



DEPARTMENT OF
ECOLOGY
State of Washington

Scene

Spill Prevention, Preparedness, and Response Program

WASHINGTON STATE DEPARTMENT OF ECOLOGY

Spill Prevention, Preparedness, and Response Program

2009-2011 REPORT



Spill Scene is published by the Washington State Department of Ecology to provide information on oil and hazardous material spill prevention, preparedness and response. We welcome your comments and questions. Call (360) 407-6555 or write:

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MESSAGE FROM THE WHEELHOUSE

“The future brings us opportunities to continue to work with our partners in industry, federal, tribal, local governments and other states to progress towards a “zero spills goal” set by the legislature in 2004.”



August 2011 marked my 10-year anniversary with the Washington Department of Ecology’s Spills Prevention, Preparedness, and Response Program. Since I started with the Spills Program, the landscape has changed in so many ways. My challenge has been to find a balance between environmental regulations and economic vitality – including how to have effective regulations that protect our precious natural resources while promoting trade and therefore jobs in our state.

The Spills Program was created by the Washington Legislature in 1997 to prevent, prepare for and respond to oil and hazardous material releases from regulated oil-handling facilities and vessels. During the 1980s and 90s, oil spills involving 10,000 or more gallons was not uncommon. In 1990 alone, Washington had eight spills over 10,000 gallons. Today, spills of this size to our waters are a rare occurrence. Washington, with its rich and proud maritime heritage, is the most trade-dependent state in the nation. We are a national oil refining center and petroleum remains a strong engine in the state’s economy. Every year, more than 15 billion gallons of oil is transported by vessel, pipeline, railcars, and trucks through our state. We know we can never be complacent and let our guard down. The risk of a major spill in Washington is still a real possibility.

The near future promises even more oil is destined to move throughout our state due to:

- Increasing tank vessel traffic through Washington waters carrying heavy Alberta crude oil from the Port of Vancouver, British Columbia.
- More and larger bulk cargo ships operating in both Puget Sound and Columbia River.
- The proposed large bulk commodity Gateway Pacific Terminal at Cherry Point, Washington.
- Increasing ship traffic in Grays Harbor.

In 2010 the largest spill in our national history occurred in the Gulf of Mexico when the Deepwater Horizon oil rig exploded killing 11 people and leaking more than 200 million gallons. Although the spill occurred outside of our state, the implications of this spill of national significance hit home. Washington deployed response equipment and trained personnel to the Gulf – which could have left us vulnerable and potentially unequipped to respond if a major spill had occurred here. Knowing this, we put a ranking system for equipment in place and required our companies to provide alternative replacements when they sent critical response equipment outside our state.

The Gulf spill spurred innumerable lessons to be learned and we are continuing to evaluate and implement them in Washington. In 2011, the Washington Legislature passed and Governor Chris Gregoire approved the next evolution of regulatory requirements to ensure our state can respond to a major spill using the best available technology, highly trained personnel, and the most effective operational methods known. These standards will be in place by December 2012.

While the downturn in the economy continues to challenge our state, the Spills Program continues to evaluate our work to ensure we are good stewards of the environment, spend our tax dollars wisely, and continuously challenge our prevention, preparedness, and response systems to ensure they remain effective and relevant. The future brings us opportunities to continue to work with our partners in industry, federal, tribal, local governments, and other states to progress toward the “zero spills goal” set by Washington lawmakers in 2004.

I hope our 2009-11 Spill Scene report gives you a glimpse of the work Ecology’s Spills Program does every day to protect and minimize adverse affects to our environment.



Dale Jensen
Spill Prevention, Preparedness, and
Response Program Manager



2009-2011 HIGHLIGHTS

Spill in Gulf of Mexico Hits Home

There are no real boundaries when a major oil spill occurs. The 2010 catastrophic spill in the Gulf of Mexico typifies how the response community – even as far away as Washington State – reacts.

The spill started early in the morning on April 20, 2010, after an explosion on the BP Deepwater Horizon drilling platform 40 miles off the Louisiana coast killed 11 people. Initial reports estimated more than 2 million gallons of crude oil a day was leaking from the wellhead. The 205 million-gallon BP oil spill eventually became the largest spill in our national history.



FIGURE 1
Oil wellhead leaking from ocean floor.

“Our state is already recognized for having one of the strongest spill prevention and response programs in the nation,” said Governor Chris Gregoire. “But the BP Deepwater Horizon disaster illustrates the importance of being as well prepared as possible for a major spill. This bill (HB 1186) helps ensure that Washington gets the best tools and equipment to mount an aggressive, rapid and well coordinated response in the event of a major spill in Puget Sound and other waters of our state. We are the first state in the nation to pass significant new

– Governor Gregoire

Once the U.S. Department of Homeland Security declared the Gulf spill to be a “Spill of National Significance” (SONS) under the Oil Pollution Act of 1990, Ecology immediately understood the incident could impact our level of readiness to respond to oil spills in Washington. The SONS designation requires mutual aid from surrounding states such as boom, chemical dispersants, oil skimming vessels, support boats and trained response personnel. This included highly trained staff from our response contractors and federal partners such as EPA, U.S. Coast Guard and National Oceanic and Atmospheric Administration. Ecology quickly developed a method for tracking and prioritizing equipment leaving our state. The system gave

Ecology the ability to determine the importance of the deployed equipment so we would know if a key resource left our state and if there were adequate backfill or mitigation measures in place to respond to oil spills here. Ecology also kept responding agencies, elected officials, media and the public informed regarding our activities.



