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Westway and Imperium DEIS
c/o ICF International
710 Second Avenue, Suite 550
Seattle, Washington 98104

In Re: Westway/Imperium Draft Environmental Impact Statements Volumes I - III

Thank you for this opportunity to review and comment on the above referenced study dated August 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 of concern submitted by but not limited to, the Washington Environmental Council, Climate Solutions, Friends of the Earth, Sierra Club, Forest Ethics, Washington Dungeness Crab Fisherman's Association, Grays Harbor Audubon, Physicians for Social Responsibility (Washington, Oregon Chapters), Grays Harbor/Wilapa Oystergrowers Association, Washington State Council of Fire Fighters, 350.Org, Seattle, The Lands Council, Seattle Rising Tide, Evergreen Islands, Inc., Landowners & Citizens for a Safe Community, Everett Shorelines Coalition, Joseph Wartmann, Ph.D., P.E., Dan Leahy, Fred Felleman, Darryl Tinnerstet, David & Kay Seiler, the Figlar-Barnes, Robin Moore, 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.

Our comments are applicable to both Westway and Imperium.

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1. We are concerned that the 3,649 pages DEIS document is an ill-written apology paper which under reports and underestimates the impacts to the immediate project area and is woefully inadequate in its recognition of the impacts to the broader region.
2. We are concerned that the availability of printed copies of the two DEIS's were not readily available to much of the affected populations. For example, there were no copies available at the Westport Library, despite the fact that significant Westport residents and businesses would be adversely impacted by the projects should they go forward. A search of the Timberland library system found only the availability of 1 CD and 1 printed copy set at the Hoquiam Library.
3. We are concerned that the DEIS as presented apparently recommends and believes that the staffing of 30.2 FTE employees with a tax-supported budget of \$11,527,000 can solve and mitigate the potential loss of livelihood of approximately 31% of the Grays Harbor workforce and 36% of the Pacific County workforce who depend on healthy marine resource jobs – a figure which excludes tribal contributions.
4. 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 instantly place approximately 113,000,000 gallons of crude oil at or below sea level. This was not adequately addressed in the DEIS.
5. We are concerned that the DEIS inadequately considers Governor Inslee's Executive Order 14-04, which shows concern about sea level rise and ocean acidification. Although RCW 70.235.020 began the process of inventorying the State's greenhouse gas (GHG) contributions and projections, the DEIS did not discuss nor review the proposed coal and crude oil terminals and their operations' contribution to Washington's GHG. These projects programmatically should have been studied using both a consumption-based approach and a production-based approach in order to capture the true impacts of these operations and their product at build-out and at maximum throughput. Separating the GHG contribution into sections and separate documents doesn't adequately show the cumulative impacts. The three Grays Harbor projects and the Vancouver projects alone would increase the State's footprint by 185.5%.
6. 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. There is no mitigation possible for this eventuality, and the spill modeling was inadequate and unreliable.
7. Treaty and non-treaty tribes, such as the Quinault Nation, Hoh, Jamestown S'Klallam, Lower Elwha Klallam, Quileute, Shoalwater Bay, 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 1800s, generations of non-native fishers, crabbers and shellfish gatherers have accessed the economic bounty of the coastal area. The further introduction of crude oil into these areas can only threaten to destroy these critical components of their combined cultures and heritage. The DEIS fails to satisfactorily address this and the mitigation is completely inadequate and disrespectful.



8. Environmental fate, effects, and transport of released crude oil, dispersed oil, and dispersants on human health and the environment should have been carefully documented and studied. Spills, explosions, fires, and blowouts can have multiple environmental and public health impacts, which should have been quantified and analyzed for their economic impacts. Operational discharges of produced water, drill cuttings, and mud, which remain as a residual of the crude product 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.

