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*Sent via email to: [Jon.wagner@cityofvancouver.us](mailto:Jon.wagner@cityofvancouver.us)*

**Re: Environmental Impact Statement Required for NuStar's Crude Oil Terminal**

Dear Mr. Wagner,

In response to the City of Vancouver's Notice of Application and Optional Combined Determination of Non-Significance (DNS) for applications LUP-40862 and PRJ-145874, the undersigned organizations assert that NuStar Terminal Services Inc.'s (NuStar) proposed crude-by-rail project would have significant negative environmental impacts requiring the preparation of an Environmental Impact Statement (EIS) under Washington's State Environmental Policy Act (SEPA). **The City may not act on the pending applications until it prepares a full EIS. Once that EIS reveals the extent and severity of the human health risks and environmental impacts posed by NuStar's crude-by-rail terminal, the City may and should deny NuStar's pending applications based on Vancouver's land use laws and the City's substantive SEPA authority.**

Columbia Riverkeeper, Friends of the Columbia Gorge, Northwest Environmental Defense Center, Center for Biodiversity, Oregon Physicians for Social Responsibility, The Lands Council, and the Washington State Chapter of the Sierra Club submit the following comments to help the City of Vancouver (City) identify issues that must be addressed during the environmental review process and to explain the need for an EIS. Commenters are non-profit organizations dedicated to protecting the environment and natural resources of the Columbia River and the Pacific Northwest, and ensuring that all citizens of Washington and the Pacific Northwest have safe, clean, and healthy air, water, and communities. Members of these organizations live, work, and recreate near NuStar's proposed crude oil terminal and the rail and shipping lines that would service this terminal. These members' lives would be materially impacted by any increase in crude oil shipping through NuStar's proposed crude-by-rail terminal.

Commenters request that the City extend the deadline for public comment on NuStar's applications and the City's SEPA determination and hold a public hearing on these issues. During that extended public comment period, the City should publicly post the applications that NuStar has submitted. While the City's 14-day public comment period is brief at the best of times, this particular public comment period fell over the winter holidays—beginning the day before Christmas and ending less than a week after New Year's Day. To foster meaningful public participation on this extremely important decision concerning the complex issue of crude-by-rail, the City should extend the public comment period an additional 60 days and hold a public hearing. Commenters also request that the City send the written determinations about the applications and the written SEPA threshold determination to Columbia Riverkeeper at the letterhead address as soon as the City finalizes those determinations.

### **I. NuStar is proposing Vancouver's very first crude-by-rail terminal.**

The City of Vancouver has the duty and, in other contexts, has expressed the will to protect its citizens and the Columbia River from the threat of crude-by-rail. The City now has an opportunity to stand behind its rhetoric. NuStar's pending applications would allow the creation of the first fully-functional crude-by-rail terminal in Vancouver. It is the City's responsibility to conduct a full EIS on the effects of this project, just as the City supports full environmental review for the nearby Tesoro-Savage crude oil terminal.

Approval of NuStar's site plan review and building and grading permits would permit a crude oil terminal capable of receiving at least 800,000 gallons of crude oil each day—and possibly much more.<sup>1</sup> While NuStar would handle only 5–10% as much crude as Tesoro-Savage, NuStar's project would subject Vancouver's residents and the Columbia River to precisely the same threats: exploding oil trains, crude oil spills in the Columbia, toxic air pollution in residential areas, and the exacerbation of global climate change. NuStar intends to handle explosive Bakken crude initially, but it is clear that NuStar is already exploring the potential to ship toxic and environmentally irresponsible Canadian Tar Sands crude.<sup>2</sup> What would Vancouver stand to gain for exposing itself to these grave threats? According to NuStar, just eight new jobs.<sup>3</sup> In the past year, the City has called for a moratorium on permitting new crude-by-rail projects, submitted comments to the Washington State Energy Facility Site Evaluation Council (EFSEC) requesting a thorough EIS for crude-by-rail, and called on the Port of Vancouver to rescind a lease allowing Tesoro-Savage to transload crude oil in Vancouver. The City has the responsibility to prepare a thorough EIS on the environmental and human health impacts of what could become the City's first crude-by-rail terminal.

<sup>1</sup> See Comments of Bill Brake, estimating the actual crude oil receiving capacity of NuStar's terminal.

<sup>2</sup> See NuStar's SEPA Checklist Submitted to the Southwest Clean Air Agency, p. 3 (May 28, 2013) (Stating that "NuStar may expand the current rail spur to receive crude that would require pre-heating prior to offload.") (incorporated by reference in NuStar's Supplemental SEPA Checklist Submitted to the City of Vancouver for Application LUP-40862).

<sup>3</sup> See NuStar's Supplemental SEPA Checklist Submitted to the City of Vancouver for Application LUP-40862, p.12.

## **II. The City does not need to rely on the Southwest Clean Air Agency's threshold determination and DNS.**

While the Southwest Clean Air Agency (SWCAA) previously issued a DNS related to NuStar's project, the City is not bound by SWCAA's decision and the City has the authority and responsibility to prepare an EIS. The City does not need to rely on SWCAA's DNS if the City is "dissatisfied with the DNS," *see* WAC 197-11-600(3)(a), or if there are "[s]ubstantial changes to [the] proposal so that the proposal is likely to have significant adverse environmental impacts." *See* WAC 197-11-600(3)(b)(i). Setting aside SWCAA's decision and preparing an EIS would give the City the opportunity to realistically evaluate the impacts of NuStar's terminal and, as explained in Section III below, the ability to use substantive SEPA authority to reject NuStar's project.

The City may not use SWCAA's DNS to satisfy the City's SEPA obligations because the substantial expansion of NuStar's proposal means "that the proposal is likely to have significant adverse environmental impacts." *See* WAC 197-11-600(3)(b)(i). Assuming (for the sake of argument only) that SWCAA's DNS was correctly issued, NuStar's proposed expansions of its terminal pushed the project's impacts over the significance threshold. For instance, NuStar's pending applications propose expanding the terminal to allow the offloading of up to 32 rail cars—at least 800,000 gallons of crude—each day. Additionally, NuStar's new proposal calls for extensive replacement of piping and equipment, whereas NuStar's previous submissions represented that the project could be accomplished using existing tanks and equipment. For all the reasons explained in Section IV below, NuStar's substantially expanded proposal clearly crosses the SEPA significance threshold. Therefore, the City must make its own significance determination and may not rely on SWCAA's DNS. *See* WAC 197-11-600(3)(b)(i).

