RESPONSE TO COMMENTS

Chehalis River Geographic Response Plan

Comments Received through May 8, 2015

We appreciate the time and effort all contributors provided in developing and submitting their comments on the draft version of the Chehalis River Geographic Response Plan. Comments received were categorized and may have been condensed to make them fit the format of this document. For each comment, the contributor is acknowledged by the number preceding their name on the list below.

Comments were contributed by the following individuals:

1. Kim Ashmore, City of Centralia
2. Shayne Cothern, Washington State Department of Natural Resources
3. R.D. Grunbaum, Friends of Grays Harbor
4. Brian MacDonald, Washington Department of Fish and Wildlife
5. Colleen Maguire, Washington State Parks and Recreation Commission
6. Brian Milchak, U.S. Department of the Interior
7. Claudia Woodward-Rice
8. Craig Zora

General Comments

Comment: What coordination, joint response, communication is being developed with local jurisdictions. We are a stormwater phase 2 Permittee and spills would fall under our permit in our jurisdiction. (1)

Response: Depending on the location, type and scale of a spill, local agencies and municipalities that may be affected by the spill would be notified by Ecology or staff within the Unified Command. Detailed information on response coordination and communication can be found in the Northwest Area Contingency Plan (NWACP), available online at http://www.rrt10nwac.com/NWACP/Default.aspx.

Comment: The Chehalis River GRP cannot be considered complete and adequate until a CBR (Crude by Rail) risk analysis is completed considering oil handling proposals currently under review. A maintenance, monitoring and response plan also needs to be developed, comparable to the risk posed, and presented to the public for review and comment. (2)

Response: A risk analysis for "Crude by Rail" (CBR) and the development of a maintenance, monitoring and response plan falls outside the scope of the GRP update and development process.

Comment: What measures exist and/or will be implemented to assess, repair, and maintain rail to a condition suitable to CBR transport especially along route that borders the Chehalis River? (2)

Response: The determination of measures to assess, repair, and maintain rail systems in Washington State falls outside the scope of this plan update.

Comment: What type of risk assessment work will be conducted to analyze geologic hazards to rail lines- especially sections close enough that a derailment would significantly impact state waters? (2)

Response: The work to assess and analyze geologic hazards along rail lines in Washington State falls outside the scope of this plan update.

Comment: What mitigation efforts or measures are proposed or will be taken to avoid spills or overflows from proposed facilities associated with earthquakes and tsunami waves? (2)

Response: Chapter 2 of the GRP provides an overview of oil spill risks in the area rather than a list of all causal factors that might lead to a spill, such as a train derailment, terrorism event, earthquake or tsunami. The development of measures to mitigate spills or overflows during and after an earthquake is outside the scope of this plan.

Comment: The potential of an oil spill is not adequately addressed by identifying the rail corridor on the area maps or section maps provided. (3)

Response: All rail corridors, highways/roadways, and oil pipelines in the geographic area represent an oil spill risk; especially where they cross or run adjacent to rivers, creeks, and streams. For the purposes of this plan, it's not practical to designate every mile of track, highway, pipeline, or every stream crossing as a Potential Oil Spill Origin Point (POSOP). Where one or more spill risks cross or run near each other, the chance of a spill occurring at or near that location is increased. This parity increases the likelihood that such a location would be designated as a POSOP. Where multiple risks are separated by some distance but remain in the same general area, the specific location of a POSOP may be normalize; made a point central to all significant risks in that area. POSOPs are important because each one directly relates to a unique priority table in Section 4.3.2 that lists the order response strategies should be deployed based on the nearness of a spill source to a POSOP. Within the context of this plan we feel the number and location of POSOPs are adequate.

Comment: There is no indication where and if response assets have already been in place. (3)

Response: Information on the location, amount, type, and kind of response equipment available in the Pacific Northwest Region can be found on the Western Response Resource List (WRRL) at http://www.wrrl.us. If warranted, depending on the size and extent of the spill, additional response personnel and equipment would be cascaded into the area as needed. This "ramping" or “cascade” approach is consistent with Section 1000 of the Northwest Area Contingency Plan (NWACP) where it says "the response to a spill incident should be promptly 'ramped-up' to provide adequate equipment and trained personnel to effectively respond to the highest quantity of product that will most likely be released."

Comment: Strategies rely on average wind speeds based on readings from the Hoquiam Airport at Bowerman Field. There doesn't appear to be any contingencies or response strategies for storm events which occur consistently throughout the region. (3)

Response: We agree that strong storms with high winds and flooding can occur in the area. How this might limit the implementation of GRP response strategies isn't know because much would depend on the extent of damage and flooding, road/highway closures, the oil spill location, type and amount of oil product spilled, and a myriad of other factors. In such a case, efforts to implement GRP response strategies would be a lower priority than the safety of the public, responder safety, and control and containment of a spill at or near the source. As capacity allows, attempts would be made to deploy the response strategies provided in this plan as written, but as stated in Section 4.1.1, response managers and responders must remain flexible and modify the strategies as needed to meet the challenges experienced during an actual response. It's highly likely that strategy locations that can't be safely accessed wouldn't have strategies deployed. This wouldn't preclude an Incident Commander or Unified Command from developing ad hoc (as needed) response strategies to help compensate for a GRP strategy that wasn't implemented. In all of this it's important to recognize that other plans, beyond this Geographic Response Plan, are used to help guide response actions, including facility and pipeline contingency plans, rail plans, the Northwest Area Contingency Plan, and ICS-201 followed by an Incident Action Plan (a plan specific to the incident itself).

Comment: Proposed GRP considers only small isolated spills and doesn't not plan or strategize for a spill from a unit train. (3)

Response: Potential spills from trains along rail routes were considered in the development of this plan, but it's important to recognize that GRPs focus solely on the implementation of response strategies (primarily boom in the water strategies) to collect oil off of the water before sensitive resources are impacted or to deflect and exclude oil away from those resources (natural, cultural, and economic). The ICS-201 form followed later by the Incident Action Plan (plans specific to the incident itself) would include objectives and actions related to source control and containment, and other response activities beyond anything provided in this GRP.

