# Emergency Response Program 2020 Annual Report

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DEQ is a leader in restoring, maintaining and enhancing the quality of Oregon's air, land and water.

State of Oregon
**Department of Environmental Quality**

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# Executive Summary

## Introduction

Spills of oil and hazardous materials during transportation, transfer and storage are threats to public health and the environment. Spills can impact air, water and land. Resources at risk from these spills include drinking water and waterways, as well as wildlife. In Oregon, statistics show that the majority of spills occur along the transportation corridors such as interstate highways, roads along the Oregon coast and railroads along rivers. When spills occur in waterways, rapid currents and tidal flux of Oregon's estuaries cause oil or hazardous materials to rapidly spread risking sensitive aquatic life, waterfowl and fragile habitats.

This report documents the Department of Environmental Quality's responses to oil and hazardous materials incidents during Fiscal Year 2020 (July 1, 2019 - June 30, 2020). There were a number of significant spills requiring expedited coordination by the Department of Environmental Quality during this fiscal year. This report highlights three of those spills and illustrates the extensive coordination required to respond effectively. Regardless of the size or location of a spill notification, DEQ must collect and verify information, triage the incident and respond appropriately. DEQ spill response staff located in regions across the state require training and need tools available to them to understand and protect localized resources.

This report illustrates several aspects of spill response: petroleum products are the most often spilled substance, the transportation industry is the most common source of spills and that a spill can occur in any part of the state. With this in mind, it is important to note that DEQ directs limited resources to ensure that our waters are protected and our air and lands stay clean 24/7 and 365 days of the year. Additionally, this report highlights DEQ's Emergency Response program structure, operations and the agency's working relationships with other local, state and federal agencies and Tribal partners in the emergency response community.

Information on DEQ's Oil Spill Contingency Planning and Preparedness program can be found here.

# 1.0 DEQ Emergency Response Program Overview

DEQ's Emergency Response program works with other government agencies and industries to prevent and respond to spills of oil and hazardous materials. DEQ Emergency Response program's mission is to:

- Ensure responses to oil and hazardous materials incidents are orchestrated quickly and efficiently
- Protect human health
- Minimize and mitigate environmental impacts from spills

- Ensure that long-term cleanup of spills and other follow-up actions are correctly completed

