



Geographic Response Plans

Preparing to Respond to Oil Spills

2015 Statewide Review



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The NWACP is published at www.rrt10nwac.com
GRPs are published at www.ecy.wa.gov/programs/spills/preparedness/GRP/index.html

Executive Summary

As the risk of oil spills occurring in Washington continues to shift from marine to rail transport¹, the Department of Ecology prepares to respond to oil spills by developing geographic response plans (GRPs) in all areas of the state where risk of spills exists. GRPs give first responders prioritized information and pre-identified tactics to mitigate damages to natural, cultural and economic resources at risk from oil spills. These plans are a cornerstone to a rapid, aggressive and well-coordinated oil spill response in Washington.

The 2015 Washington State Legislature (ESHB 1449) directed Ecology to review “all state geographic response plans and any federal requirements as needed in contingency plans” by December 31, 2015. This is the first required report and Ecology will continue providing updates as directed, every two years until 2021.

The largest oil handlers (commercial vessels, refineries, oil pipelines, terminals and now railroads) are required to develop oil spill contingency plans. A contingency plan is a risk management tool used to demonstrate industry’s readiness to respond to the largest of oil spills. While there are both federal and state requirements to develop contingency plans, there are differences between federal and state requirements for plan content, most particularly in terms of the type and location of pre-staged response equipment. Federal and state regulations mandate that oil spill plans include information on sensitive sites and tactics to protect resources at risk from spills. The GRPs fulfill these requirements. GRPs are created through the Northwest Area Contingency Plan and industry plans are allowed to incorporate them by reference into their contingency plans. A significant benefit is gained by developing GRPs collectively rather than having their development done individually by each oil-handling operator. Public involvement during the process is essential to ensure that the sites selected and the tactics developed reflect the priorities of local communities and resource users.

Ecology reviewed and updated nine GRPs in 2014-2015. One of the lessons learned from this process was that having access to contractors for field work is the best way to speed up completion of the work. As this report is published, work has already begun on the next eight priority areas.

The best practice to remain prepared for spills is to have the resources to update each GRP on a five-year cycle and to carefully capture lessons learned during GRP deployments (drills, spills and trainings) so that we verify that these tactics are soundly written and will work when spills occur.

¹ 2014 Marine and Rail Oil Transportation Study, <https://fortress.wa.gov/ecy/publications/SummaryPages/1508010.html>

Preparing for a Rapid, Aggressive and Well-Coordinated Response to Oil Spills

As the risk of oil spills occurring in Washington continues to shift from marine to rail transport, the Department of Ecology aggressively prepares to respond to oil spills by developing geographic response plans (GRPs) statewide. The GRPs give first responders prioritized information and pre-identified tactics to mitigate damages to natural, cultural and economic resources at risk from oil spills. The 2015 Washington State Legislature (ESHB 1449) directed Ecology to review “all state geographic response plans and any federal requirements as needed in contingency plans” by December 31, 2015. Ecology will provide updates to this initial review every two years until 2021.

GRPs are the key to a rapid, aggressive spill response

GRPs are one of the hierarchy of government and industry required oil spill plans that guide spill responses. They are published as appendices to the Northwest Area Contingency Plan (NWACP). GRPs have three main objectives:

- Pre-identify sensitive resources at risk of injury or damage from oil spills.
- Present pre-approved oil spill tactics to be deployed in the initial hours of a response, including recommended personnel, equipment, and supplies needed, access routes, and any special considerations or property owner notifications.
- Provide tactical data to responders for spills that will require prolonged cleanup.

GRPs are developed by state and federal agencies, local spill response experts, tribes, ports, industry experts and local stakeholders. Public involvement during the process is essential to ensure that the sites selected and the tactics developed reflect the priorities of local communities and resource users.