Even if NuStar had not changed *any* aspect of its proposal, the City could (and can) assume control of this SEPA process and prepare an EIS if the City is dissatisfied with SWCAA's DNS. *See* WAC 197-11-600(3)(a). There are good reasons for the City to be dissatisfied with SWCAA's determination of non-significance. First, any new crude-by-rail terminal, regardless of its capacity, arguably has significant environmental impacts. Second, SWCAA's DNS contains clearly erroneous statements about the effects of the crude-by-rail project, including: "Impact on media other than air will be minimal." Finally, while SWCAA may have considered air impacts, there is no evidence that SWCAA's DNS took into account the many other environmental threats and harms posed by a crude oil terminal. Accordingly, the City would be justified in rejecting SWCAA's DNS and preparing an independent and thorough EIS.

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### **III. An EIS will give the City the authority to reject NuStar’s crude-by-rail project.**

SEPA declares that “each person has a fundamental and inalienable right to a healthful environment . . . .” RCW 43.21C.020(3). To effectuate this right, SEPA gives public bodies like the City independent, substantive authority to reject a proposed project if the environmental risks or impacts of that project are too severe. *See* RCW 43.21C.060. Specifically, SEPA provides that:

“[a]ny governmental action may be conditioned or denied [based on SEPA]:  
PROVIDED, That such conditions or denials shall be based upon policies identified by the appropriate governmental authority and incorporated into regulations, plans, or codes which are formally designated by the agency (or appropriate legislative body, in the case of local government) as possible bases for the exercise of authority pursuant to this chapter.”

The City has promulgated specific policies in its Municipal Code allowing the City to deny projects based on SEPA. *See* VMC 20.790.620(D); *see also* VMC 20.790.630. As explained below, the City can and should exercise its substantive SEPA authority to deny NuStar’s applications.

Specifically, the City may deny NuStar’s applications by following the steps in VMC 20.790.620(D). This code section allows the City to deny a permit if three requirements are met, and the City can meet these requirements with respect to NuStar’s proposal. First, the City can document, in an EIS, the probable significant, adverse environmental impacts of NuStar’s proposal. *See* VMC 20.790.620(D)(1). Second, because the risk of catastrophic explosions and oil spills is not capable of being sufficiently mitigated (and the City lacks the authority to require that rail cars or tanker vessels take any safety precautions), the City can find that “[t]here are no reasonable mitigation measures capable of being accomplished” that could *sufficiently* mitigate these extreme risks. *See* VMC 20.790.620(D)(2). Third, NuStar’s crude-by-rail terminal offends several of the City’s SEPA policies, including but not limited to the policies codified at VMC 20.790.630(A)–(D). These policies give the City ample basis to deny NuStar’s applications. *See* VMC 20.790.620(D)(3). Accordingly, an EIS is the necessary first step towards using SEPA’s substantive authority to protect Vancouver and the Columbia River from crude-by-rail.

### **IV. The City must prepare an EIS because NuStar’s proposed crude-by-rail terminal would have significant negative environmental and health impacts.**

As the City’s Notice of Application and Optional Combined Determination of Non-Significance for these applications acknowledges, NuStar’s proposed crude-by-rail terminal is a project action subject to SEPA over which the City has jurisdiction. Accordingly, to satisfy SEPA, the City must make a “threshold determination.” WAC 197-11-330. In this “threshold

determination,” the City decides whether NuStar’s project may have a significant negative impact on the environment. *Id.*

The environmental and human health risks of NuStar’s proposed crude-by-rail terminal will be significant. These impacts will be felt in Vancouver, throughout our region, and across the globe. Significance means a “reasonable likelihood of more than a moderate adverse impact on environmental quality.” WAC 197-11-794. For the purposes of SEPA’s threshold determination, a project’s negative environmental effects may be “significant” if they would adversely affect public health or safety, environmentally sensitive areas, or endangered or threatened species or their habitat, or if the project involves unique and unknown risks. WAC 197-11-330(3)(e). As explained at length below, NuStar’s proposed crude-by-rail terminal implicates all of these criteria. Accordingly, the City must prepare an EIS before making any decisions about the pending applications. WAC 197-11-330(4).

The significant negative environmental impacts of NuStar’s crude oil terminal include, but are not limited to:

- rail car explosion risks near population centers, including unresolved rail tank car safety concerns;
- oil tank explosion and fire risks;
- oil spill risks along the rail route, at the facility, in the Columbia River, and in the Pacific Ocean;
- threats to drinking water supplies;<sup>4</sup>
- toxic air pollution and respiratory impacts to people living in the Vancouver regional airshed, and along the entire transport route;
- threats to endangered salmon and steelhead populations in the Columbia River;
- impacts of increased rail and vessel traffic in Washington communities and on the Columbia River;
- impacts to the Columbia River Estuary and the Columbia River Gorge National Scenic Area;
- impacts of the terminal on local businesses and proposed developments; and
- global warming impacts from transportation, refining, and combustion of crude oil.

The Washington Supreme Court explained that an agency “cannot close its eyes to the ultimate probable environmental consequences” of its current action. *Cheney v. City of Mountlake Terrace*, 87 Wn.2d 338, 344 (1976). Accordingly, the City’s threshold determination,

<sup>4</sup> See Washington State Department of Health, *Scoping Comments on the Environmental Impact Statement (EIA) for the Proposed Tesoro Savage Vancouver Energy Distribution Terminal*, pp. 2–3 (Dec. 17, 2013) (“Train derailments, oil-loading accidents, and oil storage leaks can lead to crude oil spills. Oil spills pose a significant public health risk to drinking water supplies. Many public drinking water system wells are located downstream of the proposed [oil] storage and loading facility[ies at the Port of Vancouver], and along the main rail lines that would be used to transport oil across Washington State.”).

and subsequent EIS, must account for *all* of the impacts of NuStar’s crude-by-rail project, not just the impacts occurring at NuStar’s leasehold in Vancouver. The City’s comments to EFSEC regarding Tesoro-Savage’s proposed crude-by-rail terminal specifically request:

“that the entire range of probable significant adverse environmental impacts associated, not only with the proposed terminal site, but also with the transportation of the commodity to the port by rail and the shipping by ocean-going tankers on the Columbia River, be considered.”