FIGURE 2
View from an observation plane on the miles of dispersant used.



“I joined Ecology four years ago after spending 19 years in the industry I now help regulate. I’m convinced that operating safely, compliantly, and ecologically friendly is good for Washington, good for the environment, and good for business. As an oil transfer inspector, I work closely with vessel and facility managers and personnel to constantly improve their level of protection –which helps everyone in the end.” – Mike Auer, Oil Transfer Inspector



FIGURE 3
In-situ burning methods were used to “burn” oil surfaces.

State Adopts Landmark Legislation Based on Lessons Learned from Gulf Spill

On January 11, 2011, the National Commission on the BP Deepwater Horizon Oil Spill and Offshore Drilling released their report to President Obama. Governor Gregoire directed Ecology and the Puget Sound Partnership to evaluate the report to determine if there were significant lessons learned and recommendations that could be applied to Washington.

On April 20, 2011, the Governor signed landmark legislation passed by the 2011 Washington Legislature that significantly advances protection of Washington State's environment, economy and cultural resources from the impacts of a potential major oil spill. The law applies many key recommendations in a joint report from Ecology and the Partnership about the BP Deepwater Horizon spill.

The new legislation helps ensure that our state gets the best tools and equipment to mount an aggressive, rapid and well coordinated response to a major spill to our waters. Under the law, oil companies operating in Puget Sound and the Columbia River will need to invest in response equipment and personnel to provide continuous on-water oil cleanup activities – even at night and during fog and rain. The legislation also ensures local resources like commercial fishing vessels and citizen volunteers are able to effectively participate in an oil spill response. Under the law, Ecology must adopt rules by December 31, 2012 that:

- Update state oil spill preparedness planning standards to incorporate best achievable protection using best available technology.
- Improve the state's current vessels of opportunity system.
- Establish a volunteer coordination system.
- Require joint large-scale equipment deployment drills from tank vessels.
- Improve the state-required notification process to include potential spill threats as well as actual spills.
- Update the monetary amount of compensation that can be calculated for spills of 1,000 gallons or more.



Responsibility for Neah Bay Response Tug Shifts to Maritime Industry

On July 1, 2010, the Washington's maritime industry took over funding and permanently stationed its own contracted emergency response towing vessel at Neah Bay. The law shifting permanent funding responsibility for the tug from the state to industry was passed by the Legislature and signed by Governor Gregoire on March 24, 2009, the 20th anniversary of the Exxon Valdez spill.



FIGURE 1
Foss tug Delta Lindsey
now stationed at Neah
Bay.

From 1999 through mid 2010, state-funded tugs stood by or assisted 46 partially or completely disabled ships. During 11 responses, the tug attached a tow line and took physical control of the disabled vessel to safely tow it to a harbor for repairs. These actions helped prevent a combined spill potential of nearly 5 million gallons of oil. Ecology and the U.S. Coast Guard also can deploy the industry-funded tug as necessary to address vessel emergencies.

National Preparedness for Response Exercise Program (NPREP)

On June 21-23, 2011, Ecology and the Coast Guard co-hosted the National Preparedness for Response Exercise Program exercise in Oak Harbor, Washington. More than 200 local, state, federal and Canadian personnel participated in the drill designed to test cooperation, preparedness and response to a major spill to Washington and Canadian waters in which the spiller was unknown.

The exercise objectives tested a number of aspects:

- Effective communication and outreach to media, elected officials, local governments, and other stakeholders.
- Oiled wildlife volunteer activation.
- Unified Command decision-making regarding the use of dispersants and in-situ burning.
- Cross boundary response issues with Canada such as responder immunity issues and equipment movement across international borders.



"I manage geographic response plans for the State of Washington – plans that have been developed to aid the response community during the first hours of an oil spill. Our geographic-based response plans let us know in advance where sensitive natural, cultural, and certain economic resources are located, and how we might notify people or place oil containment boom to minimize the impacts that spilled oil might have on those resources. This is important work and I'm glad to be part of it. Spills will happen and you can either plan for them in advance or be left wanting on the day something bad happens. Making plans and preparing for oil spills is work I believe in. I know it will help our environment on the day it needs it the most."

– Harry Chichester, Geographic Response Plan Lead

Oiled Wildlife Rescue and Response Goes Mobile

In November 2009, the private, non-profit spill response entities Marine Spill Response Corporation (MSRC) and Clean Rivers Cooperative held a demonstration in Ferndale, Washington so spill response managers and staff from Ecology and Fish & Wildlife could see how regulated oil handling and shipping companies will set up mobile response operations to rescue and care for wildlife affected by oil spills.

