

DRAFT

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## **UPLAND FIN-FISH HATCHING AND REARING GENERAL PERMIT**

These comments are being submitted by the Spokane Regional Toxics Task Force on the draft Upland Fin-fish Hatching and Rearing General NPDES Permit issued by the Washington Department of Ecology.

### **Background SRRTTF Purpose**

The **Spokane River Regional Toxics Task Force (SRRTTF)** leads efforts to find and reduce toxic compounds in the Spokane River. The goal of the task force is to develop a comprehensive plan to bring the Spokane River into compliance with water quality standards for PCBs (polychlorinated biphenyls). These pollutants exceed water quality standards in several segments of the river.

The Spokane River Regional Toxics Task Force is actively working to:

- Further analyze the existing and future data to better characterize the amounts, sources, and locations of PCBs and other toxics as defined above entering the Spokane River.
- Prepare recommendations for controlling and reducing the sources of listed toxics in the Spokane River.
- Review proposed Toxic Management Plans, Source Management Plans, BMPs, and data to be used to develop performance-based limits.
- Monitor and assess the effectiveness of toxic reduction measures.

Members are municipal and industrial permitted dischargers to the Spokane River in Washington and Idaho (between Lake Coeur d'Alene and Long Lake), environmental groups, and state and local agencies.

For further information on the SRRTTF and its mission and activities go to WEB LINK

During its comprehensive identification of potential PCB sources, the SRRTTF identified the Spokane River fish hatchery and fish from other hatcheries as potential sources of PCBs to the Spokane River. The Spokane River hatchery discharges to the Little Spokane portion of the river that flows into the main river and Lake Spokane below Nine Mile dam.

The SRRTTF supports studies in progress by the Department of Ecology EAP to further identify PCBs associated with the Spokane hatchery. Ecology and the SRRTTF also conduct studies of PCB levels in rainbow trout in the river which includes hatchery fish. The SRRTTF has spent considerable time and resources to date to identify potential sources of PCBs to the river that are likely contributing to the impairment in the water and the fish. Potential hatchery source may also be contributing to impairment through effluent discharges and release to environment/carcass contamination

The SRRTTF has discussed many of these concerns with Ecology staff during the past year as the general hatchery permit was being redrafted. Please consider these comments when finalizing the draft. SRRTTF members who worked on these comments are available to speak with Ecology on these comments.

### **Specific Comments**

**(Specific citations to sources are provided in text where particularly relevant. A complete reference list is provided as an attachment.)**

**1. The draft should recognize that fish hatcheries are potential sources of PCBs to the receiving waters and sediments.**

#### Comment Section

Section C. XXX draft Fact Sheet page XXX

## Human Health

Washington's water quality standards include 91 numeric human health-based criteria that Ecology must consider when writing NPDES permits. These criteria were established in 1992 by EPA in its National Toxics Rule (40 CFR 131.36). Ecology has determined that the discharge from this industry group is unlikely to contain chemicals regulated for human health. However, the proposed permit requires Permittees that discharge to PCP listed waterbodies evaluate possible sources of Polychlorinated Biphenyls (PCBs) in the hatchery. See PCB Evaluation section below

See also sections XXXX

## Comment Chemical Contained

Contrary to the determination stated in the fact sheet, fish hatchery discharges in Washington State are likely to contain chemicals regulated for human health. These include PCBs and dioxins. Recent studies on the Spokane River and additional studies conducted by Ecology and other researchers and agencies over the past 10-12 years support the conclusion that discharges from fish hatcheries are likely to contain PCBs and other toxics regulated under the Clean Water Act (see list of references). Previous studies have identified PCBs in sediments and effluent from fish hatcheries as containing PCBs at levels that exceed current Washington state water quality and sediment management standards. PCBs in sediments may also contribute to sediment contamination requiring cleanup under MTCA or CERCLA. (Montana study citation)

Numerous studies have identified two likely sources of PCBs within both marine and freshwater hatcheries. (cite) These are fish feed and paints and caulks. Fish tissue levels in hatchery raised fish have been shown to exceed fish tissue levels associated with HHWQC and fish advisory levels with FH paints, caulks and feed as possible sources.(cite) Both fish feed and paints and caulks have been tested and shown to contain levels of PCBs likely to contribute to levels in hatchery discharges above state standards. (cite)

The draft permit does require that hatcheries which discharge to "PCP (sic) listed waterbodies evaluate possible sources of Polychlorinated Biphenyls (PCBs) in the hatchery." The inclusion of this requirement seems to support a conclusion that PCBs may be contained in the effluent, potentially at levels above the state HHWQC. The requirement to evaluate possible sources of PCBs directly conflicts with Ecology's conclusion that effluent

from fish hatcheries are “unlikely to contain chemicals regulated for human health.”