There is no reason for the City to take a less comprehensive approach to analyzing NuStar’s proposal. Tellingly, EFSEC committed to review the transportation-related impacts of Tesoro-Savage’s crude-by-rail proposal, and recommended studying several of the issues discussed below, including transportation impacts, emergency response capabilities, and climate change.<sup>5</sup> And for coal-by-rail projects, the Washington Department of Ecology has committed to analyzing a broad array of impacts, including impacts from rail and vessel traffic, diesel particulate pollution, and greenhouse gas emissions.<sup>6</sup> Authorizing NuStar’s crude-by-rail proposal would result in real environmental and human health risks from North Dakota to, pacific rim refineries, and beyond. In other contexts, the City and other expert SEPA agencies have acknowledged that these off-site impacts of coal- or crude-by-rail terminals are within the scope of the SEPA analysis. The City should not back away from that position now.

Below are just a few examples of the significant impacts of NuStar’s terminal which warrant an EIS. Additionally, the City’s SEPA scoping comment to EFSEC regarding Tesoro-Savage’s crude-by-rail terminal lists various impacts of crude-by-rail projects that should also be considered in the threshold determination, and subsequent EIS, for NuStar’s proposed facility.

#### **a. Oil Train and Tank Explosion Risk**

The City should prepare an EIS because shipping explosive Bakken crude by rail seriously threatens public health and safety. For the purposes of SEPA’s threshold determination, the risk of an oil train explosion is “significant” because it “may affect public health or safety” and involves “unique and unknown risks.” WAC 197-11-330(3)(e)(iv). As tragic and spectacular oil train explosions in Lac-Mégantic, Quebec, Castleton, North Dakota, and elsewhere have demonstrated, shipping Bakken crude oil by rail can have disastrous consequences for public health and safety.<sup>7</sup> Accordingly, the City should analyze these significant risks in an EIS.

<sup>5</sup> EFSEC, *Scope of Draft Environmental Impact Statement for the Vancouver Energy Distribution Terminal* (April 2, 2014), <http://www.efsec.wa.gov/Tesoro%20Savage/20140403FinalSepaScope.pdf>.

<sup>6</sup> Washington State Department of Ecology, *Environmental study phase to begin for proposed coal terminal in Cowlitz County* (Feb. 12, 2014), <http://www.ecy.wa.gov/news/2014/019.html>.

<sup>7</sup> See National Geographic, *Oil Train Tragedy in Canada Spotlights Rising Crude Transport by Rail* (July 28, 2013); see also The Daily Beast, *Inside the Brutal Clean-up Efforts in Lac-Megantic* (July 16, 2013) (<http://www.thedailybeast.com/articles/2013/07/16/inside-the-brutal-clean-up-efforts-in-lac-megantic.html>); see also

Fracked Bakken crude oil, the first product that NuStar would handle, is dirty and dangerous. The U.S. Department of Transportation defines crude oil is a hazardous material, meaning that it is capable of posing an unreasonable risk to health, safety, and property when transported. *See* 49 C.F.R. §§ 172.101, 171.8. Bakken crude contains a wide range of contaminants, including sulfur and arsenic; toxic metals like mercury, nickel, and vanadium; and organic compounds like phenols, ketones, and carboxylic acids.<sup>8</sup> Hydraulic fracturing, or “fracking,” contributes an additional suite of contaminants to the crude, including hydrochloric acid and, in some cases, hydrogen sulfide.<sup>9</sup> Indeed, the Federal Railroad Administration has observed “an increasing number of incidents involving damage to tank cars in crude oil service in the form of severe corrosion of the internal surface of the tank, manway covers, and valves and fittings,” suggesting contaminated oil.<sup>10</sup> It is this contaminated Bakken crude that has exploded catastrophically in Lac-Megantic, Castleton, and elsewhere, and that NuStar proposes to bring to Vancouver.

Compounding the problem of explosive, dirty crude, the DOT-111 tanker rail cars that would carry that crude are plainly unsafe and inadequate. In 1991, the National Transportation Safety Board stated, “The inadequacy of the protection provided by DOT-111A tank cars has been evident for many years in accidents investigated by the Safety Board.” And even the American Association of Railways has called for higher construction standards for tanker cars carrying crude.<sup>11</sup> Among their many deficiencies, the heads and shells of DOT-111 tank cars are much too thin, and they lack many other vital safety features, such as head shields and protection for top fittings. When DOT-111s are involved in accidents, even at relatively low speeds, almost all of the tank cars can rupture and release their contents.<sup>12</sup> Re-fitting or replacing the national fleet of defective DOT-111 tank cars that would service NuStar’s terminal will take years or decades. While federal agencies and the railroad industry bicker over new regulations, NuStar intends to bring dangerous Bakken crude in unsafe DOT-111 rail cars into Vancouver *this summer*.

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Washington Post, *40 still missing in deadly Canada oil train derailment; police say higher death toll certain* (July 8, 2013) ([http://www.washingtonpost.com/world/the\\_americas/40-still-missing-in-deadly-canada-train-derailment-police-say-higher-death-toll-inevitable/2013/07/07/56961b80-e76a-11e2-818e-aa29e855f3ab\\_story.html](http://www.washingtonpost.com/world/the_americas/40-still-missing-in-deadly-canada-train-derailment-police-say-higher-death-toll-inevitable/2013/07/07/56961b80-e76a-11e2-818e-aa29e855f3ab_story.html)).

<sup>8</sup> *See* U.S. Environmental Protection Agency, *Screening-Level Hazard Characterization, Crude Oil Category* (Mar. 2011).

<sup>9</sup> FERC, *Enbridge Pipelines (North Dakota), LLC, FERC Docket No. IS13-273-000* (2013) (FERC order granting pipeline operation authority to reject certain Bakken crude oil supplies, due to evidence that hydrogen sulfide levels can rise to dangerous or even lethal levels.); *see also* Abrams, L., Salon.com, *Fracking chemicals may be making oil more dangerous* (Aug. 13, 2013).

<sup>10</sup> Herrmann, T., Federal Railroad Administration, *Letter to Jack Gerard, American Petroleum Institute*, 4 (July 29, 2013).

