

Approval of Fish Tissue Sampling and Artificial Bottom Fill Reports

SRRTTF Meeting

July 28, 2021

Background

- Draft reports provided June 16
 - Revised in response to comments received
- Final approval draft provided July 21
 - Two more comments received on fish tissue report
 1. Remove text related to alternative blank correction methods
 2. Remove comparison of fish tissue levels to regulatory thresholds

Blank Correction Comment: Delete Highlighted Text

2.4.2 Blank Correction

Total PCB concentrations were corrected for method blank contamination following the procedures defined in the QAPP. Specifically, individual congeners found in the sample at a concentration less than three times the associated blank concentration were flagged and excluded from calculation of homolog and total PCB concentration. All total PCB and homolog results reported below are blank corrected using the above method. It should be noted that there is no standard blank correction method, and numerous approaches are utilized, both nationally and within the Spokane River Basin. The selection of the most appropriate blank correction methodology must consider factors such as study objectives, sample matrix, sampling methodology, expected range of results, and tolerance for biased results.

- Wording has been added as a standard disclaimer to past Task Force reports, as a caveat against using the (potentially highly uncertain) data to support regulatory actions
- Uncertainty caused by blank correction pertains to water column samples
 - Fish tissue PCB concentrations are >1000x blanks, so choice of blank correction method doesn't matter
- Recommendation: Delete text

Comparison to Thresholds Comment: Delete Paragraph

4.3 Comparison to Regulatory Thresholds

It is emphasized that the fish samples collected as part of this project are neither intended nor suitable for direct comparison to TEC thresholds representing designated use impairment. Ecology (2020) policy specifies that only the edible portions of fish tissue (i.e., skin on or skin off fillets) be used for impairment determinations. This project examined PCB concentrations in whole fish, which tend to have higher PCB concentrations than fillets. Furthermore, Ecology may consider the age of fish examined when determining if the samples in the dataset are representative of the site. This project examined only year-old fish, which tend to have lower PCB concentrations than older fish. Taking these competing factors into effect, fish tissue PCB concentrations for year-old whole trout may differ by a factor of two from fillet-only samples from a more diverse age range of fish.

While direct comparison of fish tissue PCB concentrations observed in this study to TECs is inappropriate, a more qualitative comparison can be informative. Median whole fish PCB concentrations observed in the Spokane River in 2020 ranged from 13 ug/kg in Reach 2 to 76 ug/kg in Reach 4. These values are roughly an order of magnitude larger than the impairment threshold (and two orders of magnitude larger than the TEC for carcinogens), suggesting that present day fish tissue PCB concentrations are likely higher than acceptable levels.

- Comment: Comparison to threshold is inappropriate and not part of scope or QAPP.
- Responses:
 - Agree with comment, although first sentence is intended to provide a caveat
 - Comparison was added in response to an earlier comment
- Recommendation: Defer to Task Force consensus