# **Focus on Fish Testing**





October 2015

#### Fish to be tested at Green Lake in Seattle

Scientists from the Department of Ecology (Ecology) will be sampling fish from Green Lake in October to check them for toxic chemicals. Results from the survey will help two agencies, the State of Washington Department of Health and the local Public Health – Seattle & King County, determine risks to human health from eating fish.

We last tested fish in Green Lake in 2001. In addition to testing for chemicals, collecting data will help scientists determine whether changes have occurred in contaminant levels since 2001. The current fish consumption advice for Green Lake, based on our 2001 study, is to eat carp no more than once a month because of high levels of PCBs in this species. This advisory (see sidebar) is currently posted around Green Lake.

Learn more about making fish a part of a healthy diet at <a href="https://www.doh.wa.gov/fish.">www.doh.wa.gov/fish.</a>

# **About the study**

Fish will be collected from an electrofishing boat designed for these surveys. Species targeted for collection are bass, carp, catfish, and trout. Fillet tissue will be tested for a variety of chemicals because of their toxic effects on wildlife and humans. These chemicals include mercury, chlorinated pesticides, PCBs, PBDEs, and dioxins/furans.

Results from the survey will be available by December 2016. A report on the sampling effort will be published at <a href="http://www.ecy.wa.gov/programs/eap/toxics/fishmon.html">http://www.ecy.wa.gov/programs/eap/toxics/fishmon.html</a>.

# How do fish pick up contamination?

Some of the products and chemicals we use end up in the environment where fish accumulate them through the food chain and by direct contact with water. These chemicals are washed into waterways by runoff from rain or irrigation, or transported through the air during pesticide applications. These chemicals continue to be found in the environment because they do not break down easily:

## Why It Matters

Once the toxic chemicals, PCBs and DDT, get into the food chain, they take decades to disappear. Even though these two substances were banned in the U.S. more than 35 years ago, they persist in the environment.

Our best strategy is to control sources of these chemicals and prevent them from getting into the environment in the first place.

Ecology's monitoring programs protect public health and help decision-makers choose effective strategies to control the sources of toxic chemicals.



- PCBs: Polychlorinated biphenyls (PCBs) are a group of chemicals used as coolants and lubricants in electrical and mechanical equipment. PCBs are also found in paints, caulks, and other coatings. PCBs were banned in 1977.
- **PBDEs:** Polybrominated diphenyl ethers (PBDEs) are chemicals that were widely used in the U.S. and Canada as flame retardants. Studies showed that PBDEs are toxic and have been escaping from products and accumulating in people and the environment, including in human breast milk, blood and fat, household dust, indoor air, fish, wildlife, birds, beef, dairy products, and sediments. In 2008, Washington State passed a law (RCW 70.76) restricting the use of PBDEs in products sold in Washington.
- **DDT:** Dichloro-diphenyl-trichloroethane (DDT) is a chlorinated pesticide that was commonly used for fruit and other crops. DDT was banned in 1972.
- **Mercury**: Mercury has been used in various products and is released from the burning of fossil fuels such as coal.

# Monitoring Green Lake is part of a statewide effort

The monitoring study in Green Lake is part of our broader fish testing program called the *Freshwater Fish Contaminant Monitoring Program*.

This program has two main goals:

- Conduct exploratory monitoring to identify toxic contamination in freshwater environments where historical data are lacking.
- Conduct trend monitoring for toxic contaminants in fish.

This program has collected more than 400 fish tissue samples from 150 sites statewide since 2001. We added a long-term monitoring component in 2009 to track changes in contaminant levels in fish over time. This effort targets sites that have fish with some of the highest levels of toxic chemicals in Washington. The long-term monitoring will help determine how well cleanup efforts, such as Water Cleanup Plans, are working to reduce sources of chemicals and their pollution of waterways and fish.

More information can be found online at <a href="http://www.ecy.wa.gov/programs/eap/toxics/wstmp.html">http://www.ecy.wa.gov/programs/eap/toxics/wstmp.html</a>.

## For more information

#### **Fish Tissue Monitoring Efforts**

Keith Seiders, Ecology's Environmental Assessment Program, 360-407-6689 or keith.seiders@ecy.wa.gov

## **State of Washington Department of Health**

Fish Consumption Advisory Program, 1-877-485-7316 or www.doh.wa.gov/fish

Accommodation Requests: To request ADA accommodation including materials in a format for the visually impaired, call Ecology at 360-407-6764. Persons with impaired hearing may call Washington Relay Service at 711. Persons with speech disability may call TTY at 877-833-6341.