<sup>11</sup> *See* Association of American Railroads, *PHSMA Petition P-1577* (March 9, 2011),

[file:///C:/Users/Miles/Downloads/Association\\_of\\_American\\_Railroads\\_-\\_Petition\\_-\\_1577.pdf](file:///C:/Users/Miles/Downloads/Association_of_American_Railroads_-_Petition_-_1577.pdf)

<sup>12</sup> *See, e.g.*, National Transportation Safety Board, *Derailment of CN Freight Train U70691-18 With Subsequent Hazardous Materials Release and Fire, Cherry Valley, Illinois, June 19, 2009* (2012),

[http://www.utc.wa.gov/publicSafety/Documents/NTSB%20-%20Cherry%20Valley%20Accident%20Report%20\(R-12-10\)\\_RAR1201.pdf](http://www.utc.wa.gov/publicSafety/Documents/NTSB%20-%20Cherry%20Valley%20Accident%20Report%20(R-12-10)_RAR1201.pdf).

As gruesome as the oil train explosion in Lac-Mégantic was, a similar explosion in Vancouver could be even more devastating. First-hand accounts of the Lac-Mégantic tragedy are chilling. Anne-Julie Hallee, a Lac-Mégantic resident, explained her experience: “[I]t was like hell.”<sup>13</sup> “There was a cloud of flames, rolling and rolling. It was really scary . . . .”<sup>14</sup> Another resident stated: “I saw a mushroom cloud, like an atomic bomb, explode in the air.”<sup>15</sup> A similar accident at or near NuStar’s terminal could result in horrifying personal injury and loss of life, vast environmental damage, and hundreds of millions of dollars of economic harm. The rail lines that would bring crude oil to NuStar’s terminal run through Vancouver east to west along the Columbia River, near the site of the proposed Waterfront Development.

NuStar’s proposed crude oil terminal will—for the first time—allow the shipment of explosive Bakken Crude in unsafe rail cars through Vancouver. The health and safety risks posed by NuStar’s project are extremely significant, and require thorough discussion in an EIS. WAC 197-11-330(3)(e)(iv).

#### **b. Oil spills from vessels and trains.**

A major crude oil spill in the Columbia River or Estuary would have severe environmental, social, and economic consequences. Because NuStar’s proposed crude-by-rail project would pose a significant risk of such a spill, the City must prepare an EIS. Crude-by-rail projects are new to the Columbia River, and no SEPA document has ever adequately analyzed spill risk and the consequences of a major spill on the Columbia. Accordingly, the risk of a crude oil spill in the Columbia is a “unique and unknown risk[] to the environment” within the meaning of WAC 197-11-330(3)(e)(iv). The risk of a crude oil spill from a tanker vessel or train is real, and the consequences of a spill in the Columbia River could be devastating.

While an oil spill might seem like a remote risk, the United States actually has a history of large oil spills from vessels transporting oil. Infamously, the Exxon Valdez spilled almost 11 million gallons of crude oil off the coast of Alaska in 1989, impacting 1,100 miles of Alaska’s coastline.<sup>16</sup> Numerous subsequent incidents illustrate that the Exxon Valdez tragedy was not an isolated accident, and cannot be confined to the past or dismissed as an anomaly. A few examples of recent oil spills from tanker vessels, and the resulting environmental damage, examples are provided below:

- **June 8, 2000: 59,600 gallons** of oil spilled into the Chelsea River when the *Posavina* collided with a tugboat in the Boston Harbor.<sup>17</sup>

<sup>13</sup> See <http://www.ctvnews.ca/canada/residents-recall-terrifying-moments-in-lac-megantic-train-disaster-1.1357750#ixzz2YW82LsBj>.

<sup>14</sup> *Id.*

<sup>15</sup> See <http://www.rcinet.ca/en/2013/07/08/quebec-town-a-war-zone-after-derailed-train-explosions/>.

<sup>16</sup> NOAA Incident News: T/V Exxon Valdez, <http://www.incidentnews.noaa.gov/incident/6683>.

<sup>17</sup> NOAA, *Damage Assessment and Restoration Plan/Environmental Assessment for the June 8, 2000 T/V Posavina Oil Spill* at 5, <http://www.gc.noaa.gov/gc-rp/posa-drp.pdf>.

- **November 28, 2000: 554,400 gallons** of crude oil spilled into the Mississippi River when oil tanker *M/T Westchester* lost its main engines and struck an unidentified hazard.<sup>18</sup> The oil reached 35 acres of shoreline habitat.<sup>19</sup>
- **April 27, 2003: 98,000 gallons** of fuel oil spilled into Buzzard's Bay in Massachusetts when a barge ran aground.<sup>20</sup> Oil reached approximately 90 miles of shoreline, killing around 450 birds, including ESA-listed Roseate Terns and Piping Plovers.<sup>21</sup>
- **November 27, 2004: 263,371 gallons** of heavy crude oil spilled into the Delaware River when oil tanker *Athos I* struck a large underwater anchor.<sup>22</sup> Oil from the spill reached 1,729 acres of shoreline habitat, 412 acres of aquatic habitat, and killed an estimated 11,869 birds.<sup>23</sup>
- **November 7, 2007: 53,569 gallons** of fuel oil spilled into the San Francisco Bay when freighter *Cosco Busan* struck the Bay Bridge.<sup>24</sup> Oil from the spill impacted 3,367 acres of shoreline habitat. The incident killed 6,489 birds from 65 different species, including the ESA-listed Marbled Murrelets and Snowy Plovers.<sup>25</sup> In addition, an estimated 14–29% of herring stock was lost that winter due to oil-related egg mortality.<sup>26</sup>
- **July 23, 2008: 212,089 gallons** of fuel oil spilled into the Mississippi River when a barge collided with another vessel near New Orleans, Louisiana.<sup>27</sup> Wildlife groups observed oil from the spill on 813 birds, 26 mammals, and 13 reptiles.<sup>28</sup> The spill occurred upstream of the Delta National Wildlife Refuge, placing important habitat for waterfowl at risk.<sup>29</sup>
- **January 23, 2010: 462,000 gallons** of crude oil spilled into the Sabine-Neches Canal when oil tanker *Eagle Otome* collided with another vessel in Port Arthur, Texas.<sup>30</sup>

<sup>18</sup> NOAA, *Shoreline Assessment and Environmental Impacts from the M/T Westchester oil spill in the Mississippi River* at 3-1, <http://www.epa.gov/osweroe1/docs/oil/fss/fss02/michelpaper.pdf>.

