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In Re: Notice of Construction Notice #: 23NOC1606

Thank you for this opportunity to comment on the Notice of Construction for Pacific Northwest Renewable Energy, LLC wood pellet manufacturing facility in Hoquiam, Washington (Grays Harbor County) as referenced above.

FOGH is a broad-based 100% volunteer tax-exempt 501(c)(3) citizens group made up of crabbers, fishers, oyster growers and caring citizens. The mission of FOGH is to foster and promote the economic, biological, and social uniqueness of Washington's estuaries and ocean coastal environments. The goal of FOGH is to protect the natural environment, human health and safety in Grays Harbor and vicinity through science, advocacy, law, activism, and empowerment.

We incorporate by reference those comments made by Diane Dick, Peter, Riggs, Pivot Point, Grays Harbor Audubon, Natural Resources Defense Council, Wild Orca, Twin Harbors Waterkeeper, and Citizens for a Clean Harbor.

We find that this proposal is woefully inadequate in making sure that irreparable damage to the health, welfare, safety to humans and wildlife in an hemispherically important area. The proposal plans to locate its manufacturing plant adjacent to the Grays Harbor National Wildlife Refuge and within 5,000+/- feet of Emerson Elementary School, Hoquiam Middle School, and Hoquiam High School serving a population of over 1,100 students and staff.

The proximity of the PNWRE facility to schools raises serious concerns about potential dangers for attending children, both indoors and outdoors. The potential risks include, but are not limited to:

*Air Pollution:*

- Particulate matter (PM): Emissions from the facility, particularly PM<sub>2.5</sub>, can easily travel and penetrate deep into children's lungs, leading to respiratory problems like asthma, bronchitis, and reduced lung function. One in 11 Grays Harbor citizens suffer from asthma. Children are more susceptible to the harmful effects of PM due to their developing lungs and higher breathing rates.
- Volatile organic compounds (VOCs): VOCs released from the facility can irritate airways, contribute to ozone formation (another lung irritant), and potentially impact children's neurological development.
- Hazardous air pollutants (HAPs): Even though individual HAP emissions might be stated to be below major source thresholds, exposure to even small amounts of certain HAPs can increase children's risk of cancer, developmental problems, and other health issues.

*Noise Pollution:*

- Operation of the facility can generate constant noise pollution, including machinery noise, truck traffic, and emissions control equipment. This can disrupt sleep, learning, and concentration, negatively impacting children's academic performance and mental well-being.

*Fire Risk:*

- The possibility of fires involving large fuel storage piles presents a direct safety risk to students and staff at the schools. Additionally, smoke and harmful pollutants from a fire could significantly impact air quality in the surrounding area.

*Psychological Stress and Environmental Justice:*

- Knowing about the potential health risks from the facility can cause anxiety and stress among children and their families. This could impact their mental health and well-being, especially for vulnerable populations already facing environmental disadvantages.

*Indoor Concerns:*

- Airborne pollutants from the facility might infiltrate nearby buildings, including the schools, posing a risk to indoor air quality and impacting children's health even within classrooms.

The potential health risks and environmental concerns associated with the PNWRE facility's proximity to schools are significant and warrant careful consideration. A thorough environmental impact assessment that specifically addresses the risks to children's health is crucial before making any decisions regarding the facility's location or operation.

In addition, the location of a large wood pellet manufacturing facility adjacent to the Grays Harbor National Wildlife Refuge would likely present a significant problem for the over 500,000 shorebirds that use the area as a stopover point during their twice a year migration. The potential risks include but are not limited to:

*Air quality:*

Increased air pollution from PM2.5, VOCs, and NOx can:

- Directly impact the respiratory health of migrating birds, reducing their stamina and survival rates.
- Reduce visibility, making it harder for birds to navigate and find food.
- Contaminate food sources like insects and shellfish with fine particles, affecting the birds' nutritional intake.

*Water quality:*

Potential spills or leachate from the facility could:

- Contaminate the Grays Harbor Estuary and nearby wetlands, poisoning fish and invertebrates that serve as food for shorebirds.
- Increase turbidity, reducing the ability of birds to see prey in the water.
- Disrupt the delicate balance of the ecosystem, impacting food availability and habitat quality.

*Noise and light pollution:*

Operation of the facility can generate noise and light at night, potentially:

- Disrupt sleep patterns and migration behaviors of birds.
- Discourage birds from stopping at the refuge by creating an unsuitable environment.

*Clogging and smothering:*

- Large amounts of wood pellet manufacturing particulate matter (WPMPM) can physically clog and smother biofilm, reducing its availability to shorebirds. This is especially detrimental during low tide when food resources are limited.



*Alteration of biofilm composition:*

- WPMPM can alter the composition of the biofilm community, favoring bacterial groups that are less palatable or nutritious for shorebirds. This can lead to decreased food intake and even malnutrition.

*Chemical contamination:*

- Wood pellets may contain trace amounts of contaminants like pesticides or heavy metals. These can be absorbed by biofilm-forming bacteria and subsequently ingested by shorebirds, potentially leading to bioaccumulation and health problems.

*Reduced oxygen levels:*

- When WPMPM decomposes, it can consume oxygen in the water column. This can create areas of low oxygen which can stress or even kill biofilm organisms and fish, further reducing food availability for shorebirds.

*The potential for habitat destruction:*

- Even if the facility itself is not directly located within the refuge boundaries, construction and operation could impact nearby habitats used by shorebirds for feeding, resting, and nesting.

*Cumulative effects:*

- The combined impact of the facility with other existing or planned industrial activities in the area could further exacerbate the negative consequences for birds.

The placement of a large wood pellet manufacturing facility adjacent to the Grays Harbor National Wildlife Refuge raises serious concerns about the health and well-being of the hundreds of thousands of shorebirds that depend on this critical stopover point. A thorough environmental impact assessment (EIS) that considers both air and water quality, noise, and light pollution, as well as potential habitat destruction and cumulative effects, is crucial before making any decisions regarding the facility's location.

It is essential to prioritize the protection of this important wildlife refuge and the migratory birds that rely on it. These combined factors could significantly decrease the number of shorebirds that successfully use the Grays Harbor National Wildlife Refuge as a stopover point. This could have cascading effects on the entire migratory flyway, impacting populations across continents.

The above concerns, in part, present our concerns about the location and operation of the proposed pellet plant. The potential health risks associated with a large wood pellet manufacturing facility in Hoquiam are serious and warrant careful consideration. A thorough environmental impact assessment, public input, and implementation of strict environmental regulations and controls are crucial to minimize the negative impacts on the health and well-being of Grays Harbor citizens. It's important to consider the combined effect of emissions from this facility with existing or planned industrial activities in the area. The cumulative impact could exacerbate negative consequences for air quality and public health. Robust monitoring and enforcement mechanisms are essential to ensure the facility complies with emission limits and operates in a way that minimizes environmental and health impacts.

We are also concerned about the placement and scarcity of monitoring systems and how they would capture emission from the proposed plant.

Thank you in advance for considering these comments.

Sincerely,



Arthur (RD) Grunbaum, President