By intention, GRPs are not inclusive of every action that will be taken during a spill response. They are the immediate actions that are prioritized for deployment. GRPs do not pre-identify everything. The fact that a GRP tactic has not been developed for a sensitive site does not imply that the site has less value, or that it would not be protected during a spill. As a response evolves, an Incident Action Plan will be

Resources at Risk

- Eelgrass beds, forage fish spawning beaches, salt marsh and stream mouths.
- Water intakes for aquariums, zoos and science centers.
- Shellfish beds.
- Dams and water diversions on rivers that produce power or supply water for agriculture.
- Southern resident killer whales and the habitats they rely on to survive.
- Threatened and endangered species.

developed to identify additional strategies and tactics to reduce the risk of injury to sensitive locations not pre-identified by GRPs.

The main content of GRPs includes:

- Chapter 1 Introduction to the GRP.
- Chapter 2 Site description: physical features, risk assessment, hydrology, tides and currents.
- Chapter 3 Response options and considerations.
- Chapter 4 Response strategies and priorities, staging areas and boat launches.
- Chapter 5 Reserved for information on shoreline types.
- Chapter 6 Resources at risk from spills.

Federal and State Requirements in Contingency Plans

The largest oil handlers (commercial vessels, refineries, oil pipelines, terminals and railroads²) are required to develop oil spill contingency plans (RCW 90.56.210 and 88.46.060). A contingency plan is a risk management tool used to demonstrate industry's readiness to respond to the largest of oil spills. While there are both federal and state requirements to develop contingency plans, there are differences between federal and state requirements for plan content, most particularly in terms of the type and location of pre-staged response equipment. Contingency plans are approved for five years and then resubmitted for a new approval. There is a process during the review cycle for the public to comment on the plans.

Federal and state regulations mandate that oil spill plans include information on sensitive sites and tactics to protect resources at risk from spills. The GRPs fulfill these requirements. GRPs are created through the NWACP and industry plans are allowed to incorporate them by reference into their contingency plans. A significant benefit is gained by developing GRPs collectively rather than having their development done individually by each oil-handling operator.

The National Contingency Plan (40 CFR Part 300) requires "...a description in area plans of areas of special economic or environmental importance...and that plans identify and establish priorities for fish and wildlife resources and their habitats and other important sensitive areas requiring protection". GRPs are published in the NWACP.

Contingency Plans

Currently there are 28 oil spill contingency plans provided to Ecology for analysis and approval. These plans include 14 oil transfer terminals, 5 oil refineries, 6 oil pipelines, 6 tank vessel companies and 3 multi-vessel plans that enroll thousands of individual tank, cargo, fishing, and passenger vessels operating on Washington waters. These plans are tested and verified annually through oil spill drills. Drills are evaluated by Ecology and frequently include the deployment of GRPs.

² It is anticipated that the new regulations for rail operators carrying oil in bulk will be completed in 2016. www.ecy.wa.gov/programs/spills/rules/1514ov.html

In a similar manner, the Revised Code of Washington 90.56.210 requires that oil handlers write plans for the protection of “fisheries and wildlife, shellfish beds, natural resources, and public and private property” from oil spills. RCW 88.46.060 has similar requirements for covered vessels. Chapter 173-182 Washington Administrative Code (WAC) has requirements that oil spill plans include:

- Descriptions of sensitive areas and strategies to protect the resources, including information on natural resources, coastal and aquatic habitat types and sensitivity by season, breeding sites, presence of state or federally listed endangered or threatened species, and presence of commercial and recreational species, physical geographic features, including relative isolation of coastal regions, beach types, and other geological characteristics;
- Identification of public resources, including public beaches, water intakes, drinking water supplies, and marinas;
- Identification of shellfish resources and methods to protect those resources;
- Identification of significant economic resources to be protected in the geographic area covered by the plan; and
- Each facility with the potential to impact a "sole source" aquifer or public drinking water source must identify the types of substrate and geographical extent of sensitive sites.

The same regulation also specifies that“If approved GRPs do not exist in the NWACP, plan holders will work with ecology to determine alternative sensitive areas to protect.” This is in recognition that GRPs do not exist yet in all locations.