9. Marine mammals are affected by the oiling of their fur and skin, and through consumption of oil-contaminated foods (e.g., mussels, clams and oysters), or via inhalation of fumes that have liver, kidney, and central nervous system toxicity. The marine mammals most commonly affected include seals, sea otters, sea lions and whales. Sea 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. An oil spill in Grays Harbor similar to the Nestucca, which spread from Grays Harbor to Vancouver Island on the north and ended up in Newport, Oregon to the south, would potentially wipe out the existence of sea otters off the coast of Washington. The DEIS failed to research and 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 should have been presented in areas beyond human health effects, including research about effects on animals and other aspects of the environment.

10. The DEIS incorrectly states that whales are not present in the estuary or near the coast. This is incorrect and impacts to and from whale collisions should be analyzed.

11. 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 at or under 74° F and a 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. This was inadequately addressed in the DEIS.

12. 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 probability 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 and Chehalis Rivers. Leaving the city of Centralia 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 shown to sink and persist as we learned from the tragic Lac Megantic disaster. The DEIS fails to acknowledge that both Imperium and Westway have been approached by producers who are interested in the storage and shipment of tars sands or dilbit to foreign export markets.

13. The Northwest Area Contingency Plan (NWACP) administered by EPA Region 10 and the U.S. Coast Guard (USCG) recently has begun its 2015 update. The NWACP also provides guidance on issues such as identifying sensitive areas and the size of the response organization that may be required. Content of the NWACP is identified in the Clean Water Act (CWA). The National Oceanographic and Atmospheric Administration (NOAA) administers the Environmental Sensitivity Index (ESI). As with the NWACP, the ESI covering the Columbia and Chehalis River is inadequate and needs to be updated to account for the increased dangers of crude oil transportation by tanker, barge and/or railroad. Neither the NWACP nor the ESI was discussed or addressed in the DEIS.



14. Rail conditions coming from Centralia to Hoquiam are completely inadequate to handle oil trains, and has been shown by the recent derailments of grain trains, that it 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. The DEIS fails to do this.

15. Financial responsibility must be determined before any crude oil is transported. These items were mentioned in the DEIS, but no analysis was done to quantify this nor was there a discussion of the impacts should repairs not be implemented prior to the shipping of crude. Since the DEIS admits that there is no funding for the repairs, a study should have been made which would have quantified the risks and costs attributable to an accident or disaster.

16. The DEIS fails to acknowledge the real risks of using DOT 111s and “improved” tank cars to transport crude oil. 6.5.7.4 on page 6-64 touts “Voluntary Measures”. This omission is curious because even refineries are now admitting the glaring problems with these old cars. The BP refinery at Cherry Point, Washington recently announced that it would ban DOT 111s and require all oil trains use newer, slightly safer cars. The draft study ignores potential routes these trains could take to minimize exposure to population centers, wild places, and critical drinking water supplies. The risk and cost of responding to emergencies are left in the hands of local firefighters and the public. According to the NTSB, “carriers have effectively placed the burden of remediating the environmental consequences of an accident on local communities along their routes.”

17. The DEIS doesn’t identify insurance coverage for these trains, but rather talks about flood, fire and life insurance. This leaves important questions unanswered: Is it even possible for an oil shipper to get the coverage it needs for worst-case scenarios? What assurance is there that the companies involved will not declare bankruptcy?

18. The disaster in Lac Megantic in Quebec that killed 47 people demonstrates the extent of the threat. The DEIS fails completely in addressing this danger.

19. The DEIS barely touches on threats to Tribes, for example, the potential damage to traditional fishing areas from a spill into the Chehalis River and Grays Harbor. This is especially surprising because the Quinault Nation is engaged in a legal battle against the Grays Harbor terminal proposals. The report also ignores the concerns of the Makah, Lummi, and Tulalip Tribes.

20. There is also a glaring absence to address the concerns of the Washington Dungeness Crab Fishermen’s Association, Coalition of Coastal Fisheries, Westport Charterboat Association and the Willapa/Grays Harbor Oysterman’s Association. We object to the exclusion of scoping comments by the marine industries and the Quinault Indian Nation in the DEIS.