Comment: The GRP, as designed, is for "floating" oil and does not address submerged or sinking oils. (3)

Response: Correct. As mentioned in Section 4.1.1, the response strategies provided in the plan are designed for use with persistent heavy oils that float on water and may not be suitable for other petroleum products or hazardous substances. The NWACP contains other tools that are useful during a spill involving a sinking oil.

Comment: The GRP does not compensate for booming inadequacies in fast-moving and/or tidally influenced waters. (3)

Response: The information in the tides and currents section of Chapter 2 (Section 2.5) was considered in the development of the GRP response strategies provided in this plan. Conditions on local streams are not static. As provided in Section 4.1.1 we trust the professional judgment of response contractors to modifying strategies as needed to meet the challenges experienced during an actual response.

Comment: There doesn't appear to be a special strategic plan for the Chehalis Surge Plain and its associated wetlands. There is a different strategy and adequacy necessary for response resources, depending on whether it is a persistent or non-persistent oil. The fate and effects of these spills into the waterway are different. (3)

Response: This plan provides fifteen response strategies in the Chehalis Surge Plain, supported by two boat launches and one staging area. As stated in Section 4.1.1 of the plan, these GRP response strategies are designed for use with persistent heavy oils that float on water and may not be suitable for other petroleum products or hazardous substances.

Comment: The report as presented apparently recommends and believes that the GRP plan can solve and mitigate the potential loss of livelihood of approximately 31% of the Grays Harbor workforce who depend on healthy marine resource jobs. (3)

Response: This plan is focused solely on sensitive resource protection after an oil spill to water occurs, regardless of the spill source. It's not intended to represent everything that could, should, or would be done to protect public safety and the environment.

Comment: After reading this 4/13 article it is apparent that a quick response time cannot be guaranteed. Please comment on this article and explain how response times on the Chehalis River will be more effective. http://www.theglobeandmail.com/news/british-columbia/coast-guard-criticized-over-handling-of-bcs-english-bay-oil-spill/article23910612/ (8)

Response: There are some fundamental differences between Canadian response programs and those in the United States. For example, our laws require the oil industries to invest ahead of a spill in pre-staging equipment, training responders and making the initial notifications to start a response. In Washington State, all oil or hazmat spills of any size, to land or water, must be reported immediately to both the National Response Center (800) 424-8802 and Washington Emergency Management Division (800) 258-5990. Those calls notify Ecology responders, who determine whether a field response is appropriate, based on a go/no-go checklist. Ecology Response (as well as other sections) is on call 24/7/365, as are several other state agencies.

You can see where response equipment is staged via the Western Response Resource List (http://www.wrrl.us). For large spills, additional equipment would be cascaded in from around the state (and country) as needed to supplement local equipment.

Unfortunately exact response times can't be guaranteed, but we believe the regulatory framework around spill response in Washington State should provide some level of confidence that actions will be rapid, aggressive and well-coordinated.

Spill Response Contact Sheet

Comment: Under "Washington State"/"Dept of Fish and Wildlife" add "Oil Spill Team (360) 534-8233*". Also, strike "Marine Office (La Conner)" from the same location. (4)

Response: The contact information for the Washington State Department of Fish and Wildlife Service has been updated.

Comment: Replace: Washington State Parks Department with Washington State Parks and Recreation Commission (6)

Response: The Spill Response Contact Sheet and contact information in Chapter 4 has been updated.

Chapter 4 – Response Strategies & Priorities

Comments: On page 31, it appears as though King County, Washington, contacts are provided. Did you intend to use these instead of local contacts in the area of the plan? (6)

Pg 4-5: Contact points for traffic control reference sources within King County. Recommend replacing with sources appropriate to this GRP area. (4)

Response: The correct contact information for the Chehalis area has been added.

Comment: On page 34, historical streamflow is computed from U.S. Geological Survey (USGS) station data. The first column in Table 2 indicates that it includes data through 2015; however, only provisional data is available at this time for 2015. We suggest stating that the streamflow is computed using data through 2014 and provisional data from 2015. (6)

Response: The corrected chart includes information from 1939 - 2014, and no provisional data.

Comment: On page 34, the sentence above Table 2 states, "River discharge is recorded in cubic feet per second (cfs); velocities in miles per hour (mph) or nautical miles per hour (knots) are not available." In this sentence, “velocities” should be changed to "surface velocities." The USGS measures velocity profiles and computes a mean velocity whenever a field discharge measurement is made. Unless there is a surface wind or an unnatural river channel configuration, surface velocities can be estimated from the mean velocities. The mean velocities are not available online, but could be provided upon request. (6)

Response: The wording in that paragraph has been updated to clarify surface velocities versus mean velocities.

Comment: Section 4.4.2 Strategy Priorities based on Potential Spill Origin Points says: ”the time it takes to mobilize and deploy response resources must be considered” … Throughout Appendix A which addresses Protection Techniques, reference is made to equipment (booms, sorbents, hoses, boats, anchors, buoys etc) and personnel. But nowhere are we told IF such equipment or personnel are available near the river. Would it take hours, or perhaps days, to get them to a spill site?? A real preparedness plan requires equipment staged near potential spills, and trained local personnel. (7)

Response: Information about the location, quantity, types and ownership of response equipment in the Pacific Northwest is tracked on the Western Response Resource List, WRRL (http://www.wrrl.us). Previous iterations of GRPs included information about the WRRL in Chapter 7, which addressed logistics. This chapter has been removed from GRPs because it will now be maintained in the Northwest Area Contingency Plan. Information about the WRRL has been added back in to the final Chehalis River GRP, and will be included in other GRPs, under Chapter 4.1: Introduction.

Response times for equipment would vary depending on their current “home base” or staging location. The response times after a spill event would be incident specific, dependent on the spill location, product type, spill volume, and trajectory information.

Initial response resources (boats, boom, and personnel) would come from the Washington State approved contingency plan holder for the vessel or facility involved in the incident, or their Primary Response Contractor (PRC). If the Responsible Party is unknown, or unwilling to hire a contractor, PRCs will be hired by Ecology, the Coast Guard or EPA. Additional personnel and equipment from outside the area would be mobilized if the size and scope of the spill warranted such action. This "ramping" or “cascade” approach is consistent with Section 1000 of the Northwest Area Contingency Plan (NWACP) where it says "the response to a spill incident should be promptly 'ramped-up' to provide adequate equipment and trained personnel to effectively respond to the highest quantity of product that will most likely be released." Response resources arriving from outside the area may be allocated to the deployment of GRP response strategies if they’re not needed for source control and containment of the spill at or near its source. It’s important to understand that source control and containment are a higher priority than the deployment of GRP response strategies.