GRP Work in 2014-2015

In addition to nine plans updated, Ecology was able for the first time to digitize all published GRP tactics and create a spatial-planning data layer, which is being used for spill planning and response. We now have the ability to download the tactics to hand held devices for use by first responders in the field, and to display GRPs in a common operating picture at command posts. Ecology also created a searchable database to track GRP deployments under varying conditions to use for future plan updates.

GRPs Completed in 2014-2015

The 2014 Legislature provided on-going funding and full time equivalent staff to ensure immediate progress on closing GRP gaps in 2014-2015. The results are described in Table 1.

Table 1. GRPs Completed in 2014-2015

2014-2015 Completed	WRIA	County	Description
Lower Columbia River	28-Salmon/Washougal	Pacific; Wahkiakum; Cowlitz; Clark; Skamania	The Lower Columbia River GRP extends from the mouth of the river (Pacific Ocean) to the Bonneville Dam. This section of the Columbia River is at risk from marine tank, cargo, and vessel traffic; recreational boating, oil by pipeline; oil transfer terminals; as well as oil by rail.
Middle Columbia River	29-Wind/White Salmon; 30-Klickitat; 31-Rock/Glade; 32-Walla Walla; 33-Lower Snake; 36-Esquatzel Coulee; 37-Lower Yakima; 40-Alkali/Squilchuck	Skamania; Klickitat; Benton; Walla Walla; Franklin	The Middle Columbia River GRP (includes the Bonneville, Dalles, John Day and McNary Pools) covers a 195 mile reach of the river from Bonneville Dam river mile 145 on the west, to river mile 340 on the east (located on the outskirts of the Tri-Cities metropolitan area), as well as a 2.8 mile section of the Snake River up to the Ice Harbor Dam. Oil spill risk include tank vessels and barges, rail lines, and a pipeline that crosses the Snake River near it's confluence with the Columbia River in Pasco.
Duwamish/Green River	9-Duwamish/Green	King	The Green River sources in the Cascades, flows through the Green River gorge and valley into Auburn. It empties into the Duwamish River, which flows north through Seattle into Elliot Bay. The Green River/Duwamish covers the area between the Howard Hanson Dam and North Wind's Weir in Tukwila. A petroleum pipeline and rail lines cross the Duwamish, and a rail line parallels five miles of the Green River.
Lake Chelan	47-Chelan	Chelan	Lake Chelan is a 50-mile long natural lake near the Wenatchee-Okanogan Natural Forests on the east side of the Cascades. This GRP was created for spill risks associated with the cleanup of the decommissioned Holden copper mine (Superfund site).
Lake Washington	8-Cedar/Sammamish	King	The Lake Washington GRP encompasses an area of approximately 34 square mile, bordered by the cities of Seattle, Bellevue and Kirkland, Kenmore and Renton. Oil spill risks in the area include oil pipelines, vessel/boat traffic, road/bridge vehicle traffic, and aircraft transportation (including seaplanes).
Nisqually River GRP	11-Nisqually	Pierce; Thurston	The Nisqually River Geographic Response Plan extends from the LaGrande Dam to the lower end of the river at Nisqually National Wildlife Refuge. The river is crossed by a petroleum pipeline, and it is intersected by rail lines potentially carrying oil in several locations. The Nisqually is also tidally influenced and could be at risk from oil spills from vessels or facilities in Puget Sound.
Chehalis River	23- Upper Chehalis; 22-Lower Chehalis	Grays Harbor; Thurston; Lewis	The Chehalis River runs through Lewis, Thurston and Grays Harbor Counties and empties into Grays Harbor at Aberdeen. The Chehalis GRP includes waters upstream of the eastern boundary of the Grays Harbor GRP near Cosmopolis and cover 95 miles of the river as it winds east/southeast to Centralia and Chehalis, ending approximately 7 miles west of the Chehalis River South Fork. The Chehalis River is paralleled by rail lines, which also cross Chehalis tributaries, including the Wynoochee, Satsop, Black and Skookumchuck Rivers.
Moses Lake/Crab Creek	42-Grand Coulee; 43-Upper	Grant; Lincoln	The plan covers all of Moses Lake and upstream waters of Crab Creek from the Stratford Road Bridge in Moses Lake to its crossing with US 2 near

