

Appendix A  
**NOC Application Forms and  
SEPA Documentation**

# OLYMPIC REGION CLEAN AIR AGENCY

2940 Limited Lane NW - Olympia, Washington 98502 - 360-539-7610 – Fax 360-491-6308

## FORM 1- NOTICE OF CONSTRUCTION TO CONSTRUCT - INSTALL - ESTABLISH OR MODIFY AN AIR CONTAMINANT SOURCE

**Form 1 Instructions:**

1. Please complete all the fields below. **This NOC application is considered incomplete until signed.**
2. If the application contains any confidential business information, please complete a Request of Confidentiality of Records ([www.orcaa.org](http://www.orcaa.org)).
3. Duty to Correction Application: An applicant has the duty to supplement or correct an application. Any applicant who fails to submit any relevant facts or who has submitted incorrect information in a permit application must, upon becoming aware of such failure or incorrect submittal, promptly submit supplementary factors or corrected information.

<b>Business Name:</b> Pacific Northwest Renewable Energy	<b>For ORCAA use only</b> File No: 432 County No: 27 Source No: 926 Application No: 23 NOC 1606
<b>Mailing Address:</b> P.O. Box 391, Sth Egrement, MA 01258	Date Received:  <div style="text-align: center; color: red; font-weight: bold; font-size: 1.2em;">                     Received                      JUL 20 2023                       ORCAA                 </div>
<b>Physical Address of Project or New Source:</b> 411 Moon Island Road, Hoquiam, WA 98550	
<b>Billing Address:</b> P.O. Box 391, Sth Egrement, MA 01258	
<b>Project or Equipment to be installed/established:</b>  Wood pellet manufacturing facility	
Anticipated startup date: <u>02</u> / <u>01</u> / <u>2025</u> Is facility currently registered with ORCAA? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	
This project must meet the requirements of the State Environmental Policy Act (SEPA) before ORCAA can issue final approval. Indicate the SEPA compliance option: <input type="checkbox"/> SEPA was satisfied by _____ (government agency) on ___/___/___ (date) - Include a copy of the SEPA determination <input checked="" type="checkbox"/> SEPA threshold determination by <u>City of Hoquiam</u> (government agency) is pending - Include a copy of the environmental checklist <input type="checkbox"/> ORCAA is the only government agency requiring a permit - Include ORCAA Environmental Checklist <input type="checkbox"/> This project is exempt from SEPA per _____ (WAC citation).	
<b>Name of Owner of Business:</b> Farnese Partners, LTD	<b>Agency Use Only</b>
Title: Owner	
Email: pheasman@pnwrenewable.com	Phone:
<b>Authorized Representative for Application (if different than owner):</b> Mark Boivin	
Title: CEO	
Email: mboivin@pnwrenewable.com	Phone: (413) 244-7360
<b>I hereby certify that the information contained in this application is, to the best of my knowledge, complete and correct.</b>	
<b>Signature of Owner or Authorized Representative: (sign in Blue Ink)</b>	
	Date: 7/20/23
<b>IMPORTANT:</b> Do not send via email or other electronic means. ORCAA must receive Original, hardcopy, signed application and payment prior to processing application.	

## OLYMPIC REGION CLEAN AIR AGENCY

2940 Limited Lane NW - Olympia, Washington 98502 - 360-539-7610 – Fax 360-491-6308

### FORM 1D- Contact Information

<b>Business Name</b> Pacific Northwest Renewable Energy	<b>FOR ORCAA USE</b>
<b>Physical Site Address (Street address, city, state, zip)</b> 411 Moon Island Road Hoquiam, WA 98550	<b>FILE #</b> 432
	<b>CTY #</b> 27
	<b>SRC #</b> 926
<b>Previous Business Name (if applicable)</b>	<b>Date Received</b> Received JUL 20 2023  ORCAA

#### Contact Information

<b>Inspection Contact</b>	
Name Kim Alexander	Title VP of Operations
Phone (864) 367-2767	Email kalexander@pnwrenewable.com
<b>Billing Contact</b>	
Name Steeve Wintle	Title CFO
Phone (207) 651-4580	Email swintle@pnwrenewable.com
<b>Emission Inventory Contact</b>	
Name Kim Alexander	Title VP of Operations
Phone (864) 367-2767	Email kalexander@pnwrenewable.com
<b>Complaint Contact</b>	
Name Kim Alexander	Title VP of Operations
Phone (864) 367-2767	Email kalexander@pnwrenewable.com
<b>Permit Contact</b>	
Name Brandon Henderson	Title Director of Engineering
Phone (254) 813-3260	Email bhenderson@pnwrenewable.com

The **inspection contact** is the on-site person responsible for the everyday operation of the site and is available for inspections.

The **billing contact** is the person invoices are sent.

The **emission inventory contact** is the person requests for emissions information and material use information are sent.

The **complaint contact** is the person who receives and responds to complaints received on-site and who is contacted regarding complaints ORCAA receives.

The **permit contact** is the person responsible for filling out permit applications and receiving approval from ORCAA.

## FORM 4 FACILITY EMISSIONS SUMMARY

Facility: Pacific Northwest Renewable Energy - Port of Grays Harbor Wood Pellet Facility

Page 1 of 3

**Instructions: on back.**

Emission Unit ID#	TSP	PM-10	SOx	NOx	VOC	CO
TD-01	0.41	0.19	0	0	0	0
TD-02	0.46	0.22	0.03	0	0	0
TD-03	0.27	0.13	0	0	0	0
SP-01	0.65	0.32	0.16	0	0	0
SP-02	0.65	0.32	0.16	0	0	0
SP-03	0.65	0.32	0.16	0	0	0
VEH-01	10.70	3.18	0	0	0	0
VEH-02	17.69	5.29	0	0	0	0
EP-01	29.81	7.45	0	0	0	0
EP-02	8.38	2.10	0	0	0	0
EP-03	8.38	2.10	0	0	0	0
<b>Facility Total</b>						

## FORM 4 FACILITY EMISSIONS SUMMARY

Facility: Pacific Northwest Renewable Energy - Port of Grays Harbor Wood Pellet Facility

Page 2 of 3

**Instructions: on back.**

Emission Unit ID#	TSP	PM-10	SOx	NOx	VOC	CO
EP-04	33.88	55.81	18.05	227.76	28.80	183.96
EP-05	0.07	0.07	0	0	0	0
EP-06	0.07	0.07	0	0	0	0
EP-08	8.19	8.30	0.01	1.70	37.67	0.72
EP-09	0.07	0.07	0	0	0	0
EP-10	3.85	2.35	0	0	0	0
EP-11	3.85	2.35	0	0	0	0
EP-12	3.85	2.35	0	0	0	0
EP-13	3.85	2.35	0	0	0	0
EP-14	3.85	2.35	0	0	0	0
EP-15	0.02	0.01	0	0	0	0
<b>Facility Total</b>						



**FORM 5**  
**EMISSIONS OF HAZARDOUS AIR POLLUTANTS**

Facility: PNWRE - Port of Grays Harbor

Emission Unit ID#: Facility-wide

Page 1 of 5

Pollutant Name	CAS #	Maximum Emission Rate (lbs/hr)	Annual Emission Rate (tons/yr)
1,1,1-Trichloroethane	71-55-6	2.69E-01	1.34E-04
Acetaldehyde	75-07-0	4.17E-01	1.65E-01
Acetophenone	98-86-2	1.64E-04	7.16E-04
Acrolein	107-02-8	5.77E-02	5.27E-02
Benz(a)anthracene	56-55-3	8.40E-04	4.21E-05
Benzene	71-43-2	4.69E-01	3.45E-02
Benzo(a)pyrene	50-32-8	9.40E-05	4.76E-06
Benzo(b)fluoranthene	205-99-2	4.96E-05	2.57E-06
Benzo(k)fluoranthene	207-08-9	7.75E-05	3.97E-06
Biphenyl	92-52-4	9.96E-05	4.36E-04
<b>Facility Total</b>			