Companies are required to meet Ecology's planning standard to have sufficient strategies, personnel, and mobile equipment in place that can be sent anywhere in the state to rehabilitate 100 oiled birds within 24 hours of a spill. During past spill incidents, oiled birds captured alive were transported to special fixed facility where they were cleaned and treated. The mobile unit approach means birds can be treated near the locations where they are collected, rather than having to be transported and endure additional stress.



FIGURE 1
Clean Rivers Cooperative wildlife rescue mobile trailer at demonstration in June 2011.



FIGURE 2
MSRC mobile wildlife unit at demonstration in June 2011.

Managing the Drill Program through Budget Shortfall

Due to a \$2 million budget shortfall in 2009, the Spills Program had to cut eight positions. Our preparedness section was hit particularly hard – and as a result, our focus on drills changed to allow industry tabletop drills to be self-certified rather than evaluated by Ecology. The number of our unannounced drills has been dramatically reduced as well. Our primary focus has instead turned to larger equipment deployment drills which have been expanded in scope and scale. Some larger drills simultaneously test protection strategies and on-water recovery systems in all of the various operating environments experienced in Washington. This refocus is allowing us to maximize our equipment verification, inspection and testing program.



"I grew up in Anacortes among the seafood and oil refining industries. I never gave a second thought to the oil tankers plying the waters along the San Juan Islands. It wasn't until I returned to Anacortes for a visit, after taking a position with the Preparedness Section of the Spills Program, that the site of an oil tanker silently transiting near the ferry dock gave me pause. It was in that moment that I realized the importance of my job as a regulator in ensuring that if oil does spill, the responsible party is well prepared to respond. Being able to do something so important, so that the public doesn't have to think twice about it, is very gratifying for me."

– Kathy Weed, Drills and Training Specialist

PARTNERSHIPS

Ecology along with its partners from local, federal, state, tribal and industry continue to work together to prevent, prepare for and respond to oil and other hazardous spills in our state. The different levels of engagement with our partners allows Ecology to influence and leverage opportunities to further our “zero spills” goal and provide the best achievable protection for our state resources.

Puget Sound Partnership

In 2009 the Washington Legislature tasked the Puget Sound Partnership to work with Ecology and other key stakeholders to advance oil spill prevention and response in our state. The Partnership created a special Puget Sound Oil Spill Work Group which met three times in fall and winter of 2010 and published recommendations for improving spill response which were later adopted by the agency’s Leadership Council. The recommendations put forth the following:

- Ensure the state Legislature provides adequate and stable funding to restore spill activities at the departments of Ecology and Fish and Wildlife to their 2007-2009 levels and cover future projected shortfalls.
- Direct Ecology and other entities responsible for developing and implementing oil spill contingency plans to enhance their oil spill preparedness drill programs and make sure key state, local, tribal, and federal partners also participate.
- Charge Ecology’s Spills Program with developing a new vessels of opportunity program.
- Make sure our regulated oil-handling and oil and vessel shipping industries can quickly, effectively and safely respond to spills regardless of location, time of day, or operating environment.



Northwest Area Committee (NWAC)

The Northwest Area Contingency Plan (NWACP) is a multi-state (Washington, Oregon and Idaho) regional plan for oil and hazardous substance incidents. The NWACP is mandated by the National Contingency Plan. The NWAC is committed to providing for the development of the area plan and coordination of preparedness activities prior to a pollution incident. The Committee addresses regional and international issues and provides guidance to industry, State Emergency Response Commissions, Tribal Emergency Response Commissions, and Local Emergency Planning Committees.

The Area Plan is updated annually and between 2009 and 2011, the plan was revised to include:

- Updated policies that were a result of lessons learned from the Deepwater Horizon Gulf spill including dispersants and in-situ burning.
- Updated information for the Joint Information Center manual to include information on using social media tools. In addition, there are policies on the use of volunteers.

Lower Columbia River Harbor Safety Plan

The Lower Columbia Region Harbor Safety Committee is made up of public and private interests dedicated to assuring safe navigation and maritime practices to protect the environment, property, and personnel on Lower Columbia waterways. In 2009 and 2010, the Committee began work on the first Lower Columbia Region Harbor Safety Plan. Ecology volunteered to chair the sub-committee responsible for producing the plan. The Harbor Safety Plan creates standards of care for vessel anchorages, lightering and bunkering operations, dam lockage procedures, restricted visibility, and incident management.

