UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION 10
1200 Sixth Avenue
Seattle, WA 98101

July 31, 2015

Colonel John G. Buck, District Engineer
U.S. Army Corps of Engineers
Seattle District
ATTN: Steve Manlow (Vancouver Field Office)
P.O. Box 3755
Seattle, WA 98124-3755

RE: *PERMIT APPLICATION NWS-2013-962, Tesoro Savage Petroleum Terminal Project.*

Dear Colonel Buck:

The U.S. Environmental Protection Agency has reviewed the above referenced public notice for the proposed construction of an energy distribution terminal on the Columbia River near Vancouver, in Clark County, Washington.

EPA has several concerns about the proposed project as we believe it doesn't currently comply with the Clean Water Act Section 404(b)(1) Guidelines. In particular we believe that additional information is needed to fully assess the overall and complete design of the proposed terminal as well as the other operational components of the project to demonstrate compliance with the Guidelines. The current public notice only addresses proposed seismic and safety upgrades, and utility line work at existing piers, without consideration of potential secondary effects on aquatic ecosystems as required under Section 230.11(h) of the Guidelines. Considering the scale of potential impacts occurring to aquatic resources within the Columbia River, as well as public concerns regarding the safety of crude oil transportation, a project of this size and scope would greatly benefit from a thorough review of the terminal's construction and operation to determine the full significance of direct and secondary impacts occurring with the lower Columbia River estuary.

The EPA recommends that the Corps not issue a permit for this project until its potential direct, secondary and cumulative impacts are fully characterized. The EPA requests that a copy of the Corps' permit and conditions, the 404(b)(1) analysis, and the National Environmental Policy Act documentation be sent to us. For further coordination on this project, or if you have any questions, please feel free to contact Ms. Yvonne Vallette (503) 326-2716, or Mr. Eric Peterson at (206) 553-6382.

Sincerely,

Linda Anderson-Carnahan, Acting Director
Office of Ecosystems, Tribal and Public Affairs

Enclosure

EPA detailed comments on Public Notice NWS-2013-962

The recommendations herein have been prepared under the authority of, and in accordance with Section 404 of the Clean Water Act (CWA) and are consistent with the National Environmental Policy Act of 1969 (NEPA).

Non-compliance with the 404(b)(1) Guidelines

Project Purpose: The stated purpose of the project is for construction of an export facility on the Columbia River for the transfer of crude oil to marine vessels. The project site will encompass approximately 41.5 acres at the Port of Vancouver. However, the referenced public notice provides limited information on the upgrades related to existing piers at the site at berths 13 and 14. Little information is provided regarding this repurposing of the existing site or proposed modifications to the existing permits for Terminal 4.

Under sections 230.11(g) and 230.11(h) of the Section 404(b)(1) Guidelines, cumulative and secondary impacts to the aquatic ecosystem that are associated with a discharge of dredged or fill materials, but are not a direct result of the actual placement of the dredged or fill materials, are to be considered in determining compliance with the Guidelines. The adverse impacts that would accompany the proposed permit modification (as this action is in essence a modification of the site's previously authorization to operate as an auto terminal) are encompassed by Sections 230.11(g) and 230.11(h) and must be fully considered in reaching a conclusion regarding issuance of this permit modification.

Potential secondary and cumulative impacts to regionally important aquatic resources
Numerous important biological features in the vicinity of the project include the wetland complexes associated with Vancouver Lake and the Shillapoo National Wildlife Refuge (NWR), the Columbia River Wetland Mitigation Bank, the Port of Vancouver's Parcel 1A and Parcel 2 wetland mitigation sites, and the wetlands and agricultural habitats on Parcel 3. While the biological resources present within the project vicinity will not be directly impacted by the proposed project, they may be subject to effects associated with elevated noise from construction or operation, or more likely from issues related to water quality and potential spills during operations at the terminal.

The majority of the rail system is located along the Columbia River. The project's rail prism encompasses over 1,493 miles of track along the delivery and return route within the State of Washington, and includes portions of nearly every major watershed within the State. The Washington Department of Fish and Wildlife's (WDFW) priority species list identifies 20 habitat types, ranging from forest to grasslands, as having priority status within the State (WDFW 2008), all of which likely occur within the project's rail prism.

