

October 27, 2012

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**EIS SCOPING FOR GATEWAY PACIFIC TERMINAL PROJECT:
COAL DUST AND HUMAN HEALTH**

Dear Representatives:

My husband and I live in Birch Bay, a community of about 8000 which lies well within a 10-mile radius of the proposed Gateway Pacific Terminal (GPT). Our home faces the Bay and we can see Cherry Point Refinery from our balcony. We have spoken with many people who live close to coal-shipping terminals, people who have to suffer from the dust which is visible on everything and builds up in and on their homes. With the prevailing SW winds in our area, it is a no-brainer that we will have a similar problem with coal dust from GPT. We are seriously concerned about breathing coal dust – particles too small to be seen with the naked eye – and about the ultimate value of our lovely home over time.

Please include an in-depth study of the cumulative health impacts of breathing fugitive coal dust particles that are less than 10 microns in size to include in the final Environmental Impact Statement (EIS). This study should encompass every community with a 3 mile radius of the train tracks, since BNSF openly states that significant coal is lost in every car that carries coal. The coal dust at the terminal created by processing, storage, and shipping will lead to fugitive emissions approximating those of an open pit coal mine and could violate OSHA standards. The 80-acre, 60-foot high piles of coal will release fine particles of dust, which will be carried by prevailing winds inland to all communities. Everyone is at risk to some degree, so we expect your study to cover sub-microscopic analysis as well as wide range geographic coverage.

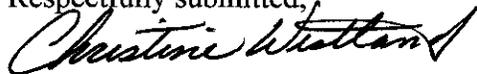
It is known that Powder River Basin (PRB) coal contains numerous heavy metals, all of which are **biotoxic**: lead, mercury, nickel, cadmium, selenium, manganese, antimony and arsenic, as well as thorium and strontium, which are both radioactive. PRB coal is notorious for being fragile in that it breaks up easily into fine particles. Inhaling coal dust particles **less than 10 microns**, leads to a wide range of health problems: emphysema, chronic bronchitis, asthma, stroke, and cancer. In addition to respiratory effects, coal dust causes many cardiovascular, neurologic, and metabolic disorders and diseases such as heart attacks, strokes, and cancer.

It has been scientifically proven that coal dust particles smaller than 3 microns can be directly inhaled into the lungs, larger, coarser particles can also be inhaled and caught in the hairs and mucous membranes of the nose and bronchi. When a coal dust particle lodges in the lung, it is “walled off” with fibrous tissue. This leads to COPD in time. Every community within 3 miles of the rail line is at risk from fugitive coal dust. In Australia, the world’s largest coal exporter, COPD is their 4th largest killer. When coal communities in the UK were studied by air pollution experts, it was found that children who lived approx. 1 mile from a coal mine site had a 33% greater risk of asthma.

Particles of 10 microns or larger are initially a nuisance, causing a build-up of black dust on all surfaces, but these particles can and do make their way into water supplies where the toxins are dissolved, producing negative health impacts on all living things. Mercury and cadmium have especially pernicious health effects on humans and other aquatic life forms

Certainly, it seems as if the community of Birch Bay is at the high risk for fugitive dust from the terminal, but the coal dust will affect many communities along the rail route. All persons from the Powder River Basin Mine to Cherry Point will be at risk for airborne effects of breathing toxic coal dust. A no-action alternative should be taken, meaning NO COAL, with an alternative of using the terminal to ship commodities other than coal, as outlined in the permits obtained in 1997.

Respectfully submitted,



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EIS SCOPING FOR GATEWAY PACIFIC TERMINAL PROJECT:
CLIMATE CHANGE AND BURNING FOSSIL FUELS

Agency Representatives:

Before SSA Marine builds coal-shipping terminals on the Pacific Northwest coast, it seems like it would be in everyone's best interest to know how the eventual burning of up to 150 million additional tons per year of coal, a fossil fuel, will affect the overall well-being of the environment and the health of the human population. **Therefore, as a part of the Environmental Impact Study (EIS) for Gateway Pacific Terminal, please scope the impact and publish your findings regarding the amount of additional CO₂ which will be released into the atmosphere each year when the coal is shipped from GPT and burned in Asia. Since CO₂ remains in the atmosphere for many years, please show the increase cumulatively year by year until the goal of approximately 54 million tons is achieved.**

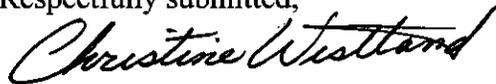
The ocean waters and the atmosphere both sequester carbon from CO₂. Burning coal releases huge amounts of CO₂. Since at least half of the oxygen we breathe is produced in the ocean from photosynthetic activity, we owe our very existence to the health of the oceans and its interaction with the atmosphere; what happens in the ocean and to the ocean affects each and every one of us in the most personal of ways.

