

PESTICIDES • DIOXIN • LEAD • ARSENIC • PCBs

## Cleaning Up Our Toxic River

CANOEING • WATERSKIING

FISHING • SWIMMING • BOATING • DRINKING • BIRDING

# PORTLAND HARBOR & YOUR HEALTH

*Unsafe levels of toxic chemicals lie along the bottom of the Willamette River downstream of Oregon City. DEQ is proposing to lead the clean-up of the most industrialized section (6 miles between Swan and Sauvie Islands), called the Portland Harbor, in order to avoid its designation as a federal Superfund site.*

## Why Care About Toxics?

For decades, many of the toxic chemicals found along the bottom of the Willamette River have been known to cause cancer in people and thinned eggshells in birds. Now we know toxic chemicals cause a wide range of other diseases and health effects to people, fish, and wildlife. Known as “environmental estrogens” and “endocrine disrupters,” many toxic chemicals have the following impacts:

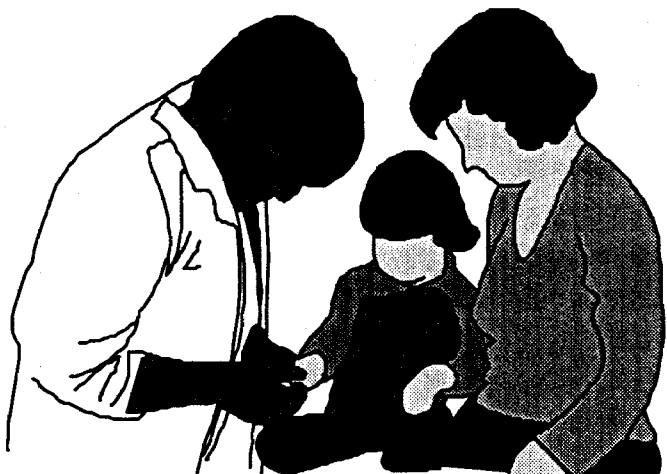
- Reduced immunity to fight disease.
- Permanent brain damage including decreased intelligence, motor skills, and memory, and increased aggressive behavior.
- Abnormally small penis size in animals, reduced testicle size in men.
- Abnormal sexual development and sexual behavior, altered sex hormones, and hermaphroditism, such as male fish with eggs.
- Reduced male fertility due to lowered sperm counts.
- Abnormally early onset of puberty in girls.
- Genetic changes in DNA structure that lead to liver cancer.
- Birth defects including children born without brains.
- Shorter menstrual cycles, delays in time to pregnancy.

## Are Current Laws Protecting Us?

The simple answer is “no.” Not only are government agencies such as the Oregon Department of Environmental Quality (DEQ) failing to enforce pollution laws that were passed over 25 years ago, but they do not use current information on the negative health effects of toxic chemicals. For example, Oregon’s standards for water quality do not protect us from the types of health effects listed above, but instead focus on preventing cancers. Oregon’s standards do not address the effects of toxic chemicals on fish-eating birds and mammals, despite evidence in the Columbia River Estuary that pollution is causing reproductive failure in bald eagles and sexual abnormalities in river otter.

## Toxics & Endangered Species

Until recently, most studies on toxic chemicals and fish focused on what levels of chemicals caused death. Now, studies in Puget Sound show that when juvenile salmon are exposed for even short times to contaminated sediments, their migration and swimming behavior is impaired in ways that prevent fish from reaching the ocean or returning to their spawning beds. Fish also lose their immunity to disease when exposed to toxic chemicals. Certain pesticides can cause abnormal sexual development, preventing fish from reproducing. For example, toxic chemicals have caused male trout with feminine traits in British Columbia and female fish with male sex organs in Florida. A recent study found a pesticide that prevents Atlantic salmon from making the transition from freshwater to saltwater fish.



## Our Children's Health

Children and developing fetuses are particularly at risk from toxic chemicals. In fact, health effects are often manifested in the young of species in ways that do not appear in their parents. These effects include children who are less able to fight disease, and have impaired brain function, reproductive tracts deformities, or hormonal alterations. Some of these effects have been measured in studies of pregnant and nursing mothers who ate contaminated fish.

## The Portland Harbor Clean-Up

Before DEQ or the EPA can determine how to clean up the toxic pollution in the Willamette, studies must determine where the pollution is, who is responsible for it, how it is moving in the river, and what risks it poses to human health and wildlife. Without outside pressure, government agencies are not likely to use the new information on the effects of toxic chemicals to determine how clean to make the Willamette because it will make the job more controversial and might require more expensive solutions. Whether EPA or DEQ leads the Portland Harbor clean-up, public participation will be key to ensuring that levels of toxic pollution are reduced sufficiently to protect the health of fish, wildlife, and people.

## How Safe is Safe?

Nobody knows exactly what risks are posed by the toxic wastes at the bottom of the Willamette. The Portland Harbor clean-up study must determine those risks in order to decide how clean to make the Willamette River. The federal Superfund program and current Oregon law (for which there are proposals to weaken in 1999) require that toxic levels protect people from cancer such that not more than one person out of a million people exposed to those levels would be likely to contract cancer from the exposure. DEQ proposes to evaluate how many people, birds, and animals eat fish from the Harbor as part of the study. DEQ believes that the fewer the people who eat fish and the fewer the birds and mammals in the area, the higher the levels of toxic chemicals can be allowed to remain in the Willamette.

## Conclusions

- Current information on the health impacts of toxic chemicals beyond the risk of cancer must be used to ensure that actions protect our native species and future generations.
- Safe levels of chemicals should be determined regardless of how many people, birds, fish, and animals are present in the Harbor.
- Birds, fish, and animals that eat fish almost exclusively—such as bald eagles, great blue herons, river otter, mink—must be fully protected
- Government agencies often will not do the right thing without the advocacy of concerned citizens.

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