



October 9, 2020

ATTN: Rich Doenges
NWIW SSEIS
Washington Department of Ecology
P.O. Box 47775
Olympia, WA 98504-7775

**RE: Comments on the Kalama Manufacturing and Marine Export Facility Draft
Second Supplemental Environmental Impact Statement Ecology Publication 20-06-
011**

Dear Mr. Doenges,

The Port of Kalama (Port) submits the following comments on the Draft Kalama Manufacturing Marine Export Facility (KMMEF or Project) Second Supplemental Environmental Impact Statement (DSSEIS). The Port appreciates the significant work that the Department of Ecology (Ecology) invested in the DSSEIS and its efforts to timely publish this draft. While the DSSEIS broadens the scope of the analysis from that contained in the Port and Cowlitz County's (County) original Supplemental Environmental Impact Statement (SEIS), and in some cases in ways that the Port believes to be beyond the State Environmental Policy Act (SEPA), the Port notes that the DSSEIS concurs in two fundamental conclusions:

(1) the impacts from the in-state Greenhouse Gas (GHG) emissions from the Project are capable of being mitigated; and

(2) global GHG emissions from the manufacture of olefins are expected to be less if the Project is built than under a no action scenario.

The Port concludes that Northwest Innovation Work's (NWIW's) commitment to fully mitigate for in-state emissions, however, reduces the Project's GHG impacts to a less than significant level, and has several questions and concerns regarding some of the analysis undertaken and assumptions used in the DSSEIS.

First, the DSSEIS creates confusion by not fully (or in some cases accurately) describing the contents of the original SEIS and how that data compares to the data and analysis in the DSSEIS. Because both the original SEIS prepared by the Port and the County together with this SSEIS prepared by Ecology will serve as the complete environmental record upon which the Project permits should be evaluated, it is imperative that the Final SSEIS (FSSEIS) provide

decision makers and the public with a complete and accurate explanation of the contents of each, including how they are consistent and how they vary. The Port accordingly requests that the FSSEIS be corrected to accurately present the full record.

Second, the DSSEIS reaches beyond SEPA by assuming end uses and Project purposes that are neither proposed by NWIW nor reasonably foreseeable and by evaluating scenarios which the DSSEIS describes as “unlikely.”¹ Evaluating “unlikely scenarios” and “possible” impacts,² rather than probable impacts from foreseeable scenarios, is speculation and is not permitted under SEPA.³ It also unnecessarily confuses the public. Two examples of this include the unsupported assumptions regarding the use of KMMEF methanol as fuel and the range of market substitutions scenarios evaluated to forecast GHG emissions from global methanol demand. As discussed in more detail in the separate comment letter submitted by Mark Berggren from Methanol Market Services Asia (MMSA), with a careful and more accurate evaluation of global methanol market data, likely alternative sources of supply, including several recent announcements of new coal-to-methanol projects in China, the High Coal Case (HCC) alternative scenario is actually the much more likely Reference Case (RC) for GHG emission evaluation. The Port requests that the FSSEIS include this correction, which confirms that the Project is likely to provide greater GHG benefits than currently represented.

Third, the DSSEIS’s statements and conclusions regarding the significance of the life cycle GHG emissions of KMMEF, particularly when compared to the no-action alternative, are ambiguous and not supported by the document’s conclusions. Decision makers and the public would benefit from a clear conclusion as to the effectiveness of the Project’s proposed mitigation program and the substantive effect, under SEPA, of the market displacement analysis.

The FSSEIS should clearly recognize that with the proposed mitigation program for in-state GHG emissions, and based on the expected reduction in global GHG emissions if the Project is built, GHG impacts cannot be labeled as significant. As currently drafted, the

¹ DSSEIS at 55 (“These represent two unlikely cases that could transpire, although they depend on a specific combination of input variable values. These outlier cases are intended to show what would happen in the lower probability scenarios.”) (emphasis added).

² See, e.g., DSSEIS at 18 (“It is possible, however, that the methanol could be used as a fuel once it is acquired by importers in Asia and elsewhere.”); *id.* (“The SEPA environmental review process helps state and local agencies identify and consider possible environmental impacts that could result from government actions, including the issuance of permits.”); *id.* at 20 (“A sensitivity analysis providing a range of possible GHG emissions is also provided.”) (emphasis added).