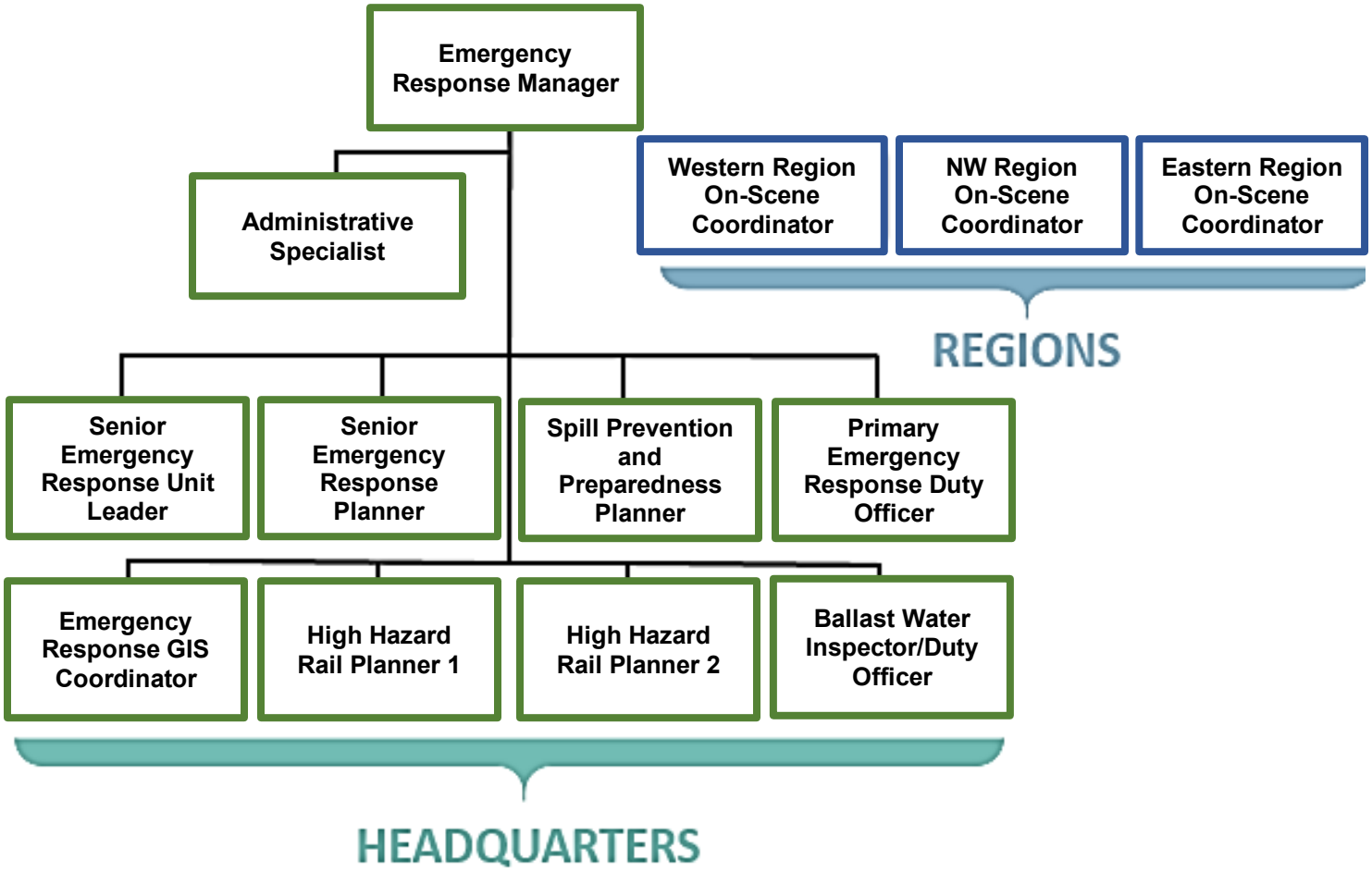
## 1.1 Roles and Responsibilities

Under Oregon's Emergency Operations Plan, DEQ co-leads Emergency Support Function 10 – Hazardous Materials with the Office of the State Fire Marshal. The Northwest Area Contingency Plan is the regional plan developed under the requirements of the National Contingency Plan, and is a framework to coordinate spill response actions and ensure consistency responding to spills in Oregon. Under these plans, DEQ's roles and responsibilities are:

- Act as a technical resource to responders during the emergency phase of an incident
- Coordinate support of state resources to incidents and work with special teams, including state hazardous materials teams, Oregon Department of Transportation Incident Response Teams, and teams from the US Coast Guard, US Environmental Protection Agency , as well as local emergency responders
- Manage the incident during cleanup phase
- Participate in emergencies using the Incident Command System as required under the National Incident Management System. The Incident Command System is a standardized approach to managing crisis response operations and providing a common hierarchy within which responders from multiple agencies can be effective.
- Provide expertise on environmental effects of oil discharges or releases of hazardous materials, and environmental pollution control techniques
- Provide investigative support and expertise on environmental and public health issues related to oil and hazardous material incidents
- Serve as a member of the Northwest Area Committee, including development of the Northwest Area Contingency Plan
- Serves as a member of the Regional Response Team
- Develop comprehensive plans and programs for air and water pollution control and disposal of solid and hazardous waste
- Help coordinate state environmental permits and other agency approvals
- Conduct enforcement actions when environmental quality rules and regulations are violated during an oil or hazardous materials incident

# 1.2 Organization: Oregon DEQ Emergency Response Section

Organizational Chart as of July 2020



DEQ receives notification of hazardous material and oil spill incidents through the Oregon Emergency Response System. Staff also log incidents which are reported through channels other than OERS. Duty officers gather and process information on incidents, disseminate information internally and to other organizations, and determine the level of response required. DEQ's response ranges from simple telephone coordination or onsite coordination, to complex field responses with large numbers of field staff involving multiple organizations. Significant or complex incidents are rapidly transferred to the state on-scene coordinators for more robust management. Once an incident is stabilized, the state on-scene coordinator moves into a position within Incident Command for the cleanup and recovery phase. DEQ employees are trained to staff positions within Unified Command. Unified Command allows for the participation of Federal, State, local and Tribal organizations within the response and ensures all interests and concerns of these organizations, including the responsible party, are identified and addressed.