Comment: There are over 100 river, stream and tributary crossings (most of which are fish-bearing) on the route from just Centralia to Hoquiam. Yet there are only 65-listed Response Strategy Locations in the subject area, many of which are not poised along the rail corridor. (3)

Response: The response strategies in the Chehalis River Geographic Response Plan don't represent everything that could, should, or would be done to protect sensitive resources during an oil spill. Other plans exist that would help guide response actions, including control and containment of an oil spill at or near the source. Other plans include the Northwest Area Contingency Plan (NWACP), the ICS-201 form followed by the development of an Incident Action Plan (IAP), and any U.S. Department of Transportation/Federal Rail Administration required oil spill response plans for rail.

Ecology believes the response strategies provided in Chapter 4 of the Chehalis River Geographic Response Plan are "doable" and should have a chance of being successfully implemented after a spill occurs. Not all rivers, creeks, streams, wetlands, or floodplains can be fully or even partially protected from a spill, but we attempt to rectify this through the development of this plan – an area where no Geographic Response Plan previously existed.

In the evaluation of potential response strategy locations there are several factors that limit us from developing response strategies in more areas, including: heavy vegetation, high river/creek banks, poor anchoring points, poor site access, private property access issues, stream hydrodynamics, surface and underwater obstructions, worker safety issues, and the potential to do more harm to sensitive resources than good. Ecology welcomes any information you might have on additional sites of interest, so they can be evaluated for their potential as a response strategy location during future updates to this plan. Please send any information about potential response strategy locations to GRPs@ecy.wa.gov.

Comment: I see you have addressed some creeks but I am concerned that nothing was addressed for China Creek or Coffee Creek in Centralia. I know they could be impacted by an oil train spill. (1)

Response: Response strategies for China Creek have been created and added to the final plan: CHINA-0.3 (pg. 4A-89) and CHINA-0.9 (pg. 4A-91). Coffee Creek has limited access downstream of potential spill sources. No suitable locations for a response strategy were found before this plan was published.

Comment: Reorganize strategy 2-pagers to ensure that they follow consistent alpha-numeric sequences. Many of the strategies are currently out of sequence. (4)

Response: The 2-pagers for strategies, staging areas and boat launches have been re-ordered alphanumerically by short name.

Comment: ALLN-5.6 - WDFW property is list as being used as a staging area. Recommend editing "Site Contact" to include WDFW contact point for this property. "Scatter Creek Wildlife Area Manager, Shane Belson, (360) 480-9105"

"Driving Directions" are incorrect. Recommend editing to reflect exiting I-5 at Maytown road (Exit 95). (4)

Response: Site contact information and driving directions have been updated for ALLN-5.6.

Comment: BEAV-17.6 - Retitle as "Beaver Creek, West Rocky Prairie Wildlife Area". Edit "Site Contact" to read "Scatter Creek Wildlife Area Manager, Shane Belson, (360) 480-9105". "Driving Directions" appear to be incorrect. Confirm driving directions. (4)

Response: Response strategy BEAV-17.6 has been renamed, and the site contact and driving directions have been updated.

Comment: CHER-34.3R - Under "Site Contact" insert: "Jim Gerchak, Manager, 4686 Wishkah Road, Aberdeen, WA 98520 T: (360) 533-5676" (4)

Response: Site contact information has been updated for CHER-34.3R.

Comment: CHER-35.7R - Retitle as "Hoxit Unit South, Wildlife Area". Under "Site Contact" insert: "Jim Gerchak, Manager, 4686 Wishkah Road, Aberdeen, WA 98520 T: (360) 533-5676" (4)

Response: Response strategy CHER-35.7R has been renamed, and the site contact has been updated.

Comment: BING-17.7-N - Primary concern for any hatchery will be the potential impacts to intake water source. Main intakes for Bingham Creek Hatchery are located on the East Fork of the Satsop and on Bingham Creek - not Outlet Creek. (4)

Response: Based on your comment the strategy has been corrected to note Bingham Creek as the main water intake location, with the East Fork Satsop River as a smaller intake source. The site manager at this hatchery noted that the intake is just downstream of Outlet Creek, and that a spill on Nahwatzel Lake could affect the hatchery. The updated strategy references these four waterbodies as potential sources of concern.

Comment: BING-17.7-N - Irrelevant references to Skookumchuck, Wynoochee, or Elliot Slough associated with this hatchery. Recommend deleting these. (4)

Response: This notification strategy is intended to alert not just Bingham Creek Hatchery, but also Skookumchuck Hatchery and Lake Aberdeen Hatchery with a single phone call. Therefore, their information has also been included here. The strategy long name was rewritten to reflect this and more information was added to the implementation to clarify the intent of this strategy.

Comment: BING-17.7-N - Also, resources at risk should also include steelhead. (4)

Response: Steelhead was added to the list of resources at risk for this strategy.

Comment: BING-17.7-N - Contact point for hatchery is "3914 Fish Hatchery Road Elma WA, 98541 (360) 426-2369". (4)

Response: The contact information for BING-17.7-N has been updated.

Comment: EFSTSP-14.3-N - Primary concern for any hatchery will be the potential impacts to intake water source. Main intake for this facility is located on the East Fork of the Satsop. Add additional phone number to contact: (360) 482-3364 (4)

Response: Information regarding the location of the water intake has been added to EFSTSP-14.3-N. The phone number suggested is already listed as the main contact number for this strategy.

Chapter 6 – Resources at Risk

Comment: Chapter 6 Section 6.5.1 - 2nd sentence. Reference to marine mammals makes no sense in the context of this GRP. Remove "…or marine mammal pupping areas" from this sentence. (4)

Response: Based on your comment, changes have been made to Section 6.5.1.

Comment: Chapter 6 Section 6.5.3 - 3rd sentence. Insert "…of oiled wildlife…" after the word "…observations….". (4)

Response: Based on your comment, changes have been made to Section 6.5.3.