2014-2015 Completed	WRIA	County	Description
	Crab/Wilson; 41-Lower Crab		Reardan, WA. The plan is bordered by the Spokane River Geographic Response Plan to the north and northeast. Oil spill risks in the area include oil pipelines, railways, road/bridge vehicle traffic.
Clark, Cowlitz, SW Lewis	26-Cowlitz; 27-Lewis; 28-Salmon/Washougal	Lewis; Clark; Cowlitz	The plan covers portions of Clark, Cowlitz, and Lewis Counties from Vancouver north to Winlock. It includes sections of the Cowlitz, Coweeman, Kalama, Lewis, and Toutle Rivers and many of the smaller streams and creeks that drain into them. Oil spill risks in the area include oil pipelines, railways, vessel/boat traffic, and road/bridge vehicle traffic.

Where do GRP Gaps Still Exist?

In 2014, the Northwest Area Committee reviewed GRP gaps in Washington, Oregon and Idaho, looking primarily at the changes in oil spill risk from crude oil trains. The analysis described four types of potential gaps:

- Outdated GRP publications. The oldest GRP for Washington was published for the Snake River in 1997, and has never been updated.
- GRP publications written prior to the advantages afforded by the advancements of spatial planning.
- Areas at risk from oil terminals or pipelines with unpublished response tactics , and
- Areas with no existing GRPs or areas where risks have shifted making the GRPs outdated.

To meet the legislative requirement to review all GRPs, Ecology choose to identify potential gaps in the GRPs. Ecology looked again at spill risks from previously identified and added several other factors to complete a relative ranking of GRP gaps. Not included in this analysis are the GRPs most recently completed in 2014-2015, as we assume they are up to date and do not contain gaps. Additional data analyzed included the locations of oil transfer facilities, such as refineries, ports and marinas; interstate highways; oil pipelines; all active railroad lines; and areas that have had reported spills from any source in the last year. This analysis also looked again at the age of GRPs, and whether the risk of spills has changed in areas with existing plans.

Not included as part of the gap analysis, Ecology separately looked at response tactics in areas where oil spill tactics are contained in individual industry oil spill plans and not published as a GRP.³ It is a best practice to develop these control points into published GRPs to increase availability of the information for first responders and to ensure that the tactics account for things such as existence of cultural resources and endangered species. The BP Pipeline-Northwest Pipelines District (Olympic Pipeline) and the Kinder Morgan Transmountain Pipeline plans include control points and are a priority gap.

³ WAC 173-182-510

- The Kinder Morgan Transmountain Pipeline has around 100 control points in Whatcom and Skagit counties near the Sumas, Nooksack, and Lummi rivers, and many other smaller creeks, lakes and sloughs.
- And the Olympic Pipeline has over 200 control points in Whatcom, Skagit, Snohomish, King, Pierce, Thurston, Lewis, Cowlitz and Clark counties near the same rivers, plus the Snohomish, Sammamish, Cedar, Green-Duwamish, Nisqually, Deschutes, Skookumchuck, Newaukum, Cowlitz, Lewis Rivers.

A combined relative risk rating for each GRPs is described in Tables 2 and 3. Inland areas for GRPs are described by Water Resource Inventory Areas⁴, and marine areas are described by water body name. In the two tables, the number 10 represents the most significant gap with 1 being a lower relative risk.

Highest Overall Relative Gap Rankings

The existing marine-based GRPs with the largest gaps are Central Puget Sound, North Central Puget Sound, North Puget Sound and South Puget Sound. This is due to the age of the plans, the lack of detailed strategy diagrams (out of date) and changes in spill risk because of crude oil trains as a potential source of spills.

The inland areas (WRIAs) with the largest gaps are WRIA 01 Nooksack and WRIA 12 Chambers – Clover, WRIA 03 Lower Skagit-Samish and WRIA 05 Stillaguamish. There may be marine-based GRPs nearby, but either they need to be expanded to include more inland areas at risk, or new GRPs need to be developed for these areas.

