12.14.12

Dear GPT/BNSF Custer Spur, EIS Co -Lead Agencies,

I am a local citizen who returned here because of the beauty of the Pacific NW, valuing the advocacy of sustainability and a respect for nature. If we do not steward our natural attributes, they will be plundered, decimated, and left in ruins. While the big corporations laugh all the way to the bank, some people will die, others sicken, and our tourism destroyed. Needless to say, many other life forms will suffer at the hands of man-made greed.

I am asking you to please study the foreseeable, significant, adverse impact of a dependence on regional water resources to mitigate the dust produced by a huge coal pile. From where does this water come, and how does dependency on this water affect the river creatures and the stream itself? Many people around here go out to help in saving the natural habitats created by our wonderful rivers – river and habitat restoration. We know to safeguard our rivers and the organisms within that are absolutely necessary for a viable river, and like our own circulatory system, we know that leaches do not work. You cannot simply take and use... you can deplete the system, and ruin the habitat.

Bellingham has great water because we divert all we need from the Middle Fork of the Nooksack River to Lake Whatcom. Our water is melted glacier and snow pack. I believe Ferndale used to drink glacier water, and rumor has it they are not happy with their new groundwater source.

To mitigate dust and fire hazards of an 80 acres pile of coal, Pacific International Terminals claims they will use a state of the art system that requires WATER. A LOT of water... 1.9 billion gallons of water per year from PUD (the PID averages it to 5.3 million gallons per day). Ferndale alone does not use this amount of water daily! The PUD currently supplies 6 industrial and fifty irrigation customers in the Cherry Point area, and GPT's need would be about one third of this total.

Although the PID claims to use less water during the rainy season, during the summer time when dust suppression is most necessary, the river will be at its lowest. Predictions also have it that we are looking at future Nooksack Middle Fork flow decreases of more than 8% due to global climate change. Using less water in winter does not change damage done during the warmer, drier seasons!

Please consider water resources, changing climate scenarios, GPT's suppression system and study in earnest how our precious water source will be impacted? How would GPTs use of public water impact our homes, farms, industries, and tourism? Yes tourism. Our landscape, wildlife, quality of life is also a draw for tourism. Just what is the cost – *the true cost* - of turning over a God given river to a single-minded endeavor? Thank you very much for your time, energy, and integrity,

Lynne Oulman
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GPT Water Issues and climate change

The GPT project is where the rubber meets the road for climate change in Whatcom county. Declining stream flows and snow pack in the Nooksack watershed are forecast to be: -13% by 2025, -27% by 2050, and -40% by 2075 (Dickerson, 2010). Warmer winter temperatures result in higher flows and less snow pack. The glacier and snow pack mediate water flow - more snow melt during high temperature times keeps river flow up. With diminishing glacier and snow pack, there is no reserve during summer resulting in less water available. Higher winter temps mean water runs off to the sea, increasing the risk of flooding, instead of accumulating in snow pack. We are losing our water "battery".

This is different from golf course sprinklers which come on periodically to get water to the roots of plants. At GPT, to meet air quality requirements they will have to keep the coal piles wet all the time. We have up to 16 hours of daily sun in June.

Local Nooksack forecast , a MS thesis by Susan E. Dickerson, WWU, 2010- http://kula.geol.wwu.edu/rjmitch/Dickerson.pdf. This agrees largely with Cliff Mass and other climate modeling with the advantage that it is local!

The GPT has contracted for 5 mgd which is the equivalent of 5 ½ Olympic swimming pools per day. This water is not recycled, but lost to evaporation for keeping the coal piles wet for dust control. It is lost for any further use. For perspective, city water goes through water treatment plants and is rereleased into the environment usually cleaner then the receiving waters. Most responsible companies that use lots of process water these days, recycle it for multiple uses. The GPT "wastes" all of it.

At some point, minimum stream flows will require decisions about whose water gets cut or rationed.

Salt water intrusion into aquifers. Lower stream flows result in salt water intrusion. GPT withdrawals will aggravate this.

Minimum flow requirements verses air quality. Will we be forced to accept reductions in available water because GPT has to meet regulatory requirements for air quality, dust control? A nasty bargain.

Higher water temperatures and salt water intrusion will result in higher costs of water treatment as well as damage to freshwater aquatic ecosystems. These increased costs should be considered when weighing tax revenues from GPT.

"The general notion that there is always more water available from the another source may be history as climate change stresses almost every source of freshwater"- http://www.greatlakeslaw.org/blog/files/Climate_Change_and_Freshwater_Resources.pdf

We need comprehensive review of water policy to reflect the realities of diminished and changing water quality this century. We should hold our elected leaders heels to the fire over this. It is critical for our, and especially our children's, and grandchildren's futures.

Permitting of projects like GPT must be viewed in the context of diminishing supply and effects of taking water resources on availability.

Since there is reason to believe evaporation projections for dust management at the site are unreliable because of local climate, high winds at the proposed site, peculiarities of coal, a 4 season pilot project is essential to be able to estimate water consumption at GPT before a permit can be considered. Guestimates are not adequate in this time of declining water resources.

Water should not be taken in large quantities for industrial use from the Nooksack during low, and diminishing, summer flows, but only during excess flows during the winter months- this is common sense.

Maybe permits for projects should be denied if they can't demonstrate the ability to recycle their process water (GPT can't).

A good resource for understanding the effects of climate change on the PNW- Cliff Mass climate change talk- http://www.youtube.com/watch?v=ImH1H1APSMs

2" less snow pack in 2020 from 1990-Mass

Humphrey Blackburn. M.S. Environmental Systems. Humboldt State University. President of Blue Future Filters, Bellingham, Wa. Since 2003, a producer of sustainable water treatment systems for rural users throughout the US and in 20 countries. Principal of Blackburn & Associates, since 1995, consulting on diverse water issues with emphasis on natural systems, "0" discharge, etc. Presented papers to American Water Works Association National Conference 2011, International Water Association Development Congress, Mexico City, 2009. Current projects include treatment systems for Los Angeles County rural firehouses; Cherokee Nation, Oklahoma 200 gpm modular slow sand filter; Safe Water Network village water filtration systems Lake Volta Ghana; Ruth Lake California water treatment upgrades.