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Ian Munce, Project Manager
City of Tacoma
Planning and Development Services Department
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Re: Scoping comments on Proposed Methanol Plant at the Port of Tacoma

Mr. Munce,

We greatly appreciate the opportunity to participate in the environmental review process for Northwest Innovation Works' (NWIW) proposed methanol plant project. Please consider this letter as part of the public record for the scoping period of the environmental review.

The purpose of this letter is to urge the City of Tacoma to thoroughly examine the NWIW project's impact on the people of Washington and the natural environment of our community, and our state. We are committed to ensuring this review process accurately identifies and assesses the full range of potential externalities and impacts, not just in the area immediately surrounding the project site, but statewide in a comprehensive and cumulative fashion.

Due to the nature of the potential impacts, we recommend the city broaden the scope of the review process to include the impacts felt by many cities and counties across Washington. We also encourage the city to consider the cumulative impact of the proposed methanol plant in light of similar proposals elsewhere in the Pacific Northwest. Only through a thorough review process can stakeholders understand the full scope of the project and the impacts it will have. This letter summarizes some of the far-reaching effects of the NWIW project that should be, at a minimum, analyzed within the scope of the environmental impact statement.

I. Potential On-Site Impacts

We expect the project to produce a variety of impacts to the area in the immediate vicinity of the Port of Tacoma and around the pipeline that will be constructed to transport natural gas to the proposed plant. The review process needs to include consideration of all of these concerns, from construction to ongoing operation. In reviewing these impacts, we also need to consider forecasted growth in the number of people who live and work in Tacoma, Fife, Federal Way, Ruston, and University Place.

- **Air pollution** – Among our greatest concerns for the immediate community are the air pollutants the project will produce. The city should not move forward without

considering the effects air pollution could have on kids and the most vulnerable who live and work in our community, specifically:

- What types and amounts of air pollutants, including greenhouse gases and fugitive emissions, will be emitted from the project and what will the project's impacts be on air quality in Tacoma and surrounding areas?
- How will air pollution from the plant impact compliance with federal clean air regulations?
- What is the risk of Pierce County reverting to a non-attainment status by the Environmental Protection Agency for fine particulates and what will be the consequences of such designation?
- What will be the type and amount of fugitive emissions within the project site and from the pipeline lateral?
- How will the project impact the visual quality of the region?
- How will air pollution from the plant affect people with respiratory conditions and those with vulnerable immune systems?

- **Water pollution** – The NWIW project is likely to impact water quality in a variety of ways, both for our residents and our ecosystem. The city needs to both analyze these impacts and consider who will bear the cost of addressing them, in order to continue to provide clean, safe water for the people who live here. Specifically:
  - What types and amounts of pollutants might make their way into the marine environment?
  - What will the project's impact be on aquatic resources, and how will it meet Water Quality Criteria, including temperature?
  - What is the toxicity of methanol, natural gas, and all other byproducts in the marine environment?
  - With respect to water discharged from the facility, what amount of water will be discharged to the sewer system? To wastewater treatment facilities? Directly discharged to waterways?
  - What will be the project's stormwater impact and stormwater management strategy?
  - What pollutants, including heat, will the wastewater contain and what will the effective purification of wastewater entail?
  - What additional treatment facilities will be necessary to maintain water quality, and what public investment is required to construct, maintain, and operate these facilities?

- **Community Safety** – One of the most compelling concerns about the siting of a methanol plant in Tacoma is the risk of catastrophe that could endanger thousands of people and risk millions of dollars in public property and investment. The city must analyze all of the potential emergency situations, document all possible risks, and examine the ability of emergency responders to deal with the wide range of unique threats posed by the NWIW project.
  - What will be the vulnerability zones surrounding the facility and pipeline for both chemicals/pollutants and fire/explosions?

- What are the demographics of the populations working, recreating, and living within those zones?
- What is the distance to and capacity of the closest fire department station(s), and how will NWIW ensure that local emergency response crews have the proper personnel, equipment, and training to deal with the specific issues that may arise at the plant or along the pipeline?
- How does the siting of the pipeline in close proximity to another fuel pipeline exacerbate security and disaster concerns and how are emergency responders prepared to handle an emergency involving both pipelines?
- What will be the emergency protocol to minimize flammability and respond to fires on site and along the pipeline?
- In the case of fire, what will be the plan to prevent the water that was sprayed onto the plant from fire hoses from entering Commencement Bay and its waters?
- Given the very limited transportation routes serving Northeast Tacoma and Browns Point, how will the city assure evacuation routes for this area given an emergency at the proposed plant?
- In the event of catastrophe, how will the inmates of the immigration detention center be evacuated?

II. Impact to Shared Resources

In addition to the direct impacts to the area around the Port of Tacoma, the city should also review the potential effect the NWIW project will have on roads, utilities and other shared resources. Additionally, we cannot adequately address these concerns without considering the forecasted growth in the number of people who live and work in Tacoma, Fife, Federal Way, Ruston and University Place, and to the demographics of the people who will be most impacted by the project. We have grave concerns about the lack of communication and outreach to impacted communities to-date, and we believe the city should examine any plans project proponents have to enhance communication with local decision-makers regarding the potential impacts of the project and mitigation strategies.