Please explain what studies or other data Ecology relied upon to reach the conclusion that PCBs and other toxics are unlikely to be present in the discharges of fish hatcheries. Please explain how Ecology resolves the apparent conflict between this determination and the requirement in the draft to identify and develop control plans for PCBs from these sources.

## **2. The permit should require monitoring to characterize and identify PCBs in the discharge**

### Comment Monitoring of Effluent Discharges

Ecology has the authority under the NPDES permit program to require that a permittee sample and test its effluent for suspected pollutants. Ecology routinely includes such requirements for PCBs and other toxics in both individual and general permits. (see Spokane River NPDES permits for municipalities and industries currently discharging to the river) Monitoring to characterize pollutants in an effluent can be the most effective method of identification and assists Ecology in determining how to include conditions in a permit to reduce or eliminate them.

Permits issued by Ecology for individual municipal and industrial discharges and for general stormwater permits in the Spokane River study area include monitoring to characterize the levels of PCBs in the effluent. Similar conditions are included in EPA issued permits for Idaho municipalities discharging to the river. The exception is the current upland fin fish hatchery general permit which provides coverage for the state permitted hatchery on the Spokane River. The draft permit also does not include monitoring to characterize PCB and other toxics in hatchery discharges.

In a recent document filed with the federal court, EPA Region 10 recommended that Ecology include monitoring requirements for hatcheries included in the Spokane River study area (cite) including the Spokane Hatchery covered by the state’s general permit (cite to Ecology letter to EPA.)

This draft does not include any discharge monitoring requirements for the Spokane hatchery or for other hatcheries that discharge to PCB impaired waterbodies as identified in Appendix E to the draft fact sheet.

Please explain why the permit does not require monitoring to characterize and identify PCBs and other toxics likely to be present.

**3. The permit should require compliance with all Clean Water Act NPDES and Section 303(d) requirements related to toxics**  
Comment Sections S6.C and SectionS3.G

Comment-Likely Sources of PCBS within Hatcheries

Hatcheries which discharge to PCB impaired waterbodies are likely sources of PCBs and likely contributors to a section 303(d) Clean Water Act impairment determination. (cite to 2006 study) Even hatcheries which discharge to waterbodies not listed as impaired for PCBs are similarly likely to contain PCBs in their discharges at levels at above the HHWQC. This is because all hatcheries covered by the general permit use fish feed that is likely to contain PCBs above Clean Water Act HHWQC levels. Similarly paints used at hatcheries before and after 1980 may contain PCBs at levels that are likely to cause or contribute to exceedences of HHWQC in water in the effluent. (Both feed and paint can contribute to elevated levels of PCBs in the hatchery fish themselves.)

Federal regulations allow specified levels of PCBs in fish feed used to feed hatchery fish or in paints and caulks applied to hatchery structures that come into contact with hatchery water. (cite) FDA and TSCA these federal regulations are not established to address Clean Water Act standards.

The draft permit section S6.C.1 as noted above does require hatcheries that discharge to waterbodies listed as impaired for PCBs to develop a plan for removal of paint or caulk if levels are at or greater than the 50 ppm allowed under federal TSCA regulations. Removal of paint at the greater than 50 ppm level would still allow exposures to waters and fish in the hatchery at levels exceeding the much lower current state HHWQC for PCBs.

Section S6.C 2 contains a requirement that facilities listed on the 303(d) list for PCBs must develop and implement a plan to reduce PCBs in the facility discharge, from fish feeding activities. The plan should contain purchasing procedures that give preference for fish food that contains the lowest amount of PCBs that is economically and practically feasible.

The draft Fact sheet states that “The USFWS and the USGS have been investigating PCBs and other contaminants in fish feed. EPA and Ecology are not aware of a feasible way to reduce PCBs in fish feed”

The term “economically and practically feasible” is not defined or referenced in the permit.