**FORM 5**  
**EMISSIONS OF HAZARDOUS AIR POLLUTANTS**

Facility: PNWRE - Port of Grays Harbor

Emission Unit ID#: Facility-wide

Page 2 of 5

Pollutant Name	CAS #	Maximum Emission Rate (lbs/hr)	Annual Emission Rate (tons/yr)
Bis-(2-ethylhexyl phthalate)	117-81-7	8.18E-04	3.58E-03
Bromomethane	74-83-9	7.15E-05	3.13E-04
Carbon disulfide	75-15-0	4.60E-05	2.01E-04
Carbon tetrachloride	56-23-5	3.07E-05	1.34E-04
Chloromethane	74-87-3	2.81E-04	1.23E-03
Cumene	98-82-8	1.76E-04	7.72E-04
Di-N-butyl phthalate	84-74-2	5.88E-05	2.57E-04
Dibenzo(a,h)anthracene	53-70-3	2.92E-04	1.46E-05
Ethyl benzene	100-41-4	9.71E-06	4.25E-05
Formaldehyde	50-00-0	6.55E-01	3.13E-01
<b>Facility Total</b>			

**FORM 5**  
**EMISSIONS OF HAZARDOUS AIR POLLUTANTS**

Facility: PNWRE - Port of Grays Harbor

Emission Unit ID#: Facility-wide

Page 3 of 5

Pollutant Name	CAS #	Maximum Emission Rate (lbs/hr)	Annual Emission Rate (tons/yr)
Hexane	110-54-3	2.21E-02	9.69E-02
Hydroquinone	123-31-9	1.53E-04	6.71E-04
Indeno(1,2,3,c,d)pyrene	193-39-5	1.88E-04	9.47E-06
m,p-Xylene	1330-20-7	1.44E-01	1.44E-01
Methanol	67-56-1	5.41E-02	2.37E-01
Methyl isobutyl ketone	108-10-1	6.13E-03	2.69E-02
n-Hexane	110-54-3	2.21E-02	9.69E-02
Naphthalene	91-20-3	4.63E-02	2.35E-03
o-Xylene	95-47-6	3.58E-05	1.57E-04
Phenol	108-95-2	2.82E-02	1.23E-01
<b>Facility Total</b>			

**FORM 5**  
**EMISSIONS OF HAZARDOUS AIR POLLUTANTS**

Facility: PNWRE - Port of Grays Harbor

Emission Unit ID#: Facility-wide

Page 4 of 5

Pollutant Name	CAS #	Maximum Emission Rate (lbs/hr)	Annual Emission Rate (tons/yr)
Propionaldehyde	123-38-6	8.18E-03	3.58E-02
Styrene	100-42-5	3.07E-04	1.34E-03
Toluene	108-88-3	2.10E-01	3.39E-02
Antimony	7440-36-0	6.51E-05	6.51E-05
Arsenic	7440-38-2	1.84E-04	8.05E-04
Beryllium	7440-41-7	9.21E-06	4.03E-05
Cadmium	7440-43-9	4.73E-05	2.07E-04
Chromium, hexavalent	CRVICOMP	2.88E-05	1.26E-04
Chromium, total	7440-47-3	1.90E-04	8.33E-04
Cobalt	7440-48-4	5.46E-05	2.39E-04
<b>Facility Total</b>			

**FORM 5**  
**EMISSIONS OF HAZARDOUS AIR POLLUTANTS**

Facility: PNWRE - Port of Grays Harbor

Emission Unit ID#: Facility-wide

Page 5 of 5

Pollutant Name	CAS #	Maximum Emission Rate (lbs/hr)	Annual Emission Rate (tons/yr)
Lead	7439-92-1	4.02E-04	1.76E-03
Manganese	7439-96-5	1.32E-02	5.78E-02
Mercury	7439-97-6	5.80E-04	2.54E-03
Nickel	7440-02-0	2.98E-04	1.30E-03
Phosphorus	7723-14-0	2.22E-04	9.75E-04
Selenium	7782-49-2	2.34E-05	1.02E-04
1,3-Butadiene	106-99-0	1.96E-02	9.78E-04
Methylene Chloride	75-09-2	1.61E-03	7.05E-03
<b>Facility Total</b>		2.18	1.32



FORM 7  
**PSD APPLICABILITY FORM**

This form is an aid to help determine if a proposed project will be required to undergo PSD review. Please submit this form with the cover sheet of the Notice of Construction application to the Local Air Authority. For locations in eastern Washington where the Department of Ecology is the delegated local air authority, submit this form to the appropriate Ecology Regional Office.

It is the responsibility of the applicant to ensure that all preconstruction permits are obtained before commencement of construction.

COMPANY INFORMATION

Company or owner name: Pacific Northwest Renewable Energy - Port of Grays Harbor

Mailing address: P.O. Box 391  
Sth Egrement, MA 01258

Facility address: 411 Moon Island Road  
Hoquiam, WA 98550

Contact: Brandon Henderson

Telephone: (254) 813-3260

Facility industrial classification and SIC: 2499

**PROCESS INFORMATION AND EMISSIONS CALCULATIONS**

This section is intended to furnish a best estimate of annual emissions and sufficient information for agency technical staff to verify the applicant's conclusions in answering the questions in the next section. Please provide:

- (1) A description of the process with a flow diagram indicating points of emissions to the air.
- (2) Design and operating parameters for the process (i.e., hours of operation per year, maximum and normal production rates, fuel and raw material requirements).
- (3) Estimates of the potential emissions for all air pollutants from each emissions point and a description of the method or basis used to make the emission estimates (in enough detail so that one can follow the logic and the calculation steps). Potential emissions are based on the maximum rate from each emission point taking into account air pollution control equipment.

For either a new or modified source, calculate its potential to emit each regulated pollutant based on operation at maximum capacity (such as 8760 hours/year) with emissions control equipment operating.

For a modified source, subtract the actual emissions of the existing source from the potential to emit of the modified source to calculate the emissions increase(decrease). Actual emissions are the average of the last 24 months of operation, if that period is representative of normal operations.

Regulated Pollutant Under PSD	Potential To Emit Tons/Year	Actual Emissions Tons/Year	Emissions Increase (Decrease)	Significant PSD Rate Tons/Year
Carbon Monoxide	185			100
Nitrogen oxides	230			40
Sulfur dioxide	18			40
Particulate matter PM <sub>10</sub>	<b>88 / 71</b>			25 15
Ozone (VOCs)	67			40
Lead (elemental)	1.76E-03			0.6
Fluorides	--			3
Sulfuric acid mist	--			7
Total reduced sulfur (including H <sub>2</sub> S)	--			10
Reduced sulfur compounds (including H <sub>2</sub> S)	--			10
Municipal waste combustor organics Dioxins and furans Metals	--			3.5x10 <sup>-6</sup> 15
Municipal waste combustor acid gasses	--			40

**QUESTION 1**

Does the proposed source or, in the case of a modification to a source, the existing source fall within one of the following 28 source categories?

1. Fossil fuel-fired steam electric plants of more than 250 million Btu/hr heat input
  2. Coal cleaning plants with thermal dryers
  3. Kraft pulp mills
  4. Portland cement plants
  5. Primary zinc smelters
  6. Iron and steel mill plants
  7. Primary aluminum ore reduction plants
  8. Primary copper smelters
  9. Municipal incinerators capable of charging more than 250 tons of refuse per day
  10. Hydrofluoric acid plants
  11. Sulfuric acid plants
  12. Nitric acid plants
  13. Petroleum refineries
  14. Lime plants
  15. Phosphate rock processing plants
  16. Coke oven batteries
  17. Sulfur recovery plants
  18. Carbon black plants (furnace process)
  19. Primary lead smelters
  20. Fuel conversion plants
  21. Sintering plants
  22. Secondary metal production plants
  23. Chemical process plants
  24. Fossil fuel boilers (or combinations) totaling more than 250 million Btu/hr heat input
  25. Petroleum storage and transfer units with a total storage capacity exceeding 300,000 barrels
  26. Taconite ore processing plants
  27. Glass fiber processing plants
  28. Charcoal production plants
- YES \_\_\_ (Please circle number.) GO TO QUESTION 2.  
 NO <sup>x</sup> \_\_\_ GO TO QUESTION 3.

**QUESTION 2**

Will emissions of any one regulated pollutant (including fugitive emissions) from the proposed or existing source exceed 100 tons per year?

YES \_\_\_ GO TO QUESTION 6.

NO \_\_\_ PSD IS NOT REQUIRED. DO NOT ANSWER ANY MORE QUESTIONS. SUBMIT THIS FORM WITH THE NOTICE OF CONSTRUCTION APPLICATION.

**QUESTION 3**

Does the proposed source or, in the case of a modification to a source, the existing source fall within one of the following source categories?