Comment: Recommend adding new section (6.5.4) titled "Pre-cleaning of shorelines". In the new section, insert the following text: “Pre-cleaning” refers to the removal of loose material (typically organic) from a shoreline before it is affected by an oil spill. Before starting any beach pre-cleaning, the Operations Section should provide the Environmental Unit Leader (Planning Section) with a list of shorelines (with location descriptions) being considered for pre-cleaning. The Environmental Unit will consult with the Wildlife Branch and the Natural Resource Damage Assessment (NRDA) group to determine whether the proposed pre-cleaning will conflict with other resource protection or NRDA goals or activities. Environmental Unit staff will report back to the Operations Section with an evaluation of the proposed beach pre-cleaning." (4)

Response: Pre-cleaning of shorelines, pre-oiling debris removal, or pre-spill debris collection is an advanced tactic that would be considered by the Environmental Unit after a Unified Command is formed. A decision about the appropriateness of pre-cleaning shorelines falls outside the scope of this plan and, therefore, is not included in Chapter 6.

Buffett, Wendy (ECY)

From: Kim Ashmore <KASHMORE@cityofcentralia.com>
Sent: Monday, April 27, 2015 3:21 PM
To: ECY RE Geographic Response Plans
Cc: Kahle Jennings
Subject: GRP for the Chehalis River

Follow Up Flag: Follow up
Flag Status: Flagged

Good Morning~

Thanks for the opportunity to comment on the spill plan.

I have a few comments. I see you have addressed some creeks but I am concerned that nothing was addressed for China Creek or Coffee Creek in Centralia. I know they could be impacted by an oil train spill.

Also what coordination, joint response, communication is being developed with local jurisdictions. We are a stormwater phase 2 Permittee and spills would fall under our permit in our jurisdiction.

Thanks again for the opportunity

Kim Ashmore
City of Centralia
Street/Stormwater/Fleet Manager
360-330-7512

WASHINGTON STATE DEPARTMENT OF
Natural Resources
Peter Goldmark - Commissioner of Public Lands

Caring for
your natural resources
... now and forever

May 7, 2015

Washington Department of Ecology
Spill Prevention, Preparedness, and Response (GRPs)
P.O. Box 47600
Olympia, WA 98504-7600

Subject: Chehalis River Geographic Response Plan

To Whom It May Concern:

Please accept these comments from the Washington State Department of Natural Resources (DNR) regarding the Chehalis River Geographic Response Plan (GRP).

DNR is the manager of over 3 million acres of state trust lands comprised of forest, range, commercial, and agricultural lands, and 2.6 million acres of state-owned aquatic lands (SOAL). The Chehalis River is contained within the state of Washington with significant portions declared navigable at the time of statehood (upriver South Fork to town of Curtis and upriver to Rainbow Falls State Park on the North Fork). These river miles are state owned aquatic lands managed by the Department of Natural Resources for the citizens of the state.

Oil spills represent the single greatest threat to the health of SOAL. DNR would like to commend the Department of Ecology for updating the GRP for this valued waterbody and appreciate the opportunity to comment.

Prevention is the most productive effort to ensure oil spills do not harm aquatic resources, citizens and the economy of Washington that depends on these resources. We have a legislative mandate to seek methods to achieve a zero spills status in this state; although we have one of the most comprehensive spills programs in the nation, we have yet to attain this goal.

There is an unpredictable nature to spills and we must do all we can to ensure maximum recovery when all preventative measures have failed. GRPs are an excellent strategy to ensure immediate response with productivity until a proper oil spill trajectory can be constructed and response strategy developed. Time is of the essence when trying to ensure maximum recovery can be achieved. With this said, we must acknowledge that on average maximum recovery is 20% or less for most major oil spills. It is DNR's hope that effective preparedness measures such as GRPs will improve recovery numbers for spills in Washington State.

GRPs cannot be considered complete until all hazards are properly identified. Where these hazards have not been mitigated for, GRPs must be developed to respond effectively and efficiently. In a riverine system, this means time is of the essence and adequate equipment and personnel must be staged accordingly. As risks increase so should the level of preparedness.

There is a significant portion of rail that borders the Chehalis River. There are currently three different proposals to construct crude oil bulk storage and mixing facilities in Grays Harbor (Imperium, Westway, and US Development) that would, if constructed, exponentially increase crude by rail (CBR) transport along the Chehalis River and the risk to resources therein. We must identify and mitigate risks along this rail line prior to use for CBR transport.

There currently exists a large gap in contingency planning by the State. Oil handling facilities are held to a high planning standard, yet rail lines hauling crude oil are not yet held to these same standards. Legislative mandates to conduct rulemaking regarding CBR transport contingency planning are currently being finalized (see SHB-1449). It is DNR's hope that this rulemaking results in proper oversight of CBR hazard mitigation. Until these planning efforts are complete, and necessary mitigation efforts taken, DNR must express strong concern regarding current state of preparedness and gap in GRP planning. We encourage the Department of Ecology to move forward as quickly as possible to fill this gap by completing all necessary rulemaking and planning efforts

We ask Ecology to consider and address the following questions in its rulemaking/planning efforts to mitigate risk and enhance GRP development:

1. What measures exist and/or will be implemented to assess, repair, and maintain rail to a condition suitable to CBR transport especially along route that borders the Chehalis River?

2. What type of risk assessment work will be conducted to analyze geologic hazards to rail lines- especially sections close enough that a derailment would significantly impact state waters?

3. What mitigation efforts are proposed to avoid spills or overflows from proposed facilities associated with earthquakes?