Pacific Oil Spill Prevention Education Team

Ecology collaborates with several external organizations including the Pacific States-British Columbia Oil Spill Task Force and Pacific Oil Spill Prevention Education Team (POSPET). Besides Washington, these groups also include representatives from local, state and tribal governments and organizations in Alaska, British Columbia, California, Hawaii, and Oregon. Since the highest number of reported spills comes from recreational boats and marinas, POSPET focuses on working with this community to prevent small, chronic oil spills. The team pools its talent, resources, and messages to craft consistent messaging from all our West Coast partners. The team has developed, produced and distributed numerous outreach materials. The Coast Guard Auxiliary, which also participates, distributes many of the Spills aren't Slick campaign materials including:

- Spills aren't Slick signs
- Boat fueling basics cards
- Dock spill kit instructions
- "You just had a spill" instruction poster
- "In case of an oil spill, use absorbent materials" sign

The Spills aren't Slick campaign also includes a 1-800-OILS-911 spill reporting number. The calls are tracked and directed to the appropriate state emergency reporting agency in Washington, British Columbia, Oregon, and California. Despite reduced resources, Ecology's Spills Program has promoted the 800 number resulting in greater public awareness. Our total call volume is now about half what California receives – and Washington has but one-fifth of that state's population. Between 1999 and 2010, Washington received 1,053 1-800-OILS-911 calls. In 2009 and 2010, there were 282 calls alone – an increase of more than 80 percent since 1999.



"As the computer information system technical expert for the Spills Program, I serve as the database administrator and technical lead for Ecology's statewide Environmental Reports Tracking System and Marine Information System databases. These systems are critical to support the work we do with vessel and facility inspections, contingency planning, drills, and response to spills. During emergency spill incidents, I also provide on-call technical services for our mobile command center. Being in Spills is definitely never dull."

– Kevin Truong, Computer Information Systems

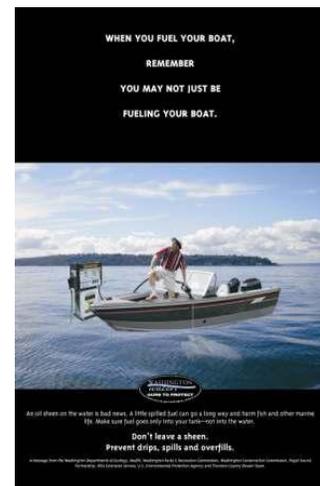
EDUCATION AND OUTREACH

We are fortunate to have one of the highest rates of regulatory compliance in country. This is due in part to the effective outreach and education efforts that are in place throughout the state and in some cases in multiple states. These are some of the outreach and educational campaigns that were conducted in 2009 through 2011.

Clean, Green Boating

The Spills Program worked closely with Ecology's Water Quality Program to develop and launch a new clean, green boating website. It's a one-stop location for boaters to help them know what to do to protect Washington waters. The site addresses:

- State pollution laws and rules.
- Fueling and bilge care.
- Hull cleaning and boat washing.
- Invasive aquatic species.
- Hazardous materials and recycling.
- Sewage pump-outs and discharges.
- Maintenance tips.



State Aims to Keep Pesticide Canisters Off Washington Beaches

From spring 2008 through early 2009, about 65 empty canisters that once held aluminum phosphide, a potent fumigant used to control insects on cargo ships carrying grain, were spotted or picked up along Washington's coastline – including Olympic National Park wilderness beaches. Some canisters still contained residual amounts of the chemical, which when exposed to air becomes a toxic gas poses a human health risk. In 2009, Ecology and the state Department of Agriculture worked closely with fumigation companies, grain exporters and shippers, shipping agents and port officials on an education and outreach campaign to make sure all the parties knew how to properly dispose of the canisters. From spring 2009 through spring 2010, only a single canister was reported washed up on a state beach.

Exceptional Compliance Program (ECOPRO)

Ecology manages a unique non-regulatory environmental protection program for tank vessels. Tank vessel operators are invited to participate in Washington's Voluntary Best Achievable Protection (VBAP) and Exceptional Compliance (ECOPRO) Program for Tank Vessels to protect the state's irreplaceable natural resources from the damage caused by an oil spill. If a company elects to participate, it receives public recognition for its commitment to marine safety and environmental stewardship. In 2009, Polar Tankers joined six other companies to become the seventh full member with ECOPRO status. Ecology also developed a brochure to help expand marketing of the program.

MAJOR INCIDENTS

Oil and hazardous spills come from many sources, all hours of the day and night and are responded to by our Ecology responders, federal and local partners throughout the state. Our response efforts are also in place to prevent spills such as removal of derelict vessels that pose threat of spills.

From 2009 through 2011, we had total of 1474 of spills to state waters. These spills were from small and large facilities, fishing vessel, trucks, and rail incidents. There has also been an increase in the number of vessel emergencies reported. This is due in part to legislation passed in 2011 (see full story in "Spill in Gulf Hits Home") which requires covered vessels to notify the state of vessel emergencies including a loss or serious degradation of propulsion, steering, means of navigation, electrical generating capability and seakeeping capability.

Davy Crockett Response on the Columbia River

On Jan. 27, 2011, Ecology received reports of an oil sheen on the Columbia River near Vancouver, and traced it 11 miles upstream to the Davy Crockett, a 431-foot deck barge. The barge was partially sunk near the north shore of the river between Vancouver and Camas – approximately four miles upstream of the U.S. Interstate -205 bridge. The barge was leaking oil due to illegal salvage operations. Response efforts began immediately to contain the oil and stabilize the vessel. Ecology, Coast Guard and Oregon Department of Environmental Quality jointly managed the emergency response effort. In February 2012, the Coast Guard authorized the removal of the Davy Crockett from the river. The response lasted for 295 days and was one of the longest active operational responses conducted by Ecology.