21. We encourage the incorporation into the FEIS, the statement made in Appendix C, PDF page 103 of the Marine and Rail Transportation Study: “Oil spills can threaten some of Washington’s most productive and valuable ecosystems. All spills can threaten public health, safety, the environment, and ultimately damage the state’s economy and quality of life. Almost 2,500 miles of major rivers in Washington run within 1,000 feet of a rail line. An incident involving oil transported by rail in bulk could adversely and significantly impact the natural resources and economic health of the state. Oil spills of any size, depending on product type and location, threaten productive and valuable ecosystems, killing birds and marine life, contaminating beaches, shellfish, and groundwater. Spilled oil poses serious threats to fresh water and marine environments. It affects surface resources and a wide range of subsurface organisms that are linked in a complex food chain that includes human food resources. Significant oil spills can cause millions of dollars in damage to important industries, including shellfish production, fishing, tourism, and recreation”.

22. Seismic and wind design requirements do not provide adequate protection to fuel storage containers during tsunami events. Earthquake induced damage can be characterized by elephant foot or diamond bucking of the base of the container, anchorage failures, base sliding, and sloshing damage to the upper shell and roof [Malhorta, Wenk, and Weiland 2000]. Damage to fuel storage tanks during the 2004 Indian Ocean Tsunami were observed



by Goto [Goto 2005]. He discovered instances of failure due to sliding, floating, and buckling. Page 2 Tsunami Impact on Fuel Storage Containers - Hillary Brooker Lehigh University, Project PI: Clay Naito Lehigh University August 2011. (Clarify these references) This has not been covered nor mitigated.

23. We are concerned about the lack of consistency throughout the DEIS on impacts. Statements are contradictory and misleading. For example, among countless others:

(S-28) “Although the total number of minutes each day that grade crossings would be blocked along the PS&P rail line would increase, trains associated with the cumulative projects could be accommodated on the PS&P rail line with existing infrastructure and there would be no cumulative impacts on rail traffic

(S-35) “Because the cumulative projects, including the proposed action, would have unavoidable and significant adverse environmental impacts on noise, tribal resource, vehicle traffic, and environmental health and safety, the proposed action would contribute to unavoidable and significant adverse environmental cumulative impacts on these resources.”

24. We are concerned that environmental damage related to a tsunami event will be evidently be conducted after the permits are issued. This needs to be done prior to permitting.

(S-37) “To reduce the potential for environmental damage related to a tsunami event, the applicant will conduct a study to assess the technical feasibility and cost of implementing measures to construct the proposed facilities to withstand a Cascadia Subduction Zone (CSZ) L1 tsunami wave based on the Scenario 2 inputs listed in Table 3 of the Tsunami Impact Modeling and Analysis (Appendix C of this Draft EIS). Agreed upon measures will be implemented prior to project design and construction in coordination with the co-lead agencies.”

25. The DEIS inadequately assessed the impact of earthquakes. Earthquakes impact areas hundreds and even thousands of miles away from the fault and are predicted to occur much more frequently than claimed in the DEIS. Recent seafloor core samples measuring Cascadia Subduction suggests that there are dangerous rupturing every 250 years. Our last recorded CSZ quake was 315 years ago in 1700. It appears that a major event may be over-due. To make the following statements make no sense: (3.1-12). “The Grays Harbor Fault Zone, located on the sea floor, is the closest fault to the study area. It begins approximately 1 mile offshore to the west of Ocean Shores and runs east-west for approximately 13 miles. This fault has an estimated most recent event of less than 1,500 years ago (Lidke et al. 2003). The seaward edge of the CSZ is about 120 miles to the west of Hoquiam. Because there are no active surface faults located in the study area, the potential for impacts related to surface fault rupture are not discussed further.”

