

**comments@eisgatewaypacificwa.gov**

**Name:** Joyce Siniscal, B.A., MLS

**Date:** Jan. 20, 2013

**Place:** La Conner, Washington

**Re:** Joint Environmental Impact Statement (EIS) for the Gateway Pacific Terminals Bulk Dry Goods Shipping Facility and the Custer Spur Rail Expansion Projects

**This comment relates to the following part of the proposal:** cumulative economic impact of pollution from coal piles, coal train derailments, coal dust and diesel emissions.

**This comment relates to the following topic areas:** fish or fisheries, shellfish and shellfish industry, water quality, food crops, dairy, wetlands, streams, rivers, Salish Sea, exports, economic impact

**Significant unavoidable adverse impacts:** Please scope the impact to the productivity and edibility of Washington State's seafood, fish, food crops, dairy and livestock caused by water and soil pollution from the increase in coal train shipments and shipping traffic passing through or near to Washington state's farmlands, waters, fish, fisheries and shellfish areas on their way from Powder River Basin to China via ships and back again. Please scope the cumulated amount and impact of diesel and coal dust particles and coal deposits entering Washington state's fishing and shellfish waters, livestock and food and agricultural farm lands in or near Washington state per additional coal train and coal ship and project it forward in increments of five years from 2013 to 2063.

**Reference to Other Comments:** I am in agreement with the scoping comments made by Mary Ruth Holder concerning the scoping of the impacts of "fugitive coal dust" and would like to include all information in her report that helps support my comment.

I am also in agreement with scoping comment made by Michael Riordan concerning the "fugitive coal dust" and would like to include any of that information to support my comment as well:

<http://www.eisgatewaypacificwa.gov/get-involved/comment/7362>

### **My scoping comments:**

I have been living in Skagit County in the great state of Washington for the past 35 years. I enjoy eating from the abundance and variety of locally grown and healthy meat, seafood, fish, fruit, vegetables, and dairy products. So too, does the rest of the world based on amount of money Washington state gets for its exports of food crops, dairy, fish and shellfish.

According to the Washington State Department of Agriculture (<http://agr.wa.gov/marketing/international/statistics.aspx>) Washington state is the third largest exporter of food and agriculture products in the U.S. In 2010 Washington exported over \$6.1 billion worth of food and agricultural products.

- Among all US states, Washington is: number one in the harvest of: Apples, sweet cherries, pears, concord grapes, red raspberries, carrots for processing, hops, spearmint and peppermint oil, wrinkled seed peas.
- It is number two in the export of seafood, dairy products, and the production of: Apricots, asparagus, grapes, potatoes, green peas and corn for processing, onions, nectarines.

I am concerned about the pollution that will be deposited by the coal trains and coal ships on Washington state's food and livestock farm lands and our fish and shellfish waters on their route from Powder River Basin to the proposed Gateway Pacific Terminal to China and back again?

Coal dust particles from coal trains and terminal operations will be deposited in adjacent farm land, impairing or destroying the ability of that land to be used to create healthy produce for people or animals to eat. "Coal dust is toxic and can contain bio-toxic levels of cadmium, lead, chromium, selenium, nickel, vanadium, copper, sulphur and fluorine as well as radioactive elements such as uranium, thorium and radium, amongst others" according to Pauline Roberts, PHD. Andrew M. Farmer has reported some of the effects of coal dust on vegetation as follows: "Dust may affect photosynthesis, respiration, transpiration and allow the penetration of phytotoxic gaseous pollutants.

Visible injury symptoms may occur and generally there is decreased productivity <http://www.ccag.org.au/images/stories/pdfs/coal%20is%20toxic.pdf>. Livestock near the mines, tracks, and terminal operations will ingest diesel and coal dust pollutants. These pollutants will not go away but will accumulate as they go up the food chain to human consumption.

**Please scope the percentage of food and agricultural farm lands in Washington State that will be deposited with coal train coal dust and diesel particle using the prevailing wind research and distances coal and diesel particles travel? Who will pay for the loss of their productivity and sustainability?**

**What percentage of shellfish farms and salmon runs might be endangered by coal and diesel particles or coal dumps as a result of the increase in coal trains and coal ships passing through these areas? What is the projected long term effect of the accumulated pollution on the viability of and profits from Washington state's food and agricultural exports?**

**Will the increased transportation traffic of coal trains and coal ships interfere with the exporting of Washington state's food and agricultural products?**

The following facts about the increased coal train traffic was reported at: <http://www.coaltrainfacts.org/key-facts>. "The proposed Gateway Pacific Terminal (GPT) at Cherry Point would have a capacity of approximately [54 million metric tons of goods](#), of which [48 million tons would be coal](#), annually. By comparison, [Westshore Terminals](#) at Robert's Bank in the lower mainland of British Columbia, currently the largest coal port in North America, ships around 21 million metric tons of coal per year. The [2,980 foot long wharf](#) would berth 3 ships; cargo would be conveyed along a 1,250 foot trestle linking the ships to shore. There would be an [80 to 105-acre stockyard](#) at Cherry Point for storage of coal and associated machinery. Coal dust is generated from uncovered piles that need to be rotated regularly. [The dust is notoriously difficult to control](#). The coal would be loaded from the storage areas into Panamax and [capesize](#) (too large to fit through the Panama Canal and must sail around a cape) ships for transport to destinations in Asia. As both supply and demand for Powder River Basin coal are vast, and as the current application is to develop only 350 acres of a 1,092 acre site, there is

no way to accurately predict how large the Gateway Pacific Terminal might eventually become, and how many coal trains and vessels would then be required."

