Proposed Gateway Pacific Terminal (GPT) and Burlington Northern Santa Fe (BNSF) Railway's Custer Spur Rail Expansion & Modification Projects

Scoping Comments

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As a citizen of Whatcom County since 1984, and as a practicing aquatic biologist, I have serious environmental and human health and safety concerns about the proposed GPT Bulk Dry Goods Shipping Facility, which involves constructing and operating a deep water, multi-modal , terminal in the Strait of Georgia for export and import, and the BNSF Custer Spur Expansion and Modification projects. Thank you for the opportunity to comment on this very significant project.

Following are my comments separated in general and specific areas.

General Comments

While I agree that we need to be looking for ways to increase jobs in our area, and that the proposed project would provide some jobs, I feel that we need to be looking at finding ways to provide sustainable jobs, for the long-term, that are better for the natural and human environments, that we can be proud of as citizens of Whatcom County.

The addition of the coal shipping component to the GPT project would have much wider implications to regional and Pacific Coast air quality, and changes the whole project scope, requiring that the analysis area be significantly expanded to more than just Whatcom County. The implications to air quality from coal transport and export could have significant negative regional impacts on air quality, the natural environment, and human health along the whole US West Coast. As I understand it, a large amount of coal is expected to be shipped over land by rail to the GPT from coal fields in Wyoming and Montana, and then be shipped from the GPT to China. China already has significant, well documented, air pollution problems and, with the prevailing west to east wind patterns that bring pollution across the Pacific Ocean, the West Coast of the US is already feeling the impacts from Chinese and Indian origin air pollution.

Recent studies conducted along the west coast have documented sulfur compounds, carbon, and other byproducts of coal combustion (including mercury) in Washington, Oregon and California that originated from China (Science Daily 2007; Hays 2008; Bradsher and Barboza 2006; Simons 20011). Water quality studies conducted by the U.S. Geological Survey in Lake Whatcom, and other area lakes, found high levels of mercury in the lake sediments and in lake water that came from a combination of natural and anthropogenic sources of atmospheric mercury (Paulson 2004). Some estimates show China's contribution to global mercury emissions as high as 28 percent (DelVenado 2013).

According to Science Daily (2007) huge clouds of dust, chemicals, aerosols and trace metals from industrial activities (particularly from coal fired plants) in China and India are affecting storm patterns in the Pacific Ocean, possibly contributing to an increase in large storms in the Pacific by as much as 50%.

With the GPT project adding the coal shipping element, increased air pollution to the West Coast of the US, from the burning of this additional coal in China, would be expected and should be seriously investigated by the lead agencies for the GPT project, as well as our government officials and other decision makers.

As proposed, the GPT portion of the project would involve constructing a new terminal, and associated structures and a 3000 feet long by 105 feet wide pier (wharf), provided by a 1,100 feet long by 50 feet wide trestle (Federal Register 2012), out into important nearshore and marine habitat in the Strait of Georgia. The trestle and pier would shade important eelgrass and kelp bed habitats in an area that, until this time has not been impacted, and that is surrounded by the Cherry Point Aquatic Reserve (CPAR).

The CPAR is a very important reserve that is part of a U.S. Marine Protected Area, managed by the Washington State Department of Natural Resources (WDNR) that was created to help protect this unique nearshore marine aquatic ecosystem along the western shore of Whatcom County in the Strait of Georgia, part of the Salish Sea.

This CPAR, and the area where the GPT pier would be located, provides important feeding, rearing, migration, and transportation habitat for juvenile and adult life stages for three federally listed threatened fish species. The project area includes federally designated critical habitat for populations of the Puget Sound Chinook salmon Evolutionary Significant Unit (ESU), the Puget Sound steelhead Distinct Population Segment (DPS), and the Coastal-Puget Sound bull trout DPS. The area also provides habitat for populations of the Puget Sound coho ESU, a federal species of concern, sea-run cutthroat trout, chum, pink, and sockeye salmon, and important salmonid forage fish stocks, including the unique Cherry Point Pacific herring stock (a WDFW “Critical stock”), surf smelt, Pacific sand lance, and northern anchovy (WDNR 2010).