26. The DEIS incorrectly states that the first tsunami wave would reach Hoquiam in 1 hour.” (3.1-14). However the Grays Harbor County Tsunami Warning Plan (2006) discusses “Local Tsunami” and “Distant Tsunami” events. “A LOCAL TSUNAMI” could come onshore within 15 to 20 minutes after an earthquake,...” (GHCTW, page 4). Modeling and analysis for a local event, which gives employees 15 minutes to exercise shutdown procedures and assure that they have adequate time to safe retreat was not included. The likelihood of a Local Tsunami event is more frequent.

27. The discussion of rail traffic impacts is woefully inadequate. The DEIS states that future improvements on the track were included in the simulation, but are “not funded or programmed for implementation.” (3.15-7,8) Why were improvements included in the analysis if they are not funded? What will happen if the improvements aren’t funded? All discussion of rail traffic and impacts are based on infrastructure improvement that is speculation.

28. The DEIS study on rail line capacity was for 10 trains/day not 12, yet the claim is that the rail line can handle 12 trains/day. What is that statement based upon?

29. Tracks cross 55 bridges that were built over 100 years ago. What is being done to rebuild them? The PS&P line between the BNSF main line in Centralia (MP 0.0) and its terminus in Hoquiam (MP72.6) has 55 rail bridges (including box culverts). There are 52 rail bridges (including box culverts) between Centralia and the project site.



All bridges cross waterways (sloughs, rivers, creeks, or intermittent streams). The larger waterway crossings on the PS&P rail line are as follows. Skookumchuck River (MP 1.68); Black River (MP 12.64); Satsop River (MP 52.43); Wynoochee River (MP 59.00); Chehalis River (MP 66.25); Wishkah River (MP 68.24)”(Page 3.5-10). Repair of these structurally deficient crossings would be significant and would fall on the general public to fund them. How was the cost benefit of these upgrades factored into the required Hoquiam analysis? How has this been factored into the Grays Harbor County and local cities budgets?

30. Section 3.16.8 on proposed rail traffic unavoidable and significant impacts does not adequately discuss impacts leading to the areas studied. It also does not quantify costs or from where the funds would be obtained, nor the time frame that would be required to achieve the mitigation.

31. Spill size and release probabilities (4.2.1) are unrealistic and suspect of inaccuracy of scale. There is no discussion as to whether these figures were averaged over several years. Prior to 2013, there were relatively few shipments and storage of crude oil in the United States compared to what is occurring now, which would skew the probabilities.

32. (Table 5-1, Figure 5-2 Crude Oil Imports) These graphics are misleading and do NOT accurately describe the impacts to our region. Grays Harbor has 0 imports of crude oil. If the study area is restricted, then graphics and rhetoric about crude oil, its movement and impact cannot be minimized by comparing to the whole.

33. Discussion of impacts to communities is inadequate. Since impacts to communities along the rail corridor from Williston to Hoquiam weren't considered, neither should actions by BNSF along their rail line. (5.4.3.1) (5-7)

34. What are the planned infrastructure improvements to the Wishkah Bridge, when will they happen and how will they be funded? Is the funding secure? (6-36)

35. The DEIS is inaccurate by claiming there are no water quality problems. The Grays Harbor Estuary is under an ongoing TMDL and has been on the EPA's 303d list for dissolved oxygen.

36. There is no discussion of the important organic dairy and other farms that are located along the rail corridor. There is no impact mentioned or studied. The increase of rail traffic to milk production and the potential for adverse affects to herd health in case of a spill, were not studied. (Table 3.7-2)

37. The proximity of schools, hospitals, health care facilities and first responders was not indicated or enumerated.

38. Job estimates are inconsistent throughout the document. For example, the section on traffic impacts of employees states that operation of the proposed action would result in an additional 50 employee trips per day for Westway (v. 3, L-12) and an additional 30 employee trips per day for Imperium (v.3, L-12). Both documents state, “It is assumed that for every one worker there would be one trip to and one trip from the project site.” Therefore, there would be 25 additional employees at Westway and 15 additional employees at Imperium. This totals 40 new jobs for both projects. In Vol. 1, Chapter 7, Westway reports on page 7-7 that there will be 36 direct jobs for onsite operations, but on page 7-32, they report estimates of 15 direct operational jobs. In Vol. 1, Chapter 7, page 7-7, Imperium reports 103 direct jobs for onsite operations. On page 7-32, they estimate 20 direct operational jobs for Phase I and Phase II combined. There are other example of inconsistencies throughout the DEIS.