1. Municipal Incinerators (  50 tons/day)
2. Asphalt concrete plants
3. Storage vessels for petroleum liquids,  40,000 gallons, construction after 06/11/73 and prior to 05/19/78.
4. Storage vessels for petroleum liquids,  40,000 gallons, construction after 05/18/78
5. Sewage treatment plants with sludge incinerators
6. Phosphate fertilizer industry: Plants manufacturing wet-process phosphoric acid, superphosphoric acid, diammonium phosphate, triple superphosphate, and granular triple superphosphate storage facilities.
7. Glass melting furnace  4,555 kilograms glass/day, (except all electric melters)
8. Grain elevators
9. Stationary gas turbines  10.7 gigajoules/hour heat input
10. Lead acid battery manufacturing plants
11. Automobile and light-duty truck assembly plant surface coating operations

YES \_\_\_ (Please Circle Number) GO TO QUESTION 4

NO <sup>x</sup> \_\_\_ GO TO QUESTION 5

**QUESTION 4**

Will the emissions of any one regulated pollutant (including fugitive emissions) from the proposed or existing source exceed 250 tons/year?

YES \_\_\_ GO TO QUESTION 6  
NO \_\_\_ PSD IS NOT REQUIRED. DO NOT ANSWER ANY MORE QUESTIONS. SUBMIT THIS FORM WITH THE NOTICE OF CONSTRUCTION APPLICATION.

**QUESTION 5**

Will emissions of any one pollutant (not including fugitive emissions) from the proposed or existing source exceed 250 tons per year?

YES \_\_\_ GO TO QUESTION 6.  
NO <sup>x</sup> \_\_\_ PSD IS NOT REQUIRED. DO NOT ANSWER ANY MORE QUESTIONS. SUBMIT THIS FORM WITH THE NOTICE OF CONSTRUCTION APPLICATION.

**QUESTION 6**

Is the project located within 10 kilometers (6.2 miles) of the boundary of a Class I area? Class I areas in Washington State are Mount Rainier National Park, North Cascade National Park, Olympic National Park, Alpine Lakes Wilderness Area, Glacier Peak Wilderness Area, Goat Rocks Wilderness Area, Mount Adams Wilderness Area, Pasayten Wilderness Area, and the Spokane Indian Reservation.

YES \_\_\_ PSD REVIEW IS REQUIRED IF THE IMPACT OF ANY REGULATED POLLUTANT IS EQUAL TO OR GREATER THAN 1 µg/m<sup>3</sup>, (24-hour average).  
NO \_\_\_ CONTINUE

**QUESTION 7**

Is the proposed project a

1. \_\_\_ new source? GO TO QUESTION 8.
2. \_\_\_ modification, expansion, or addition to an existing source? GO TO QUESTION 9.

**QUESTION 8**

For which regulated pollutants does the potential to emit of the new source exceed the PSD significant rate?

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PSD REVIEW IS REQUIRED FOR THESE POLLUTANTS. YOU MUST MEET WITH THE DEPARTMENT OF ECOLOGY TO DISCUSS THE PSD APPLICATION PROCEDURE.

**QUESTION 9**

For which regulated pollutants do the emissions increase from the modified source exceed the PSD significant rate?

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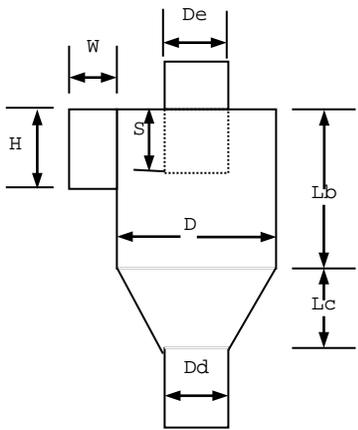
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PSD REVIEW IS REQUIRED FOR THESE POLLUTANTS. YOU MUST MEET WITH THE DEPARTMENT OF ECOLOGY TO DISCUSS THE PSD APPLICATION PROCEDURE.

# OLYMPIC REGION CLEAN AIR AGENCY

2940 Limited Lane NW - Olympia, Washington 98502 - 360-539-7610 – Fax 360-491-6308

## NOC FORM 13 CYCLONES

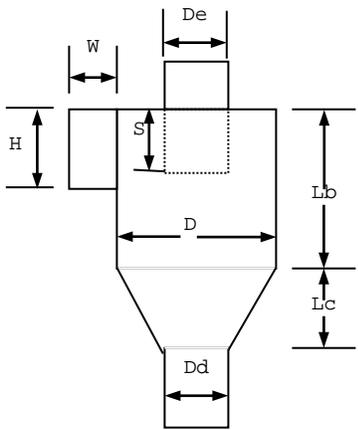
<b>GENERAL INFORMATION</b>		
Facility Name: Pacific Northwest Renewable Energy Port of Grays Harbor Wood Pellet Facility	Contact Person: Brandon Henderson Phone Number: (254) 813-3260 Email: bhenderson@pnwrenewable.com	
Facility Operating Schedule: 24 ___ hrs/day, 7 ___ days/wk, 52 ___ wks/yr Check days when operating: M <input type="checkbox"/> T <input type="checkbox"/> W <input type="checkbox"/> Th <input type="checkbox"/> F <input type="checkbox"/> Sat <input type="checkbox"/> Sun	Cyclone Operating Schedule: 24 ___ hrs/day, 7 ___ days/wk, 52 ___ wks/yr Check days when operating: M <input type="checkbox"/> T <input type="checkbox"/> W <input type="checkbox"/> Th <input type="checkbox"/> F <input type="checkbox"/> Sat <input type="checkbox"/> Sun	
X ___ new unit ___ modification ___ # identical units	Manufacturer: TBD	Model & Serial #s: TBD
<b>TECHNICAL SPECIFICATIONS</b>		
Air Flow: design acfm 37664 operating acfm	System Parameters: pressure drop (inches water) fan power (hp) temperature (°F or ambient) ambient	
Cyclone Design Parameters		
S (in.) H (in.) De (in.) Dd (in.) W (in.) D (in.) Lb (in.) Lc (in.)		Describe location of cyclone including height and related stack (use additional pages if necessary):  Chips Cleaning Line Cyclone EP-01 Stack diameter = 47 inches Stack height = 50 feet
Describe operation of cyclone including use of safety bypass stacks (use additional pages if necessary): A scalper roll sorts forest residual chips from impurities/overs and cyclone captures airborne particulate, cyclone product capture sent to dryer.		
<b>PARTICULATE EMISSIONS DATA</b>		
Describe Particulate Emissions: wood and dirt residue		
<b>OTHER INFORMATION</b>		
The following information is needed to complete the application: 1. Manufacturer brochure or technical fact sheet for cyclone.		

Note: See back side of form for ORCAA approved equipment and operations.

# OLYMPIC REGION CLEAN AIR AGENCY

2940 Limited Lane NW - Olympia, Washington 98502 - 360-539-7610 – Fax 360-491-6308

## NOC FORM 13 CYCLONES

<b>GENERAL INFORMATION</b>		
Facility Name: Pacific Northwest Renewable Energy Port of Grays Harbor Wood Pellet Facility	Contact Person: Brandon Henderson Phone Number: (254) 813-3260 Email: bhenderson@pnwrenewable.com	
Facility Operating Schedule: 24 ___ hrs/day, 7 ___ days/wk, 52 ___ wks/yr Check days when operating: M <input type="checkbox"/> T <input type="checkbox"/> W <input type="checkbox"/> Th <input type="checkbox"/> F <input type="checkbox"/> Sat <input type="checkbox"/> Sun	Cyclone Operating Schedule: 24 ___ hrs/day, 7 ___ days/wk, 52 ___ wks/yr Check days when operating: M <input type="checkbox"/> T <input type="checkbox"/> W <input type="checkbox"/> Th <input type="checkbox"/> F <input type="checkbox"/> Sat <input type="checkbox"/> Sun	
X ___ new unit ___ modification ___ # identical units	Manufacturer: TBD	Model & Serial #s: TBD
<b>TECHNICAL SPECIFICATIONS</b>		
Air Flow: design acfm 10593 operating acfm	System Parameters: pressure drop (inches water) fan power (hp) temperature (°F or ambient) ambient	
Cyclone Design Parameters		
S (in.) H (in.) De (in.) Dd (in.) W (in.) D (in.) Lb (in.) Lc (in.)		Describe location of cyclone including height and related stack (use additional pages if necessary):  Wet Hammermill Cyclones EP-02 and EP-03 Stack diameter = 24 inches Stack height = 50 feet
Describe operation of cyclone including use of safety bypass stacks (use additional pages if necessary): 2 wet hammermills reduce wet wood material size for optimum drying. One cyclone per wet hammermill recovers airborne product and sends to the dryer.		
<b>PARTICULATE EMISSIONS DATA</b>		
Describe Particulate Emissions: wood dust		
<b>OTHER INFORMATION</b>		
The following information is needed to complete the application: 1. Manufacturer brochure or technical fact sheet for cyclone.		