- **Infrastructure** – The construction and operation of a methanol plant will have numerous impacts on the publicly-maintained infrastructure near the Port of Tacoma, and these impacts will have a disproportionate effect on low-income and middle-class families who depend on public transportation. Added traffic, accelerated wear and tear, and complications for public transit should all be considered in the review process. In addition:
  - What impacts will the project have on traffic volume along highway 509/Marine View Drive, Taylor Way, and the surface streets near the Port of Tacoma?
  - What will be the air and water quality impacts from this increased traffic?
  - What local, state, and federal investments will be necessary to maintain the transportation routes that will see significant increases in traffic due to the NWIW project?
  - How will public transit services maintain necessary routes and on-time standards?
  - What public investments will be threatened in the event of a catastrophe at the plant or along the pipeline?

- What process will be used to construct the lateral pipeline, and what will its effects be on the local aquatic and terrestrial environment?

- **Water** – NWIW has stated that the plant could need up to 3.8 billion gallons of water per year once operational, and we expect the city to thoroughly examine the far reaching impacts of such expansive consumption, especially as water supply becomes constrained. We cannot prioritize water for a methanol plant over water for people.
  - What exact amount of water does the project require?
  - What are the specific source(s) of freshwater for the project?
  - What impacts will the project's water use have on groundwater supplies, streams, and rivers?
  - What impact will NWIW water usage have to Tacoma Water ratepayers?
  - The city should analyze historical drought information for the Tacoma watershed and forecast future drought potential. How will NWIW's water usage impact residential, recreational, and industrial use of Tacoma's water supply?
  - What is NWIW's plan or process for water conservation during drought and how will this be enforced?
  - How will NWIW's water consumption affect other water customers, wildlife, and minimum in-stream flows in different seasons and during periods of drought?
  - How will NWIW usage fit into the city's curtailment plan during a drought?
  - How will NWIW water consumption be prioritized relative to other water customers when drought conditions exist?
  - How will curtailment impact operations at the plant?

- **Electricity** – In addition to water, the NWIW plant is expected to be a large consumer of electricity. The city should thoroughly examine the full range of impacts that will result from NWIW's projected 450mw consumption.
  - What is the specific amount of electricity required for each step in the industrial process and what is the total electricity usage?
  - Is there variance in electricity usage requirements for the project?
  - What are the source(s) of electricity for the project?
  - How do the sources of electricity factor in to the overall environmental impact of the plant?
  - How will NWIW's energy consumption effect rates for current and future energy customers in Tacoma?
  - At what point will Tacoma Water's energy supply be constrained or exhausted if the NWIW project moves forward?
  - NWIW's Ultra Low Emission (ULE) technology allows for a greater use of electricity in the place of natural gas for stages of the industrial process, but does this indeed result in an overall lower environmental impact when the generation of this electricity is considered?

- **Marine Environment** – Commencement Bay and the rest of the Puget Sound provide recreation, transportation and livelihoods for many people in our region. The potential impacts on marine traffic and the environment are not limited to Commencement Bay —

damage caused by the methanol plant would impact the entire Sound. The city should examine these concerns, focusing particularly on:

- How much will NWIW operations increase vessel traffic in Commencement Bay and in nearby waterways?
- What routes will these vessels be following?
- Where will they be coming from and where will they be going?
- How much fuel will be necessary to transport NWIW methanol to market?
- What are the potential impacts to marine health near the Port of Tacoma as a result of increased vessel traffic and what potential mitigation costs may be incurred to ensure a healthy marine environment?
- Will ballast water be dumped as ships are loaded and will additional treatment facilities be needed to treat ballast water? What impact will ballast water have on existing water quality and marine life?

- **Environmental Justice** – The city should review the potential economic and public health risks posed to low-income communities in the immediate vicinity of the Port, as well as the distribution of impacts – environmental and economic – and the distribution of benefits. As part of this analysis, the city should determine:
  - What is the median income in the 5-mile radius surrounding the Port and how does that compare to the city as a whole?
  - How many children reside in low-income households in this radius?
  - What rates of respiratory conditions that may be exacerbated by air pollutants exist in this area and how do these rates compare to the city as a whole?
  - How does access to emergency medical care and emergency response in this area compare to access across the city as a whole?
  - Is NWIW likely to employ people from the area immediately around the Port?
  - How many jobs will likely be filled by workers who live within 5 miles of the Port and what will the average salary of those jobs be?

III. State and Global Impacts

Finally, we urge the city to thoroughly detail the upstream and downstream impacts of methanol production, highlighting the benefits and costs of siting a methanol plant in Tacoma. This analysis should include a comparison of net economic impacts and net carbon emissions for the NWIW project in relation to a no-action alternative or constructing a similar facility in China. Rather than viewing the NWIW project in a vacuum, we expect the city to examine the following issues in light of feasible alternatives and existing proposals elsewhere in the state:

- What are the potential environmental impacts of natural gas extraction techniques and what portion of the natural gas will be sourced from fracking operations?
- In light of the environmental impacts of natural gas extraction, what is the cumulative environmental impact of methanol production from natural gas relative methanol produced from other fossil fuels?
- What will be the impacts resulting from these methanol-based products within the United States and abroad?

- Considering both the on-site generation of greenhouse gases and the off-site emissions from electricity generation, what are the climate change impacts of this project? The EIS should address the impacts of this proposal on local, state, federal, and global attempts to combat climate change.
- What is the total cost of producing methanol in Tacoma, including the costs of public infrastructure, private investment, and environmental externalities? This analysis should include the entire life cycle of the product, from extraction to the end use. What is the carbon benefit of the project compared to current practices or producing methanol in China?
- What is the net economic benefit of the project and who receives this benefit?

Please contact our offices if there are questions regarding our comments. Thank you for the opportunity to provide feedback for this project.

Sincerely,

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