39. Tribal and cultural constitutional treaty rights and concerns have not been adequately addressed. This is a major deficiency. We incorporate by reference specific concerns as enumerated by the Quinault Indian Nation comments. They hold tribal treaty fishing rights and these cannot be interfered with or mitigated.

40. There is lack of analysis of the impact of crude by rail from Chehalis to Hoquiam on tribal fishing activities. The railway crosses over 100 salmon bearing rivers, tributaries and streams that feed into the Estuary and directly impact QIN and Chehalis tribal rights.



41. There is a total inadequate analysis on impact of oil spills on razor clams, shellfish, economies of coastal communities as well as tribes.

42. Impacts to health and related issues are inadequately analyzed. In addition to diesel, toxic fumes, hazardous materials, there are mental health issues: fear of explosions, impacts of continuous noise, etc. There is no analysis of human health impacts in case of a spill or explosion. There is no analysis of the Poynor Yard, for example, and the impact on the employees and customers of Safeway groceries and nearby businesses and their employees and customers.

43. The modeling done of potential problems caused by or in association with an earthquake events was inadequate. It was not based on local and/or site specific data. The modeling didn't include tidal fluctuations nor rain and wind events, which seem to occur more often.

44. The new storage tanks and related infrastructure carrying and storing crude oil could rupture in the event of a tsunami and expose people and the environment to increased harm. Tabletop exercises of the Grays Harbor Emergency Management Office have outlined potential dangers and outcomes of an earthquake experienced in the local area. These exercises indicate that power loss, infrastructure collapse and other quake-related impedances will severely inhibit emergency response. This was not adequately addressed in the DEIS.

45. For tsunami events, the DEIS states, "Agreed upon measures will be implemented prior to project design and construction in coordination with the co-lead agencies. (S-37). These studies and measures must be done before permits are given.

46. There is no reference to research if sea level rise is higher than 3 feet. Therefore the statements "... no flooding from sea level rise is predicted at the project site." (S-27) is inaccurate.

47. Section 6.5.7.2 Cumulative impacts on spills scenario is completely erroneous. (6-50 to 6-54). "The chance of a minor collision or derailment resulting in a minor spill from one rail car is predicted to be once in 29 years, with a slight reduction to once in 31 years for 2037. The chance of a collision or derailment resulting in a loss equivalent to one rail car is predicted to be once in 11 years, dropping to once in 13 years for 2037. The chance of a collision or derailment resulting in the loss equivalent to three rail cars is predicted to be lower, at once in 73 years for 2017 and once in 110 years for 2037. The chance of a collision or derailment resulting in a loss equivalent to the content of five rail cars is predicted to be lower, at once in 1,400 years for 2017 and once in 3,300 years for 2037. The chance of an extreme event involving a release from a large number of rail cars is predicted to be once in 22,000 years for 2017 and once in 44,000 years for 2037." It is difficult to understand how these statements can be made given that from July, 2013 to July 2015, there have been 14 derailments of crude oil trains in the US and Canada. In the month from mid-October to mid-November, there have been two crude oil derailments.

48. Bunkering operations are not adequately addressed nor are their mitigations proposed. The specific regulations under which bunkering operations fall are as follows:

WAC 317.40 Bunkering Operations; 33 CFR 153 Notice of Discharge and Removal of Discharged Oil; 33 CFR 155 Oil or Hazardous Material Pollution Prevention Regulations for Vessels; 33 CFR 156 Oil and Hazardous Material Transfer Operations; 46 CFR 30-40 Tank Vessels; and WAC 173.184. Despite these 6 specific regulations, the DEIS does not quantify fueling and refueling operations that would be required for ocean going vessels, calling on the Port of Grays Harbor. An increase of these vessel calls and the possibility of the export ban being lifted requires an in depth analysis of how much bunker fuel might be exchanged during the vessel and barge visits. Also there must be an analysis of where these fuels might come from and via which routes they would take. The DEIS repeatedly states: "• To reduce the risk of an incident during vessel refueling, the applicant will ensure that any tank barges loaded with fuel for purposes of refueling vessels at the project site follow the navigation and safety mitigation measures for crude oil tank barges described in this section." However there doesn't appear to



be a detail of those measures. We are told that the Geographic Response Plans for the Chehalis River and Grays Harbor will adequately protect and provide response in case of a spill. However, there is not a discussion that the USCG assets are located in Oregon, or if in Washington, at Manchester on the Kitsap Peninsula and/or Everett or Ballard. There is no discussion of the time lag of employing assets and the incident occurrence. How many tide cycles would occur from incident to deployment?

49. The DEIS traces some of the Green House Gas impacts of the vessels, but neglects a discussion or analysis of tug boat contributions during docking maneuvers and bunkering operations.

50. Green House Gas (GHG) is compared to Grays Harbor County as a whole, but it should be compared to the study area. (3.2-10)

51. Table 8 D-11 Appendix D compares air quality of Washington State to the project instead of Grays Harbor County to the project. The County doesn't presently have air quality issues.

52. The DEIS throughout uses comparison scales of convenience. If it is to the advantage of the proposed project, then the impact is compared to subject area, however if it is to the project's advantage to minimize the impacts they are compared to an entire area or region. Proper scaling requires consistency. The Legislative intent of SEPA is to provide a process that responsibly "promotes efforts which will prevent or eliminate damage to the environment and biosphere." Mixing scales that presents an advantage to the project is contrary to this intent. An honest evaluation of impacts must be consistent.

53. The DEIS states that the majority of impacts cannot be mitigated: therefore these proposals must be denied. In Volume 1, Chapter 4, Environmental Health & Safety the impacts of an oil spill on ground and surface water, plants, animals, aesthetics, recreation, cultural resources, tribal resources, and human health were studied. It concludes, "... no mitigation measures can be implemented that will completely eliminate the possibility of a large spill, nor are there any mitigation measures that will completely eliminate the adverse consequences of a large spill." Analysis of fire and explosion in those same categories concludes, "... no mitigation measures can be implemented that will completely eliminate the possibility of a large spill or fire or explosion, nor are there any mitigation measures that will completely eliminate the adverse consequences of a large spill, fire, or explosion." Looking at impact to tribal and commercial fishing, "No mitigation measures would completely eliminate the possibility of impacts to fishing resources from vessel operations related to the proposed action." Vehicle delay, "The cumulative projects would have unavoidable and significant adverse impacts on vehicle delay in Aberdeen. The mitigation measures would reduce but not completely eliminate these impacts on vehicle traffic and safety." Rail safety, "... no mitigation measures would completely eliminate the possibility of an incident from rail cars carrying crude oil or hazardous materials. No mitigation measures would completely eliminate the adverse consequences of an incident."

54. There is an inconsistency of GHG contribution. For example the Westway contribution is listed as 7,796,882 metric tons per year, yet page 6-12 reports that the contribution of the facilities in a given year is 26,404,153 (Westway 6,272,352, Imperium 13,017,000 and GHRT 7,154,401). No matter which figures are correct the contribution is 100% increase over the No-Action Alternatives (3.2 -20)

55. The DEIS makes the following statement concerning impact to GHG, "However, over the 20-year analysis period, improvements in the efficiency of locomotives may decrease the total GHG..."(3.2-18) This statement is inappropriate and does not fit in an honest analysis of impacts. Using this logic of argument, one could just as easily say that locomotives in the future will be solar-powered and all of their GHG input would be ended. This is disingenuous.