SUMMARY	Total
Incident duration	295 days
Oil recovered	38,397 gallons
Oily water removed	1.6 million gallons
Steel removed	3.57 million pounds
Oiled debris removed	1.25 million pounds
Asbestos removed	4,850 pounds
Sediment removed	85.5 cubic yards
Samples analyzed	227
Total number of dives	886
Total dive hours	3,104
Injuries	0
Project cost	\$22 million

FIGURE 1
Summary of the final project information.

The Davy Crockett, a former Navy Liberty Ship was converted to a flat deck barge. As with many aging vessels, ownership changed several times over the years. The most recent ownership change is believed to have occurred in mid-2010. The vessel was located on Washington State - owned aquatic lands.



FIGURE 2
Over flight view of the barge, coffer dam and response assets during the removal operation of Davy Crockett Barge.

New Dawn Fuel Barge Grounding

In the early morning of July 9, 2009, a Tidewater Barge Line tug went aground on an uncharted sand bar while navigating the Columbia River channel. The tug had several barges in tow including the New Dawn, a double-hulled petroleum barge loaded with one million gallons of gasoline. The fuel barge grounded below the Hood River Bridge. Tidewater worked quickly with Ecology, EPA, and Oregon Department of Environmental Quality to establish a unified command to address the potential spill threat. The Coast Guard, Army Corps of Engineers, and several local and tribal agencies also were involved in the plans to refloat the barge. The Coast Guard established a security zone around the barge to ensure public safety during refloating operations. An initial attempt to spill extra water over The Dalles Lock and Dam near The Dalles, Oregon and pull the barge off the sand bar using additional tugs proved unsuccessful. On July 10, 2009, unified command determined Tidewater should transfer about 500,000 gallons of fuel from the New Dawn to another double-hulled barge stationed alongside. No fuel was spilled during the operation which helped refloat the New Dawn that evening. Since inspections revealed the barge had not suffered any damage from the soft grounding, the barge was allowed to continue to its original upriver destination.



The Dalles Dam Transformer Leak

After light mineral oil leaked from a spare transformer at The Dalles Dam on the Columbia River on December 23, 2009, responders from Ecology, EPA, and the Army Corps of Engineers formed a unified command to tackle containing and cleaning up the spill. An estimated 2,250 gallons of oil leaked from the transformer, located outside the powerhouse on the lower deck of the dam. Tests revealed the oil contained extremely low levels of polychlorinated biphenyls (PCBs) – a toxic chemical and suspected human health carcinogen that does not break down easily in the environment and builds up in the food chain. The spill was caused by a failed valve on the transformer. An unknown amount of oil entered the dam's ice and trash sluiceway through drainage holes, creating a thin coating on the Columbia River near the sluiceway exit. To contain and recover the oil sheen on the water, hard containment boom lined with absorbent material was placed near the river outfall. The Corps also constructed an under-flow dam in the sluiceway to contain and recover oil seeping from below ground. By January, the area behind the hard boom at the river outfall was clear. Most of the remaining mineral oil was recovered by excavating 120 cubic yards of contaminated soil excavated at the site and removing oil-saturated absorbents materials for proper disposal. A grout curtain the Corps had installed kept the remaining oil from migrating from the site. On March 8, 2010, Ecology stepped out of the unified command and referred the site to another part of the department for potential long-term remediation.



"I often describe my job as an Ecology Spill Responder as being very much like an environmental medic. We respond quickly to the scene of an incident to ensure the situation is stabilized in a timely manner and then obtain additional resources as needed to fully protect public health and the environment. Ecology Spill Responders bring extensive training, resources, expertise and experience to a variety of environmental problems and challenges throughout the state. It is very satisfying to be able to see the immediate results and benefits of our efforts on a daily basis."

– Ron Holcomb, Lead Spill Responder

Mist Cove Diesel Fuel Spill

On March 8, 2010, the 157-foot, 24-passenger cruise ship Mist Cove released nearly 460 gallons of diesel fuel while moored downtown at the Port Orchard Railway Marina. The spill occurred when the ship's senior engineer attempted to transfer oil between two tanks on board the vessel. Ecology's investigation determined oil overflowed because a valve was left-open and the chief engineer failed to conduct a pre-transfer check – required in company policies – to ensure proper settings on all valves. The spill left pockets of recoverable oil in two Port Orchard marinas and a thin, unrecoverable coating of oil on the water reached the middle of Sinclair Inlet. The area is home to eelgrass beds, salt marsh, and beaches where small fish spawn. At the time of the spill, juvenile salmon were using the area to feed. Sinclair Inlet also attracts waterfowl, shorebirds, and marine birds. On December 10, 2010, Ecology levied a \$15,500 fine against The Boat Company, the Poulsbo-based firm that owns the Mist Cove. Ecology also billed The Boat Company \$4,755 to recover state costs for conducting the cleanup. The department, acting on behalf of all state natural resource agencies, also issued a \$15,800 assessment for spill-related damage to the public's environmental resources. To prevent future spills, The Boat Company agreed to conduct fuel-transfer trainings and ensure its crews can accurately track fuel levels in vessel tanks.