The vessel shipping area includes the entirety of the Lower Columbia River downstream of the site, as well as marine habitat off the coast of Washington, out to the extent of Washington's Coastal Zone, a distance of three nautical miles offshore. Aquatic habitat within the project's vessel prism includes the mainstem Columbia River from the project site downstream to the River's mouth. The Columbia

River Navigation Channel begins at the mouth of the Columbia River and is maintained at a depth of approximately 43 feet and approximately 600 feet wide up to the project site. This reach of the River provides habitat for a variety of freshwater aquatic species including Pacific salmon and other resident and anadromous fish species, marine mammals (Steller sea lion, California sea lion, and harbor seal), and several species of aquatic reptiles and amphibians.

The operation of the proposed project could permanently and indirectly affect aquatic habitats through water quality impacts, including an increased potential for impacts associated with stormwater management at the site and spills or leaks associated with the operation of on-site equipment and machinery, chronic small spills and through an increased potential for catastrophic accidents such as a spill to surface water during the transportation of petroleum products by rail or vessel.

The operation of the terminal also could result in effects associated with the increased shipping traffic that will occur in conjunction with the proposed project. The operation of the terminal has the potential to increase the risk of catastrophic accidents, such as an inadvertent release of crude oil to the environment. Spills could occur at the project site or while docking or filling, or in transit downstream on the Columbia River or in marine waters. While the likelihood of such events is low, the possibility of these events must be addressed.

The operation of the terminal is projected to increase the number of ships transiting the Columbia River within the project site, vicinity, and shipping prism. It is estimated that the proposed terminal will result in approximately 140 ship transits per year in 2016 (first full year of operations) up to 365 ship transits per year at full build-out. Marine traffic on the Columbia River has the potential to result in impacts to wildlife through increases in the potential for shoreline erosion associated with propeller wash, through the introduction of exotic species, and (for certain species) through increased potential for direct mortality through ship strikes.

Proposed mitigation measures and Best Management Practices (BMPs)
There are concerns that the proposed mitigation measures and BMPs designed to minimize the potential for leaks and spills and the extent of damage from any unavoidable leaks or spills may not be adequate to address the rheological properties of crude oil produced from the Bakken formation. Proposed measures include inspecting construction equipment daily to ensure that there are no leaks of hydraulic fluids, fuel, lubricants, or other petroleum products, and locating temporary material and equipment staging areas above the OHWM of the waterbody and outside environmentally sensitive areas. Transport vessels are constructed with double hulls to minimize the potential for the release of cargo in the event of a spill. However, the incidence of train derailments has radically increased. The potential for more oil spills is a reality with the increasing volume of oil being moved along the Columbia River.

To date, little qualitative testing has been performed on Bakken crude oil with respect to evaluating changes in its physical and chemical properties once released into the environment, and particularly in the aquatic environment. A qualitative evaluation of Bakken crude oil relative to spill response considerations is need to determine the most appropriated mitigation measures and BMPs for this proposed terminal. This type of information should be considered to support local response planning and provide the most effective oil recovery procedures for protecting the environment.

Informing the Corps permit decision through NEPA

EPA is submitting the following comments in accordance with our responsibilities under Section 102(2)(c) of the National Environmental Policy Act and Section 309 of the Clean Air Act. To assist your preparations for conducting an adequate NEPA analysis, we are sharing our perspective regarding environmental impacts. Our comments are mainly structured in terms of the context and intensity requirements laid out in the Council on Environmental Quality's Regulations for Implementing the Procedural Provisions of the NEPA, 40 CFR Part 1508.27, as this structure is helpful in determining the significance of potential impacts.