³ WAC 197-11-060(4)(a); WAC 197-11-080 (defining “probable” as “...likely or reasonably likely to occur, as in ‘a reasonable probability of more than a moderate effect on the quality of the environment’... Probable is used to distinguish likely impacts from those that merely have a possibility of occurring, but are remote or speculative. This is not meant as a strict statistical probability test.”).

document avoids that obvious conclusion. It is confusing at best, if not nonsensical to conclude impacts are significant, when they are reduced to net zero through in-state mitigation, and globally are less if the Project is built than would be the case if the Project is not built. The SSEIS should objectively and accurately recognize these facts.

The next section of this letter elaborates on these over-arching concerns. The second section, then identifies in detail (with reference to DSSEIS section or page) the specific places in the document where corrections, revisions or clarifications are required.

I. KEY ISSUES

A. The Public Benefits from Improved Disclosure of Complementary Content in Both the DSSEIS and 2019 SEIS.

Notwithstanding significant overlap and consistency in content, the DSSEIS and Ecology’s public hearing presentations go to great effort to distinguish Ecology’s analysis from the SEPA Responsible Official’s (SRO’s) SEIS. This effort doesn’t serve the public’s interest in full disclosure of the entire SEPA record. The Port requests corrections to ensure the FSSEIS is fair and accurate in its depiction of SEIS statements. The following table identifies statements in the DSSEIS that should be corrected:

DSSEIS Statement	Correction Requested
DSSEIS, p. 22: “The SEIS found that the proposed project would reduce greenhouse gas emissions globally by between 12 and 14 million metric tons annually.”	This misstates information from the SEIS. The SEIS, Section 3.5.6 states that the Project “results in the potential for a net reduction in overall cumulative GHG emissions from the proposed project of between 9.6 and 12.6 million metric tonnes CO _{2e} ” annually. Note this same mischaracterization occurs elsewhere on page 22.
DSSEIS, p. 22: Ecology characterized their comment letter as follows: “Among other things, Ecology questioned the Draft SEIS's conclusion that the proposed project would have no significant adverse environmental impacts.”	This is an overly simplistic summary of Ecology’s comment letter. There are several locations within Ecology’s letter that provide suggestions on assumptions or analysis that could ultimately impact emissions calculations, but the letter notably lacks criticism or challenge to the actual conclusion that impacts would not be significant.
DSSEIS, p. 22-23: The DSSEIS states that the FSEIS’s significance determination concluded that the project “would displace between 12 and 14 million metric tons of	The SEIS in section 3.5.6 states “The project would result in a displacement of GHG emissions of between 15.02 and 12.68 million metric tonnes CO _{2e} per year, assuming that an amount equal to the total volume of methanol produced by the proposed project is displaced.”

<p>greenhouse gas emissions annually, and did not consider the use of methanol as fuel in determining the significance of the proposed project's environmental impacts under SEPA.”</p>	<p>The DSSEIS uses the wrong figure and also does not provide the same qualification regarding assumptions about displacement. The SEIS goes further into this analysis in Section 4.3.6 where comments regarding market displacement are discussed. The SEIS acknowledges that full displacement may not occur and even without that full displacement can result in emissions reductions:</p> <p style="padding-left: 40px;">In addition, the Final Supplemental EIS considered the effect of full displacement of an equal volume of methanol from coal-based processes in its analysis. Because of the significant differences in GHG emissions between the displaced methanol and the proposed project, a result that assumes less than total displacement would still result in GHG emissions benefits. Table 3.7 of the Final Supplemental EIS reports the total emissions calculated from the proposed project and the displacement effect. When considering the commitment to mitigate for Washington State emissions, the Project would result in the emissions of 1.58 to 2.05 MT CO_{2e} per year and the displacement of between 12.68 and 15.02 MT CO_{2e} per year. Based on these results, the Project would need to only result in displacement of approximately 12 percent of the production volume to result in neutral (no increase) GHG emissions.</p> <p>The SEIS also considered the emission that could be associated with methanol use as fuel. Section 4.3.7 contains a detailed discussion of this issue in responding to those comments on the DSEIS regarding methanol use as fuel. This provides a detailed discussion of the issue including calculations of the emissions that would result from using the entire yearly production as fuel. The oversimplification found within the DSSEIS should be corrected.</p>
<p>DSSEIS, Table 3.5-13 compares the</p>	<p>For example, Table 3.5-13 represents a much higher</p>