Note: See back side of form for ORCAA approved equipment and operations.

# OLYMPIC REGION CLEAN AIR AGENCY

2940 Limited Lane NW - Olympia, Washington 98502 - 360-539-7610 – Fax 360-491-6308

## FORM 35 Oxidizer

<b>General Information</b>		
Facility Name: Pacific Northwest Renewable Energy - RTO EP-04	Contact Person: Brandon Henderson Phone Number: (254) 813-3260 Email: bhenderson@pnwrenewable.com	
Facility Operating Schedule: <u>24</u> hrs/day, <u>7</u> days/wk, <u>52</u> wks/yr  Circle days when operating: (M) (T) (W) (Th) (F) (Sat) (Sun)	Oxidizer Operating Schedule: <u>24</u> hrs/day, <u>7</u> days/wk, <u>52</u> wks/yr  Circle days when operating: (M) (T) (W) (Th) (F) (Sat) (Sun)	
<input checked="" type="checkbox"/> new unit installation <input type="checkbox"/> modification	Manufacturer: TBD	Model & Serial #s: TBD
<b>Technical Specifications</b> (attach additional pages if needed)		
Oxidizer Type: <input type="checkbox"/> catalytic oxidizer <input checked="" type="checkbox"/> regenerative thermal oxidizer <input type="checkbox"/> recuperative thermal oxidizer <input type="checkbox"/> thermal (direct fired) oxidizer	Air Flow: blower acfm <u>124031</u> blower hp _____ combustion retention time (sec.) _____ pressure drop (in. H <sub>2</sub> O) <u>25</u>	Burner: type of fuel <u>Natural Gas</u> maximum fuel usage <u>8</u> MMBtu/hr gas inlet temperature (°F) <u>176</u> set point temperature (°F) <u>1500</u>
For catalytic oxidizers: 1. What is the catalyst material? 2. What is the expected catalyst lifetime? 3. Describe the catalyst cleaning and replacement procedures and frequency.		
For regenerative thermal oxidizers: 1. What is the media type? <u>Ceramic</u> 2. How many chambers are there and what are the chamber dimensions? <u>4 chambers. 11 feet wide by 23 feet long by 8 feet tall</u>		
For recuperative thermal oxidizers: 1. Describe the type of heat exchanger? 2. What are the dimensions of the combustion chamber?		
For direct fired thermal oxidizers: 1. What are the dimensions of the combustion chamber?		
Describe monitoring of oxidizer, including temperature, airflow, fuel consumption, and pressure drop. Include a description of the data analyzer and how records will be kept: <u>TBD</u>		
<b>Emissions</b>		
VOC control efficiency (%) <u>&gt; 95%</u> Maximum VOC emissions (ppm or lbs/hr) <u>6.575 lb/hr</u>	Maximum NOx emissions (ppm or lbs/hr) <u>52 lb/hr</u> Maximum CO emissions (ppm or lbs/hr) <u>42 lb/hr</u>	
<b>Exhaust Parameters</b>		
Stack height (feet) <u>90</u> Stack internal diameter (feet) <u>87 inches</u>	Exhaust airflow (scfm) <u>103229</u> Exhaust temperature (°F) <u>131</u>	
<b>Other Information</b>		
The following information is needed to complete the application: 1. Brochure or technical fact sheet from manufacturer or consultant. See Appendix D 2. Scaled technical drawings of the oxidizer, including location of thermocouple and other monitoring equipment. TBD 3. Plan of facility showing locations of oxidizer, stack, and nearby buildings (including maximum heights). See Appendix B 4. Describe any concentrators or particulate control devices associated with the oxidizer. <u>2 cyclone precleaners, wet electrostatic precipitator</u>		

# OLYMPIC REGION CLEAN AIR AGENCY

2940 Limited Lane NW - Olympia, Washington 98502 - 360-539-7610 – Fax 360-491-6308

## FORM 12 BAGHOUSE

<b>GENERAL INFORMATION</b>		
Facility Name: <b>Pacific Northwest Renewable Energy Dry Hammer Mill Cyclofilters (x4)</b>	Contact Person: Brandon Henderson Phone Number: (254) 813-3260 Email: bhenderson@pnwrenewable.com	
Facility Operating Schedule: <b>24</b> hrs/day, <b>7</b> days/wk, <b>52</b> wks/yr  Check days when operating: M <input checked="" type="checkbox"/> T <input checked="" type="checkbox"/> W <input checked="" type="checkbox"/> Th <input checked="" type="checkbox"/> F <input checked="" type="checkbox"/> Sat <input checked="" type="checkbox"/> Sun	Baghouse Operating Schedule: <b>24</b> hrs/day, <b>7</b> days/wk, <b>52</b> wks/yr  Check days when operating: M <input checked="" type="checkbox"/> T <input checked="" type="checkbox"/> W <input checked="" type="checkbox"/> Th <input checked="" type="checkbox"/> F <input checked="" type="checkbox"/> Sat <input checked="" type="checkbox"/> Sun	
<input checked="" type="checkbox"/> new unit installation <input type="checkbox"/> modification	Manufacturer: TBD	Model & Serial #s: TBD
<b>TECHNICAL SPECIFICATIONS</b>		
Air Flow:  design acfm 29500 operating acfm temperature (F°)	System Parameters:  pressure drop (inches water) water vapor content (lbs water/lb dry air) fan power (hp)	
Describe filter material:		
Describe bag cleaning mechanism and cycle:		
Describe operation of baghouse including use of safety bypasses, monitoring and maintenance schedules and any other pertinent information relating to particulate emissions (use additional pages if necessary):		
<b>PARTICULATE EMISSIONS DATA</b>		
Particulate Emissions: inlet (gr/scf) _____ outlet (gr/scf) 0.002	Particulate Control Efficiency:  filtering velocity (acfm/ft <sup>2</sup> cloth) particulate control efficiency (%):	
Describe Particulate Emissions: <b>Wood residue from pellet cooling and handling</b>		
Micron Range:	Inlet Loading (% of total)	Outlet Loading (% of total)
0 - 5	_____%	_____%
5 - 10	_____%	_____%
greater than 10	_____%	_____%
<b>OTHER INFORMATION</b>		
The following information is needed to complete the application: 1. Manufacturer brochure or technical fact sheet for filter material. 2. Scaled technical drawings of the baghouse including top, side and interior views. 3. Manufacturer brochure or technical fact sheet for baghouse.		

Note: See back side of form for ORCAA approved equipment and operations.

**REQUIREMENTS FOR NEW BAGHOUSES**  
**ORCAA 1/4/96**

1. **BACT for Particulate Control:** ORCAA may require demonstration of compliance based on measured stack grain loading in accordance to the procedures outlined in 40CFR Part 60 and in accordance with ORCAA's approved particulate source test procedures.

1.1 Low Temperature Process Streams - Grain Elevators, Barley Processing, Forest Products Dust, Large Cabinet Shops:

Particulate Limit: 0.01 gr/dscf  
Opacity Limit: 5% for entire process stream.

These limits are appropriate for low temperature dust control when NOMEX bags are feasible.

1.2 High Temperature Process Streams - Ceramics, Metal Dust:

Particulate Limit: 0.01 gr/dscf  
Opacity Limit: 5% for entire process stream.

1.3 Combustion Sources - Boilers, Asphalt Plants:

Particulate Limit: 0.02 gr/dscf (back half included)

Opacity Limit: 5% for entire process stream.

2. **Stack:** Emissions shall exit through a vertical stack at least 2 meters above the highest point of the baghouse. Permanent sampling ports and platforms shall be installed on the stack prior to commencement of operation. The sampling ports shall meet the requirements of 40, CFR Part 60, Appendix A, Method 1.

3. **Opacity Monitor (wood fired boilers):** Owners and operators of baghouses installed on wood fired boilers shall install, calibrate, maintain, and operate a continuous emissions monitoring system (CEMS) for continuously monitoring the boiler stack gas opacity prior to exiting to the atmosphere.

3.1 The opacity CEMS shall be certified and installed in accordance 40CFR Part 60, Performance Specification 1 (appendix B).