4. What measures will be taken to ensure spills or overflows do not occur due to tsunami waves?

DNR recommends the following risk assessment work to analyze geologic hazards at proposed

bulk storage facilities as well as along rail lines that will carry CBR that border the Chehalis River:

a) Identify both shallow and deep-seated landslide hazards using DNR's GIS Statewide Landslide database and then create a site-specific geologic map. In areas with no existing landslide inventory, create a shallow landslide database using historic aerial imagery and other spatial data in a GIS;

b) Evaluate riverbank sloughing and subaqueous landslide hazards using bathymetry or similar DEM data;

c) Identify potentially unstable slopes using a lidar-based slope hazard assessment tool comparable to the Oregon Department of Geology and Mineral Industries protocol (Burns, W. J., and Madin, I. P., 2009, Landslide protocol for inventory mapping of landslide deposits from light detection and ranging (lidar) imagery: Oregon Department of Geology and Mineral Industries Special Paper 42, 30 p., geodatabase template) in a GIS. Acquire Lidar as needed;

d) Identify slope hazards associated with slope modification or vegetation removal at construction areas- especially in areas where rail expansion and/or repair may be needed to handle increased CBR transport;

e) Evaluate earthquake hazards including earthquake-induced liquefaction and other earthquake-induced ground failures;

f) If dredging for port access, identify potential hazards to adjacent beaches and bluffs from loss of subaqueous buttressing, and;

g) Identify tsunami inundation hazards from both local faults and a Cascadia subduction zone event, or through subaqueous or terrestrial landslides. Explicitly address increased risk of inundation resulting from climate change and sea level rise.

The above mentioned assessments are critical to completing an adequate GRP. Sufficient equipment and personnel must be staged along railways to ensure GRP implementation is immediate and effective should an incident occur. Again, acknowledging that prevention through proper maintenance and design is where dollars are best spent. The level of equipment and personnel along rail should increase comparable to increased risk posed by volumes moving along route.

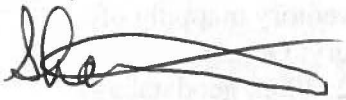
The Chehalis River GRP cannot be considered complete and adequate until:

1) A CBR risk analysis is completed considering oil handling proposals currently under review and;

2) A maintenance, monitoring and response plan is developed comparable to the risk posed and presented to the public for review and comment.

Should you have any questions regarding these comments, please do not hesitate to contact me at (360) 902-1064. If you have questions specific to geologic hazard risk assessment please contact, Tim Walsh, our State Chief Hazards Geologist at (360) 902-1432.

Sincerely,



Shayne Cothern
Spill Response Coordinator
Department of Natural Resources

cc: Kristin Swenddal, Aquatics Division Manager
Dave Norman, Geology Division Manager
Matt Niles, Assistant Division Manager, Rivers District

May 7, 2015

United States Environmental Protection Agency
Region 10
Office of Environmental Cleanup
1200 Sixth Avenue
Room ECL-116
Seattle, WA 98101

Washington State Department of Ecology
Spill Prevention, Preparedness, and Response (GRPs)
P.O. Box 47600
Olympia, WA 98504-7600

In Re: Chehalis River Geographic Response Plan (CHER GRP) 2015 Draft

Sent via email: GRP@ecy.wa.gov; epa-seattle@epa.gov

To Whom It May Concern:

Thank you for this opportunity to review and comment on the above referenced draft plan dated April, 2015. We hope our input will be of assistance in making decisions that will benefit the economy, environment, visitors and residents of this important watershed. We incorporate by reference comments submitted by the Washington Environmental Council, Climate Solutions, Friends of the Earth, Sierra Club, Forest Ethics, Washington Dungeness Crab Fisherman's Association, Grays Harbor Audubon, Grays Harbor/Willapa Oystergrowers Association, Arnie Martin, Brady Engvall and the Quinault Indian Nation.

FOGH is a broad-based 100% volunteer tax-exempt 501(c)(3) citizens group made up of crabbers, fishers, oyster growers and caring citizens. The mission of FOGH is to foster and promote the economic, biological, and social uniqueness of Washington's estuaries and ocean coastal environments. The goal of FOGH is to protect the natural environment, human health and safety in Grays Harbor and vicinity through science, advocacy, law, activism and empowerment.

We oppose locating any crude oil or other fossil fuel terminals in the State of Washington and especially its presence along our Washington estuaries, rivers and coast. Crude oil presents a threat to human health and safety from the time it is extracted to when it is burned. Washington State is a leader in clean energy and should not be approving the transport and storing of so dangerous a fossil fuel. In addition, the increase in rail traffic creates a multitude of serious problems for local communities and the environment along the rail routes.

We find the Chehalis River GRP woefully inadequate. It appears to be just another exercise in spinning an illusion that the procedures described could avert or mitigate a catastrophe along our rivers and streams, in our estuaries, and/or on our ocean coast and to the livelihoods of those who depend on healthy marine resources (31% Grays Harbor, 36% Pacific County).

It seems to be a fatal flaw that the potential of an oil spill is not adequately addressed by identifying the rail corridor on the area maps or section maps provided. This conceptually hides the impact potential of a spill. We are concerned that there are over 100 river,stream and tributary crossings (most of which are fish-bearing) on the route from just Centralia to Hoquiam. Yet there are only 65-listed Response Strategy Locations in the subject area, many of which are not poised along the rail corridor. For example CHER-1A does not indicate where the rail tracks are

located. With the potential for 1-1/2 mile long unit trains, the significance of strategically placed assets are essential to any response. In just the past 2 years there have been ten rail explosions, with no end in sight. The PSAP short-line,now owned by Genessee and Wyoming Rail, suffered three derailments in as many weeks as it made its way from Centralia to downtown Aberdeen.

Treaty and non-treaty tribes, such as the Quinault Nation, Hoh, Jamestown S'Klallam, Lower Elwha Klallam, Quileute and Makah tribes have lived and utilized the waters and lands of the Olympic Peninsula, Pacific Northwest ocean, the estuaries of the Columbia River, Willapa Bay and Grays Harbor, for tens of generations. They depend on the delicate balance that nature provides to sustain their culture and subsistence. The natural flow of waters during flood events depends upon healthy and natural storage of wetlands and riparian areas. Any interruption of natural processes of air, earth and water only exacerbates problems elsewhere - usually downstream or elsewhere into the ocean and estuaries. Additionally, since the late 1800's, generations of non-native fishers, crabbers and shellfish gatherers have accessed the economic bounty of the coastal area provided in part by the drainage of the Chehalis River watershed. The introduction of crude oil into these areas can only further threaten to destroy these critical components of their combined cultures and heritage.

We are concerned that despite present hazardous materials being shipped via these rail corridors, there is no indication where and if response assets have already been in place.