⁴ A watershed is an area draining into a river, lake, or other water body. Ecology and other state natural resources agencies have divided the state into 62 Water Resource Inventory Areas (WRIAs) to delineate the state's major watersheds.

Table 2: Combined Gap Ranking for Existing GRPs– Highest to Lowest

Published GRP	Rail	Pipeline	Facilities	Class 1 ⁵	Oil Transfers	Spills	Interstate	Year	Outdated	Ranking
Central Puget Sound	Y	Y	Y	Y	Y	Y	Y	2007	2	9
North Central Puget Sound	Y	Y	Y	Y	Y	Y	Y	2003	2	9
North Puget Sound	Y	Y	Y	Y	Y	Y	Y	2009	1	8
South Puget Sound	Y	Y	Y	-	Y	Y	Y	2003	2	8
Admiralty Inlet	Y	-	Y	Y	Y	Y	-	2003	2	7
Hood Canal	Y	-	Y	-	Y	Y	-	2003	2	6
Strait of Juan de Fuca	-	-	Y	Y	Y	Y	-	2008	1	5
San Juan Islands	-	-	Y	-	Y	Y	-	2009	1	4
Snake River Lower Monumental Pool	Y	-	-	-	-	Y	-	1997	2	4
Spokane River	Y	Y	-	-	-	Y	Y	2011	0	4
Willapa Bay	-	-	Y	-	-	Y	-	2003	2	4
Outer Coast	-	-	Y	-	-	Y	-	2008	1	3
Snake River Ice Harbor	Y	-	-	-	-	-	-	1997	2	3
Snake River Little Goose Pool	-	-	-	-	-	Y	-	1997	2	3
Snake River Lower Granite Pool	-	-	Y	-	-	-	-	1997	2	3

Note: All marine areas have a current GRP in place.

⁵ Class 1 facility means large, fixed shore-side facilities such as refineries, refueling terminals, and oil pipelines, which transfer to or from tank vessels and pipelines.

Table 3: Combined Gap Ranking for Inland Areas where GRPs Do Not Exist

WRIA	Rail	Pipeline	Facilities	Class 1	Transfers	Spills	Interstates	Ranking
01: Nooksack	Y	Y	Y	Y		Y	Y	6
12: Chambers - Clover	Y	Y	Y			Y	Y	5
03: Lower Skagit - Samish	Y	Y				Y	Y	4
05: Stillaguamish	Y	Y				Y	Y	4
07: Snohomish	Y	Y				Y	Y	4
08: Cedar - Sammamish	Y	Y				Y	Y	4
09: Duwamish - Green	Y	Y				Y	Y	4
10: Puyallup - White	Y	Y				Y	Y	4
13: Deschutes	Y	Y				Y	Y	4
23: Upper Chehalis	Y	Y				Y	Y	4
34: Palouse	Y	Y				Y	Y	4
43: Upper Crab-Wilson	Y	Y				Y	Y	4
56: Hangman	Y	Y				Y	Y	4
04: Upper Skagit			Y		Y	Y		3
32: Walla Walla	Y	Y				Y		3
35: Middle Snake	Y				Y	Y		3
37: Lower Yakima	Y					Y	Y	3
40: Alkali - Squilchuck	Y					Y	Y	3
41: Lower Crab	Y	Y					Y	3
53: Lower Lake Roosevelt	Y				Y	Y		3
11: Nisqually	Y	Y						2
14: Kennedy - Goldsborough	Y					Y		2
15: Kitsap	Y					Y		2
26: Cowlitz	Y					Y		2
28: Salmon - Washougal	Y					Y		2
36: Esquatzel Coulee	Y	Y				Y		2
38: Naches	Y						Y	2
39: Upper Yakima	Y						Y	2
42: Grand Coulee	Y					Y		2
44: Moses Coulee	Y					Y		2
45: Wenatchee	Y					Y		2
46: Entiat	Y					Y		2
47: Chelan	Y					Y		2
48: Methow	Y					Y		2
49: Okanogan	Y					Y		2
54: Lower Spokane	Y	Y						2
57: Middle Spokane		Y				Y		2
58: Middle Lake Roosevelt	Y					Y		2