3.2 The opacity CEMS shall be equipped with a strip chart recorder or data acquisition system (DAS) capable of computing and recording stack gas opacity in three consecutive minute averages. The data acquisition system or strip chart recorder shall record and display opacity values to 0.5% opacity.

3.3 Prior to installation of the CEMS, the owner or operator shall provide ORCAA a written manufacturers certificate of conformance with Performance Specification 1.

3.4 An opacity CEMS quality assurance plan conforming with 40 CFR Part 60 Appendix F and the EPA publication "Recommended Quality Assurance Procedures for Opacity Continuous Emissions Monitoring Systems" (EPA 340/1-86-010) shall be developed and submitted to ORCAA for approval no later than 180 days after commencement of operation.

3.5 The opacity CEMS shall be operational and tested for compliance with 40 CFR Part 60, Appendix B Performance Specification 1 no later than 90 days after initial startup.

4. **Other:** Other requirements include; 1) monitoring of pressure drop across baghouse, 2) bag monitoring and maintenance schedule, 3) full set of replacement bags on-site, 4) emission inventory reporting, and 5) excess emissions reporting.

# OLYMPIC REGION CLEAN AIR AGENCY

2940 Limited Lane NW - Olympia, Washington 98502 - 360-539-7610 – Fax 360-491-6308

## FORM 12 BAGHOUSE

<b>GENERAL INFORMATION</b>		
Facility Name: <b>Pacific Northwest Renewable Energy</b>	Contact Person: Brandon Henderson Phone Number: (254) 813-3260 Email: bhenderson@pnwrenewable.com	
Facility Operating Schedule: <b>24</b> hrs/day, <b>7</b> days/wk, <b>52</b> wks/yr  Check days when operating: M <input checked="" type="checkbox"/> T <input checked="" type="checkbox"/> W <input checked="" type="checkbox"/> Th <input checked="" type="checkbox"/> F <input checked="" type="checkbox"/> Sat <input checked="" type="checkbox"/> Sun	Baghouse Operating Schedule: <b>24</b> hrs/day, <b>7</b> days/wk, <b>52</b> wks/yr  Check days when operating: M <input checked="" type="checkbox"/> T <input checked="" type="checkbox"/> W <input checked="" type="checkbox"/> Th <input checked="" type="checkbox"/> F <input checked="" type="checkbox"/> Sat <input checked="" type="checkbox"/> Sun	
<input checked="" type="checkbox"/> new unit installation <input type="checkbox"/> modification	Manufacturer: <b>TBD</b>	Model & Serial #s: <b>TBD</b>
<b>TECHNICAL SPECIFICATIONS</b>		
Air Flow:  design acfm operating acfm temperature (F°)	System Parameters:  pressure drop (inches water) water vapor content (lbs water/lb dry air) fan power (hp)	
Describe filter material:		
Describe bag cleaning mechanism and cycle:		
Describe operation of baghouse including use of safety bypasses, monitoring and maintenance schedules and any other pertinent information relating to particulate emissions (use additional pages if necessary):		
<b>PARTICULATE EMISSIONS DATA</b>		
Particulate Emissions: inlet (gr/scf) _____ outlet (gr/scf) <u>0.002</u>	Particulate Control Efficiency:  filtering velocity (acfm/ft <sup>2</sup> cloth) particulate control efficiency (%):	
Describe Particulate Emissions: <b>Wood residue from pellet cooling and handling</b>		
Micron Range:	Inlet Loading (% of total)	Outlet Loading (% of total)
0 - 5	_____%	_____%
5 - 10	_____%	_____%
greater than 10	_____%	_____%
<b>OTHER INFORMATION</b>		
The following information is needed to complete the application: 1. Manufacturer brochure or technical fact sheet for filter material. 2. Scaled technical drawings of the baghouse including top, side and interior views. 3. Manufacturer brochure or technical fact sheet for baghouse.		

Note: See back side of form for ORCAA approved equipment and operations.

**REQUIREMENTS FOR NEW BAGHOUSES**  
**ORCAA 1/4/96**

1. **BACT for Particulate Control:** ORCAA may require demonstration of compliance based on measured stack grain loading in accordance to the procedures outlined in 40CFR Part 60 and in accordance with ORCAA's approved particulate source test procedures.

1.1 Low Temperature Process Streams - Grain Elevators, Barley Processing, Forest Products Dust, Large Cabinet Shops:

Particulate Limit: 0.01 gr/dscf  
Opacity Limit: 5% for entire process stream.

These limits are appropriate for low temperature dust control when NOMEX bags are feasible.

1.2 High Temperature Process Streams - Ceramics, Metal Dust:

Particulate Limit: 0.01 gr/dscf  
Opacity Limit: 5% for entire process stream.

1.3 Combustion Sources - Boilers, Asphalt Plants:

Particulate Limit: 0.02 gr/dscf (back half included)

Opacity Limit: 5% for entire process stream.

2. **Stack:** Emissions shall exit through a vertical stack at least 2 meters above the highest point of the baghouse. Permanent sampling ports and platforms shall be installed on the stack prior to commencement of operation. The sampling ports shall meet the requirements of 40, CFR Part 60, Appendix A, Method 1.

3. **Opacity Monitor (wood fired boilers):** Owners and operators of baghouses installed on wood fired boilers shall install, calibrate, maintain, and operate a continuous emissions monitoring system (CEMS) for continuously monitoring the boiler stack gas opacity prior to exiting to the atmosphere.

3.1 The opacity CEMS shall be certified and installed in accordance 40CFR Part 60, Performance Specification 1 (appendix B).

3.2 The opacity CEMS shall be equipped with a strip chart recorder or data acquisition system (DAS) capable of computing and recording stack gas opacity in three consecutive minute averages. The data acquisition system or strip chart recorder shall record and display opacity values to 0.5% opacity.

3.3 Prior to installation of the CEMS, the owner or operator shall provide ORCAA a written manufacturers certificate of conformance with Performance Specification 1.

3.4 An opacity CEMS quality assurance plan conforming with 40 CFR Part 60 Appendix F and the EPA publication "Recommended Quality Assurance Procedures for Opacity Continuous Emissions Monitoring Systems" (EPA 340/1-86-010) shall be developed and submitted to ORCAA for approval no later than 180 days after commencement of operation.

3.5 The opacity CEMS shall be operational and tested for compliance with 40 CFR Part 60, Appendix B Performance Specification 1 no later than 90 days after initial startup.

4. **Other:** Other requirements include; 1) monitoring of pressure drop across baghouse, 2) bag monitoring and maintenance schedule, 3) full set of replacement bags on-site, 4) emission inventory reporting, and 5) excess emissions reporting.