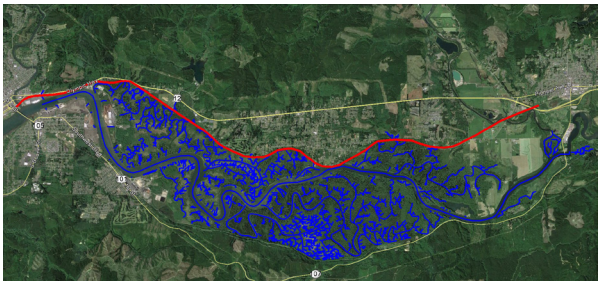
We are concerned that the strategies rely on average wind speeds based on readings from the Hoquiam Airport at Bowerman Field. There doesn't appear to be any contingencies or response strategies for storm events which occur consistently throughout the region.

We are concerned that the proposed GRP considers only small isolated spills and doesn't not plan or strategize for a spill from a unit train that may contain as much as 3 million gallons of crude and may have an associated fire or explosion.

We are concerned that the GRP, as designed, is for "floating" oil and does not address submerged or sinking oils. Nor does this plan for or compensate for booming inadequacies in fast-moving and/or tidally influenced waters.

We are concerned that there doesn't appear to be a special strategic plan for the Chehalis Surge Plain and its associated wetlands. There is a different strategy and adequacy necessary for response resources, depending on whether it is a persistent or non-persistent oil. The fate and effects of these spills into the waterway are different.

The Chehalis Surge Plain hosts over 136 miles of tidally influenced shorelines. A spill anywhere along this part of the route would be particularly devastating to this important ecosystem. The rail route is depicted in red.



We are concerned that the report as presented apparently recommends and believes that the GRP plan can solve and mitigate the potential loss of livelihood of approximately 31% of the Grays Harbor workforce who depend on healthy marine resource jobs – a figure which excludes tribal contribution. These proposals are located in a tsunami and liquefaction zone with a 65% chance of a 6.0 or greater earthquake. Spills, accidents or catastrophic occurrences will happen within the life expectancy of these proposals. A Cascadia Subsidence would drop the landform and surrounding area by 2 meters or roughly 6-1/2 feet and would place approximately 113,000,000 gallons of stored crude oil at or below sea level.

Post Office Box 1512 Westport, Washington 98595-1512 Phone/Fax (360) 648-2254
http:fogh.org rd@fogh.org 501(c)(3) tax-deductible

A spill in one of our fast-moving waterways presents a great challenge when a water-in-oil emulsion ("mousse") occurs as a result of high-energy mixing. The resulting mousse has properties that prevent dispersion into the water column and clean up becomes ineffective if not impossible.

Environmental fate, effects, and transport of released crude oil, dispersed oil, and dispersants on human health and the environment need to be carefully documented and studied. Spills, explosions, fires, and blowouts can have multiple environmental and public health impacts, which need to be quantified and analyzed for their economic impacts. Operational discharges of produced water, drill cuttings, and mud have chronic effects on benthic (bottom-dwelling) marine communities, mammals, birds, and humans. Humans can also be affected by occupational exposure to oil and other chemicals while participating in response and cleanup operations, or by environmental exposure such as ingesting oil-contaminated seafood. The GRP doesn't appear to consider these issues nor offer strategies once they occur.

Marine mammals are affected by the oiling of their fur and skin, and through consumption of oil-contaminated foods (e.g., mussels, clams, oysters and other benthic organisms), or via inhalation of fumes that have liver, kidney, and central nervous system toxicity. The marine mammals most commonly affected in a riverine area include river otters. Otters are particularly vulnerable as they feed near the surface, have little blubber, and depend upon an intact fur coat to maintain their body temperature. Research is needed to better understand these impacts and how to mitigate the effects of an oil spill before it has affected the species at risk, including humans. Ecotoxicity research is needed in areas beyond human health effects, including research about effects on animals and other aspects of the environment.

The safe transportation of crude oil is complicated by the varied nature of the product itself. Bakken crude oil is inherently volatile with a flash point of under 74° F and vapor pressure similar to gasoline. An additional and serious danger is often the amount of dissolved natural gas and volatile organic compounds within the crude. This gas affects the vapor pressure of the crude. When contained in tank cars or other vessels, the vessel itself can become highly pressurized, almost like a soda can. The vapor pressure of a liquid, which varies with temperature, is a measure of how much vapor the liquid releases during evaporation. Materials with high vapor pressures tend to burn more violently because the liquid can change into vapor more readily, feeding a fire. The classification and packaging of crude oil does not currently account for vapor pressure. While the spike in Bakken crude oil has focused attention on the transportation of crude oil into Washington, there is also a concern over the possibility of transporting Canadian Tar Sands crude oil through the state. Canadian Tar Sands oil presents a different set of challenges to effective prevention and response. Tar Sand oil is less volatile than Bakken crude oil, but can become heavier than water and will sink to the bottom of any waterway particularly after volatile diluents have evaporated. If transported through Washington State, the Canadian tar sands crude oil would travel along, or on many of the state's major waterways, including the salmon-critical Columbia River and Chehalis River. Leaving the city of Chehalis it would pass over 100 rivers, tributaries and streams on its way to Hoquiam. . Since Tar Sand oil sinks when introduced to water, different spill response equipment and protocols would be needed. The Bakken Crude also was been shown to sink and persist as we learned from the Lac Megantic disaster.

Rail condition coming from Centralia to Hoquiam is completely inadequate to handle oil trains and has been shown by the recent derailments of grain trains, may not be adequate to handle any heavy load commodity. A detailed study of the conditions of the bed, ties, rails, crossings and bridges must be undertaken and quantified. Financial responsibility must be determined before any crude oil is transported.

We hope that you will consider and respond directly to our concerns as you further develop this plan.