Impacts to public health or safety

Potential impacts of this project to public health or safety include things such as noise, accidents, risk of explosion, and releases of oil and other hazardous substances to the environment. We are especially concerned about the risk of rail-related accidents and the severity of potential effects to highly sensitive and irreplaceable natural resources, as well as impacts to tribes, and vulnerable communities. We recommend that the NEPA analysis include a robust analysis of rail accident risk within the context of recent past, current, and likely future trends. Include the use of risk analysis modeling tools to assess the projected frequency, severity, and probable locations of accidents, and discuss the key assumptions and results. Risk analyses should factor in tank car type, design, and vulnerabilities; railway conditions; the relative volatility and hazards of the oil products to be shipped; emergency response capabilities and deficiencies; the proximity of the rail lines to communities and to other sensitive infrastructure or business activities; and the proximity to highly sensitive natural environments, habitats, and species, particularly the waters, coastal resources, and threatened and endangered species of the Columbia River. Other important aspects of accident risk are evaluation and discussion of accident-related costs, potential damages, and liabilities so that the public and decision maker can weigh the potential direct, indirect, and cumulative economic, social, cultural, and aesthetic impacts to businesses and communities, locally and throughout the region.

Unique characteristics of geographic area

The Columbia River is one of our Nation's great waterbodies; it is one of ten important Large Aquatic Ecosystems in the United States.[a] The Columbia River Basin was designated in 2006 as one of EPA's **Priority Large Aquatic Ecosystems**, joining the likes of the Chesapeake Bay, Gulf of Mexico and Great Lakes Program. With that designation, EPA has set goals to prevent additional water pollution, improve and protect water quality and ecosystems in the Columbia River Basin, and to reduce risks to human health and the environment.

Also, the project area is within the geographic area for the Lower Columbia National Estuary Program.[b] The lower Columbia River may be the most critical reach of the entire river system, as it serves important functions for wildlife, fisheries, commerce, and recreation. This is where fish and wildlife transition between fresh and salt water, where major cities have ports, and where fish and crab are gathered by commercial and tribal operations. It is rich in history, culture, jobs, aquatic and

[a] http://water.epa.gov/aboutow/owow/programs/large_aquatic.cfm
[b] http://www.estuarypartnership.org/who-we-are/our-management-plan

terrestrial natural areas and ecosystem processes that support, enrich, and sustain the Pacific Northwest region.

Controversy
There is a high level of interest and concern among communities, agencies, interest groups, and industries regarding proposals to ship oil by rail in Washington State. It is reasonable to expect that decision processes related to these proposals will be controversial.

Uncertainty
There is uncertainty about the degree of possible effects of this project on the human and aquatic environment and it may involve unique or unknown risks, largely because of potential spill risks from rail transport, oil transfer, storage operations, and shipping. More crude oil spilled from rail car tank cars in 2013 (1.15 million gallons) than the total spilled from 1975-2012 (just under 800,000 gallons).[c]

Precedence
Decisions about this project may affect decisions about similar proposed projects in the area. The construction and operation of other potential crude by rail facilities will likely be guided by the decisions made by the Corps of Engineers in the permitting of this terminal.

Cumulative impacts
This project is one of several crude by rail projects under consideration by the Corps in Washington State. There are now eleven crude-by-rail projects operating or proposed in Washington and Oregon. If all are built and operated, they would put 12 mile-and-a-half-long oil trains on tracks through Washington every day. If all are built, they would be capable of delivering more than 858,000 barrels of oil per day — a larger capacity than Keystone XL or Kinder Morgan's Trans Mountain Pipeline expansion in Canada, and larger than the entire refining capacity in Washington State. In total, potentially 36,036,000 gallons per day of crude-by-rail transport would be supplying these proposed projects.

We recommend that the cumulative effects analysis include a complete accounting of all potential impacts from oil by rail projects that have been permitted, that are pending, and that are reasonably foreseeable throughout the state and region, including British Columbia. The discussion should also include potential impacts from proposed coal and liquefied natural gas facilities and transport where they may impact the same resources as this project.

We recommend that the cumulative analysis include a discussion of the past, current, and future transport modes, quantities, and origins of unrefined crude. As Alaska crude supplies continue to further decrease over time, discuss whether the sources of crude needed for west coast refineries would be replaced by crude via rail, pipeline, or other means. Disclose the past, current, and future train size and frequency operating in the cumulative effects study area and potential effects on communities and businesses.

Cultural or historic resources
Project activities may affect cultural resources important to several tribes. For example, Tribal Caucus members of the EPA's Region 10 Tribal Operations Committee expressed in their December 2013 comments on the project that the RTOC is extremely concerned about the impacts of the proposed

[c] www.mcclatchydc.com/2014/01/20/215143/more-oil-spilled-from-trains-in.html

Tesoro Savage Project.[d] Their comments note several concerns, including impacts on treaty fishing sites and impacts on traditional hunting and gathering sites.