At the core of DEQ's Emergency Response program are the duty officer and state on-scene coordinator positions. The duty officer position is rotated among Emergency Response program staff in the daytime. DEQ's afterhours duty officers are comprised of DEQ staff from a variety of programs. State on-scene coordinators are highly trained positions located in regional offices in Bend, Eugene and Portland.

Staff from other programs and DEQ's Oil Spill Contingency Planning and Preparedness group are specially trained to support the state on-scene coordinators on significant incidents. These staff often fulfill critical roles in the ICS response structure such as liaison officer, public information officer, environmental unit leader, situation unit leader and other key positions. DEQ calls upon subject matter experts from its various programs to address technical issues including waste characterization requirements, specialized remediation, and investigation techniques. When a responsible party cannot be identified, lacks the ability or is otherwise unable or unwilling to properly manage the cleanup of a spill, DEQ will manage the response using a contractor and through enforcement.

# 1.3 Response Statistics

Statistics on materials released, sources and distribution of oil and hazardous materials incidents within the State of Oregon are shown below. During Fiscal Year 2020, the DEQ Emergency Response program received notice of more than 1,300 incidents. Responses ranged from single day site visits to multi-week involvement.

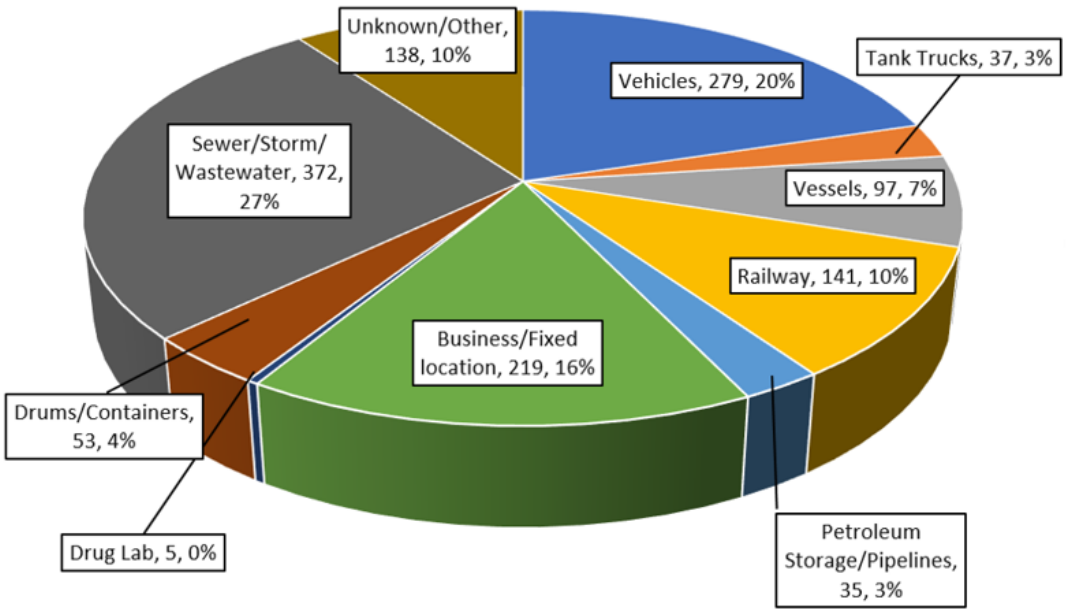



**Figure 1 - Reported Spills by Source**

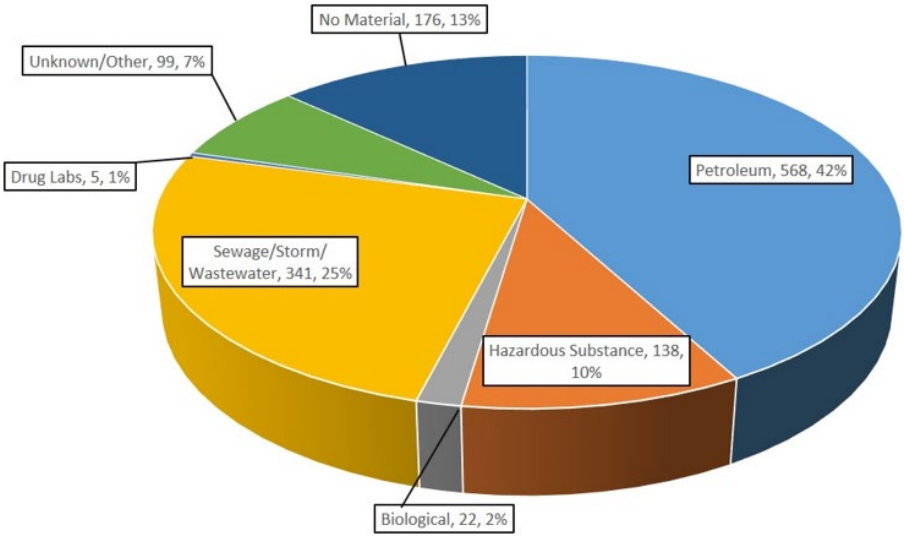



**Figure 2 - Reported Spills by Material**

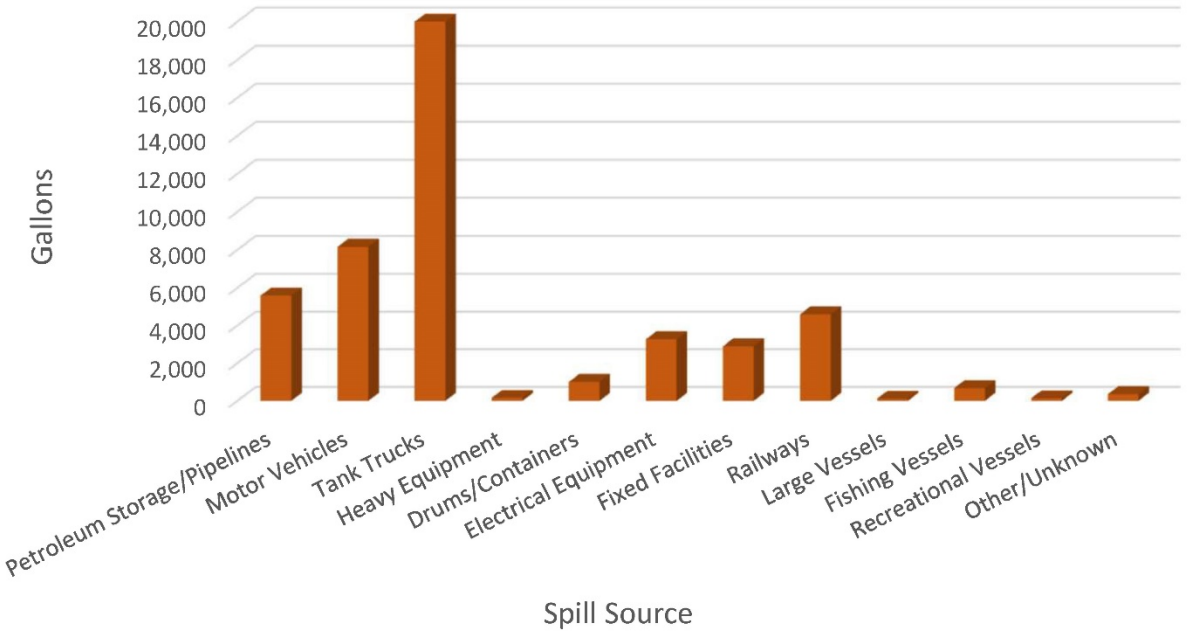



**Figure 3 - Petroleum Spills by Source and Volume**

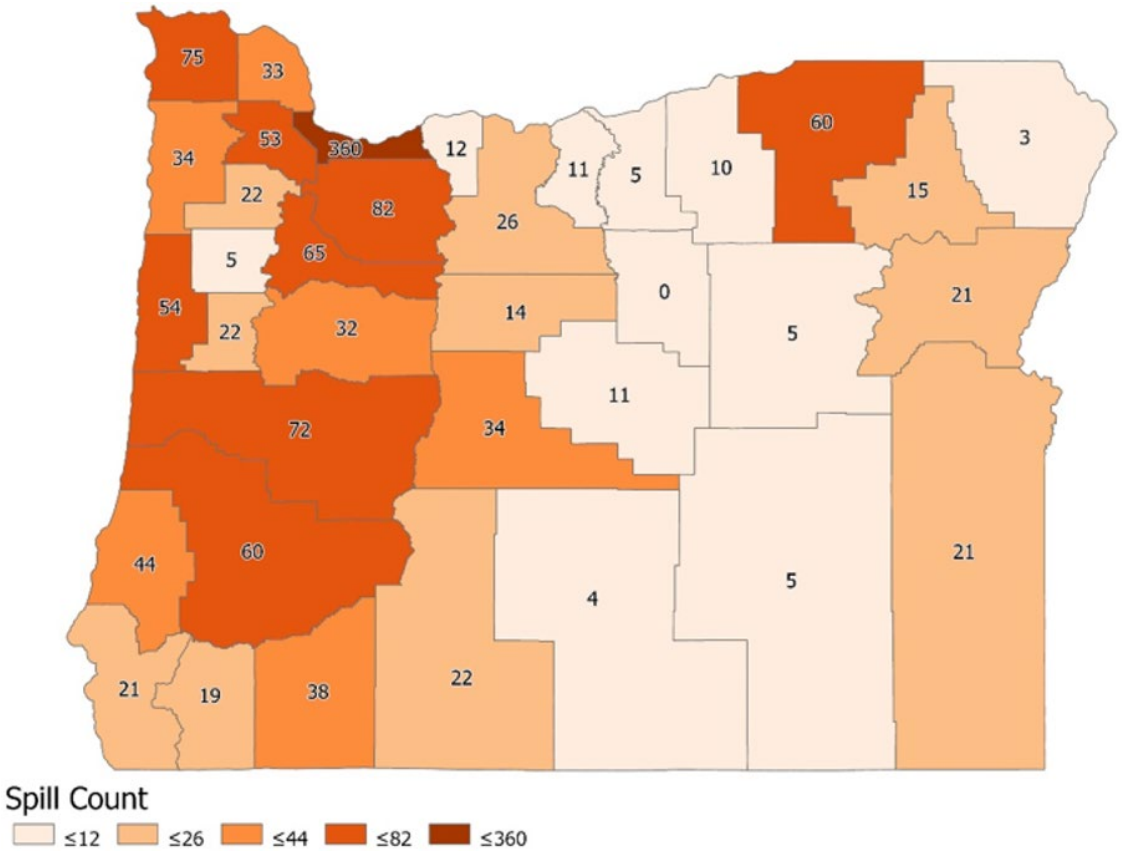



**Figure 4 - Spills by County in Fiscal Year 2020**

## 1.4 Forms of Enforcement

DEQ Emergency Response staff have several tools available for ensuring adequate response to spills of oil and hazardous materials. The majority of incidents are coordinated with the person or company responsible for the spill who willingly comply with and assist DEQ in cleaning up the spill. The spillers are known as responsible parties.

In cases where responsible parties are unwilling to clean up their spills or commit other violations, the first level of enforcement are warning letters. These written warnings request that a responsible party takes corrective actions to prevent recurrence of similar incidents. Another option is through Expedited Enforcement Offers, which are a streamlined process where the responsible party can admit responsibility and pay a reduced penalty equivalent to 40% of the base penalty they would otherwise be assessed. Expedited Enforcement Offers are considered applicable in circumstances where there are mitigating factors such as low volume spilled and positive response actions. Lastly, Pre-Enforcement Notices are the initial stage of full legal cases and typically involve multiple violations of law. During Fiscal Year 2019, DEQ state on-scene coordinators issued eight warning letters and 22 Expedited Enforcement Offers.