In addition, the proposed GPT pier would be located between two existing large industrial piers on the south (Intalco and Conoco/Phillips) and the BP pier to the north, which already significantly impact important shoreline, nearshore and marine habitats in areas that are also surrounded by the CPAR. The proposed new GPT terminal, pier, and associated structures, and the shipping operation, would add additional, direct, indirect and cumulative negative impacts to these very sensitive and valuable nearshore and marine environments.

Specific Comments

Natural Environment

Significant Unavoidable Adverse Impacts; Measures To Avoid, Minimize and Mitigate Effects of the Proposals:

The GPT project would be developed on approximately 350 acres and proposed upland facilities would directly impact over 145 acres of freshwater wetlands, riparian and other aquatic habitats (Federal Register 2012). This would involve placing in, or removing, approximately 6,300 cubic yards of material in streams, affecting 21,500 linear feet and 1,135 square feet of streams (WA JARPA 2010).

The BNSF Railway's Custer Spur Line upgrade would directly impact at least 17acres of wetlands, involve modifications to two creek crossings, realignment of California Creek (Drayton harbor watershed) and construction of new bridges on California Creek and Terrell Creek (Birch Bay watershed), which provide important habitat for coho and chum salmon and sea-run cutthroat trout (Williams et al. 1975), and several unnamed stream channel/ditches that contain aquatic and fish habitat. Terrell Creek provides feeding, refuge, and important rearing habitat for juvenile and outmigrating salmonid smolts (Whatcom Co. 2006).

Approximately 82,992 square feet of rock and soil material would be placed in (5,837 cubic yards) or removed from streams, and directly affect at least 12,819 linear feet of streams. In addition to the installation of receiving and departure tracks west of the BNSF mainline, the project would also include building up to three more R&D tracks, upgrading the existing Cherry Point Subdivision Mainline and side tracks, adding six miles of a second track along the six mile Custer Spur to the proposed terminal site, and involve approximately 250,000 cubic yards of soil and rock fill and 15,000 cubic yards of excavation (WA JARPA 2010; Federal Register 2012).

The marine and nearshore portion of the GPT project would involve constructing a new terminal, and associated structures, and fifty-foot wide trestle extending 1,100 feet out from shore, with a 3000 feet long by 105 wide pier (wharf) at the end, that would extend approximately 4,100 feet out into important nearshore and marine habitat in the CPAR and the Strait of Georgia (Federal Register 2012).

In addition to the pier piles directly affecting 9,200 square feet of nearshore/marine habitat, the trestle and pier would shade and eliminate portions of approximately 315,000 square feet of important eelgrass and kelp bed habitats in an area that, until now have not been impacted. The pier would also extend out into, and be surrounded by, the CPAR. The CPAR includes 5,000 feet of the marine and nearshore habitat and adjacent tide land areas, located within the 70 foot bathymetric contour that extends approximately 6 miles from Point Whitehorn, on the north, down to Neptune Beach, on the south (WDNR 2010).

This important reserve is part of a U.S. Marine Protected Area, managed by the WDNR and was created to help protect this unique nearshore marine aquatic ecosystem (WDNR 2010). The CPAR plan (WDNR 2010) identified the management emphasis for the plan as being "environmental protection above all other management actions."

Cherry Point Pacific Herring

The CPAR is one of the most important Pacific herring areas in Washington State and serves as the "core" region of spawn deposition for the largest single herring stock in Washington waters, a stock that historically provided spawning habitat for more than 50% of the entire herring population in Puget Sound and the Strait of Juan de Fuca (WDNR 2010). Recent studies suggest that the Cherry Point Pacific herring stock is genetically distinct from other Washington and British Columbia stocks (WDNR 2010).

The substantial decline in spawning Cherry Point herring during the 1980's coincided with the reduced survival of Chinook and it has been hypothesized that the survival of sub-adult and adult Chinook may be impacted by the decrease in abundance of Cherry Point herring (PSAT 2005). The Cherry Point herring stock continues to be at a critically low abundance level (Stick 20110). Herring spawning habitat may be impacted by shading from overwater structures and few species of marine macro-vegetation can tolerate reduction in ambient light within the direct footprint of a typical overwater dock or pier, including plant species used by spawning herring (Penttila 2007). Eelgrass provides spawning habitat for Pacific herring, which lay their eggs on the blades of eelgrass and it provides a critical nursery area for juvenile salmon and cod which seek protection within the beds from predators (Whatcom County MRC 2004).