<p>assumptions used in the low, medium and high cases in each document, but omits clarification that some of the content identified as differing is actually contained elsewhere in the SEIS.</p>	<p>upper end value for the “Upstream, Construction, Decommissioning, Process, and Transport of the facility” row and a row for “End Use: Methanol to Fuel,” which is represented as missing from the SEIS. This is inaccurate. Both the impact of KMMEF being used as fuel and using the NW Power and Conservation Council’s marginal power mix were included in the original SEIS, but rather than including these variables in a low, baseline or high scenario, they were included as sensitivities and in response to comments because either their application was not probable or it was not the applicant’s Project proposal. <i>See</i> SEIS, Section 4.3.7. at 4-10—4-11 (Standard Response 7; summarizing the SEIS’s analysis of the potential use of fuel); SEIS, Section 4.3.4 at 4-6—4-8 (Standard Response 4; explaining why the NW Power and Conservation Council’s marginal mix was excluded from the low, baseline and high scenarios and explaining that “Appendix B evaluated the use of the marginal mix as reported by the Northwest Power and Conservation Council (NPCC), including calculating the annual GHG emissions, which are estimated at 0.37 million metric tonnes GHGs per year.”).</p>
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The Port respectfully requests specific edits to the DSSEIS to easily connect the reader to analogous analysis in the SEIS throughout the document and a clearer identification of any new information not found in the SEIS (e.g., comparison of KMMEF to a Chinese natural gas-derived methanol). The Port offers our SEIS technical team to assist Ecology in accurately portraying and citing to the original SEIS.

B. Ecology’s Significance Determination Requires Clarification

Under SEPA, “the substantive decisions or recommendations” in an EIS “shall be clearly identifiable...” RCW 43.21C.031(1). The DSSEIS, however, lacks clarity as it concludes that the Project’s GHG impacts are significant (notwithstanding the conclusions of the global displacement analysis) and that GHG impacts are capable of mitigation, but lacks a clear conclusion as to whether NWIW’s voluntary mitigation plan achieves this outcome.

Given the DSSEIS’s global displacement analysis (net negative, regardless of replacement source), the appropriate determination is that the Project’s impacts are less than significant. SEPA requires that “[i]n assessing the significance of an impact, a lead agency shall

not limit its consideration of a proposal's impacts only to those aspects within its jurisdiction, including local or state boundaries.” WAC 197-11-060(4)(b). The DSSEIS assesses the Project’s GHG impacts on an in-state and global level and ultimately concludes that “plausible input values demonstrate that the KMMEF is expected to result in less GHG emissions increases than the alternate cases” and “that the KMMEF would slow the global increase in emissions arising from methanol production and use.” The DSSEIS further concludes that, as compared to the reference case (which assumes the Project will not be built), the Project will reduce GHGs from the methanol sector by 200,000- 9.5 million tonnes annually, with a best estimate of a **6 million tonnes reduction of GHGs annually** even including an assumption that 40% of KMMEF methanol is used as fuel rather than as an olefin feedstock **and** omitting credit for NWIW’s commitment to fully mitigate for in-state emissions.

The data in the DSSEIS is conclusive and consistent with the determinations of the original SEIS. When assessed globally, the Project provides clear and substantial GHG benefits that reduce the Project’s impacts to a less than significant level. NWIW’s voluntary mitigation plan provides a second basis for a less than significant determination.⁴ Section 3.7 of the DSSEIS lacks this ultimate conclusion in conflict with RCW 43.21C.031(1) and WAC 197-11-060(4)(b).⁵ The Port accordingly requests that Ecology’s conclusion on significance be changed to a less than significant determination consistent with the full SEPA record and, in particular, the conclusions of the DSSEIS.