WRIA	Rail	Pipeline	Facilities	Class 1	Transfers	Spills	Interstates	Ranking
62: Pend Oreille	Y					Y		2
16: Skokomish - Dosewallips						Y		1
20: Soleduc						Y		1
22: Lower Chehalis	Y							1
27: Lewis	Y							1
31: Rock - Glade							Y	1
33: Lower Snake		Y						1
50: Foster						Y		1
55: Little Spokane	Y							1
59: Colville	Y							1
60: Kettle	Y							1
61: Upper Lake Roosevelt	Y							1

Rail Transport Corridors

Ecology examined all active rail corridors where water bodies are intersected⁶. The GRPs with the most miles of rail corridors within 150 feet of water are:

- Central Puget Sound, with 37.5 miles of rail.
- Snake River – Little Goose Pool with 28.1 miles of rail.
- North Puget Sound with 21.9 miles of rail.

The WRIAs with the most miles of rail within 150 feet of water are:

- 34: Palouse with 113.1 miles of rail.
- 37: Lower Yakima with 41.5 miles of rail.
- 39: Upper Yakima with 38.6 miles of rail.
- 01: Nooksack with 32.5 miles of rail.

Sensitive Habitat

A recently published Ecology report contains data on sensitivity of resources near rail corridors. The study found that over 150 miles of active railroads lines are located near protected salmonid habitat, and more than 2000 miles are near sensitive habitat. This report did not specifically rank relative value of resources in these rankings (spill consequences) in the gap analysis.

Pipeline Corridors

A variety of pipelines cross the state, carrying crude oils and refined oil products such as diesel, gasoline and aviation fuel. Ecology examined all active pipeline corridors where water bodies are intersected.

The outdated GRP areas with the most pipeline within 150 feet of water are:

- Spokane River with 5 miles of pipeline corridors.
- Central Puget Sound with 4.7 miles.
- North Puget Sound with 4.3 miles.

⁶ Not included in this analysis are the GRPs most recently completed, as we assume they are up to date and not a gap.

The WRIAs with the most miles of pipeline within 150 feet of water are:

- Lower Skagit-Samish with 10.9 miles of pipeline corridors.
- Nooksack with 6.7 miles.
- Upper Chehalis with 5.5 miles.

Oil Handling Facilities

The GRP areas with the highest occurrence of Class 1 facilities and locations of oil transfers are:

- Central Puget Sound: 10 Class 1 Facilities, 26 total facilities and 7,433 transfers per year.
- North Puget Sound: 4 Class 1 Facilities, 13 total facilities and 3,343 transfers per year.

The inland areas (WRIAs) with the most self-reported oil transfers are:

- Middle Snake (44 transfers)
- Lower Lake Roosevelt (12 transfers)
- Upper Skagit (5 transfers)

Interstate Highways

While all local and state highways pose some type of risk from vehicle accidents, the amount of traffic and speed on interstate highways creates a larger potential for spills. The GRPs with the most miles of interstate within 150 feet of water are:

- Central Puget Sound with 3.6 miles
- North Central Puget Sound with 2.7 miles
- North Puget Sound with 2.5 miles

The WRIAs with the most miles of Interstate within 150 feet of water are:

- Upper Yakima with 27.9 miles
- Lower Yakima with 11.9 miles

Spill History as a Risk Indicator

Oil spills from all sources statewide for the period of March 2014 to March 2015 were reviewed. Within outdated GRP planning areas, the most frequent locations of reported spills are:

- Central Puget Sound, 171 spills for a total of 1,227 gallons to water
- North Puget Sound, 44 spills for a total of 176 gallons to water

The WRIAs with the most frequent number of reported spills were:

- Lower Skagit-Samish (18 spills, total of 35 gallons to water)
- Moses-Coulee (12 spills, 30 gallons to water)
- Middle Lake Roosevelt (6 spills, total of 302 gallons to water)

The WRIAs with the largest amount of oil spilled to water:

- Palouse had one spill, and all 300 gallons spilled to water.
- Foster had two spills for a total of 100 gallons to water.