Blewett Pass Gasoline Spill

Winter was in full force on December 6, 2010, when a semi-tractor trailer hauling gasoline and diesel fuel slid off State Route 97 spilling about 1,700 gallons of gasoline on Blewett Pass in Chelan County. The truck, owned by General Transport of Grandview, Washington, landed in a ditch on its side with the trailer in the road. The diesel fuel tank was not breached. Ecology and NRC-Environmental Services responded to the spill. The private cleanup contractor pumped out all of the diesel fuel and the remaining 4,000 gallons of gasoline out the tanks and removed the fuel, truck, and trailer. Spilled gasoline did reach the fractured rock that makes up the soil where the accident occurred. Ecology responders worked closely with General Transport to protect nearby Tronsen Creek. The company hired contractors to place absorbent boom, monitor surface water, and excavate monitoring wells to check area groundwater for contamination. No petroleum contamination reached the creek. The site was turned over to Ecology's Toxics Cleanup Program for longer-term remediation.



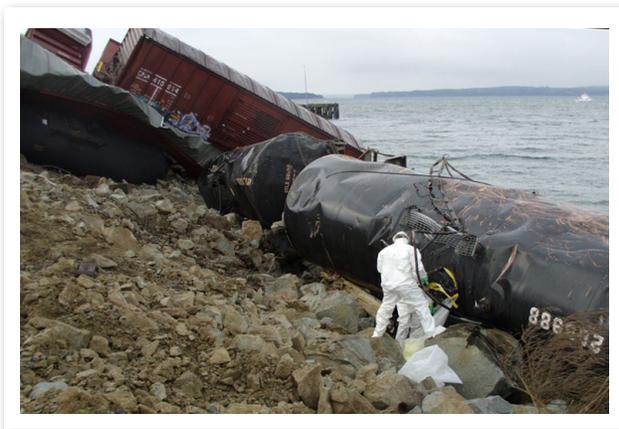
"When it's pouring rain in the dead of night and someone spills, Ecology gets the call. Oil spills pollute water and harm aquatic life, so when Ecology responds we protect Puget Sound and the creatures in it. Last winter I stopped over 100 gallons of diesel from flowing into the Nooksack River. It was a wet and cold 3 a.m. and the party at fault was "missing in action." We hired a contractor and worked through the night. I was grateful not only to have a job, but a job where my work was making an immediate difference for both the river and the people whose land was harmed by the spill."

– Celia Jackson, Spill Responder

BNSF Train Derailment in Tacoma

At approximately 8:00 p.m. on February 26, 2011 a north bound 103-car freight train derailed and side-swiped a sound-bound train impacting a total of 14 rail cars including four fully-loaded tank cars of sodium hydroxide. Three of the tank cars ended up on the shore of Puget Sound and the fourth tank car was on the bank under two damaged box cars.

West Pierce Fire and Rescue, Pierce County Hazardous Incident Team and Anderson Island Fire Boat quickly responded to the wreck. The King County Sheriff's Department helicopter with infrared capabilities was also brought in to help assist with the assessment of the incident. BNSF and their environmental contractor also responded quickly to the scene.



Only one of the tank cars, which each contained 15,000 gallons of chemical, was found to be leaking and an estimated 50 gallons of sodium hydroxide leaked to the beach before a response crew could plug and secure the leaking tank car. The damaged box cars were either empty or contained non-hazardous materials. A unified command comprised of the Coast Guard, Department of Ecology and BNSF managed the response to the derailment and the removal of the tank cars from the shore. One main-line track was cleared by 1:00 p.m. on Sunday afternoon and the second track was cleared by 11:00 p.m.

The first tank car to be moved was the one on the bank. It was moved to the upland side of the tracks where the sodium hydroxide was pumped off. The three tank cars on the beach were pumped off over a several day period prior to being moved to the upland side of the tracks on Tuesday, March 1. During the recovery of one of the tank cars with an additional 100 gallons of sodium hydroxide spilled to the access road adjacent to the rail tracks. Cleanup of the impacted beach area involved removing standing liquid and neutralizing the remaining chemical in the sand. The upland spill area was cleaned up by a vacuum truck and soil excavation. Samples have been collected to ensure that cleanup of both sites is complete. The tank cars were fully cleaned at the accident site before being cut-up and hauled off as scrap metal.

Ecology has fined BNSF Railway \$3,000 for spilling 150 gallons of liquid sodium hydroxide. Under Washington law, beaches are considered to be state waters and it is illegal to spill any amount of oil or other toxic chemicals on them.

2009-2011 DASHBOARD

The 70 dedicated people who work for Ecology’s Spill Prevention, Preparedness, and Response Program want you to know what we do and why we do it, 24/7, every day of the year. Our state is important to us. So are the people who live and do business in Washington. The Spills Program is responsible for helping protect our environment and public health and safety. We do this by working to prevent, be prepared for, and mount rapid, aggressive and well coordinated responses to oil spills, hazardous material releases, and significant spill threats where and when they occur. Our work is important and meaningful to us because we know we’re making a difference.

