The Department of Ecology's Response to:
Bijay Adams - Liberty Lake Sewer and Water District (Comment 16)

Listing ID 52607

The Liberty Lake Sewer and Water District's comment initiated a review of the data used in the assessment for listing ID 52607. Data from the 2005 study of the Washington State Toxics Monitoring Program documented composite samples of smallmouth bass (Micropterus dolomieu) in Liberty Lake contained 0.1539 mg/Kg of mercury. The reported value did not exceed the National Toxics Criterion for mercury of 0.82 mg/Kg. The data review resulted in a change from category 5 to category 1 for the draft 2008 Water Quality Assessment.

Listing ID 17484

The Liberty Lake Sewer and Water District expressed concern that hatchery stocking is a source of the PCBs found in the lake. The purpose of the Water Quality Assessment is to highlight areas of pollution requiring further investigation, up to and including a Water Quality Improvement Report (also known as a total maximum daily load, or TMDL). The presence of pollutants in tissue or water column samples can lead to 303(d) listings in a waterbody based on the assessment of available monitoring data. These remain on the 303(d) list until human-caused factors can be ruled out or a TMDL is in place. The National Toxics Criterion for PCBs, as a total, is 5.3 ug/Kg. Data from the 2005 study of the Washington State Toxics Monitoring Program (WSTMP) documented three composite samples of smallmouth bass (Micropterus dolomieu) in Liberty Lake exceeding the National Toxics Criterion for the presence of total PCBs.

Keith Seiders, lead author for the 2005 WSTMP study, noted that Ecology performed a study of Washington Department Fish and Wildlife (WDFW) hatcheries in 2005. The study, titled 'Persistent Organic Pollutants in Feed and Rainbow Trout from Selected Trout Hatcheries' (http://www.ecy.wa.gov/biblio/0603017.html), addressed questions about hatcheries as potential sources of contaminants. According to WDFW staff member Chris Donley, walleye fry were stocked in Liberty Lake for last ten years. The majority of Liberty Lake walleye were raised for seven to ten days before being transplanted, and were not fed at the hatchery. The only exception to transplanted walleye size was in 2000, when 20,000 fingerlings were stocked in the lake. The WDFW does not stock other warmwater species (such as smallmouth bass) in Liberty Lake. Keith Seiders stated that the brown trout collected in 2001 were fish between 4 and 5 years of age. This age of stocked trout generally has spent multiple years growing after planting, increasing the likelihood that they accumulated their PBC burden in Liberty Lake.

Mr. Seiders also noted, "PCBs are commonly found throughout the environment, even in fish from lakes far from population sources. Ecology is trying to better understand this through a current study 'PCB and Dioxin Levels in Resident Fish from Washington Background Lakes and Rivers' (http://www.ecy.wa.gov/biblio/0803102.html)." The Water Quality program encourages the Liberty Lake Sewer and Water District to submit water quality data in accordance with the Department of Ecology's Environmental Information Management system requirements. Monitoring data may provide the Department of Ecology and local governments a clearer picture of potential sources of toxics contaminates, such as PCBs, to Liberty Lake. The Water Quality Department will assess submitted data according to the Water Quality Program Policy 1-11 (www.ecy.wa.gov/programs/wq/303d/wqp01-11-ch1_final2006.pdf).