



To: Department of Ecology

From: Wolf Lichtenstein, Evergreen Carbon

Re: Comments: Kalama Manufacturing and Marine Export Facility Second Supplemental EIS

Date: October 7, 2020

Dear Dept. of Ecology,

I am offering comments on the Kalama Manufacturing and Marine Export Facility Second Supplemental EIS, specifically on the Northwest Innovation Works (NWIW) Kalama Voluntary Greenhouse Gas Mitigation Program Framework (Appendix D: Mitigation Framework). I have been involved in carbon markets since the mid-2000's as a consultant and contractor. In 2015, Evergreen Carbon was launched to provide meaningful, high value carbon credits to businesses and individuals.

I have firsthand knowledge of a multitude of carbon projects, in industrial, agriculture, forestry, and renewable energy (solar and wind installations). I have worked with a South Korean client, consulting on a long-term "forward" contract, providing carbon credits for the South Korean compliance market. Evergreen Carbon also has several local Washington State based clients who voluntarily purchase carbon credits. I bring expertise in several types of carbon projects; Landfill Gas projects, dairy digesters, agriculture (soil carbon projects), energy efficiency, renewables – wind and solar, N₂O abatement in Nitric Acid production, Ozone Depleting Substances, forestry and carbon capture and storage (CCS). I have been from northern British Columbia to the Andes in Peru (including carbon projects in WA) doing this carbon work.

In my review of the Voluntary Mitigation Plan (VMP), I found that the practicality of implementation could be expanded on. I hope that my comments are helpful to Ecology in providing further context of how a new multi-million-dollar ongoing fund that the VMP will create could be implemented.

Fund Value

The funds provided to the carbon market will have a significant impact. The VMP creates an annual fund based on the California allowance price. Given that the trading price for the August 2020 joint CA-Québec allowance auction is \$16.68, it is reasonable to expect an annual fund starting at \$17 million (@1 million MT of GHG/year). This is a significant fund that will enable the project to keep its mitigation commitments, but have additional funds that can be invested into new carbon projects and perhaps other projects and programs that support a low carbon future for Washington State. Because the price of carbon credits on the voluntary market has always been less than the CA/Québec auction price, there will always be extra funds available after carbon credits are purchased for direct, immediate mitigation.



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Meeting Demand

To meet the carbon credit demand, the investment will have to be on multiple fronts, satisfying both short-term purchases and long-term investment into new carbon projects. New carbon projects are typically faced with a challenge of finding financing to get a new project started. The NWIW fund can invest in new projects, and create agreements to purchase carbon credits when they are available. A floor price can be agreed to, so the project itself will have a guaranteed revenue stream and use the agreement with NWIW to attract other funders or guarantee supporting loans from other sources. Because of an expected tightening of the carbon market supply, funding new projects and entering into future purchase contracts will be an important strategy to meet carbon mitigation commitments.

Starting with a local commitment, the NWIW fund will have a direct local economic stimulus. Currently, Cowlitz country does not have any registered (CAR, VCS or ACR) carbon projects. The NWIW fund will allow for the development of carbon projects on Cowlitz country dairy farms (digester projects) and install a LFG collection and destruction systems on the Cowlitz Country Landfill. NWIW will need a plant to assess the potential for other new carbon projects in Cowlitz County and elsewhere in WA. Looking close to home for new carbon projects and elsewhere in the PNW is a priority that I support. A best outcome would be that dairy farms digesters and other carbon removal projects will be the norm after a time – and the NWIW fund will foster this. When carbon projects become Business As Usual, the carbon project registries will recognize this, and carbon credits will no longer be earned under a BAU scenario. We are a long way from that, yet, the NWIW fund will still be there, and will continue to invest in areas that are not yet BAU. This is many years away, if it can be reached at all.

Cowlitz County and WA can support many types of carbon projects, and the investment from NWIW will support the development of many projects. Sectors we can consider in WA include Landfill Gas Capture and destruction, Livestock (dairy digesters), Forestry (Improved forest management and reforestation), Other Land Use (agriculture-soil carbon), N₂O abatement at our chemical fertilizer production plants, and even direct carbon capture. The fund can be used to explore the potential of WA for permanent underground storage. This NWIW VMP fund will provide key investments in WA, providing the infrastructure for a low carbon future.

Are there Enough Carbon Credits for NWIW to fulfill their mission?

A million or more carbon credits a year is a tall order. The the world-wide voluntary carbon markets can support this added demand. It will be welcomed! There will be sufficient funds annually to make the purchase, with money left over for new and ongoing carbon project development.

Recently a large tranche of carbon credits came on the market from a PNW forest project. The project, owned by the Nature Conservancy of Canada, located in B.C. just over the WA State boarder, has 1.38 recently put 1.4 million carbon credits in the marketplace. Multiple years of this project was verified together creating a large supply of credits from a great forest project. The project preserves biodiversity, with habitat for several threatened species. The whole tranche will likely be sold this year, the price is reasonable and is an example of a single carbon project that has generated sufficient credits to support a year's + mitigation under the VMP. This project would be well within the NWIW yearly budget and the



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have significant funds left over for new investments. NWIW will have to make use of U.S. based, and worldwide carbon markets and continue to be on the lookout for good carbon projects. Carbon credits can be purchased and held, then retired when needed. NWIW will have to manage this fund full-time, keeping abreast of carbon credits coming into the marketplace, and finding new carbon project development opportunities to assure a local supply of carbon credits to supplement credits purchased from projects elsewhere in the PNW, the U.S. and world-wide.

Conclusion

GHG mitigation under the VMP will be possible. NWIW will have to be pro-active and be a player in the PNW carbon marketplace, nationally, and internationally. One million+ annual credits is a tall order, but an achievable one. The amount of the NWIW fund for the VMP will be more than sufficient to achieve this annual goal through the voluntary carbon marketplace. The funds invested into local, national and international carbon markets will be welcomed by project developers, fostering strong relationships with well managed carbon projects. This large fund will allow NWIW to be a competitive buyer, providing new energy and economic stimulus into the growing carbon markets. NWIW will have to engage in an ongoing program of due diligence of existing and new carbon projects. Criteria will have to be set up to confirm that the carbon credits purchased are of high quality and providing additional co-benefits (environmental, social, economic, and direct community benefits).

Regards,

Gary (Wolf) Lichtenstein
Consultant/Owner
Evergreen Carbon



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