C. The DSSEIS Confuses the Public by Placing Improper Emphasis on Fuel as an End Use

Responsive to substantial public comment, both the DSSEIS and the SEIS analyze fuel as a potential end use of KMMEF methanol. The SEIS included this analysis in Section 3.4.6 and Appendix A of the SEIS, but ultimately concluded that the end use of KMMEF methanol as a fuel was not appropriately a focus of the SEIS because it was not the project proposed by NWIW,⁶ the First Amendment to Dock Usage Agreement prohibits this outcome, and any

⁴ See, e.g., WAC 197-11-350 (“In making threshold determinations, an agency may consider mitigation measures that the agency or applicant will implement.”).

⁵ See also WAC 197-11-440(6)(c)(iv) (requiring that the EIS discuss the environmental benefits of mitigation).

⁶ By assuming that KMMEF will be used as fuel, rather than the Project’s stated purpose, Ecology breaks new ground under SEPA and analyzes a project not proposed by the applicant and potentially misleads the public on the Project and its probable environmental impacts. Confusion about the Project’s purpose and probable end use was a regular theme during the recent public hearings. The FSSEIS should be updated and reorganized to clarify that KMMEF methanol would be sold to olefin manufacturers and not used as fuel.

assumptions about KMMEF being used as fuel are unfounded.⁷ Choosing an end-use scenario that is contrary to stated Project purpose and inconsistent with market facts, and then calculating GHG emissions from that speculative end-use is inconsistent with SEPA and should be eliminated, or at a minimum, clearly labeled as an outlier anticipatory response to public comment without a factual basis. Additional evidence of the remote likelihood that KMMEF would be used as fuel is presented by the Port's consultant Mr. Berggren. As Mr. Berggren states, economic and regulatory restrictions in China further confirm that it is highly unlikely that KMMEF methanol will be used as a fuel.⁸

DSSEIS Section 3.4.6.2 and Section 3.5.3.1, however, establish a split for end use of the methanol produced by the KMMEF as 60% for olefin production with the balance of 40% being combusted as fuel and apply this split across the DSSEIS's low, medium and high cases.⁹ Neither this section of the DSSEIS, nor DSSEIS Appendix B, provides a reasoned basis for this end use split. Ecology's decision to employ an unsupported (and unexplained) assumption that 40% of KMMEF methanol will be used as fuel builds on the already specious nature of KMMEF being used as fuel at all, which again is prohibited under SEPA.¹⁰ It also misleads the public and future decision makers. The Port respectfully requests that the SSEIS be updated to limit its primary analysis to the production of olefins and to clarify the uncertainties and, at minimum, the disputed record underlying the fuel/olefin assumptions.¹¹

⁷ See SEIS, Section 4.3.7 at 4-10—4-11 (Standard Response 7; summarizing the SEIS's analysis of the potential use of fuel); SEIS, Appendix E, First Amendment to Dock Usage Agreement (June 12, 2019). This amendment provides a covenant that NWIW will not use the dock to sell any quantity of methanol as fuel, provides the Port the right to inspect records and if the prohibition is violated the Port will impose a surcharge of up to 300% of the normal cost to use the dock and under certain situations withdraw the right to use the dock for 1 year.

⁸ M. Berggren, Letter to Rick Doenges re KMMEF DSSEIS Comments (Oct. 9. 2020).

⁹ See DSSEIS, Table 3.5-13 at 84.

¹⁰ SEPA draws a clear distinction between "probable" impacts and "those that merely have a possibility of occurring, but are remote or speculative" and courts consistently hold that an EIS is not required to analyze potential future impacts that are "speculative" rather than "probable." See *City of Des Moines v. Puget Sound Reg'l Council*, 108 Wn. App. 836, 853-55, 988 P.2d 27 (1999); *Gebbers v. Okanogan Cty. Pub. Util. Dist. No. 1*, 144 Wn. App. 371,386, 183 P.3d 324 (2008) (holding that an EIS properly omitted analysis of a "hypothetical and speculative" transmission line rebuild that may occur 10 to 15 years in the future).

¹¹ See SEIS, Section 4.3.7. at 4-10—4-11 (Standard Response 7 summarizing the SEIS's analysis of the potential use of fuel).

D. Additional Clarification is Needed on the Range of Upstream Emission Rates Used in the DSSEIS

The DSSEIS substantially replicates the range of fugitive emission rates assessed in the SEIS but deviates in two ways that require correction or additional support. First, the DSSEIS does not adequately support its decision to use the EPA Shale emissions factor as its medium case, rather than a regionally-specific number. The Port respectfully requests that Ecology reconsider this decision as it overstates the most likely case of Project impacts. Second, the DSSEIS contains a 3% upstream fugitive emission rate. The Port respectfully requests that Ecology cite the technical basis for this assumption to better understand Ecology's decision making or label this assumption a sensitivity included in response to comments.

