic life criteria, our focus in this comment letter will be on bull trout critical habitat. The adverse modification determination was based on the requirements that critical habitat needs to provide an adequate prey base (critical habitat primary constituent elements, PCE 3) and water quality (PCE 8) essential for bull trout recovery. For Kootenai River white sturgeon, the proposed chronic criterion for selenium under consultation at the time of the 2015 BiOp was determined to be likely to adversely modify sturgeon critical habitat to an extent that impairs its capability to support recovery of the Kootenai River white sturgeon.

The reasonable and prudent alternatives (RPAs) specified in the FWS BiOp (p. 280) for selenium were based upon the National Marine Fisheries Service (NMFS) 2014 BiOp. These NMFS RPAs were judged to be sufficient to avoid jeopardy to the species or adverse modification of

designated critical habitats of bull trout and Kootenai River white sturgeon, and that having the same RPAs as NMFS would facilitate interagency coordination. One important difference between the NMFS and FWS BiOps was that EPA's 2015 draft selenium aquatic life criteria document was available at the time, and was considered among the other scientific evidence gathered for the FWS BiOp. The NMFS BiOp was completed prior to having EPA's 2015 criteria document available.

We are aware that there are some differences between EPA's final 2016 aquatic life criteria document for selenium and the 2015 draft version that we examined during preparation of the 2015 BiOp. Most notably, the whole body fish tissue criterion concentration included in the 2016 criteria document (8.5 mg/kg dw) is higher than the 8.1 mg/kg dw value presented in the 2015 draft criterion, and is higher than the 7.6 mg/kg dw whole body fish tissue concentration derived by NMFS and specified as an interim RPA measure to constrain effluent discharges to avoid impairment of bull trout and Kootenai River white sturgeon habitats.

A complication in the data reviewed for the FWS BiOp was that there were no bull trout specific toxicity studies, and other studies within the genus *Salvelinus* gave divergent results; Dolly Varden were shown to be highly resistant to selenium toxicity while some brook trout data suggested higher sensitivity. The brook trout data (from a field study) were highly variable and were not used directly in the EPA 2015 (or 2016) selenium criteria document. Instead, only the Dolly Varden data were used in the genus sensitivity rankings in the criteria document, which may give readers the impression that the entire genus "*Salvelinus*" is insensitive to selenium. We believe this would overstate the available scientific information. Considering these conflicts in the data and resulting uncertainties, the FWS BiOp (p. 192) noted that "In the absence of bull trout specific data for low-risk whole-body tissue values, the 8.1 mg/kg value provides an estimated tissue residue value that is expected to be protective of most species."

As EPA's final 2016 whole body fish tissue criteria concentration of 8.5 mg/kg dw is higher than the 2015 draft value of 8.1 mg/kg dw value considered in the BiOp, this raises the question whether the final whole body tissue value is close enough to that evaluated in the BiOp to be considered consistent with the BiOp. We are aware that NMFS has provided additional details on the regression analyses used to derive the 7.6 mg/kg dw EC10 "low risk" value for juvenile salmonids, and that they advised that equivalently valid EC10 estimates of 7.3 to 8.9 mg/kg dw could be derived from the underlying test data. As the 2016 EPA whole body fish tissue criterion of 8.5 mg/kg dw value falls within that range, it follows that 8.5 mg/kg dw would be considered protective of bull trout and consistent with the best available scientific data considered in FWS's 2015 BiOp.

We understand that IDEQ proposes to adopt EPA's 2016 aquatic life criteria for selenium without modification (8.5 mg/kg dw criteria) for the entire extent of critical habitat for Kootenai River White Sturgeon. This action for the Kootenai River White Sturgeon would be consistent with what was previously consulted on in the 2015 FWS BiOp. We further understand that IDEQ proposes to adopt EPA's 2016 aquatic life criteria for selenium, without modification (8.5 mg/kg dw), for portions of designated bull trout critical habitat where bull trout critical habitat overlaps with anadromous salmonid critical habitat. This approach would also be consistent with what was previously consulted on in the 2015 FWS BiOp, including RPAs for bull trout critical

habitat. In other portions of designated bull trout critical habitats (non-salmonid waters), an IDEQ-modified criteria for “non-sturgeon” waters of 9.5 mg/kg dw is proposed. If applied to bull trout critical habitat, the proposed “non-sturgeon” IDEQ-modified version of EPA’s 2016 aquatic life criteria for selenium would not be consistent with the RPAs specified in the 2015 FWS BiOp to avoid adverse modification of designated critical habitats for bull trout, and therefore additional analysis under section 7 of the Endangered Species Act would be necessary.

As such, the FWS recommends inclusion of all bull trout critical habitat waters as part of the unmodified 8.5 mg/kg dw criteria IDEQ is proposing to adopt from EPA’s 2016 aquatic life criteria for selenium. This would include the following HUCs that did not appear to already be included in the 25 July 2017 IDEQ Negotiated Rulemaking presentation (though additional crosschecking is recommended given the scale of the figure provided on slide 30 of the presentation):

- 17050102 (Bruneau)- Contains the Jarbridge River CHU, Jarbridge River CHSU
- 17060205 (Upper Middle Fork Salmon)- Contains the Salmon River Basin CHU, Middle Fork Salmon River CHSU
- 17060301 (Upper Selway)- Contains the Clearwater River Basin CHU, Selway River CHSU
- 17060302 (Lower Selway)- Contains the Clearwater River Basin CHU, Selway River CHSU
- 17060303 (Lochsa)- Contains the Clearwater River Basin CHU, Lochsa River CHSU
- 17060305 (South Fork Clearwater)- Contains the Clearwater River Basin CHU, South Fork Clearwater River CHSU
- 17060308 (Lower North Fork Clearwater)- Contains the Clearwater River Basin CHU, North Fork Clearwater River CHSU

Thank you for the opportunity to provide comment. If you have any questions regarding this letter, please contact Sandi Fisher of this office at (208) 237 – 6975 x 102.

Sincerely,



For Gregory M. Hughes
State Supervisor

cc: Sandow (NMFS)
Mebane (USGS)
Macchio (EPA)