# OLYMPIC REGION CLEAN AIR AGENCY

2940 Limited Lane NW - Olympia, Washington 98502 - 360-539-7610 – Fax 360-491-6308

## FORM 35 Oxidizer

<b>General Information</b>		
Facility Name: Pacific Northwest Renewable Energy - RCO EP-08	Contact Person: Brandon Henderson Phone Number: (254) 813-3260 Email: bhenderson@pnwrenewable.com	
Facility Operating Schedule: <u>24</u> hrs/day, <u>7</u> days/wk, <u>52</u> wks/yr  Circle days when operating: <input checked="" type="checkbox"/> M <input checked="" type="checkbox"/> T <input checked="" type="checkbox"/> W <input checked="" type="checkbox"/> Th <input checked="" type="checkbox"/> F <input checked="" type="checkbox"/> Sat <input checked="" type="checkbox"/> Sun	Oxidizer Operating Schedule: <u>24</u> hrs/day, <u>7</u> days/wk, <u>52</u> wks/yr  Circle days when operating: <input checked="" type="checkbox"/> M <input checked="" type="checkbox"/> T <input checked="" type="checkbox"/> W <input checked="" type="checkbox"/> Th <input checked="" type="checkbox"/> F <input checked="" type="checkbox"/> Sat <input checked="" type="checkbox"/> Sun	
<input checked="" type="checkbox"/> new unit installation <input type="checkbox"/> modification	Manufacturer: TBD	Model & Serial #s: TBD
<b>Technical Specifications</b> (attach additional pages if needed)		
Oxidizer Type: <input checked="" type="checkbox"/> catalytic oxidizer <input type="checkbox"/> regenerative thermal oxidizer <input type="checkbox"/> recuperative thermal oxidizer <input type="checkbox"/> thermal (direct fired) oxidizer	Air Flow: blower acfm <u>137000</u> blower hp _____ combustion retention time (sec.) _____ pressure drop (in. H <sub>2</sub> O) <u>25</u>	Burner: type of fuel <u>Natural Gas</u> maximum fuel usage <u>4.5</u> MMBtu/hr gas inlet temperature (°F) <u>176</u> set point temperature (°F) <u>1500</u>
For catalytic oxidizers: 1. What is the catalyst material? 2. What is the expected catalyst lifetime? 3. Describe the catalyst cleaning and replacement procedures and frequency.		
For regenerative thermal oxidizers: 1. What is the media type? 2. How many chambers are there and what are the chamber dimensions?		
For recuperative thermal oxidizers: 1. Describe the type of heat exchanger? 2. What are the dimensions of the combustion chamber?		
For direct fired thermal oxidizers: 1. What are the dimensions of the combustion chamber?		
Describe monitoring of oxidizer, including temperature, airflow, fuel consumption, and pressure drop. Include a description of the data analyzer and how records will be kept: TBD		
<b>Emissions</b>		
VOC control efficiency (%) <u>&gt; 95%</u> Maximum VOC emissions (ppm or lbs/hr) <u>8.6 lb/hr</u>	Maximum NOx emissions (ppm or lbs/hr) <u>0.04 lb/hr</u> Maximum CO emissions (ppm or lbs/hr) <u>0.02 lb/hr</u>	
<b>Exhaust Parameters</b>		
Stack height (feet) <u>90</u> Stack internal diameter (feet) <u>83 inches</u>	Exhaust airflow (scfm) <u>99795</u> Exhaust temperature (°F) <u>214</u>	
<b>Other Information</b>		
The following information is needed to complete the application: 1. Brochure or technical fact sheet from manufacturer or consultant. See Appendix D 2. Scaled technical drawings of the oxidizer, including location of thermocouple and other monitoring equipment. TBD 3. Plan of facility showing locations of oxidizer, stack, and nearby buildings (including maximum heights). See Appendix B 4. Describe any concentrators or particulate control devices associated with the oxidizer. cyclones and combined cyclone/fabric filters		

# SEPA ENVIRONMENTAL CHECKLIST

## A. Background

**1. Name of proposed project, if applicable:**

Port of Grays Harbor Plant Project

**2. Name of applicant:**

Pacific Northwest Renewable Energy (PNWRE)

**3. Address and phone number of applicant and contact person:**

Applicant:

Mark Boivin, CEO

PO Box 391 South Egremont, MA 01258

413.244.7360

mboivin@pnwrenewable.com

Contact:

Sharese Graham

1201 Third Ave, Suite 550, Seattle, WA 98101

206.739.5454

sharese.graham@scjalliance.com

**4. Date checklist prepared:**

June 14, 2023

**5. Agency requesting checklist:**

City of Hoquiam

**6. Proposed timing or schedule (including phasing, if applicable):**

Construction is anticipated to begin in January 2024.

**7. Do you have any plans for future additions, expansion, or further activity related to or connected with this proposal? If yes, explain.**

There are no plans for additional construction after commencement of normal operations identified in the project description.

**8. List any environmental information you know about that has been prepared, or will be prepared, directly related to this proposal.**

- Air Quality Analysis
- Contaminated Media Management Plan
- Federal Aviation Administration (FAA) Obstruction Review
- Phase I Environmental Site Assessment
- Wetlands and Streams Delineation (prepared for a previous proposal at the same site)
- Cultural Resources Assessment (prepared for a previous proposal at the same site)

**9. Do you know whether applications are pending for governmental approvals of other proposals directly affecting the property covered by your proposal? If yes, explain.**

There are no known pending applications for other projects or proposals directly affecting the property for this proposed project.

**10. List any government approvals or permits that will be needed for your proposal, if known.**

State Approvals/Permits

- ORCAA – Air Quality Permit
- Department of Ecology – National Pollutant Discharge Elimination System (NPDES) Construction Stormwater Permit and Industrial Stormwater Permit
- FAA – Clearance Letter

Local Approvals/Permits

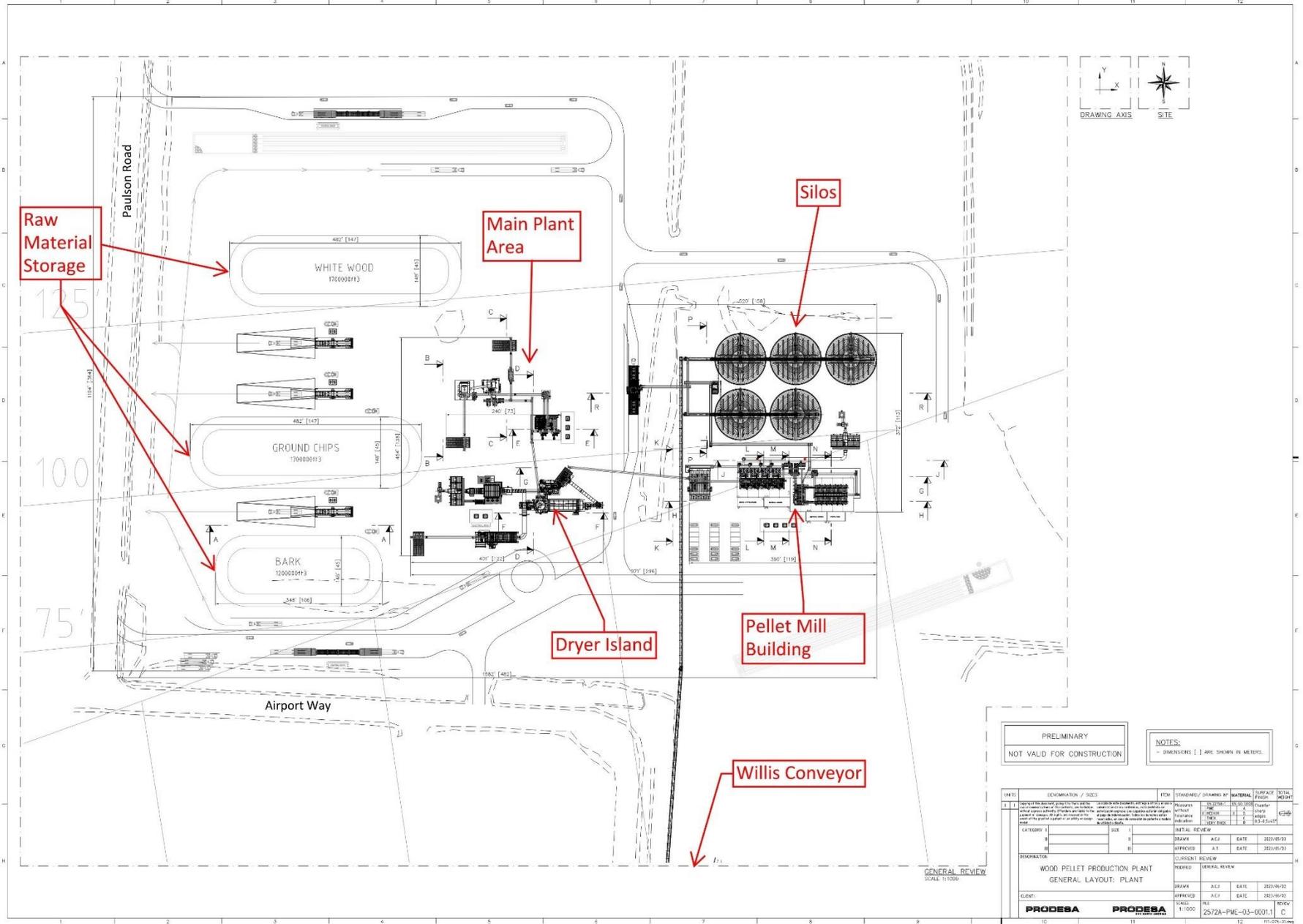
- City of Hoquiam – Zoning Conditional Use Permit, Critical Areas Review, Floodplain Permit, Construction Permits, Binding Site Plan
- Port of Grays Harbor – Approval of Operation Agreement and Lease Agreement

**11. Give a brief, complete description of your proposal, including the proposed uses and the size of the project and site. There are several questions later in this checklist that ask you to describe certain aspects of your proposal. You do not need to repeat those answers on this page. (Lead agencies may modify this form to include additional specific information on project description.)**

PNWRE is proposing to construct and operate a biomass facility (pellet plant) in Hoquiam, Grays Harbor County. Wood pellets will be manufactured at the project site and exported, via vessel, to international markets, including Asia and Europe. The adjacent chip mill site is expected to be one of the sources of raw material, thus reducing truck trips to and from the site.