The DSSEIS's evaluation of KMMEF upstream emissions should properly recognize that regionally-specific GHG emissions rates are the best information available of the Project's probable GHG emissions. The SEIS concluded that, due to geological, operational and regulatory variations between different natural gas basins, a regionally-specific value for fugitive emissions provides the most probable assessment of Project impacts. A regionally-specific emission factor is most appropriate because differences in geologic features can result in differences in extraction methods, resource composition (fractions gas, liquids), weather, infrastructure age, regional air quality regulations, and operator management practices all of which affect fugitive emission rates.¹² This is particularly true here, where Canadian regulations are effective in reducing fugitive release of methane. GHG emissions from Canada also reflect the country's adherence to GHG reporting protocols. Over 99% of KMMEF gas will come from British Columbia/Alberta. The DSSEIS's probable case impacts should be updated to be consistent with this context. The FSSEIS should also point out trends to reduce upstream GHG emissions per MMBtu from both the Canadian and U.S. inventory.

The Port appreciates that, like the SEIS, the DSSEIS assesses potential Project GHG impacts under a range of assumptions on upstream fugitive methane emissions. The SEIS evaluates 13 different upstream leakage rates ranging from 0.32 to 2.3% (the rate forwarded by the Stockholm Environmental Institute).¹³ SEIS, Appendix B (replicating a chart found in Appendix A) also provided decision makers with the impact of assigning the full EDF/*Alvarez* value to KMMEF emissions, even though a direct application of *Alvarez* was determined to be unsupported because it assigns all fugitive emissions to natural gas, whereas the wells being analyzed produce natural gas *and* oil (which is not a KMMEF feedstock) and so requires a disaggregation before application in a life cycle analysis.¹⁴ The DSSEIS, in contrast, uses a 3%

¹² Brandt, A., Ravikumar, A., Natural Gas Brief, July 2018.

¹³ SEIS, Appendix B at 20-22.

upstream emission rate in its high-end scenario, but does not cite a source of this assumption. Disclosure of the technical reports underpinning this decision would aid the Port in its decision making. Additionally, the FSSEIS should confirm that this upstream assumption is included as a sensitivity responsive to comments and is less plausible than other, regionally specific and more technically supported fugitive emission rates.

II. TECHNICAL COMMENTS

The following technical item comments are organized by section of the DSSEIS and provide additional detail and comments to the issues raised above:

Fact Sheet: Under the description of the Project in the fact sheet as well as in Section 2.1 and 2.4, the DSSEIS notes the ability of the Port to use the dock for a layberth. For completeness, this should be corrected to include the number of layberth events allowed per year. The shoreline permit issued by the County includes a limit of 12 and this number was reflected in other permits and reviews.

Section 1: The summary does not include the minimum requirements specified in WAC 197-11-440(4). Notably absent are a summary of the impacts and the mitigation proposed by NWIW.

Section 1.1: The first paragraph included both the stated purpose of the Project but also the assumption from the DSSEIS author's conclusion that the methanol could be used as a fuel. This section should be revised to differentiate between the stated Project purpose and the assumptions used by Ecology in conducting the analysis.

Section 1.3: This section incorrectly notes the environmental record that will be used by Ecology in determining whether or not action needs to be taken on the issued Shoreline Conditional Use Permit. The environmental record includes the 2019 SEIS and the original 2016 EIS per WAC 197-11-600 and WAC 197-11-620.

Section 1.4.1: This section provides a regulatory and legal review of the process including a summary of the Shoreline Conditional Use permit process. It indicates that the Conditional Use Permit was issued for "the proposed project". To provide a complete picture of the process it is important for the FSSEIS reader to recognize that the Conditional Use Permit is not for the entirety of the Project but rather for discrete elements. These elements are dredging (within the Urban Shoreline District only) and limited industrial uses within the Conservancy Shoreline District (portions of the fire water storage pond, portions of the tank containment,

¹⁴ See Appendix B, Section 3.3 at 21 ("Total fugitive emissions reported in the EDF studies correspond to oil and gas production and therefore it is necessary to allocate total fugitive emissions between the crude oil and the natural gas produced by the same well. The allocation depends upon the amount of associated gas produced with crude oil.").

portions of the infiltration pond, security fencing and necessary site grading). It is requested that an explanation of this fact be added along with consideration of the GHG emission resulting from these specific elements of the Project.