Sincerely,

Arthur (R.D.) Grunbaum
President

Post Office Box 1512 Westport, Washington 98595-1512 Phone/Fax (360) 648-2254
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Buffett, Wendy (ECY)

From: Macdonald, Brian F (DFW)
Sent: Friday, May 08, 2015 11:55 AM
To: ECY RE Geographic Response Plans
Subject: Chehalis River GRP review comments
Attachments: Chehalis GRP Review WDFW 04302015.xlsx

Follow Up Flag: Follow up
Flag Status: Flagged

To whom it may concern.
The WDFW Oil Spill Team has reviewed the draft Chehalis River GRP and our comments and suggestions may be found in the attached document.
Please contact me directly if you have any questions concerning any of these comments.
Thank you for your consideration.
Regards,

Brian MacDonald, Oil Spill Planning and Response Specialist
WA Dept. Fish & Wildlife, Habitat Program, Protection Division
Phone: (360) 902-8122, Email: brian.macdonald@dfw.wa.gov
Mail: 600 Capital Way N; Olympia, WA 98501, MailStop: 43143

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Chehalis River GRP review
WDFW - Brian MacDonald 4/30/2015

Item	Section	Page	Issue	Recommendation
1	Contact Sheet	4	Incomplete information	Under "Washington State"/"Dept of Fish and Wildlife" add "Oil Spill Team (360) 534-8233*". Also, strike "Marine Office (La Conner)" from the same location.
2	4.1	4-5	Incorrect information	Contact points for traffic control reference sources within King County. Recommend replacing with sources appropriate to this GRP area.
3	Appendix 4A		Incorrect position	Reorganize strategy 2-pagers to ensure that they follow consistent alpha-numeric sequences. Many of the strategies are currently out of sequence.
4	Appendix 4A	4A-4	Incomplete information	WDFW property is list as being used as a staging area. Recommend editing "Site Contact" to include WDFW contact point for this property. "Scatter Creek Wildlife Area Manager, Shane Belson, (360) 480-9105"
5	Appendix 4A	4A-4	Incorrect information	"Driving Directions" are incorrect. Recommend editing to reflect exiting I-5 at Maytown road (Exit 95).
6	Appendix 4A	4A-7	Incorrect information	Retitle as "Beaver Creak, West Rocky Prairie Wildlife Area".
7	Appendix 4A	4A-8	Incorrect information	Edit "Site Contact" to read "Scatter Creek Wildlife Area Manager, Shane Belson, (360) 480-9105"
8	Appendix 4A	4A-8	Incorrect information	"Driving Directions" appear to be incorrect. Confirm driving directions.
9	Appendix 4A	4A-44	Incomplete information	Under "Site Contact" insert: "Jim Gerchak, Manager, 4686 Wishkah Road, Aberdeen, WA 98520 T: (360) 533-5676"
10	Appendix 4A	4A-45	Incomplete information	Retitle as "Hoxit Unit South, Wildlife Area".
11	Appendix 4A	4A-46	Incomplete information	Under "Site Contact" insert: "Jim Gerchak, Manager, 4686 Wishkah Road, Aberdeen, WA 98520 T: (360) 533-5676"
12	Appendix 4B	4B-3	Incorrect information	Primary concern for any hatchery will be the potential impacts to intake water source. Main intakes for Bingham Creek Hatchery are located on the East Fork of the Satsop and on Bingham Creek - not Outlet Creek. Also, resources at risk should also include steelhead. Irrelevant references to Skookumchuck, Wynoochee, or Elliot Slough associated with this hatchery. Recommend deleting these. Contact point for hatchery is "3914 Fish Hatchery Road Elma WA, 98541 (360) 426-2369".
13	Appendix 4B	4B-7	Incorrect information	Primary concern for any hatchery will be the potential impacts to intake water source. Main intake for this facility is located on the East Fork of the Satsop. Add additional phone number to contact: (360) 482-3364

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14	6.5.1	6-12	Incorrect information	2nd sentence. Reference to marine mammals makes no sense in the context of this GRP. Remove "…or marine mammal pupping areas" from this sentence.
15	6.5.3	6-12	Incomplete information	3rd sentence. Insert "…of oiled wildlife…" after the word "…observations….".
16	6-5	6-12	Incomplete information	Recommend adding new section (6.5.4) titled "Pre-cleaning of shorelines". In the new section, insert the following text: “Pre-cleaning” refers to the removal of loose material (typically organic) from a shoreline before it is affected by an oil spill. Before starting any beach pre-cleaning, the Operations Section should provide the Environmental Unit Leader (Planning Section) with a list of shorelines (with location descriptions) being considered for pre-cleaning. The Environmental Unit will consult with the Wildlife Branch and the Natural Resource Damage Assessment (NRDA) group to determine whether the proposed pre-cleaning will conflict with other resource protection or NRDA goals or activities. Environmental Unit staff will report back to the Operations Section with an evaluation of the proposed beach pre-cleaning."

Buffett, Wendy (ECY)

From: Maguire, Colleen (PARKS)
Sent: Wednesday, April 08, 2015 2:18 PM
To: ECY RE Geographic Response Plans
Subject: Draft Chehalis River Geographic Response Plan (GRP) Available

Replace: Washington State Parks Department with Washington State Parks and Recreation Commission

Colleen Maguire
Enterprise Risk Manager
Emergency Manager
Lean Practitioner
ADA Manager
1111 Israel Road SW
P O Box 42650
Olympia WA 98504-2650
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work week Monday-Thursday 6-4:30

Did you buy your Discover Pass?

Buffett, Wendy (ECY)

From: Brian Milchak <brian_milchak@ios.doi.gov>
Sent: Friday, May 08, 2015 3:59 PM
To: ECY RE Geographic Response Plans; Buffett, Wendy (ECY)
Cc: Allison O'Brien
Subject: DOI Comments on Draft Chehalis River Geographic Response Plan

Follow Up Flag: Follow up
Flag Status: Flagged

Dear Ms. Buffett:

The Department of the Interior has reviewed the Washington Department of Ecology's Draft Chehalis River Geographic Response Plan (GRP). The following comments should be considered before the GRP is finalized:

1. On page 31, it appears as though King County, Washington, contacts are provided. Did you intend to use these instead of local contacts in the area of the plan?

2. On page 34, historical streamflow is computed from U.S. Geological Survey (USGS) station data. The first column in Table 2 indicates that it includes data through 2015; however, only provisional data is available at this time for 2015. We suggest stating that the streamflow is computed using data through 2014 and provisional data from 2015.

3. On page 34, the sentence above Table 2 states, "River discharge is recorded in cubic feet per second (cfs); velocities in miles per hour (mph) or nautical miles per hour (knots) are not available." In this sentence, "velocities" should be changed to "surface velocities." The USGS measures velocity profiles and computes a mean velocity whenever a field discharge measurement is made. Unless there is a surface wind or an unnatural river channel configuration, surface velocities can be estimated from the mean velocities. The mean velocities are not available online, but could be provided upon request.