DASHBOARD

	2009-2011	Indicator
Number of spills to surface water ¹	1474	
Volume spilled to surface water ¹	19,776 gallons	
Percentage of response equipment inspected, verified and tested	55%	
Number of spill incidents reported (total for 3 years)	10,966	
Percent of field responses to reported incidents ²	26%	
Percent of potential high risk vessels boarded and inspected ³	26%	
Percent of marine oil transfer operations inspected ⁴	9%	
Pre-booming compliance rate (average over 3 years) ⁹	85%	
Number of tabletop drills ⁵	140 *	
Number of deployment drills ⁶	252	
Number of unannounced vessel notification drills	354 **	
Number of Ecology drills	0	
Number of enforcement actions taken for spills	418	
Number of penalties issued for spills ⁷	151	
Total dollars assessed for penalties ⁸	\$ 593,975	

¹ 2004 Legislature set a goal of “zero spills”.

² Average over 3 year period. Target is 30%. Program receives approximately 3800 reports of incidents annually.

³ Average over 3 year period. Target is 35%. There are on average over 4000 vessel arrivals to Washington ports annually.

⁴ Average over 3 year period. Target is 10%. There were a total of 41, 392 advance notification of transfers reported over the last 3 years.

⁵ Table top drill data includes spill management team, worst case scenario, and out of state drill credit. In 2009 Ecology took a \$2 million budget reduction with the most significant impact taken in preparedness which conducts readiness exercises. These drills became self-certified by industry.

⁶ More deployment drills are conducted than required, however it is not the number of drills that is critical, it is the varying conditions in which drills are conducted. Ecology requires equipment deployment drills to be conducted in a variety of seasons to ensure that equipment is appropriate for the operating environment.

⁷ Not all enforcement actions result in penalties. Enforcement actions include notices of penalty, citations, notices of corrections, notices of violations, administrative orders, and warnings. This does not include administrative orders for the purpose of cost recovery from the responsible party.

⁸ Total is assessed amount not total paid by responsible party.

⁹ Compliance rate accounts for pre-booming when it is safe and effective to conduct.

-  Exceeding target
-  On track
-  Not meeting target
-  Not measured

* For 2009-2011 of the 140 table top drills 91 were self certified by industry.

** Ecology stop conducting unannounced vessel notification drills in 2009 due to budget reduction taken.

2011 AND BEYOND

Future Compass Bearings

Washington has one of the most comprehensive maritime safety nets in the nation. Our system was established in response to the long transit distances from the Pacific Ocean to our major Puget Sound and Columbia River ports. Deep draft ships and oil barges face the risk of hard groundings in our waterways due to:



- High vessel traffic volumes.
- Stormy, unpredictable weather.
- Fog and fast currents.
- Rocky islands and numerous headlands.

Our maritime safety net is essential for protecting our state's role in oil shipping and refining as well as Pacific Rim trade. The potential exists for a major transboundary oil spill that could affect our shared waters with British Columbia and Oregon. This means we must continually adapt our oil spill prevention, preparedness, and response activities by addressing:

- Lessons learned from the 2010 Gulf of Mexico oil spill.
- Economic impacts on the competitiveness of Washington's ports.
- Dramatic increases in Alberta crude oil exports through our waters from Canada.
- Our community's crucial investments in restoring and protecting Puget Sound.
- Regional implications of the 2010 Coast Guard Authorization Act.
- The increased value of our natural resources.

Ecology Working to Address Changing Spill Risks

While Washington has one of the nation's most robust maritime safety webs, we must verify the system can address increasing demands stemming from projected growth in maritime commerce. There are at least two major industry projects that would greatly expand vessel and cargo traffic along the 125-mile-long international maritime border between Washington and British Columbia:



"I spent more than 20 years as an engineer on large commercial ships before I joined Ecology as a vessel inspector. My job is to help prevent spills from occurring. I monitor vessel fueling and oil transfers. And every year, I also perform complex inspections of hundreds of commercial ships to ensure they are operating safely and meeting our environmental regulations and standards. Where I find deficiencies, I provide compliance education and guidance. Unfortunately, vessel incidents and oil spills do occur. When they do, I investigate to figure out the root causes and, more importantly, what can be done to prevent it from happening again."

– Bob Troyer, Vessel Inspector

- A proposal by SSA Marine to expand the Gateway Pacific terminal and facility located between the BP and ConocoPhillips refineries at Cherry Point-Ferndale. The development is projected to increase regional vessel arrivals by nearly 500 annually. The terminal is being designed to accommodate multiple vessels in excess of 200,000 dead weight tons (DWT) in size. The Gateway Pacific project can't proceed until a vessel traffic safety risk assessment is done and reviewed by Ecology.
- In Canada, Kinder-Morgan proposes to more than double their crude oil production and exports by expanding their marine terminal in Vancouver, British Columbia. Crude oil tanker traffic into Vancouver has already increased 200 percent during the past five years. Kinder-Morgan anticipates producing and marketing Alberta tar sands crude oil, including a projected 300 percent increase in tanker transits by 2016. This increased tanker traffic will pass along the pristine San Juan Islands' archipelago.