Section 1.4.1: A discussion of RCW Chapter 70.235 is included in this section devoted to the Determination of Significance (DS) issued by Ecology for the DSSEIS. It is not clear the relevancy of this specific RCW in the context of the DS. This RCW is not mentioned in the scoping notice nor in the letter provided from Ecology to the County on November 22, 2019. This discussion should be removed from this section or the relevancy clearly stated for the decision makers.

Section 2.1 and 2.5.2: This section notes the connected actions of the natural gas pipeline and the electric transmission line. Readers would benefit from additional information regarding these connected actions in order to fully understand the GHG emissions (or lack thereof) from these actions. This could be accomplished by adding a simple description of these separate projects and/or referencing more directly where this information is located in the SEIS or the original FEIS.

Section 2.2: A brief summary of Project related actions is included at the end of this section. The list does not mention mitigation proposed by or imposed on the Project including the habitat mitigation actions such as habitat improvements and preservation actions. For completeness mitigation should be noted in this section.

Section 3.2: This section is devoted to the “affected environment” for GHG emissions included in the DSSEIS. This section includes a discussion (similar to that in the SEIS) that reflects the global nature of climate change and the fact that it is not meaningful to link a specific climate change effect (e.g., sea level rise) to a specific Project emission source. What this section (and the rest of the DSSEIS) lacks is clear articulation of what this means. The DSSEIS spends a considerable amount of time describing the Project related (both direct and indirect) emissions but nearly ignores the context (except for the state level which has limited relevance to actual climate change impacts from global GHG emissions). The SEIS provides a more detailed discussion of this in Section 3.5.1 as noted below:

The life-cycle GHG emissions of the proposed project would be added to the global GHG emissions from past activities, emissions from current activities, and the future emissions that would contribute to the cumulative increase in GHG emissions that result in climate change.

Because it is not possible to tie a particular climate change impact to individual emissions, it is not possible to identify or quantify specific direct environmental impacts from the GHG emissions of the proposed project. Therefore, the impact analysis is inherently a cumulative impacts analysis of the indirect effects of the GHG emissions. It is the resulting climate change effects that take place in the future and distant from the

project that are the relevant impacts. In this section, the impacts are based on GHG emissions and described separately by category and on an overall basis. To provide appropriate context and intensity for evaluation of impacts as required under SEPA, the GHG emissions are described in the context of both overall state and global GHG emissions levels.

We request that a similar discussion be added the FSSEIS so that decision makers clearly understand the contribution (or lack thereof) of this Project to global climate change. WAC 197-11-060(4)(b) (“In assessing the significance of an impact, a lead agency shall not limit its consideration of a proposal’s impacts to those aspects within its jurisdiction, including local and state boundaries”); WAC 197-11-794 (assessment of significance requires consideration of “context and intensity”). We further request that the DSSEIS characterize the Project’s global GHG emissions in direct comparison to global GHG emissions, which were estimated in 2018 to be 53.5 billion metric tonnes CO_{2e}, in addition to state level comparison currently included in the document.

Figure 3-1: This figure is not referenced in the text and no context is provided. In addition, it includes emissions from the KMMEF without any explanation and before emissions from the Project are even discussed. This could lead to confusion and question of relevancy to the analysis of emission from the Project. An explanation should be added and relevancy to determination of impacts under SEPA should be added to Section 3.2.1 or this figure should be removed.

Section 3.3.3.2: The last sentence of this section requires clarification. According to the Port’s understanding these provisions of the Washington Clean Air Act only require reporting of emissions while the section refers to “reduction or mitigation requirements.”