Bilge/Ballast Water

Other significant impacts to marine and nearshore habitats and organisms could occur from release of bilge water used for ballast by ships that would load and unload at the new pier. Even though ship ballast water is regulated by the WDFW under the Revised Code of Washington (RCW) Chapter 77.120, this does not guarantee that this regulation will be successful. There are already many examples around the US (San Francisco Bay area, etc.) and the world, where ballast water releases have resulted in the introduction of many unwanted non-native and nuisance invertebrate species (clams, worms, shrimp, crabs, etc.) that have caused significant environmental and economic damage to native nearshore, estuarine and marine species and ecosystems, and that have resulted in the elimination or replacement of many native species. With significant recent budget cuts to local, state (especially WDFW) and federal (NMFS, EPA, etc.) regulatory agencies, there are fewer technical people available to provide proper monitoring and regulation to implement protection measures (RCW, etc.).

Mitigation

A big question in my mind is whether all of these unavoidable direct, indirect, and cumulative impacts to the marine, nearshore, freshwater, riparian, and wetland environments, and all of the aquatic and terrestrial wildlife species dependent on these environments, described above, can be adequately and effectively mitigated. Besides avoidance of these sensitive areas all together, the effectiveness of the creation or enhancement of marine macroalgae (eel grass, etc.) beds, and creation, restoration, or enhancement of wetlands, in other areas has been limited, at best, and should be attempted only as a last resort.

Potentially Affected Resources and Extent of Analysis of Those Resources:

If coal does indeed become an important part of the GPT project, then sensitive aquatic environments, including streams, rivers, wetlands and other aquatic environments located between the coal mining areas in Montana and Wyoming, and along the railway routes through Idaho, Oregon and Washington, and in the nearshore and marine environment in the Strait of Georgia and the CPAR, could be negatively impacted directly, and indirectly, by coal dust and related pollutants, in addition to the diesel-related pollution effects, and result in significant long-term negative cumulative impacts on water quality and aquatic organisms.

Concerns about regional and Pacific Coast impacts to air quality and human health, from burning coal in China and India, have already been described above under the "General Comments" section.

Human Environment:

Noise, Air Quality, Human Health, Traffic & Safety:

See the "General" section for discussion on potential impacts of the GPT project exporting coal to China and India and the impacts on regional and Pacific Coast areas.

The transport of coal along the railway routes between the coal mining areas in Montana and Wyoming and through Idaho, Oregon and Washington, could have significant direct and indirect negative impacts to human health from the coal dust and related pollutants. Also, the safety of communities located along these railway routes could be jeopardized due to the increased rail traffic that would result in longer waiting time, causing more frequent delays for emergency vehicles trying to get through railway crossings and the increased potential for railroad automobile collisions and human deaths, due to increased frequency of train traffic.

With the focus on the transport of coal this project could result in increased negative direct, indirect and cumulative impacts on human health and safety, all along the railway routes and into Whatcom County. In addition to the impacts to air and water pollution from coal and related products, the increased railway traffic would increase the amount of diesel-related pollution and noise pollution in communities along the railway route and could result in detrimental impacts to human health.

Reasonable Range of Alternatives:

Even though many alternatives should be evaluated, I strongly urge you to consider selecting the NO Action Alternative. This project would have significant direct impacts on the natural and human environments in Whatcom County, and with the coal element added in, could have significant negative direct, indirect and cumulative impacts on air quality and human health along the whole Pacific Coast of the U.S.

Along the railway route in Whatcom County, as well as in Washington, Idaho, and in Montana and Wyoming, where coal is planned to be shipped from, there could be considerable direct and indirect negative impacts on water ways, and other sensitive environments and to human health and safety from transporting coal.

Due to the relatively unaltered condition of the shoreline and the marine and nearshore habitats in the proposed development GPT site, and to the fact that it is surrounded by the Cherry Point Aquatic Reserve, and has significant fish, wildlife, natural, cultural heritage, and other environmental values, strong consideration should be given to either, placing this area into the Cherry Point Aquatic Reserve, or have it placed into tribal trust status, instead of developing it for commercial purposes.

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