

## Draft PAH Chemical Action Plan

### Opportunity to Comment

The Department of Ecology (Ecology) invites you to comment on the Draft Polycyclic Aromatic Hydrocarbon (PAH) Chemical Action Plan (CAP).

We will accept comments by mail, fax, or email July 5 – September 4, 2012. Comments must be received by 5pm September 4, 2012.

Two public meetings to share information and answer questions will take place:

Date: August 7, 2012

Time: 6pm

Place: Olympia, Ecology Headquarters  
300 Desmond Dr., Lacey, WA 98504

Date: August 8, 2012

Time: 6pm

Place: Yakima, Ecology Central Regional Office  
15 West Yakima Ave, Yakima, WA 98225

### PAH CAP

Reducing toxic threats is one of the Ecology's priorities. Under the Persistent, Bioaccumulative Toxics (PBT) Initiative, Ecology seeks to reduce toxic threats from such chemicals as polycyclic aromatic hydrocarbons (PAHs).

The PAH Chemical Action Plan (CAP) is a plan that identifies, characterizes and evaluates uses and releases of PAHs and recommends actions to protect human health and the environment. This PAH CAP estimates release of PAHs from various sources to air, land and water. It also describes the physical and chemical properties of PAHs and why they are considered toxic to humans and other organisms. The recommendations are a set of actions to reduce and phase out uses, releases, and exposures in Washington, in consideration of current management approaches. An economic analysis on the cost of recommendations and the most promising options is also included.

### DATES AND LOCATIONS

#### Comment Period

July 5 – September 4, 2012

#### Access Draft PAH CAP online

[www.ecy.wa.gov/biblio/1207038.html](http://www.ecy.wa.gov/biblio/1207038.html)

#### Send written comments to

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#### Special accommodations

If you require special accommodations or need this document in a version for the visually impaired, call the Waste 2 Resources Program at (360) 407-6900.

**Toxic Effects**

PAHs almost always occur as complex mixtures that include many PAH compounds. The overall toxicity of PAHs is caused by these mixtures and as a result Ecology chose to evaluate available information on the 16 PAH compounds on the existing Washington State PBT list as well as additional PAHs.

Several PAH compounds/mixtures are classified as known carcinogens, possible carcinogens, or probable carcinogens for humans. Cancer has also been the main concern for many other organisms. Other health effects include mortality, heart defects, reduced growth, immune-suppression, effects on reproduction, and population effects on diversity and abundance in ecosystems.

**Major Sources of concern**

PAHs form and are released into the environment primarily from incomplete combustion of organic material, including wood burning and vehicle emissions. Most PAHs are first released to air. They later deposit from the air directly onto water, or deposit on land and then run off in stormwater. Other large sources that are released to water or soil are unburned petroleum and creosote treated wood.

For most individuals, the largest exposures to PAHs are from food and smoking, with a lesser contribution from air emissions. For wildlife, the largest concern is sediment, since that is where PAHs build up. Sediment is also where PAHs enter the aquatic food chain, eventually ending up in aquatic life that humans eat. The largest man-made sources to the environment come from wood burning stoves, creosote treated wood, and vehicle emissions, including engine exhaust, tire wear, motor oil disposal and motor oil leaks.

**Priority Recommendations**

The recommendations outline a set of first steps in a long-term plan to reduce PAH releases and exposures. These recommendations are based on an extensive review of scientific research on this topic and with the input of an advisory group representing a wide range of interests and expertise. We will focus on prevention, which is the smartest, cheapest, and healthiest approach to reducing PBTs. Actions that result in the biggest reduction in exposure to the most sensitive people and other living things are most important.

The Departments of Ecology and Health have existing programs to reduce PAH releases from complex mixtures that are the major anthropogenic sources of concern, such as wood smoke, vehicle emissions, and creosote treated wood. These existing programs can be enhanced to improve or speed up results, but we did not find that major new programs are needed. Expanding or increasing programs will require additional funds.