<sup>19</sup> *Id.* at 3–7.

<sup>20</sup> Mass. Office of Energy and Environmental Affairs, *Bouchard 120 Oil Spill NRD Damages Assessment*, Appendix E, <http://www.mass.gov/eea/agencies/massdep/cleanup/nrd/bouchard-120-oil-spill-nrd-damages-assessment.html>

<sup>21</sup> *Id.*

<sup>22</sup> NOAA, *Final Restoration Plan and Environmental Assessment for the November 26, 2004, M/T Athos I Oil Spill on the Delaware River near the Citgo Refinery in Paulsboro, New Jersey* at 1,

[http://www.darrp.noaa.gov/northeast/athos/pdf/Athos\\_Final\\_RP.pdf](http://www.darrp.noaa.gov/northeast/athos/pdf/Athos_Final_RP.pdf).

<sup>23</sup> *Id.* at vii.

<sup>24</sup> Cosco Busan Oil Spill Trustees, *Cosco Busan Oil Spill Final Damage Assessment and Restoration Plan/Environmental Assessment* at 14,

[http://www.fws.gov/contaminants/Restorationplans/CoscoBusan/Cosco\\_Settlement/FinalCoscoBusanDARP.pdf](http://www.fws.gov/contaminants/Restorationplans/CoscoBusan/Cosco_Settlement/FinalCoscoBusanDARP.pdf).

<sup>25</sup> *Id.* at 16.

<sup>26</sup> *Id.* at 15.

<sup>27</sup> U.S. Fish and Wildlife Service, *After Action Report Barge DM932 Oil Spill, Mississippi River New Orleans, Louisiana* at 1, <http://www.fws.gov/contaminants/Documents/DM932Spillreport.pdf>.

<sup>28</sup> *Id.* at 4.

<sup>29</sup> *Id.* at 2.

<sup>30</sup> National Transportation Safety Board, *Collision of Tankship Eagle Otome with Cargo Vessel Gull Arrow and Subsequent Collision with the Dixie Vengeance Tow, Sabine-Neches Canal, Port Arthur, Texas, January 23, 2010. Marine Accident Report* at 1, <http://www.nts.gov/doclib/reports/2011/MAR1104.pdf>.

- **February 22, 2014: 23,500 gallons** of Bakken crude oil spilled into the Lower Mississippi River when oil tanker *E2MS 303* collided with another vessel.<sup>31</sup>
- **March 22, 2014: 168,000 gallons** of fuel oil spilled into Galveston Bay when an oil tanker collided with another vessel.<sup>32</sup> Just over a week after the incident, 21 dolphins and 150 birds were reported dead in the area.<sup>33</sup> Oil from the spill also reached Matagorda Island, part of an important wildlife refuge which provides winter habitat to endangered whooping cranes.<sup>34</sup>

Clearly, oil spills from vessels happen regularly. Approving NuStar’s project will expose the Columbia River to an increased risk of similar oil spills, a risk made more acute because crude oil is a new commodity for vessels working on our river.

The risk of an oil spill from the rail cars transporting crude oil to NuStar’s terminal is also significant. Recent spills from oil trains illustrate the dangers such trains pose to the Columbia River, as many spills have been quite severe, spilling large amounts of oil that has made its way into rivers and wetlands. For example, on April 30, 2014, a train derailed along the James River in Virginia, spilling almost 30,000 gallons of volatile Bakken crude.<sup>35</sup> Three derailed tanker car submerged in the river, and the visible oil sheen stretched for 17 miles downstream.<sup>36</sup> The BNSF rail line that would deliver crude from the Bakken oil field to NuStar’s terminal closely follows the Columbia River for nearly 200 miles, and crosses countless other water bodies between North Dakota and Vancouver. Given the insufficiency of the DOT-111 tank cars, a derailment along the Columbia River could easily result in a serious crude oil spill.

Furthermore, cleaning up a crude oil spill—especially in a flowing freshwater environment—is extremely difficult, very expensive, and largely ineffective. After reviewing the evidence about oil spill response, the Oregon Legislature concluded that **“response efforts cannot effectively reduce the impact of oil spills,”** ORS § 468B.340(1)(c)(D), and that “it is unlikely that a large percentage of oil can be recovered from a catastrophic spill.” ORS § 468B.340(1)(c)(C). While cleaning up “light” Bakken crude (which floats in water) would be difficult, cleaning up heavy Canadian Tar Sands crude—which NuStar clearly contemplates

<sup>31</sup> NOAA Incident News: Barge E2MS 303, <http://www.incidentnews.noaa.gov/incident/8729>.

<sup>32</sup> NOAA Office of Response and Restoration, *Texas City "Y" Incident: Aftermath of the Oil Spill in Galveston Bay, Texas*, Appendix F, <http://response.restoration.noaa.gov/about/media/texas-city-y-incident-aftermath-oil-spill-galveston-bay-texas.html-0>.

<sup>33</sup> *Id.*

<sup>34</sup> U.S. Fish and Wildlife Service, *Impacts at Texas Oil Spill*, Appendix G, <http://www.fws.gov/refuges/news/ImpactsAtTexasOilSpill.html>.

<sup>35</sup> Pipeline and Hazardous Materials Safety Administration, *Incident Reports Database*, <https://hazmatonline.phmsa.dot.gov/IncidentReportsSearch/search.aspx>.

<sup>36</sup> Curtis Tate, MCCLATCHYDC, *Lynchburg, Va., oil train derailment illustrates threat to rivers*, Appendix M (May 2, 2014), <http://www.mcclatchydc.com/2014/05/02/226425/lynchburg-va-oil-train-derailment.html>.

handling<sup>37</sup>—has proven nearly impossible. Sinking crude oil thwarts the ability of booming to prevent spread, and makes cleanup via traditional methods such as “skimming” less useful.<sup>38</sup> After heavy Tar Sands crude spilled into the Kalamazoo River, for example, the river had to be dredged and the sediment stirred up in order to release the oil.<sup>39</sup> This kind of disturbance can cause additional damage to important parts of the river ecosystem and increase turbidity.<sup>40</sup> Additionally, the presence of vegetation makes the removal of oil from shores of rivers more difficult and costly than from sandy ocean beaches.<sup>41</sup> To remove oil from the shores of rivers, spill responders often have to burn or cut riverside vegetation.<sup>42</sup> Our inability to adequately respond to crude oil spills, and the harm caused by some spill response techniques, makes clear that the risk of an oil spill from a vessel or a rail car is a very significant threat to the Columbia River ecosystem.