**Sources of scientific evidence of environmental degradation resulting from coal dust contamination and the failure to mitigate it's effects:**

- **The effects of dust on vegetation—a review by [Andrew M. Farmer](#).** English Nature, Northminster House, Peterborough, PE1 1UA, UK, [http://dx.doi.org/10.1016/0269-7491\(93\)90179-R](http://dx.doi.org/10.1016/0269-7491(93)90179-R), [How to Cite or Link Using DOI](#)
- "As the coal is transported, "Each train will spill 125 pounds of coal dust particles per mile within one and a half miles on either side of the track. 6,691 coal trains traveling along both sides of the Columbia River from the Hermiston area in Eastern Oregon westward would spill 836,375 pounds of coal dust particles per mile per year for decades. Long stretches of the Columbia river could absorb [approximately] 400,000 pounds of coal dust particle spillage per mile per year. This does NOT include coal dust particle spillage from 5,333 standard coal barges per year from Port Morrow to Port Westward." ("Coal Train and Barge Numbers Staggering. Oregon Environmental Disaster Assured," by Richard Ellmyer, ellmyer@macsolve.com)
- The Union of Concerned Scientist website reports that: Just 1/70th of a teaspoon of mercury deposited on a 25-acre lake can make the fish unsafe to eat.
- Coal dust is reported to be difficult to control. BNSF estimates that each uncovered car loses between 500 pounds and a ton of coal dust en route. It is unknown how much coal dust will be released into the air, onto the land, and into the water from the from the 80-100+ acres of open, continuously turned-over, coal heaps in storage at the terminal site. The methods of containing coal dust, especially in adverse weather conditions (wind, rain) are unproven, and it is uncertain which party would pay for dust mitigation measures.
- in places like [Seward, Alaska](#) where the railroad and coal company are currently being sued for Clean Water Act violations

- The Portland Tribune, May 17, 2012) During wind events, coal dust will be blown from coal piles to locations up to 5 miles away, as has been observed at the Point Roberts terminal.
- Robert's Bank in British Columbia where [oxygen depletion](#) is being observed in near shore habitats and [coal dust](#) is an issue at a marina five miles from the facility.
- Union of Concerned Scientist website reports that: Just 1/70th of a teaspoon of mercury deposited on a 25-acre lake can make the fish unsafe to eat
- "Coal Dust Pollution Effects on Wetland Tree Species in Richards Bay, South Africa." Wetlands Ecology and Management. Vol. 13, no. 5, pp. 509-515. Oct 2005.
- "Rainfall harvesting and coal dust: the potential health impacts of trace elements in coal dust in rainwater." Air Quality & Climate Change; May 2009, Vol. 43 Issue 2, p23-30, 8p, 1 Diagram, 5 Charts, 1 Graph.
- "Effects of coal dust on plant growth and species composition in an arid environment." Journal of Arid Environments, 37 (3) pp. 475-485, 1997.
- "Specific study for coal dust contamination of soil: William J. Bounds and Karen H. Johannesson, "Arsenic Addition to Soils from Airborne Coal Dust Originating at a Major Coal Shipping Terminal," Water, Air, & Soil Pollution, June 21, 2007, 185: 195-207.  
<http://www.springerlink.com/content/98146r1160021h13/>
- "Study of dust contamination of water: Ryan Johnson and R.M. Bustin, "Coal dust dispersal around a marine coal terminal (1977-1999), British Columbia: The fate of coal dust in the marine environment," International Journal of Coal Geology, Volume 68, Issues 1-2, 1 August 2006, Pages 57-69.  
<http://www.sciencedirect.com/science/article/pii/S0166516206000206>
- Douglas L. Cope and Kamal K. Bhattacharyya, "A Study of Fugitive Coal Dust Emissions in Canada," Chapter 8: Coal Terminals: Fugitive Dust Emissions and Control, prepared for The Canadian Council of Ministers of the Environment, November 2001. No Web link.
- The coal trains will emit Nitrogen and Sulfur Oxides, which create acid rain and have direct health impacts.

- Larger particles (greater than 50µm) usually only remain in the air for a few minutes, and settle near the source. A µm is one millionth of a metre, or 0.000001m). Smaller particles (less than 10µm, known as PM10) can remain in the air for several days and can be spread by winds over wide areas or long distances from the original Airborne particulates - EPA/19/20http: [www.epa.qld.gov.au/environmental\\_management/air/air\\_quality\\_monitoring/air\\_pollutants/airborne\\_particulates/](http://www.epa.qld.gov.au/environmental_management/air/air_quality_monitoring/air_pollutants/airborne_particulates/) Page 2 of 5 source.
- Closer to home, shorelines would be given over to industrial sites with enormous piles of coal and constant dust. The proposed terminal site at Cherry Point would span 1200 acres of wetlands and sit directly on herring grounds, which are a primary food source for Chinook salmon.
- "Fine particles of [coal dust travel very quickly](#) over a large area with just the slightest breeze. "We don't have the ability to stop trains and we don't the ability to force (railroads) to cover the trains, Opponents say older trains spew high amounts of carcinogenic diesel particulates, and there's no guarantee newer trains would be used in the Northwest. Opponents say older trains spew high amounts of carcinogenic diesel particulates, and there's no guarantee newer trains would be used in the Northwest.