A notable spill that occurred last year in Sulphur Creek (near Sunnyside) was still under investigation at the time these data were compiled and therefore left out of the analysis. More

than 1500 gallons of used oil spilled to an irrigation ditch that ultimately led to the Yakima River. That spill was located in WRIA 37: Lower Yakima.

Age of the GRPs as a Risk Indicator

Plans are considered out of date 5 years after publication. Updates are necessary to account for landscape changes, emergence of new risks, and availability of better planning technology. Plans written prior to 2008 lack important and detailed “2-pagers” that are distributed to response contractors after a spill. These easy-access documents provide diagrams of how to deploy boom, equipment needed, safety notes and other site-specific information. The oldest GRPs in Washington are:

- Snake River Ice Harbor, Little Goose, Lower Granite, Lower Monumental Pools – 1997
- Admiralty Inlet – 2003
- Hood Canal – 2003
- North Central Puget Sound – 2003
- South Puget Sound – 2003
- Willapa Bay – 2003

GRPs Under Development for 2015-2016

Based on this gap review, and additionally the priorities of the Northwest Area Committee members, Ecology has selected eight GRPs for development in 2015-2016 (Table 4). Age of existing GRPs and selecting inland areas where pipeline and rail corridors exist and GRPs do not were primary drivers in setting these priorities. It is anticipated that the eight plans will be completed by August of 2016, allowing Ecology to begin the next set of GRP priorities approximately one year from now (within the same biennium).

Table 4. GRP Update & Development Priorities 2015 – 2016

2015 - 2016	WRIA	County	Description
Central Puget Sound	Portions of WRIAs 6, 8, 9, 10, 12, and 15		The Central Puget Sound GRP covers 654 square miles, bounded by the northern outskirts of Kingston and Edmonds to the north, Bremerton to the west, Seattle to the east, and Tacoma to the south. Spill risks in Central Puget Sound include commercial and recreational vessel traffic, 6 Washington State Ferry routes across the sound; 244 miles of rail, including 65 miles owned and operated by BNSF; 13 miles of oil pipeline (BP/Olympic and U.S. Oil/McChord); and countless miles of highways and roadways. The area is also populated by more than a handful of regulated oil facilities. The CPS-GRP was last updated in July 2007.
Snake River Ice Harbor Pool		Franklin, Walla Walla	The Snake River Ice Harbor Pool GRP was developed in 1997. It covers a 41 mile reach of the lower Snake River from the confluence of the Snake and Columbia Rivers to the Lower Monumental Dam. The updated plan will start at the Ice Harbor Dam and continue 32 miles upriver to the Lower Monumental Dam at river mile 41.6. This section of the river has agricultural lands but no municipalities located along the shorelines. Oil spill risks include: the dams, tank barges, 31 miles of Union Pacific rail line, oil storage tanks from agricultural/manufacturing sources, and roadways.