A 2014 article on oil spill frequency reached this unsurprising conclusion: “Where oil goes, spills follow.”<sup>43</sup> Recent history shows that crude oil spills occur with relative frequency and that we are not capable of adequately recovering spilled crude. Accordingly, the negative environmental impacts of NuStar’s crude-by-rail shipping project are likely to be significant within the meaning of SEPA, and the City must prepare an EIS analyzing, among other things, the environmental, social, and economic consequences of a crude oil spill in the Columbia River.

### **c. Toxic air pollution.**

In addition to the foreseeable risk of explosions and spills, NuStar’s crude-by-rail project will *absolutely* subject workers at the Port, Vancouver residents, and others in the local airshed to dangerous air pollutants. The pollution includes diesel exhaust from trains and ships, toxic air emissions from the crude oil itself, and emissions from NuStar’s proposed Vapor Combustion Unit. For SEPA purposes, the health effects of particulate matter emissions and toxic air pollution would be “significant” because they “may affect public health or safety” and would involve “unique and unknown risks.” WAC 197-11-330(3)(e)(iv).

The vessels and trains that would transport crude oil to and from NuStar’s proposed terminal would all emit substantial amounts of toxic diesel pollution. The fine particulates associated with diesel emissions “can cause lung damage, aggravate respiratory disease such as

<sup>37</sup> See NuStar’s SEPA Checklist Submitted to the Southwest Clean Air Agency, p. 3(May 28, 2013) (Stating that “NuStar may expand the current rail spur to receive crude that would require pre-heating prior to offload.”), (incorporated by reference in NuStar’s Supplemental SEPA Checklist Submitted to the City of Vancouver for Application LUP-40862).

<sup>38</sup> NOAA Office of Response and Restoration, *As Oil Sands Production Rises, What Should We Expect at Diluted Bitumen Spills?*, Appendix S, <http://response.restoration.noaa.gov/about/media/oil-sands-production-rises-what-should-we-expect-diluted-bitumen-dilbit-spills.html>.

<sup>39</sup> *Id.*

<sup>40</sup> *Id.*

<sup>41</sup> NOAA Office of Response and Restoration, *Oil Spills in Rivers* webpage, <http://response.restoration.noaa.gov/oil-and-chemical-spills/oil-spills/resources/oil-spills-rivers.html>.

<sup>42</sup> *Id.*

<sup>43</sup> Bloomberg Businessweek, *25 Years of Oil Spills*, pp. 14, 15 (March 23, 2014).

asthma, and are thought to be a human carcinogen. Diesel emissions have a high potential to impact people who are sensitive to the health effects of fine particles (e.g. children, elderly, and those with existing heart or lung disease, asthma or other respiratory problems).”<sup>44</sup> While the impacts of diesel particulate pollution would be most acutely felt in Vancouver and the local airshed where the trains and vessels carrying crude would call and idle, increased diesel emissions would impact people along the entire transportation route. The EIS should quantify the amount of diesel emissions that would be released by trains and vessels servicing NuStar’s terminal, and describe the likely health impacts of those emissions in the airsheds where they would occur.

Bakken crude often contains high levels of hydrogen sulfide gas, a colorless, flammable, and toxic gas. Chronic exposure to sulfide gas can cause lung, liver, and kidney damage, infertility, immune system suppression, disruption of hormone levels, blood disorders, gene mutations, birth defects, and cancer.<sup>45</sup> When mixed with air, hydrogen sulfide is explosive. According to the Occupational Safety and Health Administration, hydrogen sulfide is immediately dangerous to life and health at concentrations above 100 parts per million (ppm). At concentrations over 100 ppm, hydrogen sulfide is also odorless because it paralyzes the olfactory nerves. At concentrations as low as 50–200 ppm, hydrogen sulfide can cause shock, convulsions, and coma. The risk of exposure to hydrogen sulfide gas, to workers at the Port and to nearby residents, should be thoroughly evaluated in the EIS.

#### **d. Degradation of endangered salmon habitat.**

NuStar’s project has the potential to drastically harm the endangered and threatened salmon and steelhead that rely on a healthy Columbia River and Estuary for rearing and migration. For SEPA purposes, the risk of an oil spill and the impacts of increasing vessel traffic in the Columbia River Estuary would be “significant” because they would “[a]dversely affect endangered or threatened species or their habitat.” WAC 197-11-330(3)(e)(ii). The City should prepare an EIS that addresses the impacts of crude oil shipping on endangered salmon and their habitat.

Remarkably, NuStar ignores and conceals the risk that crude oil shipping would pose to endangered salmon in the Columbia River. NuStar blithely asserts that “the proposed project is not anticipated to result in any impacts to Columbia River species or habitat,” and “[n]o threatened or endangered species are anticipated to be impacted by the proposed project.”<sup>46</sup> As

<sup>44</sup> Letter from Kate Kelly, Director, Office of Ecosystems, Tribal and Public Affairs, U.S. Environmental Protection Agency, to Mr. Steve Gagnon, U.S. Army Corps of Engineers, *Re: Comments on Public Notice for Permit Application under Section 10 of the Rivers and Harbors Act for a Coal Transloading Facility, Port of Morrow, Oregon* (Apr. 5, 2012).

<sup>45</sup> Utah Department of Environmental Quality, *Adverse Health Effects from Exposure to Crude Oil Mixtures* (June 2010).

<sup>46</sup> See NuStar’s SEPA Checklist Submitted to the Southwest Clean Air Agency, pp. 11, 13 (May 28, 2013) (incorporated by reference in NuStar’s Supplemental SEPA Checklist Submitted to the City of Vancouver for Application LUP-40862, pp. 9–10).

explained below, a major oil spill would devastate the estuary's salmon habitat for years or decades. Increased vessel traffic could increase wake-stranding, and death, of endangered juvenile salmonids, which frequent shallow, near-shore habitats in the estuary.<sup>47</sup> Increased vessel traffic also threatens to introduce invasive species, which could negatively impact salmon and other native species. An EIS is the proper analytical tool to discuss these risks to endangered salmon and steelhead, risks that NuStar pretends do not exist.