The processing of wood chips at the proposed facility includes the use of three truck tippers, a chips cleaning line, two wet hammermills controlled by cyclones, one hog fuel furnace and dryer controlled by a wet electrostatic precipitator (WESP) and a regenerative thermal oxidizer (RTO), four dry hammermills each controlled by a cyclone, 12 pellet production and cooling lines controlled by two cyclones, and a regenerative catalytic oxidizer (RCO) controlling the combined dry hammermills and pellet cooling lines, five wood pellet storage silos, and a ship loadout area. The wet raw materials for pellet production and hog fuel for the furnace will be delivered to the facility via truck. The facility could process up to 440,800 tons per year (TPY) of dried wood pellets. The Project Site Plan is shown in Figure 1.

Figure 1 Project Site Plan

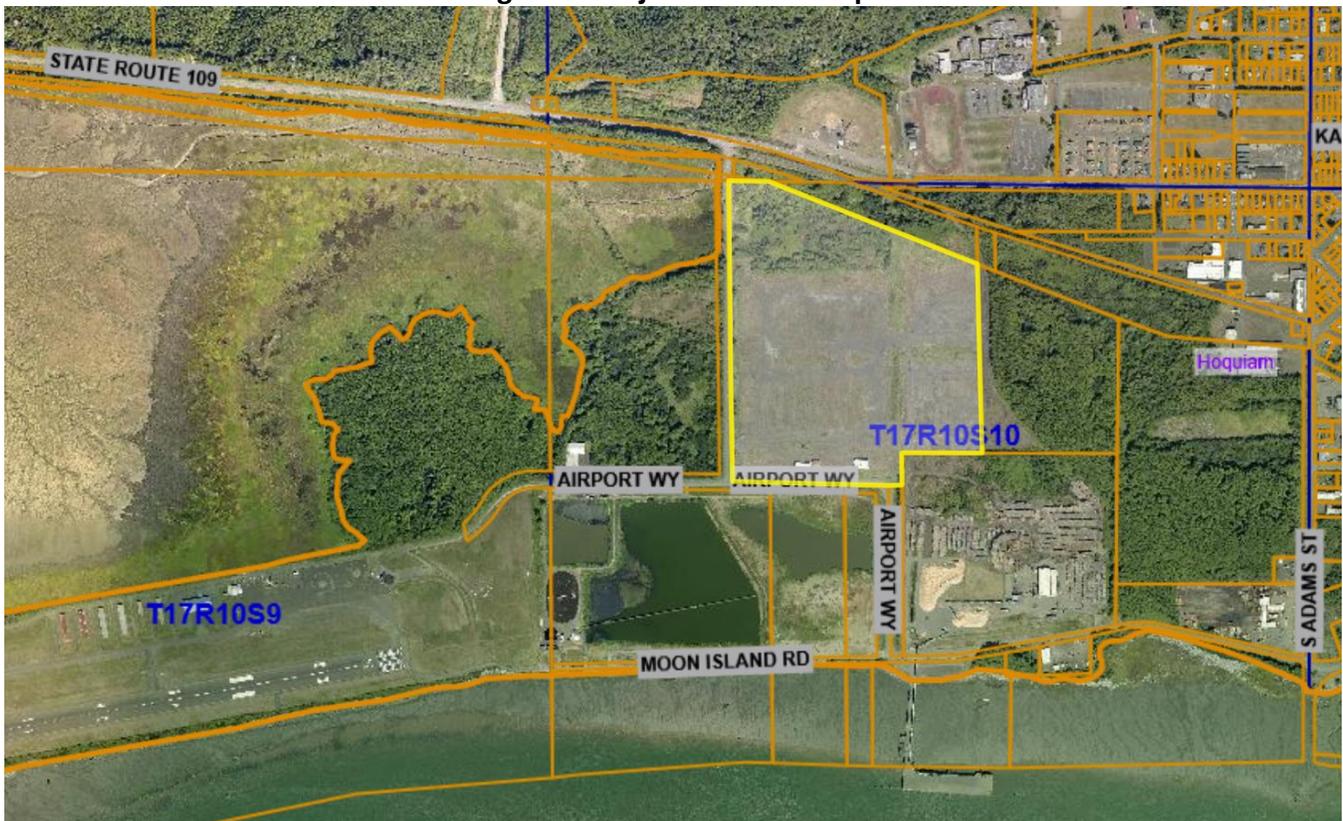


The steel silos (which are similar to grain silos) and conveyor will connect to the existing conveyor that leads from the Willis Enterprises chip plant to Terminal 3. The conveyor was recently renovated by Willis Enterprises. The storage silos will have a total capacity of up to 50,000 metric tons and shall aggregate pellets until enough volume is accumulated for bulk shipments of 20,000-45,000 metric tons per ship.

**12. Location of the proposal. Give sufficient information for a person to understand the precise location of your proposed project, including a street address, if any, and section, township, and range, if known. If a proposal would occur over a range of areas, provide the range or boundaries of the site(s). Provide a legal description, site plan, vicinity map, and topographic map, if reasonably available. While you should submit any plans required by the agency, you are not required to duplicate maps or detailed plans submitted with any permit applications related to this checklist.**

The project address is 411 Moon Island Road, TLN 056401000400, at the corner of Paulson Road and Airport Way near an existing wood chip plant (Willis Enterprises), and the Port of Grays Harbor Terminal 3 in the City of Hoquiam (Figure 2).

**Figure 2 Project Location Map**



## B. Environmental Elements

### 1. Earth

#### a. General description of the site:

**Circle or highlight one:** Flat, rolling, hilly, steep slopes, mountainous, other:

The project site is generally bare, undeveloped ground.

The lowlands were formed by historic tidelands and riverine floodplains from the mainstem Hoquiam River and its major lower tributaries.

#### b. What is the steepest slope on the site (approximate percent slope)?

The steepest slope is less than 2%.

#### c. What general types of soils are found on the site (for example, clay, sand, gravel, peat, muck)? If you know the classification of agricultural soils, specify them, and note any agricultural land of long-term commercial significance and whether the proposal results in removing any of these soils.

The Natural Resource Conservation Service indicates the following soils in or near the project site:

- Fluvaquents, tidal, 24.0%
- Udorthents, level, 76.0%

The Project site was initially filled over 50 years ago. The initial fill included placement of sandy material dredged from Grays Harbor, while subsequent fill included angular rock used.

#### d. Are there surface indications or history of unstable soils in the immediate vicinity? If so, describe.

According to the City of Hoquiam, the project site is mapped as having High Liquefaction susceptibility. The capacity of soft soils to amplify earthquakes has been mapped by the Department of Natural Resources.

#### e. Describe the purpose, type, total area, and approximate quantities and total affected area of any filling, excavation, and grading proposed. Indicate source of fill.

Grading will be needed to prepare the building site, and other site components. Approximately 110,279 cubic yards of material will be excavated at the Project Site, from within an area approximately 46.5 acres in size, associated with construction of the facilities. A total of approximately 41.2 acres of the site will be graded to prepare the site.

Table 1 describes the grading quantities for the project site.

**Table 1 Project Grading Quantities**

Site Area	Depth of Excavation (feet)	Area of Excavation/Clearing (square feet)	Total Quantity (cubic feet)
Silos	8.2	49406	405,129
Pelleting line building		21797	178,735
Wet milling line building		5167	42,369
Truck dumper 1		1550	12,710
Truck dumper 2		1550	12,710
Truck dumper 3		1550	12,710
Rampa truck dumper 1	4.9	6329	31,012
Rampa truck dumper 2		6329	31,012
Rampa truck dumper 3		6329	31,012
Truck scale 1		1,507	7,384
Truck scale 2		1,507	7,384
Moving floor 1		1,130	5,537
Moving floor 2		1,130	5,537
Moving floor 3		1,130	5,537
Chips cleaning system		3,617	17,723
Drying island		51,150	250,635
Pelleting silos + RCO		5,328	26,107
North pound	2.0	35,715	71,430
South pound		27,728	55,456
Clearing for circulation, parking, etc.	1.0	1,795,689	1,795,689
		<b>TOTAL CUBIC FEET</b>	<b>3,005,818</b>
		(Cubic yards)	111,327

**f. Could erosion occur because of clearing, construction, or use? If so, generally describe.**

There is a minimal, temporary risk that short-term soil erosion will occur during construction as a result of grading and earthwork activities at the project site. There are no significant cumulative impacts to earth resources resulting from the project.

