

# PIPELINE OIL SPILL RISKS



*The 2013 Pegasus Pipeline spill near Little Rock, Ark., released oil into a neighborhood. (Credit: EPA)*

## WHY IT MATTERS

Pipeline spills could have significant impacts on communities, environments, and economies. Oil spills to waterways are of particular concern. Water movement rapidly distributes oil over wide areas, damaging plants and killing fish and wildlife. Spills below ground can contaminate or ruin drinking water and irrigation wells.

Our preparedness work requires industry to develop contingency plans and test them with oil spill drills. Our geographic response planning develops tactics specific to waterways threatened by oil spills. These locally tailored plans help emergency responders respond quickly, so we can reduce spill impacts.

### Contact:

Linda Pilkey-Jarvis, Preparedness  
Section Manager, Spills Program  
360-407-7447  
[linda.pilkey-jarvis@ecy.wa.gov](mailto:linda.pilkey-jarvis@ecy.wa.gov)

## Impacts of a pipeline spill in Washington

In Washington State, 820 miles of pipelines carry about 7 billion gallons of petroleum products through local communities. They run along and under rivers, lakes, streams, wetlands, and Puget Sound. A spill could significantly impact public, environmental, and economic health, as well as cultural and historical resources.

- ✕ **Public health:** fume inhalation or injury from possible explosions or fires
- ✕ **Water supply:** long-term effects on communities or agriculture because of groundwater or aquifer damage
- ✕ **Wildlife:** fish, wildlife, and commercial and recreational fisheries harmed
- ✕ **Economy:** commerce and recreation affected by port and marina closures; cleanup costs could exceed \$1 billion
- ✕ **Tribal resources:** land, subsistence, and culture affected in potentially permanent ways
- ✕ **Transportation:** marine and highway traffic disrupted by the spill and response work

In Washington, 42 pipeline incidents have spilled 581 gallons since 2007.

## Pipeline incidents are on the rise nationwide

Between 2006 and 2016, over 1,100 significant\* pipeline incidents occurred nationwide, and the annual frequency of pipeline incidents increased by 64 percent. Annual costs for incidents ranged from \$53 million to \$1.2 billion. In November 2017, the Keystone Pipeline spilled 210,000 gallons to agricultural land in South Dakota.

\* A significant incident is defined as one that results in serious injury or fatality, costs more than \$50,000, releases more than five barrels of volatile fluids such as gasoline or 50 barrels of other liquids, or results in a fire or explosion.

## Examples of pipeline spill impacts

### Olympic Pipeline oil spill, Bellingham, Washington

In 1999, this pipeline leaked 277,000 gallons of gasoline. The incident caused significant harm.

<b>Economy:</b>	Cost more than \$100 million; closure of Bellingham Bay and I-5; property damage
<b>Environment:</b>	236,000 gallons spilled into Whatcom and Hanna creeks; loss of vegetation, fish, and invertebrates
<b>Community:</b>	3 fatalities; evacuations; water treatment plant damage



The resulting fire left 1.5 miles of Whatcom Creek and its tributaries smoldering. (Credit: Washington Ecology)



Oil spilled to private property and waterways flowing toward a fishable, swimmable lake. (Credit: EPA)

### Pegasus Pipeline oil spill, Mayflower, Arkansas

In 2013, this pipeline released 210,000 gallons of heavy crude oil into a neighborhood near Little Rock.

<b>Economy:</b>	Cost more than \$57 million in property damage; 130 property owner lawsuits; about \$5 million in penalties
<b>Environment:</b>	210,000 gallons spilled into a neighborhood and Dawson Cove, oiling nearly 200 animals
<b>Community:</b>	22 evacuations due to volatile organic compounds and benzene; removal of contaminated soil and plants

### Kalamazoo River oil spill, Marshall, Michigan

The National Transportation Safety Board called this spill the costliest onshore cleanup in U.S. history.

<b>Economy:</b>	Cost more than \$1.2 billion; property damage
<b>Environment:</b>	1.2 million gallons of diluted bitumen spilled into Kalamazoo River; fish, mussels, turtles, and birds harmed
<b>Community:</b>	Evacuations; drinking water restrictions



Thick, sticky oils coat wildlife, causing immobility, smothering, or loss of insulation. (Credit: EPA)

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