An oil spill or other accident in the Columbia River Estuary could seriously impair the recovery of endangered salmon and steelhead populations. Estuaries are important transition zones that provide productive feeding areas, refuge from marine predators, and serve as a place for juvenile salmon and steelhead to slowly acclimate to salt water.<sup>48</sup> Multiple studies have identified the Columbia River estuary as vitally important for juvenile salmonid rearing and endangered species recovery,<sup>49</sup> and the National Marine Fisheries Service has stated: “**The lower Columbia River estuary provides vital habitat for anadromous salmonids throughout the Columbia River basin, and is of particular importance from a threatened and endangered species recovery perspective.**” Public and private entities have invested billions of dollars in efforts to restore endangered and threatened salmonids in the Columbia River Basin, including significant investment in riparian and wetland restoration projects in the estuary. A crude oil spill in the Columbia River Estuary would have serious and long-lasting impacts on all Columbia River salmon populations, and erase years of costly salmon recovery efforts.

Research demonstrates that the short-term effects of crude oil on salmonids can be devastating. In particular, studies completed immediately after the Exxon Valdez spill offer insight into the nature and intensity of the effects of crude oil on salmon. These studies demonstrate that salmon exposed to crude oil have decreased growth rates.<sup>50</sup> In the year following the Exxon Valdez spill, scientists estimated that the local salmon population decreased by almost one third; this population decline was attributed to the effect of the oil on salmon growth.<sup>51</sup>

Spilled crude oil persists in the environment, and can have long-lasting and severe impacts on salmonids. In streams impacted by Exxon Valdez oil, salmon embryos showed

<sup>47</sup> Pearson *et al.*, *A Study of Stranding of Juvenile Salmon by Ship Wakes Along the Lower Columbia River Using a Before-and-After Design: Before-Phase Results* (2006); see also Pearson and Skalski, *Assessing the loss of juvenile salmon to stranding by ship wakes at three sites along the Lower Columbia River* (2007); see also United States Geological Survey, *Review of a Model to Assess Stranding of Juvenile Salmon by Ship Wakes along the Lower Columbia River* (2013), <http://pubs.usgs.gov/of/2013/1229/pdf/ofr20131229.pdf>.

<sup>48</sup> NOAA, *Salmon at River's End: The Role of the Estuary in the Decline and Recovery of Columbia River Salmon*, 7 (Aug., 2005).

<sup>49</sup> NMFS, *Columbia River Estuary ESA Recovery Plan Module for Salmon and Steelhead* (2011); Fresh *et al.*, *NOAA Technical Memorandum NMFS-NWFSC-69: Role of the Estuary in the Recovery of Columbia River Basin Salmon and Steelhead* (2005); 78 Fed. Reg. 2,726 (January 14, 2013) (*Proposed Critical Habitat Designation for Lower Columbia Coho Salmon*).

<sup>50</sup> Rice *et al.*, *Synthesis of long-term impacts to salmon following the Exxon Valdez oil spill: persistence, toxicity, sensitivity, and controversy*, 20–23 (Jan. 18, 2001).

<sup>51</sup> Geiger *et al.*, *Exxon Valdez Oil Spill Natural Resource Damage Assessment Final Report*, 1 (Aug. 1995).

increased mortality for five years after the spill.<sup>52</sup> And even salmon that survived past the embryo stage showed persistent decreases in growth rates resulting in increased mortality due to predation.<sup>53</sup> Some of these ongoing effects may be due to the fact that even small amounts of oil can block ion channels in heart cells, resulting in abnormal hearts and secondary deformities to the jaw, eyes, and spine of developing fish.<sup>54</sup> These studies show that crude oil spills can impact salmon populations in very significant ways, and that such impacts can persist for years after a spill.

**e. Degradation of the Columbia River Estuary and the Columbia River Gorge National Scenic Area.**

The City should prepare an EIS because NuStar's crude-by-rail project could seriously degrade the Columbia River Estuary, Columbia River Gorge National Scenic Area, and their unique ecological and cultural resources. The impacts of NuStar's project would be "significant" because they would "[a]dversely affect" the Columbia River Estuary and Gorge, which are "environmentally sensitive or special areas." *See* WAC 197-11-330(3)(e)(i). A proposal to ship and loading crude oil in the midst of the Columbia River's unique ecological, social, recreation, and cultural resources deserves careful analysis in an EIS.

The Columbia River estuary is a local and regional treasure, and a national priority for watershed health and salmon recovery. The Columbia River estuary is a federally-designated Estuary of National Significance under the Clean Water Act's National Estuary Program. In 2006, the U.S. Environmental Protection Agency designated the Columbia River as one of seven Priority Large Aquatic Ecosystems. The lower river and estuary are lined with wetlands, riparian areas, and parks<sup>55</sup> which would all be impacted by increasing vessel traffic, associated increases in dredging, and invasive species brought in on oil tankers. Additionally, a crude oil spill in the river or estuary would devastate this sensitive ecosystem. The Columbia River estuary is an "environmentally sensitive" and "special" area within the meaning of WAC 197-11-330(3)(e)(i), that is essential to the survival of juvenile salmon and steelhead, waterfowl, and many other species.<sup>56</sup> NuStar's project will jeopardize and contribute to the degradation of this "environmentally sensitive" area at the center of a national and regional effort to restore endangered salmon and other fish runs.

<sup>52</sup> *Id.* at 35.

<sup>53</sup> *Id.* at 46.

<sup>54</sup> NMFS, *How Oil affects fish populations: 25 years of research since Exxon Valdez*, Appendix O, [http://www.nmfs.noaa.gov/stories/2014/03/3\\_24\\_14exxon\\_valdez.html](http://www.nmfs.noaa.gov/stories/2014/03/3_24_14exxon_valdez.html).

<sup>55</sup> *E.g.* Julia Butler Hansen Refuge for the Columbian White-Tailed Deer, Lewis and Clark National Wildlife Refuge.

