

## Advice for People Who Eat Fish from the Lower Okanogan River

### Background

In 2010 the Washington State Department of Ecology (Ecology) completed an Effectiveness Monitoring Study of the Lower Okanogan River basin. This study looked at fish tissue to see if levels of the chemical contaminants DDT and PCBs had changed due to water quality improvements in the basin.

Ecology compared newer data collected to past studies. In 2008 fish tissue samples of smallmouth bass, carp, and mountain whitefish were collected to gather information about the level of contamination that persists in the river.

### Fish Consumption Advice: Lower Okanogan River

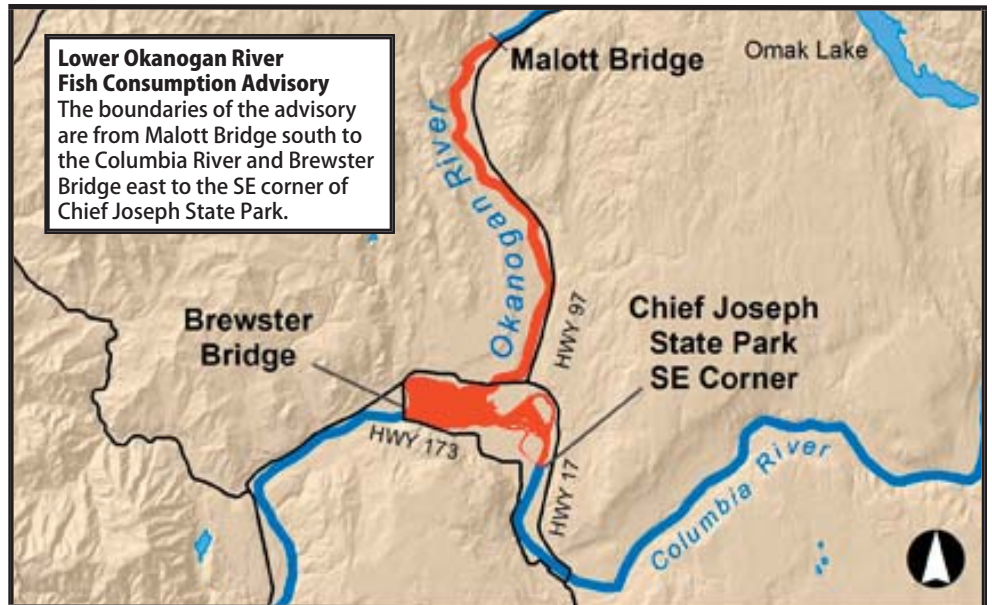
The Washington State Department of Health evaluated human health risks by using Ecology's fish tissue data. Results showed that carp had high levels of DDT and elevated levels of PCBs making a fish consumption advisory necessary.

**State health staff advise that everyone, especially women who are or might become pregnant, nursing mothers, and young children to limit carp to one meal per month.**

The boundaries of the advisory are from Malott Bridge south to the Columbia River and Brewster Bridge east to the SE corner of Chief Joseph State Park.

### What are DDT and PCBs and how do they affect human health?

**DDT** is a chlorinated insecticide once used worldwide to control insects in agriculture and those that carry disease such as malaria. DDT accumulates in sediment, plants, aquatic



plants and animals, and fish. DDT was banned in the 1970's due to environmental and human health risks. People are exposed to DDT from foods such as fish. It can be absorbed by eating, breathing, or touching DDT contaminated products.

**Health Impacts** DDT can harm the nervous system, damage the liver and reproductive system, and may cause cancer.

**PCBs** are chemicals that were used in industrial systems, electrical equipment, and a variety of products. These products include coolants and lubricants in transformers, capacitors, old fluorescent lighting fixtures, and hydraulic oils.

PCBs were banned in the 1970's due to environmental and human health risks. People are exposed to PCBs from eating foods (mainly fish), breathing contaminated air, or drinking water.

**Health Impacts** PCBs can harm the

immune, reproductive, nervous, and endocrine systems. PCBs may cause cancer. Developing babies exposed to PCBs in the womb may have learning and behavior problems later in life.

### How do PCBs and DDT get into fish?

Fish accumulate contaminants from the water or sediments where they live, or from the food they eat. These contaminants move up the food chain and can be passed to people who eat fish.