Section 3.3.3.8: Section 3.3, Regulatory Setting, indicates that the section summarizes laws, regulations, etc. that address “GHG” emissions. Section 3.3.3.8 summarizes the Shoreline Management Act. As noted in the first SEIS, there are no provisions within the Cowlitz County Shoreline Master Program or the Shoreline Management Act that specifically address GHG emissions. This discussion of the Shoreline Management Act should either be removed, moved to a separate section outside regulatory provisions related to GHG emissions or language added that acknowledges that it does not specifically address GHG emissions.

Section 3.4.2: This section on upstream emissions contains statements regarding methane and notes that is a far more potent GHG than carbon dioxide. This statement is an oversimplification of methane as a GHG and could lead to an overemphasis on methane emissions as viewed by the public and by decision makers as compared to carbon dioxide. We request that this paragraph be eliminated or additional information added to provide the necessary background. For example, although methane has more warming potential per unit, it is also much shorter lived (which means that the carbon dioxide emitted today will last in the

atmosphere much longer than methane). Also, methane constitutes only a small percentage of overall GHG emissions from the Project, the bulk of which are carbon dioxide. The focus of the DSSEIS's LCA should accordingly be on overall GHG emissions and not a particular gas and that Project operation reduces global GHG emissions as compared to the no action scenario.

Section 3.4.2: Table 3.4-1a does not accurately represent the upstream emission rates considered in the SEIS. Specifically this does not identify the Upper Emissions scenario which utilized the GREET/EDF values. Please correct the table to reflect this fact.

Section 3.4.4.2.2: The Reference Case for imported methanol includes upstream emission errors that likely underestimate of overall GHG emission. Upstream emissions from imported natural gas appear to have two errors. First the upstream emission values appear to be based on the same volume of natural gas for both the KMMEF and for the foreign imports. This is inaccurate because the combined reforming (CR) method uses more natural gas per unit of methanol than the ULE technology proposed for the KMMEF. The second error is use of the same upstream emission rate for all sources of imported natural gas. Upstream emission profiles can vary significantly between geologic basins due to, in part, variation in extraction methods, operations, and regulation. More research should be conducted to provide more accurate assessments of upstream emission rates for the various sources of methanol. For example the number one exporter to China is indicated as Iran (see Table 3.5-9). The International Energy Agency indicates a leak rate for Iran that is approximately 1.4%, which is twice that used in the DSSEIS. The Port accordingly requests that the DSSEIS reflect more accurate upstream emission rates or acknowledge the uncertainty surrounding the assumptions used.

Section 3.4.5.1: The DSSEIS states that "KMMEF is assumed to be a "price-taker" (as is expected in a competitive commodity market), meaning that the facility would take the price offered; it is not expected to impact global supply in a way that could affect the price." We agree that the KMMEF will be a price taker. For clarity, this discussion should focus on the fact that the market is growing and the statement that price takers do not affect supply/demand should be edited to reflect a more accurate statement. The DSSEIS should also be updated to clarify that KMMEF is lower cost than coal alternatives and so is able to remain operational (remain a price taker) when higher cost, coal-derived methanol is priced out. This provides additional support for Ecology's displacement analysis conclusions.

Section 3.5.1.2: The maximum potential to emit scenario is first mentioned in this section (and is referenced elsewhere) for emissions for the KMMEF process. The EIS does not do a sufficient job of explaining this scenario and why it is unlikely that this scenario would occur. While a decision maker may ultimately be able to find this information in the environmental record, we request that information be added to his section addressing this scenario. It also warrants reference to the Southwest Clean Air Agency air permit limit on GHG emissions.

Section 3.5.1.5.2: Figure 3.5-3 should be changed to report fuel use in a similar unit as the remainder of the document so users can make an easier comparison. The most used unit is metric tonnes.

Section 3.5.3.1: Regarding the following bullet point:

- Oil prices are assumed to remain stable at present levels – about \$40/barrel. If oil prices increase or decrease, then it is expected that correspondingly less or more naphtha based olefins would be produced, shifting the demand for methanol.

This is unclear whether lower oil prices shift demand for methanol vs. the demand for feedstocks to make methanol. Please add the following clarification to the FSSEIS: “If oil prices increase or decrease, then it is expected that correspondingly less or more naphtha based olefins would be produced, shifting the demand for naphtha as an olefin feedstock.”

Figure 3.5-11: The legend for this figure includes a “Naphtha to Olefin” category. It does not appear that Figure 3.5-11 shows emissions that would come from this scenario.