Improve Marine Safety by Emphasizing Risk-based Approach

Our goal is to partner with the Coast Guard to enhance the scope and, hopefully, combine our scarce resources to conduct a timely, cost-effective risk assessment and make effective recommendations to help prevent spills and maritime casualties. There are a number of maritime safety provisions in the Coast Guard Authorization Act of 2010 that address economic viability and environmental protection in our state waters including:

- Requirements to identify, assesses and recommend mitigation strategies to reduce human error-caused oil spills and near-miss incidents.
- Expansion of the higher volume port area for Puget Sound to enhance spill response capabilities for the Washington coastline.
- Strong encouragement for the Coast Guard to work with the U.S. State Department, Washington State, and affected tribal governments to negotiate with our Canadian counterparts to update the marine safety and response standards comparability analysis.

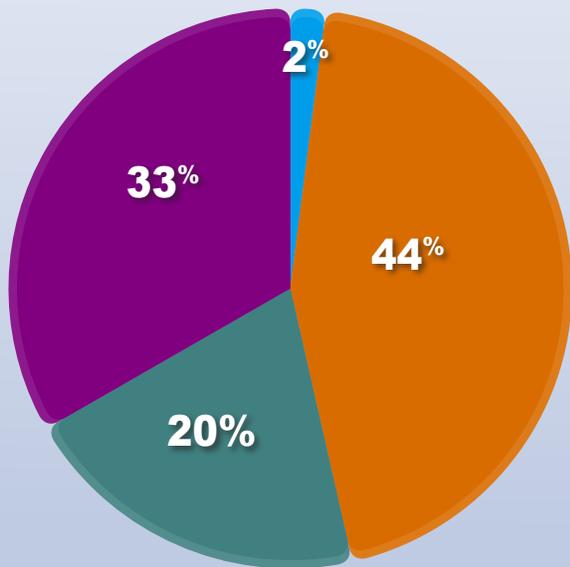
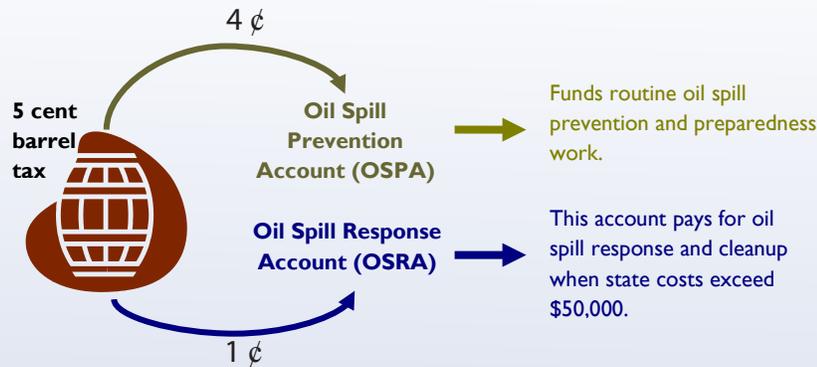


"I initially found my way onto the water through years of (recreational) offshore sailing, ultimately obtaining my U.S. Coast Guard license and crossing over to the commercial side of sailing in order to make a living. I was a vessel operator in the oil spill response industry for more than 15 years before joining Ecology in 2007. I monitor over-the-water oil transfers and inspect commercial vessels that pose an oil spill risk to our waters. My work is stimulating and satisfying because of its diversity. My daily duties range from observing marine operations at our refineries, overseeing oil transfers to commercial vessels from mobile tank trucks and barges, and boarding ships that call on Washington from around the world – all to ensure compliance with our federal and state laws and regulations."

– Robert Wesson, Oil Transfer and Vessel Inspector

2009-2011 FUNDING & PROGRAM BUDGET

The Spills Program is funded through several sources. The primary funding is through the Oil Spill Administration Tax (commonly known as the barrel tax). The current barrel tax is 5 cents per barrel (42 gallons) of oil imported into the state. Of this, 4 cents goes into the Oil Spill Prevention Account and one cent goes into the Oil Spill Response Account. The program is also funded for response activities through State Local Toxics.



- 33 Prevention
- 44 Response
- 20 Preparedness
- 2 Natural Resource Damage Assessment

Spills Program Budget

Ecology's Spill Prevention, Preparedness, and Response Program is funded to employ 71 full-time staff. The current biennium budget stands at \$26 million for the period of July 1, 2011 through June 30, 2013 (2 years). The budget is allocated as follows:

Current Biennium Operating Costs

- Spill Prevention - \$5,776,469
- Spill Preparedness - \$3,414,079
- Spill Response - \$7,785,470
- Natural Resource Damage Assessment - \$484,548

All staff positions and operational costs total \$17,460,566

Current Biennium Non-operating Costs

- Natural Resource Damage Assessment Projects - \$1,556,000
- Oil Spill Response Account - \$7,076,000