Listed species and critical habitat
The Public Notice appropriately references federal agencies' need to consult with the National Marine Fisheries Service (NMFS) and/or U.S. Fish and Wildlife Service pursuant to Section 7 of the ESA. We note that a preliminary list of Endangered Species Act aquatic species with designated critical habitat likely to occur within the project area includes: lower Columbia River Chinook salmon ESU, upper Willamette River Chinook salmon ESU, Snake River fall run Chinook salmon ESU, Columbia River chum salmon ESU, middle Columbia River steelhead DPS, and lower Columbia River steelhead DPS.

Environmental Justice, children's health and safety, other vulnerable populations
Executive Order 12898, Federal Actions to Address Environmental Justice in Minority Populations and Low-Income Populations, requires each federal agency to identify and address disproportionately high and adverse human health or environmental effects of its programs, policies, and activities on minority populations, low-income populations, and Native American tribes.[e] We would also note the importance of meaningful involvement of all interested and affected people in the decision-making process.

Executive Order 13045, Protection of Children from Environmental Health Risks and Safety Risks,[f] requires each Federal agency to identify and assess environmental health and safety risks that may disproportionately affect children, and ensure that policies, programs, activities, and standards address disproportionate risks to children that result from environmental health or safety risks. The NEPA analysis should also address health and safety risks to elderly, disabled, and other vulnerable or disadvantaged populations.

Climate change considerations
Explain whether and to what extent the effects of climate change have been considered in project design. For example, disclose whether or not adaptation to sea level rise has been factored into the location, elevation, and design of the proposed terminal and associated facilities. Analyze and disclose current and future changes in releases of greenhouse gases due to the proposed action, related activities and facilities.

Air quality
Analyze and disclose potential impacts to local air quality with respect to criteria pollutants and air toxics emissions from trains, traffic delays/congestion/engine idling. Identify emissions hotspots and sensitive receptor locations near the project area and train corridors, such as, schools, hospitals/medical centers, daycare and senior centers, parks and other outdoor recreation areas.

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[d] http://rtocregion10.org/wp-content/uploads/2014/08/RTOC-Tesoro-Savage-Comments.pdf
[e] Executive Order 12898, 3 CFR 859 (1994)
[f] http://energy.gov/sites/prod/files/nepapub/nepa_documents/RedDont/Req-EO13045childenvtlhealth.pdf

Potential effects on Surface Water, Ground Water, and Drinking Water Sources
Identify vulnerable drinking water sources, wells, wellhead protection areas, aquifer recharge areas, reservoirs, hyporheic zones, other water bodies and sensitive aquatic resources within the proximity of the proposed project that could potentially be affected by spills or other "High-Hazard Flammable Train" accidents. The Columbia River is listed as water quality impaired by the States of Oregon and Washington under Section 303(d) of the Clean Water Act for a number of parameters including: temperature, DDE, PCBs, and Arsenic. Total Maximum Daily Limits (TMDLs) have been established for dioxin and total dissolved gas parameters on the Columbia. Other toxics listed for potential concern include many heavy metals such cadmium, copper, iron, lead, mercury, nickel, silver, zinc; chemicals such as tributylin, Aldrin, Cyanide, Chlordane, Chrysene, DDD, DDT, Dieldrin, Endrin, Hexavalent Chromium, Phenol, PAHs, Pyrene and radionulcides. The extent of these impairments makes it prudent that additional impacts to the declining aquatic components and water quality conditions within the watershed be avoided wherever practicable.

Land Use
Examine the local land use plans to determine what new areas and types of development are planned or anticipated to occur that would also be affected by increased rail traffic and "High-Hazard Flammable Trains."

Public availability of Environmental Documents
NEPA is intended to be a public process; EISs, EAs and FONSIs are public environmental documents. Question and answer number 38 in the Council on Environmental Quality's "Forty Most Asked Questions Concerning CEQ's National Environmental Policy Act Regulations" states that agencies must give public notice of their availability.