When too much CO₂ is released and trapped into the atmosphere, the oceans become acidic and the earth warms; climate disruption is the result. Ocean acidification and warming impairs the ability of phytoplankton to thrive, thereby reducing our oxygen supply. When landmasses warm, climate patterns are altered dramatically, as we are now beginning to see. Droughts and floods, melting glaciers, and all sorts of chaos are beginning to happen and, if we don't change our activity, much worse chaos will ensue causing food shortages, destruction of infrastructure, population migration and disease. Climate change on this level should be avoided at all costs.

Worldwide, scientists have concluded that rising levels of CO2 caused by fossil fuel burning is the chief contributor to climate change. Current levels of CO2 stand at 395 ppb, which greatly exceeds the maximum calculated to alter climate, melt ice caps and glaciers, cause droughts, etc. For over 800,000 years of life on earth up until the Industrial Revolution, the number remained constant at 275 ppb. Burning more fossil fuels contributes directly to the ultimate destruction of all life forms and causes the natural balance to spin out of control.

Building GPT to ship millions more tons of fossil fuels yearly to Asia will significantly increase the levels of CO2 in the atmosphere and in the ocean. Please study the impact of this project on the increase of CO2.

Respectfully submitted,

A handwritten signature in black ink that reads "Christine Westland". The signature is written in a cursive style with a large, sweeping initial 'C'.

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**EIS SCOPING FOR GATEWAY PACIFIC TERMINAL PROJECT:
SPONTANEOUS COMBUSTION AND FIRE POTENTIAL**

Agency Representatives:

We live in Birch Bay with a front row seat to the Cherry Point Refinery. We watched with concern the February, 2012 fire. Now, as plans for the Gateway Pacific Terminal (GPT) plans are available, we have concerns about spontaneous combustion of Power River Basin Coal. According to the Major Project Permit and Shoreline Substantial Development Permit for GPT, which can be viewed on-line, the coal will ultimately be stored in five huge piles at the terminal site, which is adjacent to the Cherry Point Refinery. These piles will be at least 60-feet high and will cover a total area of 2.5 miles.

Please study in depth the potential for spontaneous combustion within the coal piles at the terminal or in the rail cars during transportation. Please include a realistic and scientific study of the effect on human health of release of toxic gases in case of fire, property damage likely to be affected both at the terminal and in adjacent communities, and the likelihood of fire from the terminal jumping to the refinery or of being carried by wind.

It is documented that Powder River Basin (PRB) coal is a high moisture, highly volatile sub-bituminous coal which can easily smolder and catch fire while in storage piles. PRB coal has been delivered in rail cars partially on fire. Therefore, it seems likely that the piles of coal planned for storage at Cherry Point will be a fire hazard over time, and may cause fires. The fact that this terminal is in close proximity to the Cherry Point Refinery is also very unsettling and the potential for fire at one location to ignite fire in the other should also be studied. We have strong winds almost daily which buffet the coast and blow inland. Obviously, these winds will exaggerate any fire hazards.

Stockpiles of coal are known to emit concentrations of carbon monoxide, hydrogen, and hydrocarbons like methane and propane. If there is a fire at the coal terminal, additional toxic gases will be released into the atmosphere, quite the same as if we were burning the coal here instead of in Asia. The idea of toxic plumes of chemicals such as mercury, sulfur, and other heavy metals does nothing to make those of us who live in close proximity to the terminal feel safe and secure.

The geographic scope of fire potential could be unlimited, depending on size of fire and reaction time. Certainly, Birch Bay and Ferndale, Custer would be adversely affected by fires, but all of Whatcom County would be duly concerned about fires at or near the terminal. People living all along the transportation route would also be at risk. What affects one affects all in an indirect way.