### Statewide Mercury Advisory

There is a statewide advisory due to mercury that includes the Okanogan River. Women who are or might become pregnant, nursing mothers, and young children should not eat northern pikeminnow and limit largemouth and smallmouth bass to two meals per month. Babies in the womb, nursing babies, and young children are at greatest risk.

# Healthy Fish Eating Guide for the Lower Okanogan River

## Lower Okanogan River Fish Advisory

### Fish to Limit:

Common Carp  
1 meal per month\*



### Fish that are Safe to Eat:

Salmon are a good choice.  
Check WDFW sport fishing rules for up-to-date regulations at <http://wdfw.wa.gov/fishing/regulations>

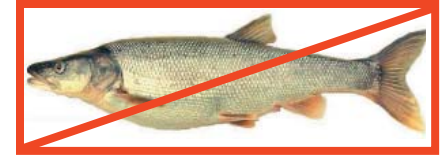
\* No other fish should be eaten that month. A meal size is 8 ounces of uncooked fish.

Advice for Everyone—  
especially women who might become pregnant,  
women who are pregnant, nursing mothers, and  
young children.

## Statewide Mercury Advisory

Advice for women who are pregnant, might become pregnant, nursing mothers, or if you feed young children sport-caught fish from Washington waters:

**Northern Pikeminnow:**  
DO NOT EAT

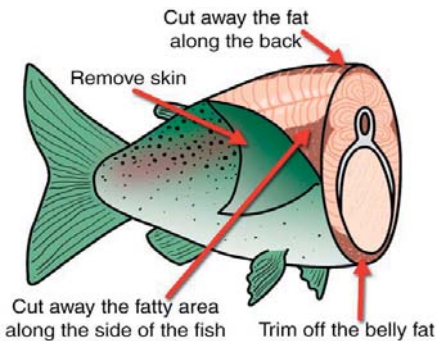


**Largemouth and Smallmouth Bass:**  
Limit to 2 meals per month\*



## How to clean and cook fish to reduce your exposure to chemical contaminants

Prepare fish the following way to reduce, by up to 50%, PCBs, DDT, and other contaminants that collect in the fat of fish:



- When cleaning fish, remove the skin, fat, and internal organs before cooking.
- Grill, bake, or broil fish so that the fat drips off while cooking.
- Do not use fat drippings for sauce or gravy.

**Mercury in Fish** Mercury is stored in the muscle (fillet) of fish and cannot be reduced by preparing this way. To reduce your exposure choose smaller fish and eat a variety of fish.

## Health Benefits of Fish

The American Heart Association recommends eating fish 2 times per week as part of a healthy diet.

- Fish is high in protein, low in fat, and full of nutrients.
- Fish is great source of omega-3 fatty acids which are good for the heart and brain.
- Omega-3 fatty acids are essential during pregnancy for the healthy development of a child's brain, retina, and nerve tissue.
- Eat fish to help prevent heart disease and stroke by reducing blood pressure, inflammation, and blood clotting.

The health benefits gained from eating fish can outweigh the risks. **Choose fish wisely.**

Visit [www.doh.wa.gov/fish](http://www.doh.wa.gov/fish) for healthy choices.

## Contact Information

### Fish Consumption Advisories

Washington State Department of Health  
Fish Consumption Advisories Program  
Toll Free: 1-877-485-7316 [www.doh.wa.gov/fish](http://www.doh.wa.gov/fish)

Okanogan County Public Health  
Dave Hilton Ph: (509) 422-7150  
Email: [dhilton@co.okanogan.wa.us](mailto:dhilton@co.okanogan.wa.us)

### Okanogan River Water Quality

Washington State Department of Ecology  
Environmental Assessment Program  
Evan Newell Ph:(509) 575-2825 Email: [evan.newell@ecy.wa.gov](mailto:evan.newell@ecy.wa.gov)  
Report: [www.ecy.wa.gov/biblio/1103009.html](http://www.ecy.wa.gov/biblio/1103009.html)



**"It is important to continue to eat fish, be smart, and choose fish wisely."**

Dr. Maxine Hayes  
State Health Officer

This document is available in other formats for persons with disabilities.  
TDD LINE: 1-800-833-6388. DOH 334-254 June 2011