If you have any questions or concerns regarding these comments, please feel free to contact me at (503) 326-2489. We appreciate the opportunity to comment.

Best,
Brian Milchak
Regional Environmental Assistant
Office of Environmental Policy and Compliance
Department of the Interior
Portland, Oregon
(503) 326-2489

Buffett, Wendy (ECY)

From: Bill/Claudia Rice <ricesofhi@gmail.com>
Sent: Thursday, April 16, 2015 10:28 AM
To: ECY RE Geographic Response Plans
Subject: Comment: CHEHALIS RIVER Geographic Response Plan

Follow Up Flag: Follow up
Flag Status: Flagged

sorry- first send of this comment had incomplete address

---------- Forwarded message ----------
From: **Bill/Claudia Rice** <ricesofhi@gmail.com>
Date: Thu, Apr 16, 2015 at 10:25 AM
Subject:
To: GRPs@ecy.wa.gov

I have just finished looking over the Dept. of Ecology's draft **CHEHALIS RIVER Geographic Response Plan** for the third time.

Section 4.4.2 **Strategy Priorities based on Potential Spill Origin Points** says**:**

….*"the time it takes to mobilize and deploy response resources must be considered"*….

YES it very definitely should be. But if it has been in this 306 page document, I sure couldn't find it.

Throughout **Appendix A** which addresses **Protection Techniques**, reference is made to equipment (booms, sorbents, hoses, boats, anchors, buoys etc etc) and personnel. But nowhere are we told IF such equipment or personnel are available near the river. Would it take hours, or perhaps days, to get them to a spill site??

A real preparedness plan requires equipment staged near potential spills, and trained local personnel.

This doesn’t seem to be a Plan at all- rather it is a “wish list” without much foundation in reality.

Sincerely,

Claudia Woodward-Rice

6711 Larson Lane

Aberdeen, WA 98520

(360) 612-3558

Buffett, Wendy (ECY)

From: Craig Zora <czora@comcast.net>
Sent: Tuesday, April 14, 2015 7:38 PM
To: ECY RE Geographic Response Plans
Subject: Grays Harbor GRP

Importance: High

Follow Up Flag: Follow up
Flag Status: Flagged

After reading this 4/13 article it is apparent that a quick response time cannot be guaranteed. Please comment on this article and explain how response times on the Chehalis River will be more effective.

Craig Zora
czora@comcast.net

SUNNY DHILLON and JUSTINE HUNTER

VANCOUVER and VICTORIA — The Globe and Mail

Published Monday, Apr. 13 2015, 10:14 PM EDT

British Columbia's Environment Minister has accused the Canadian Coast Guard of a lack of leadership, saying it took the agency that was supposed to be in charge of an oil spill on Vancouver's English Bay more than a day to assume control.

The spill, which occurred last Wednesday, has revealed potential gaps in the country's marine-response system at a time when major pipeline projects that would dramatically increase tanker traffic along the West Coast are being hotly debated. It has also spurred a round of finger-pointing among three levels of government.

Residents are describing a fuel spill in Vancouver's picturesque English Bay as "slick" and rainbow-like. An emergency response team is on site to deal with the toxic spill, believed to be leaking from a bulk carrier ship. CP Video

Environment Minister Mary Polak told the B.C. legislature on Monday that in the event of a marine spill "we are led in a unified command structure by the federal government through the Canadian Coast Guard."

However, the minister said the province and other emergency response agencies were forced to act outside their usual roles due to the Coast Guard's inaction.

"As a result of our repeated requests for an improvement in that situation, I can tell the members that the Coast Guard certainly stepped up their involvement, took back over the leadership of incident command as of Friday morning," Ms. Polak said.

A Ministry of Environment spokesman later said in a statement that a post-incident review will analyze "the early deficiencies … to ensure they are not repeated in the future."

"In the early stages of the response, there was inadequate leadership from the coast guard, with respect to co-ordinating responses from various agencies within the unified command structure. Given the essential response activities under the province's purview, we made the decision to immediately press ahead with our responsibilities outside of the usual structure within the incident command post," the statement read.

Coast Guard Commissioner Jody Thomas said at a news conference earlier on Monday that she was "enormously pleased" with her agency's response to the spill. Approximately 80 per cent of the spilled oil was recovered within 36 hours.

"Our co-ordinated response was immediate, measured and effective. We're on it, and it's working," she said.

Ms. Polak's critical comments are the latest to be directed at the Coast Guard and the federal government. B.C. Premier Christy Clark has accused Ottawa of not providing the "world class" response to spills that it promised. Federal Industry Minister James Moore has lauded the Coast Guard's work.

Vancouver Mayor Gregor Robertson has also been critical. The city was not alerted to the spill for approximately 13 hours, and later urged residents to avoid the water and beaches.

Exactly who was supposed to inform the city about the spill has become a point of contention.

Roger Girouard, the Coast Guard's assistant commissioner, has said provincial agency Emergency Management B.C. should have notified the city. "According to the protocol, the flow of information from us to the city is through EMBC," he said last week.

Ms. Clark has said that was not the province's responsibility.

Ms. Thomas on Monday said she could not clear up the matter.

"After we're finished the operation – because going through that now doesn't serve any purpose, it distracts from the excellent work that's being done on water. So all of that will be reviewed and examined with the partners in the room," she said.

A mayoral spokesman said he believed more information on the notification process would be released at a council meeting on Tuesday morning.Officials on Monday said they had zeroed in on the cause of the spill. Yvette Myers of Transport Canada said investigators had found evidence of mechanical problems with

some of the valves in the piping system of the ship MV Marathassa. She said that caused oil to leak into the duct keel, near the bottom of the vessel. Ms. Myers said another issue – she did not say exactly what – caused the oil to be inadvertently discharged.

Ms. Thomas said the amount of oil still in the water is “negligible.” Mr. Girouard last week estimated the amount of material that spilled to be between 2,700 litres and 3,000 litres. Owen Rusticus of Environment Canada on Monday called that figure a “conservative estimate.

craig zora 360.589.9854