Section 3.6.1: This section discusses sensitivity analysis related to the use of different Global Warming Potential (GWP) methodologies. In this location as well as in other sections of the EIS the emissions are primarily calculated based on the AR4 100-year GWP. The Port agrees that the use of the AR4 100-year GWP is the most appropriate for the Project. However, for clarity for decision makers we request that more justification be provided for use of this GWP. Section 3.4.2 of the SEIS notes that the AR4 100-year GWP was used for consistency with international, United States, and Washington reporting requirements and contains a more detailed discussion of the GWPs. We also request that this section specifically note that the GWPs do not change the emissions from the Project. This section states “Moving from the 100-year AR4 result to the 20-year AR5 result, the difference in average annual emissions between KMMEF and the Alternate Cases increases by 15 percent for the RC, 13 percent for LCC, and 11 percent for HCC.” This statement is misleading in that it says emissions increase. In fact the actual emissions do not increase only the comparison of the warming effects related to CO₂e. More clarity is needed.

III. CONCLUSION

Ecology, the Port and the County have engaged in two rounds of exhaustive analysis of the GHG impacts of the KMMEF from well head to end use. After rigorous scrutiny, both analyses concurred that with or without the Project new sources of methanol will come on line to produce olefins and that KMMEF will out-compete significantly more impactful sources of methanol. Whether a decision maker finds Ecology’s estimate of 6 million tonnes of net benefit or the SEIS range of 9.6 and 12.6 million metric tonnes CO₂e of annual GHG reductions more persuasive is largely immaterial in assessing significance. Under either set of modeling parameters, this Project has significant GHG benefits to foreseeable global emissions. The Port

is also unaware of any EIS that has concluded that when a project fully mitigates for in-state impact, its impacts are significant. Consistent with the regular application of SEPA, NWIW's commitment to fully mitigate for in-state GHG emissions reduces their GHG impacts to a less than significant level.

In addition to reducing global GHG emissions as compared to the no action alternative, the proposed KMMEF would also provide extraordinary, long-term benefits to the state and local economies and will generate new jobs in Southwest Washington. Cowlitz County could use this stimulus—it is one of the most economically challenged communities in Western Washington with higher than average unemployment, lower wages and lower labor participation rates. The economic impact of COVID-19 has made the situation even more dire and in April 2020 nearly 15 percent of the county workforce filed for unemployment. The construction of this Project would offer huge benefits for Cowlitz County:

- 1,000 workers— laborers, electricians, welders, carpenters, ironworkers and administrative support— during construction;
- More than \$467 million in local goods and service purchases; and
- \$289 million in local wages, salaries and benefits.

Ongoing operations will also create many long-term, family-wage jobs as the Project is expected to directly employ 192 full-time workers at the facility and pay \$21 million in total compensation. When indirect and induced economic effects are included, a total of 688 jobs a year are attributed to the facility. State and local jurisdictions would receive significant tax revenues. NWIW will pay \$58 million in taxes during construction and \$30-\$40 million in annual taxes during operations. This means significant revenue to pay for roads, schools, fire services, infrastructure and more.

There are few (if any) places in the world where methanol manufacturing would be subjected to a more exacting regulatory review than in Washington. The state's economic, environmental and climate commitments are best reflected in a timely completion of this environmental review and the approval of all outstanding authorizations.

Sincerely,



Mark Wilson
Executive Director

CC:

Senator Dean Takko
Senator John Braun
Representative Jim Walsh
Representative Brian Blake
Representative Richard DeBolt
Representative Ed Orcutt
Ron Melin, Cowlitz County Planning Director
Doug Jensen, Chief Civil Deputy, Cowlitz County Prosecuting Attorney
Heather Bartlett, Deputy Director, Washington Department of Ecology
Reed Schuler, Senior Policy Advisor to Governor Inslee, Climate & Sustainability
Lauren McCloy, Senior Policy Advisor to Governor Inslee, Energy
Taylor Aalvik, Natural Resources Director, Cowlitz Indian Tribe
Julie Carter, Policy Analyst, Columbia River Inter-Tribal Fish Commission
Carl Merkle, Confederated Tribes of the Umatilla Indian Reservation
Marcus Shirzod, Yakama Nation Office of Legal Council