<sup>56</sup> NMFS, *Columbia River Estuary ESA Recovery Plan Module for Salmon and Steelhead* (2011); Fresh *et al.*, *NOAA Technical Memorandum NMFS-NWFSC-69: Role of the Estuary in the Recovery of Columbia River Basin Salmon and Steelhead* (2005); 78 Fed. Reg. 2,726 (Jan. 14, 2013) (*Proposed Critical Habitat Designation for Lower Columbia Coho Salmon*).

The Columbia River also supports a vibrant tradition of subsistence, commercial, and sport salmon fishing. Salmon fishing in the estuary and lower Columbia River is a cultural and economic practice with a rich history reaching back many generations. NuStar proposes shipping crude oil through the middle of several Columbia River salmon fisheries, potentially causing the loss, destruction, or disruption of these significant cultural and historical resources. Because serious impacts to cultural and historic resources are “significant” for SEPA purposes, *see* WAC 197-11-330(3)(e)(i), the City should use an EIS to analyze the impacts of oil tanker ship traffic and potential crude oil spills on salmon fishing in the lower Columbia.

Trains serving NuStar’s proposed project would pass through the Columbia River Gorge National Scenic Area, an “environmentally sensitive” and “special” area containing significant “historic, scientific, and cultural resources.” *See* WAC 197-11-330(3)(e)(i). The Gorge has long been considered a special area. Native American tribes have occupied the Gorge for more than 10,000 years. In 1915, the U.S. Forest Service established Eagle Creek as the nation’s first Forest Service Recreation Area. In 1986, Congress recognized the national significance of this landscape and created the Columbia River Gorge National Scenic Area to protect and enhance the Gorge’s aesthetic, biological, ecological, historic, and recreational values. *See* Columbia River Gorge National Scenic Area Act, 16 U.S.C. § 544 *et seq.* The Gorge offers a stunning array of cultural and historic resources, including scenic and historic views along the Columbia River, the location of Lewis and Clark’s journey, nationally-renown recreational opportunities, and dozens of parks and campgrounds. NuStar’s prospective crude oil transportation route would transect this special area, exposing Gorge residents and visitors to increased diesel particulate pollution, traffic congestion, and the risk of oil spills and rail car explosions. These risks are significant because they would degrade the Gorge’s nationally-renowned “historic, scientific, and cultural resources.” *See* WAC 197-11-330(3)(e)(i).

**f. Crude-by-rail exacerbates global climate change and ocean acidification.**

Extracting, shipping, refining, and burning oil increases the atmospheric concentration of CO<sub>2</sub>, which the scientific community widely accepts as a key driver of both anthropogenic climate change and ocean acidification.<sup>57</sup> Bringing Bakken crude oil (and, to an even greater degree, Tar Sands crude oil) to market undeniably exacerbates climate change. Unfortunately, NuStar’s SEPA checklists do not even hint at the project’s contribution to climate change or ocean acidification. An EIS will enable the City to examine the project’s contribution to climate change.

Climate change is one of the greatest ecological and humanitarian threats of the modern era. The Copenhagen Climate Science Congress, attended by 2,000 scientists, concluded that Earth’s “climate system is already moving beyond the patterns of natural variability within

<sup>57</sup> The United Nations Intergovernmental Panel on Climate Change’s 2007 report concluded that major advances in climate modeling and the collection and analysis of data now give scientists “very high confidence”—at least a nine out of ten chance of being correct—in their understanding of how human activities are causing the world to warm.

which our society and economy have developed and thrived. These parameters include global mean surface temperatures, sea-level rise, ocean and ice sheet dynamics, ocean acidification, and extreme climatic events. There is a significant risk that many of the trends will accelerate, leading to an increasing risk of abrupt or irreversible climatic shifts.”

Numerous studies predict severe impact from climate change in right here in the Pacific Northwest, including dramatic reductions in snowpack, declining river flows, increased risk of wildfires, loss of salmon and shellfish habitat, lost hydropower generation, and flooding. The Oregon Department of Energy summarized these impacts:

### **Rain and Snow Patterns**

Rainstorms and snowstorms could increase in severity, but less snow would build up in the mountains. Snowpacks might melt faster, increasing flooding. Less water would be available for recreation, irrigation, drinking, and fish habitat. The concentration of pollutants in the water could increase during summer and fall.

### **Sea Level Rise**

A rise in sea level could threaten beaches, sandy bluffs, and coastal wetlands. Coastal towns could experience more flooding, causing increased damage to roads, buildings, bridges, and water and sewer systems.

### **Diminished Water Supplies and Crop Productivity**

Crops and livestock could be affected by warmer temperatures, less water availability, and drier soils. Some crops, such as wheat, might thrive in warmer temperatures, while others, such as potatoes, could be harmed. Less water available for irrigation would harm agriculture.

### **Ecosystems**

Native species could suffer if temperatures rise. Warmer streams and rivers would harm salmon and other native species, and non-native species could replace them. The cultural practices of Northwest tribes could be affected, as could the businesses and recreational practices of those who rely on native species.

Given the grave and presently occurring environmental and cultural impacts of climate change, the EIS for NuStar’s proposal should realistically account for and explain the climate change contribution of this fossil fuel-dependent project.

## **Conclusion**

NuStar’s crude-by-rail project would jeopardize public health and safety, air and water quality, fish and wildlife habitat, and the economic, cultural, and historic resources of Vancouver and the entire lower Columbia River. NuStar’s project would exacerbate climate change and call

into question Washington State's leadership role in, and commitment to, addressing climate change. **These significant negative impacts require an EIS which, in our view, is the first step toward a reasoned decision to deny NuStar's applications and protect Vancouver and the Columbia River from the threat of crude-by-rail.**

Sincerely,

Columbia Riverkeeper  
Friends of the Columbia Gorge  
Northwest Environmental Defense Center  
Center for Biodiversity  
Oregon Physicians for Social Responsibility  
The Lands Council  
Sierra Club, Washington State Chapter

*cc'd via email:*

Mayor Tim Leavitt  
Councilmember Alishia Topper  
Councilmember Anne Mcenerny-Ogle  
Councilmember Bart Hansen  
Councilmember Bill Turlay  
Councilmember Jack Burkman  
Councilmember Larry Smith  
Bronson Potter, City Attorney