2015 - 2016	WRIA	County	Description
Lower Yakima River	portions of WRIAs 37, 38, and 39,	Benton, Franklin, Klickitat	The Lower Yakima River covers 123 miles of the Yakima River from the I-82/US-12 Bridge in Richland, at river mile 4.5, to the Roza Diversion Dam at river mile 127.9. This is a new GRP. The Lower Yakima River borders the Yakama Nation and numerous local communities including Selah, Yakima, Wapato, Zillah, Sunnyside, Mabton, Grandview, Prosser and Richland. Oil spill risks include four diversion dams, two power plants, over 100 miles of BNSF rail line, and oil storage tanks from agricultural/manufacturing sources.
Admiralty Inlet	portions of WRIAs 6, 8, 15, and 17	Island, Jefferson, Snohomish, Kitsap	The existing Admiralty Inlet Geographic Response Plan covers 318 square miles, bounded by Port Townsend and Coupeville to the north, Hadlock and Port Ludlow to the west, Whidbey Island to the east, and Port Gamble and Mukilteo to the south. Spill risks in Admiralty Inlet include commercial and recreational vessel traffic, including one Washington State Ferry route (Port Townsend – Coupeville); 4.5 miles of BNSF-owned and operated rail; Naval Base Kitsap’s Naval facility on Indian Island; and many miles of roadways and state highways. The Admiralty Inlet was last updated in March 2003.
Hood Canal	WRIAs 14, 15, 16, and 17	Clallam, Jefferson, Kitsap, Mason	The existing Hood Canal Geographic Response Plan covers 594 square miles, bounded by Port Gamble and the Hood Canal Bridge to the north, Quilcene and Eldon to the west, Seabeck to the east, and Union and Belfair to the south. Spill risks in Hood Canal include military and recreational vessel traffic; 41 miles of Navy- and BNSF-owned and operated rail; Naval Base Kitsap’s Bangor facility; and many miles of roadways and state highways. The Hood Canal was last updated in March 2003.
Nooksack River		Whatcom and Skagit Counties	Nooksack River GRP: 34 miles of the Main Fork Nooksack River are downstream of BNSF tracks that carry crude oil unit trains from Canada to refineries in Washington and Oregon. An additional 7.7 miles of the South Fork Nooksack River are downstream of those same tracks. 21.5 miles of the Nooksack is also downstream of the Trans Mountain Oil Pipeline, whose main facility is located due east of Ferndale. The lower 5 miles of the river, from the Ferndale city limits to the edge of the North Puget Sound GRP, includes crossings by I-5, the BP Olympic Pipeline and the Kinder Morgan Pipeline. A portion of the Lummi and Nooksack Reservations and Ferndale, Lynden, Everson, Nooksack, Deming, Acme, and Saxon are included in the planning area.
Lower Skagit-Samish	WRIA 3	Whatcom, Skagit and Snohomish	The Samish sources near the South Fork Nooksack River and is paralleled for nine miles by BNSF tracks carrying crude oil to refineries in Washington and Oregon. 14 miles of river are downstream of the tracks and are further crossed by BNSF tracks carrying crude oil to the Ferndale refineries, plus the BP Olympic pipeline. The lower four miles of Samish River are included in the North Central Puget Sound GRP. Almost 16 miles of the main fork of the Lower Skagit River is downstream of BNSF tracks. The lower four miles of the Main Fork Skagit River includes crossings by I-5 and the BP Olympic pipeline, before it forks and enters the North Central Puget Sound GRP. The cities of Skagit City, Mount Vernon, Avon, Burlington, and Sedro-Wooley are included in this area.
Swinomish Reservation	WRIA 3	Skagit	Swinomish Tribe Grant Project (EPA/F&W grants from two years ago) is a smaller update to add several new tactics that the tribe developed under the grant.

Contracting to complete 50% of the GRPs required by law

Under ESHB 1449 (2015), the Legislature directed Ecology to contract GRP development work, if practicable, to ensure completion by December 1, 2017, of at least fifty percent of the GRPs needed in current contingency plans. Ecology is on target to complete this task using contracted resources primarily for field work when accessing target areas by boat is necessary.

2015 Lessons Learned

Ecology reviewed the recent GRP development process for lessons learned and best practices that are summarized below:

- Use of contractors for field work provided valuable expertise and reduced the time needed for plan development.
- Interactive maps are a good tool in soliciting input from local communities on draft plans.
- Mobile application for use in the field will speed up the time to develop GRPs.
- Examine how GRPs are used, who reads which chapters, and understand how the information is used to ensure that the final product meets the needs of the end user.

A best practice for GRPs is to maintain the resources to update each plan on a five-year cycle and capture lessons learned during GRP deployments (drills, spills and trainings) so that tactics are soundly written and will work during spills. Developing GRPs is a continuous process.