# 2.0 Incident Response Highlights

## 2.1 Highway 22 Tanker Spill

On Dec. 15, 2017, a Central Petro tanker truck crashed on Highway 22 near the town of Idanha, Oregon, spilling over 11,000 gallons of gasoline. On Feb. 16, 2020, a Space Age Fuel tanker crashed very close to this same location, spilling approximately 8,000 gallons of a combination of gasoline and diesel fuel. The response to this spill faced many of the same challenges that were experienced during the 2017 response, including:

- Impacts to the North Santiam River – which is a drinking water source for multiple downstream municipalities and private drinking water intakes
- Active spawning salmonid redds in the river
- Closure of a major transportation artery to perform work
- Significant impacts to subsurface able to release fuel to the river for a long period of time
- Remote location, and
- Cold weather conditions

An Endangered Species Act emergency consultation was performed at the start of the response, with recommendations for best management practices such as deploying silt curtains and hay bales, and keeping vegetation removal on the river bank to a minimum. It was determined that the best plan of action would be to excavate contaminated soil down to the groundwater to minimize the release to the river. Subsequently, over 5,000 cubic yards of soil were excavated and removed from a 500-foot long section of the highway at the spill location (see Figure 5).

**Figure 5 - Excavation to Groundwater Table - Bank Left Intact**

By end of day on Friday, February 21, just five days after the crash occurred, excavation had been completed and the highway was repaved and re-opened. Boom maintenance, changing of absorbents and monitoring of residual petroleum in ground and surface water continues (note the groundwater monitoring well in the foreground on Figure 6). While some sheening was observed on the North Santiam during the response, there were no impacts to drinking water intakes and only one dead juvenile salmonid was recorded during the response.

**Figure 6 - Start of Highway Replacement**

## 2.2 Umatilla River Pipeline

Also in February 2020, heavy rains and snowmelt combined to cause extensive flooding in Eastern Oregon and other parts of the state. Flood waters scoured the river bottom and exposed the Marathon Pipe Line LLC petroleum product pipeline at its Umatilla River crossing near Cayuse, Oregon. Historically it is believed the pipeline was installed via open trenching in the sediment. The pipeline runs from Salt Lake City to the Tri-Cities and from there to the Spokane area including Fairchild Air Base, supplying gasoline, diesel and jet fuel throughout the region. A number of water users, including the city of Pendleton's drinking water intake and Oregon Department of Fish and Wildlife fish acclimation facilities, are located downstream of the crossing.

Bags of grout (concrete-like material, see Figure 7) had been installed by Marathon to stabilize the exposed 8-inch pipelines, one of which was actively transporting fuel. DEQ was originally notified of the situation on April 13 and established Unified Command and began working with Marathon, the US Department of Transportation's Pipelines and Hazardous Materials Safety Administration, EPA, Army Corps of Engineers and the Confederated Tribes of the Umatilla Indian Reservation to better understand the situation. The primary concern was for waterborne debris to damage the pipeline and cause a spill. Critical stakeholders and partners throughout the project included the City of Pendleton, Umatilla County Emergency Management, Oregon Health Authority, Oregon Department of Fish and Wildlife and the US Fish and Wildlife Service. Marathon and PHMSA demonstrated that the stabilization measures exceeded engineering standards for the conditions (grout bags more closely placed than strictly necessary out of an abundance of caution).


**Figure 7 - Bags of Grout Stabilizing the Pipelines**

Resources at risk were identified, response strategies were developed and tested (see Figure 8), and additional response equipment was staged in the area. An increase in monitoring frequency was implemented for both remote (electronic) and on-scene monitoring. In October 2020 the pipeline was replaced with directional boring methods, and is now located approximately 40-feet below the river bottom. The old piping sections were vacated of product and the piping and support structures were removed from the river.


**Figure 8 - Field Testing a Newly Devised Response Strategy**