## Dave Hale

My comment on the KMMEF DSSEIS:

Washington State Department of Ecology, Olympia, WA,

Thank you for the opportunity to comment on this important decision making process. My name is Dave Hale. I live in Silver Creek, WA and I'm a retired biologist. In my career I have primarily worked on wildlife and fisheries habitat. A portion of that work was involved in research on salmon smolt downstream passage through the Bonneville Project dams on the Columbia and the lower Snake River dams.

I would like to address the issue of our GHGs in the state of Washington and the contribution that the Kalama methanol refinery would have on those emissions.

Having reviewed the DSSEIS it is clear that Ecology has done a fairly good job of analyzing the life cycle of contributions of the project and also of the current alternative processes. I realize the difficulty of attempting to determine by projection, from sources of information with varying and sometimes conflicting data, the contributions of GHGs resulting from the development, extraction and transport of natural gas. This is also very difficult when analyzing the downstream use contributions, especially in a foreign county where we have sometimes questionable information and no control over how the product of this project will be used.

It is clear that the argument, used by NWIW, of displacement of more carbon intense processes over in China is highly speculative and dependent on a number of factors that rely on social, economic and developmental uncertainties. Looking at the results of the DSSEIS in this area, it's clear to me that the displacement theory would be OK if it actually resulted in offsetting dirtier forms of plastic and/or fuel production and use. Sadly, the analysis seems to rely on increasing use of fossil fuels and lacks the comparison of alternative methods of energy production (renewables). I believe that Ecology has, as part of the analysis, the need to compare and contrast the results when a greater proportion of the transport and electric energy may come from solar, wind and other low carbon power generation. China is rapidly developing electric car technology and has been using a greater portion of their solar panel production in country. I realize that renewable power production increases are also in the realm of speculation as well. Therefore, I will consider that KMMEF methanol could, under higher oil prices and greater restrictions on coal processes in Asia, displace some dirtier methanol processes like naphtha and coal. That's speculative; China is investing in new coal power plants and not just within China.

That leaves us with the Kalama NWIW site which will potentially produce, on average, approximately 1M T CO2e GHGs per year for 40 years, locally, and 5M T CO2e GHGs, for 40 years, globally. That represents a net increase in carbon produced in state (and globally) as a result of a proposed business. This doesn't fit with our current goals to reduce our carbon footprint or to protect our air and water. Further, mitigation is questionable with no definite plans to localize carbon sequestering or prevent additive effects of air pollution of the lower Columbia River airshed. With consideration of the additional risks to our important Columbia River ecosystem, human health impacts that can't be mitigated, and use of resources (natural gas, water, and electricity from a grid that relies on fossil fuels for make-up power when hydro is insufficient), Washington State can expect to bear the brunt of the negatives of this project with little benefits. My work in natural resource conservation was aimed at repair, enhancement and protection; not posing new risks.

Please deny the Shorelines Permit for KMMEF.

Thank you,

Dave Hale, Silver Creek, WA98585