56. The Final must include a rigorous No Project Analysis, which is missing here. The dismissiveness with which the No-Action Alternative is treated throughout the DEIS shows a bias to the projects at hand and doesn't properly



reflect the absence the proposed projects. For example 3.2.51 states in part “.... Although the proposed action would not occur, it is assumed that growth in the region would continue under the no-action alternative, which could lead to development of another industrial use at the project site within the 20-year analysis period (2017 to 2037). Such development could result in impacts similar to those described for the proposed action.” 3.2-9. Crude oil presents a unique characteristic to the estuary, ocean coast and the commercial, recreational and tribal interests within the area. To imply that we should go ahead with an unwise, destructive project now, because someone will propose one in the next 20-year period is insulting to the citizens who livelihoods and traditions depend on clean water, and a healthy estuary.

57. The DEIS process has failed in at least two additional areas:

1. Many scoping comments were left off of the original publication. Those omitted were from very important sources, such as the Quinault Indian Nation, the Washington Dungeness Crabbers Association, the Washington Environmental Association, and others. Although Department of Ecology issued a separate publication including what they determined was omitted, much of the public didn't know this and was likely unable to read them.

2. The Comment WORX contractor was not working from November 6-10. There is no way to know how many people sent in comments that never made it in. This is unacceptable. If the process cannot be done properly, it needs to be done over.

58. The modeling on sea level rise was inadequate and did not rely on best available science.

59. The value of nearshore ecosystems was inadequate, therefore minimizing the impacts of crude oil transport and storage in Grays Harbor (Valuing Nearshore Ecosystems in Grays Harbor, Earth Economics, July 2014)

60. The value of saltmarshes to carbon sequestration was ignored. Saltmarshes would be particularly vulnerable to any type of crude oil spill. (National Fisheries Conservation Center studies).

61. There is no listing of fugitive emissions from the rail cars storage area or transfer from and to tanks. Toxic emissions during these processes can cause serious health issues for workers and others.

62. Mitigation and response for crude oil tank fires are totally inadequate and underscores the lack of understanding of the nature of these fires. Firefighters are told to step back and let the fires burn. Yet, the DEIS states, for example, the City of Elma will be given a foam truck to deal with an explosion and fire. (S-53)

63. The economic impacts of an oil spill have not adequately been expressed in the DEIS and as a consequence their impacts have been minimized. See FOGH economic study (attached) for non-tribal impacts and Quinault Indian Nation's economic study for tribal impacts. As a consequence the cost-benefit analysis for the City of Hoquiam is under-valued and not accurate.

64. The DEIS fails to consider the compatibility of the proposed projects with existing tenants and the impacts of loading/unloading, storage and transferring of crude oil might have on those tenants. For example, APG is planning doubling the size of their processing plant in Nebraska, which will have impacts for the Port of Grays Harbor and their operations here.

65. A recent study by NOAA analyzing the aftermath of the Exxon Valdez spill found that extremely low levels of crude oil can cause heart problems in fish, this needs to be studied for its affects in the Grays Harbor Estuary.

66. “An oil train derailment involving multi-car fires in a highly populated area could result in hundreds of deaths, despite herculean efforts of first responders.” -- Greg O'Sullivan, retired Fire Chief, Templeton, California How was this scenario mitigated in the DEIS?



66. The tides, currents and river flows were gleaned from a different watershed and do not reflect the reality of the Chehalis River Watershed, its estuary and the ocean currents within the area. As a result spill modeling and accurate fate and transport of crude oil cannot be properly assessed and is underrated, under-assessed and not properly mitigated.

It must be concluded that the DEIS fails to address the magnitude of the impacts transporting and storing crude oil on every aspect of life in Grays Harbor County. We MUST NOT expand crude oil transport, storage or refinery anywhere in our State, as there is no mitigation possible for the complex, cumulative, and contrary impacts to these projects. This DEIS must not enable these projects going forward. The permits must be denied.

Sincerely,



Arthur (R.D.) Grunbaum
President

ATTACHMENTS:
FOGH Economic Impacts Study
Tsunami Impact on Fuel Storage Containers

