

# Reducing Persistent Pollutants in Oregon's Waters: SB 737 Legislative Report



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## Summary

Many Oregonians are concerned about the health of Oregon's waters and the people who use them. There's also growing concern about persistent pollutants – those that come from a wide variety of sources but linger in the environment and have a documented effect on human health, wildlife and aquatic habitat. These pollutants are the chemical remnants of manufactured goods we use and dispose of every day. Many of these chemicals end up in our waters, where they persist and travel up through the food chain, in some cases having long-term effects on people and the environment. This report summarizes Oregon's first effort to comprehensively evaluate which of these pollutants should be a priority to address, and lists a variety of measures that state and local governments, businesses and citizens can take to reduce their presence in Oregon's waters.

## Background

The 2007 Oregon Legislature directed the Oregon Department of Environmental Quality to compile a prioritized list of persistent pollutants (the P3 List) to guide Oregon's pollution prevention efforts. Senate Bill 737 contains specific requirements for DEQ that included submitting a priority list of persistent pollutants to the Legislature by June 1, 2009, and reporting on the sources and pathways of these pollutants in June 2010. The legislation also requires Oregon's 52 large municipal wastewater treatment plants to develop plans to reduce the presence of those persistent pollutants detected in their effluent above levels set by the Oregon Environmental Quality Commission. Municipalities must submit Persistent Pollutant Reduction Plans to DEQ by July 1, 2011.

## Scope

This report identifies potential local, regional and global sources of persistent pollutants that may contribute to water pollution in Oregon. In addition, this report outlines measures that could be implemented by state and local governments, non-governmental organizations, businesses, industries, manufacturers and individual citizens to reduce the presence of persistent pollutants in Oregon's waters.

## Addressing Pollutants with Greatest Potential to Cause Harm

All persistent pollutants on the P3 List can potentially harm human health or aquatic life if they enter the water. While information exists on many of the P3 pollutants, definitive information on some is limited, especially information about how these pollutants move through the environment and affect human health and the environment.

In determining which persistent pollutants have the greatest potential to cause harm, DEQ assessed scientific evidence on each pollutant's potential to harm human health or aquatic life in Oregon relative to other pollutants on the P3 List. In addition DEQ considered the following questions: Is the pollutant widely used? Has the pollutant been detected in Oregon's waters? Has it also been detected in fish tissues, human blood or stream sediments?

Through research on each persistent pollutant, DEQ discovered that groups of pollutants with similar chemical properties and uses often have comparable potential to cause harm and similar opportunities for pollutant reduction measures.

- Many substances used today, including flame retardants and surface protectants such as non-stick coatings on cookware, show characteristics similar to “legacy” pollutants (i.e. DDT) that are no longer produced but persist in the environment and may accumulate in animal tissues. While information on the environmental effects of flame retardants and similar modern-day substances is far from complete, DEQ has enough information to conclude that these substances, as pollutants, may have serious, long-lasting environmental health impacts and thus warrant consideration for immediate reduction.
- Some very toxic persistent pollutants are widely produced and used and have been found in the environment in low concentrations. Information about many of these pollutants, including several types of metals and combustion byproducts is available because they are already monitored under state water quality standards and water quality permits. Efforts to reduce several of these pollutants (such as polycyclic aromatic hydrocarbons, mercury, lead and cadmium) are already underway in Oregon through water quality pollution reduction plans for certain rivers and streams (i.e. Total Maximum Daily Load limits), various permit restrictions and other means.
- Many pesticides currently used for commercial agriculture and forestry, landscaping and urban residential weed/pest control can potentially cause harm if they get into water after use.
- While no longer in active use, legacy pollutants still have the potential to cause harm. Pollutants in this category include the long-banned pesticide DDT and other pollutants no longer produced or used. These pollutants linger in the environment for years, often becoming embedded in soils and sediments in or near streams and rivers. They can be “re-released” into water bodies by physical disturbances such as dredging or streamside construction work and logging.

## **Pollution Prevention Makes Sense**

The most effective way to reduce pollution is through prevention that targets chemical pollutants at the source. In general, prevention measures are less expensive and more effective, efficient and reliable than treating, recycling or cleaning up pollutants after use. Everyone - homeowners, industries and local governments alike - can help reduce persistent pollutants in Oregon's waters. DEQ will focus on strategic planning, strengthened by collaboration and partnerships with industry and local governments, to reduce the amount of persistent pollutants in our bodies and in our environment.

The following are examples of reduction measures considered in this report:

- Chemical replacement and phase-outs of certain pollutants when viable, safer alternatives are identified
- Public education about the risks of exposure to persistent pollutants
- Product labeling and environmental certification programs for products that do not contain persistent pollutants
- Required disclosure of product ingredients
- Bans and restrictions on certain pollutants
- Pollution prevention partnerships with chemical and product producers to reduce the use of certain persistent pollutants in products
- Regulatory, voluntary or incentive-based approaches to improve stormwater controls in urban areas, and targeted erosion control measures in rural and urban areas, to reduce persistent pollutants entering surface waters from runoff
- Collection events and education on proper disposal
- Required producer responsibility for the full life-cycle of a pollutant
- Restrictions on residential, agricultural and forestry burning
- Activities such as assessments to identify specific contaminated sites and monitoring to measure effectiveness of reduction activities
- Comprehensive pollution prevention, addressing pollutants holistically rather than on a pollutant-by-pollutant basis.

## **Conclusion**

This DEQ report focuses on the persistent pollutants that pose potential and known threats to human and aquatic life if they enter Oregon's waters. It concludes that pollution prevention activities to address priority persistent pollutants should be an essential component of environmental programs at DEQ and elsewhere. All Oregonians can take steps to limit the generation of, exposure to, and movement of these pollutants. Information in this report can provide a basis for continuing discussions about identifying and reducing priority persistent pollutants in Oregon's waters. Additionally, this report contributes significantly to DEQ's work with Oregonians to develop a comprehensive toxics reduction strategy for the State of Oregon and our environment.