The Clean Water Act does not provide for an exemption for permitted discharges of pollutants at levels that exceed state standards on the basis that there are no “feasible” alternatives to controlling the significant source of PCBs. Cost is not allowed as a consideration. In the case of fish feed, it is t vegetarian based feed sources without levels of PCBs likely to contribute to unacceptable PCBs in the effluent are being developed.

Please explain why the permit allows for the use of fish feed with levels of PCBs likely to contribute to unacceptable levels of PCBs in the discharge and in the fish when they are released.

Please explain how Ecology will determine whether the permittee fish feed plan meets the economically and practically feasible condition in S6.D.2.

Please explain how this exemption complies with the permit’s requirement in Section S3.G. Prohibitions

The discharge of any pollutant not specifically authorized by this permit in concentrations that cause or contribute to an exceedance of receiving water quality standards established under Section 307(a) of the Clean Water Act or Chapter 173-201A WAC, constitutes a violation of this permit and the Clean Water Act.

The Permittee must not discharge to water of the state from the hatchery complex:

6. Toxic substances, including drugs, pesticides or other chemicals in toxic amounts that will impair designated uses or violate water quality standards of the receiving water

Appendix E draft Fact Sheet lists 6 Washington waterbodies which are listed as impaired under the currently effective list of impaired waterbodies and which have hatcheries discharging to them. Please explain why this permit does not limit coverage for these hatcheries given the likelihood that their discharges contain PCBs that may be contributing to the impairment for PCBs.

### **Additional Concerns: PCB Impairment Listings and Fish from Hatcheries**

It is not clear why the permitting process for these hatcheries does not at a minimum acknowledge the impact on public health and to state’s

waterbodies from the release of hatchery fish with fish tissue levels that exceed extrapolated state human health water quality criteria (HHWQC). These fish can be exposed in the hatchery to levels of PCBs that result in fish tissue levels above the state HHWQC and at or above the WDOH advisory levels for fish consumption.

Ecology also currently relies on levels of PCBs in resident fish species to determine whether a waterbody should be considered impaired for that pollutant. The assumption is that the resident fish likely was exposed to the pollutant from the water in which it resides. If the fish is in fact a hatchery, the levels of PCBs are likely in large part to be from exposure at the hatchery to contaminated feed and paints, not to levels in the water itself. Hatchery fish such as rainbow trout are considered to be resident fish for purposes of impairment listing and are not screened out of the process.

In 2006 Ecology concluded in a report that looked at statewide PCB levels from hatcheries and in fish as follows:

“ One of the implications of these results, particularly from the practical standpoint of a regulatory agency, is that waterbodies may be included on the 303(d) list due to contamination stemming from hatcheries. Taken further, 303(d) listed waters often require a TMDL to assess contaminant sources. Sources considered for TMDLs are typically point sources (e.g., piped effluent) and nonpoint sources (e.g., agricultural and urban runoff, atmospheric deposition) which normally occur in the vicinity of the impaired waterbody. However, no known TMDLs in Washington have included hatchery fish as a contaminant source. *For PCBs, and to a lesser extent dieldrin, hatchery fish may contribute to impairment and, in some cases, may cause the bulk of impairment. Therefore, TMDL investigators may want to consider including hatchery fish as contaminant sources among other sources.*” Emphasis added

[Persistent Organic Pollutants in Feed and Rainbow Trout from Selected Trout Hatcheries](https://fortress.wa.gov/ecy/publications/summarypages/0603017.html) (<https://fortress.wa.gov/ecy/publications/summarypages/0603017.html>)

## **Recommendations**

The SRRTTF supports studies to clarify the role of fish hatcheries in contributing to unacceptable levels of PCBs and other toxics in the Spokane River study area and in other waterbodies in the state. Unfortunately this draft permit misses the opportunity to engage with the state’s hatcheries in identifying their potential contributions by failing to acknowledge the well documented potential for hatcheries’ contributions and failing to require monitoring to characterize these levels to aid in developing BMPs that can help impacted waterbodies to achieve compliance with toxics standards.

Identification of all sources and development of BMPs for all sources is a major purpose of the SRRTTF. We would like to meet with Ecology and other interested parties to better align this important permit with those goals. Please contact XXXXXXXXXXXX

Signed ?

#### REFERENCES

I would like to just link to the SRRTTF posted list if that works or we can copy and list.

I also have some additional sources from more recent USGS studies  
And on the Montana permit.