The costs of damages from potential fires should be studied and calculated as a significant risk in the EIS. It seems that no amount of mitigation will ever completely eradicate the fire potential. Coal is coal and that fact cannot be mitigated. No amount of water will change the potential for smoldering coal deep within the piles and there is no mitigation for the capricious winds. Whatever water is sprayed onto or into the coal piles will simply cause further problems with runoff and groundwater contamination. The toxicity and volatility of coal cannot be mitigated.

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**EIS SCOPING FOR GATEWAY PACIFIC TERMINAL PROJECT:
OCEAN CONTAMINATION FROM TOXIC COAL PARTICLES**

Agency Representatives:

Please study and scope the cumulative effect over time on plant and animal life of toxic coal dust runoff at the proposed Gateway Pacific Terminal site as sediments are contaminated in the nearby ocean waters of Cherry Point. The huge piles of coal located at the terminal will be constantly moved, rained upon, and disrupted, causing dust and particles to be dispersed. Over time, a significant amount of these particles will be washed into the adjacent ocean. These toxic particles will become part of the general environment where important species of fish feed, live and reproduce. Some of the microscopic coal will accumulate in fish, impairing growth, resistance to disease and reproductive capability. Over a minimum of 10 years, this will become more significant and detrimental for all life forms in the nearby ocean. Every life form in the ocean is a critical link in the diversity and health of the entire ecosystem. By releasing toxic chemicals of any kind into the ocean, we alter the natural balance and destroy untold amounts of life. The effect continues along the chain of life, all dependent on one another.

It is documented knowledge that coal contains high concentrations of arsenic, mercury, lead, chromium, cadmium, selenium, nickel, vanadium, copper and uranium, which are all bio-toxic and have negative, chronic and acute physiological effects on contact with living organisms. Further, when coal is exposed to air or water, bio-toxic sulphur compounds are released into the environment as gases, becoming acid rain or sulphuric acid. This is a vicious cycle, since acid conditions increase the absorption rate of the heavy metals by plant and animal life, whether it is in the ocean or on land. Because piles of toxic coal will be stored in close proximity to our nearby oceans, and loaded into ships waiting in the water, sooner or later some of this coal will be spilled or transported through air or water, polluting and causing chemical changes to these waters and the life forms therein.

By their own admittance, building and operating GPT will impact at least 12 species of sea life *that are already listed as endangered under the Endangered Species Act*. In addition, the GPT pier and loading activities will be in the direct path of already declining herring. Herring population at Cherry Point has historically provided spawning habitat for more than 50 percent of the entire herring population of Puget Sound and the Strait of San Juan de Fuca. Herring are a Keystone Species – critical in the biological chain of life in the sea. If this “link” in the food chain is weakened, all species which depend on it are weakened, and so on, ad infinitum.

Many other species of bottom fish, such as cod, Pollock, flounder, sole, lingcod and rockfish are important food sources as well as maintaining a place in the balance of the marine ecosystem. If you affect one, you affect others. There are many ways in which one species of fish can be affected. For instance, Rockfish are unique in that they give birth to live young which float on and feed in tidal currents then settle in sheltered bays before moving to deeper water. Anything that disrupts the close-to-shore areas, will affect the young fry. Many young fish are dependent on clean habitats in shallow waters where they mature. Near shore activities that disrupt eelgrass and kelp beds in bays and inlets where young fish find shelter and grow take away important nursery areas. If toxic chemicals are a part of their environment, they will accumulate in the tissues and could cause numerous problems, including mutations, disease, and death.

I don't know if any sort of mitigation would eliminate coal contamination in the ocean from a shipping terminal on the coast. Coal is a fine particulate matter, becoming airborne at particle size of 500 microns and will easily disperse, spill, or blow into the surrounding environments. The best mitigation for coal is to not ship it anywhere, but leave it in the earth and find alternate clean energy sources that do not poison our earth. By supporting more coal consumption, we are adding huge amounts of CO₂ to the atmosphere causing the oceans to become more acidic and warm, and will first affect the ability of phytoplankton to remain on the surface where the oxygen is released and carbon dioxide is absorbed. In time this phenomenon will result in certain extinction of some if not all life forms.

Respectfully submitted,



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