**g. About what percent of the site will be covered with impervious surfaces after project construction (for example, asphalt or buildings)?**

Around 16% of the site will be covered with impervious surfaces after completion of construction.

**h. Proposed measures to reduce or control erosion, or other impacts to the earth, if any.**

The use of construction Best Management Practices (BMPs) will reduce the minimal risks and will include the adherence to a Temporary Erosion and Sediment Control (TESC) plan. PNWRE will obtain a National Pollution Discharge Elimination System (NPDES) Construction Stormwater Permit and a City of Hoquiam grading permit prior to construction and grading activities at the project site.

## 2. Air

### **a. What types of emissions to the air would result from the proposal during construction, operation, and maintenance when the project is completed? If any, generally describe and give approximate quantities if known.**

Air quality impacts at the project site resulting from construction are not expected to be significant. Construction activities could result in temporary, localized increases in particulate concentrations due to emissions from typical construction-related sources. Emissions from diesel equipment could temporarily reduce ambient air quality, but the project will use equipment that complies with applicable current regulations to minimize risk. Implementation of reasonable precautions during construction and compliance with regulations regarding engines, off-site odors, and off-site dust are expected to prevent significant air quality impacts. Additionally, compliance with the Olympic Regional Clean Air Agency (ORCAA) permit will be required.

Operational air impacts from the project will result from equipment and vehicle emissions. Particulate matter and visible emissions will be emitted during facility, vehicle, and vessel operations.

Stationary sources of diesel particulate matter (DPM) would be emitted at rates greater than regulatory de minimis levels by the emergency generator and diesel engines that power the emergency fire water pumps, but these sources would only operate during an emergency, and would fall within acceptable cancer risk and ORCAA thresholds.

Mobile DPM source emissions would result from diesel-powered trucks and marine bulk vessels traveling to and from the Project Site to deliver fiber feedstock and receive pellets respectively. Feedstock will be trucked to the site each day. It is assumed that construction workers will contribute to a temporary increase in traffic in the area.

Although the final number of truck movements will depend on the capacity of trailers, compaction rates of fiber feedstock (mill and harvest residuals) and pellets, it is estimated that at full operations, approximately 128 trucks per day, operating 7 days per week, will serve the site.

Trucks delivering fiber feedstock to the terminal, and vessels carrying the product from the Project Site, will be operated by third parties. Total GHG emissions from the Project would represent minor contributions to local, regional, and global GHGs and would not be a significant source of emissions when compared to standard benchmarks.

The project will induce emissions of air contaminants in the region, thereby requiring an approved Notice of Construction (NOC) application from the Olympic Region Clean Air Agency (ORCAA). The facility is not expected to generate criteria pollutant emissions in quantities that would trigger the need for a Prevention of Significant Deterioration (PSD) permit but is anticipated to trigger the need for a Title V Air Operating Permit. The facility would be an area source of hazardous air pollutants (HAP) as potential emissions of each individual HAP are less than the applicable major source threshold of 10 TPY. Total HAP is less than the combined HAP major source threshold of 25 TPY.

**b. Are there any off-site sources of emissions or odor that may affect your proposal? If so, generally describe.**

There are no known off-site emissions or odors that may affect the proposed project.

**c. Proposed measures to reduce or control emissions or other impacts to the air, if any.**

Implementation of reasonable precautions during construction and compliance with regulations regarding engines, off-site odors, and off-site dust are expected to prevent significant air impacts. Additionally, the contractor will comply with the ORCAA permit.

### 3. Water

**a. Surface Water:**

**1. Is there any surface water body on or in the immediate vicinity of the site (including year-round and seasonal streams, saltwater, lakes, ponds, wetlands)? If yes, describe the type and provide names. If appropriate, state what stream or river it flows into.**

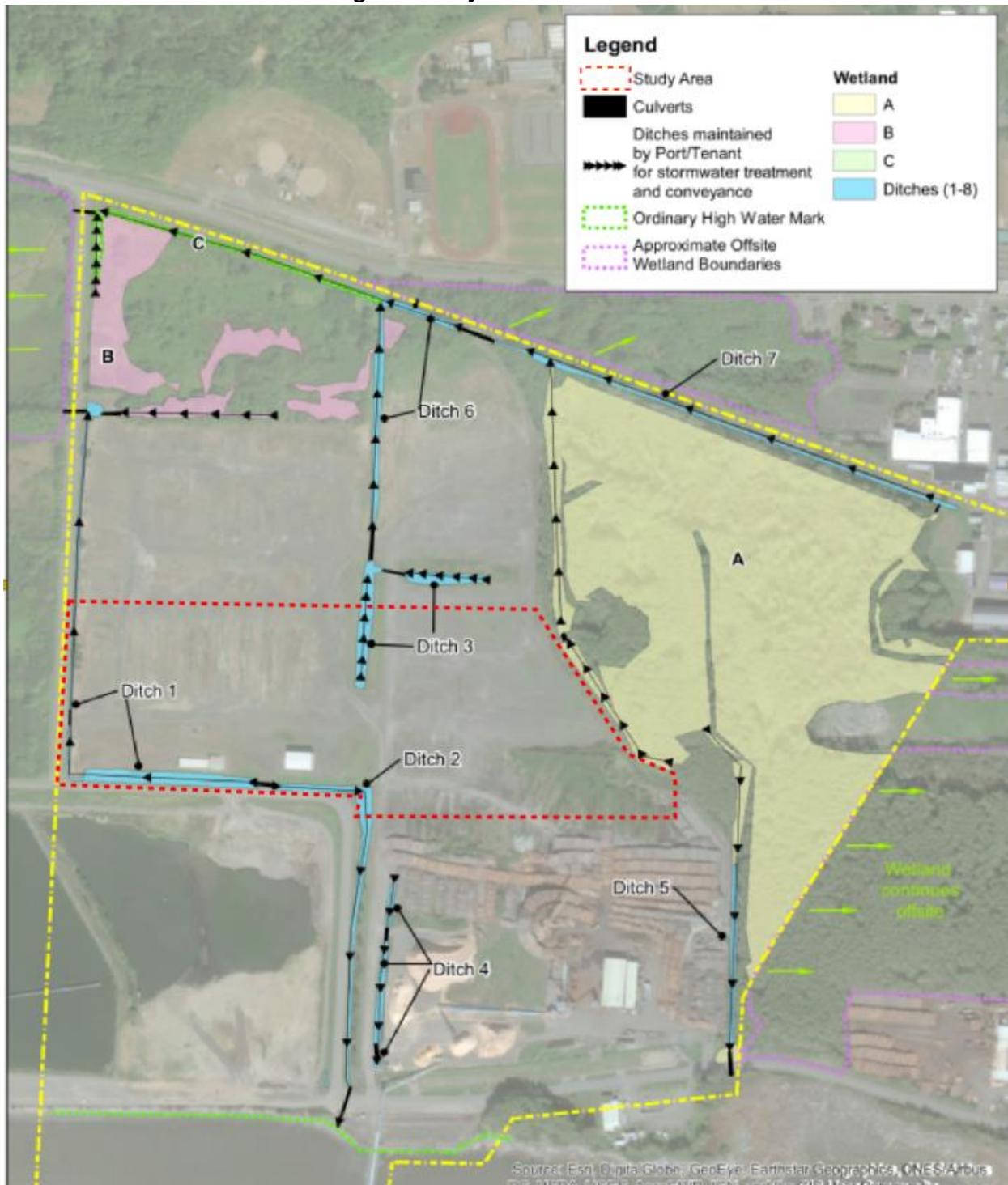
The following is a summary of the Wetland and Waterbody Delineation and Assessment Report (WSP, 2019), which was conducted for a previously proposed potash export facility (proposed by BHP but not constructed) that was included on the subject parcel.

Wetland A (offsite) is directly to the west of the Project Area. Wetland B and C are north of the Project site. Based on the City's SMP (HMC 11.05) which establishes buffers for all regulated wetlands, there is a 150-foot buffer associated with Wetland A. Ditches are exempt from regulation as wetland under the SMP, and as such, they do not have a regulatory buffer.

According to the *Wetland and Waterbody Delineation and Assessment Report* (BergerABAM, December 2017), there are wetlands offsite to the north and west and three ditches (Ditches 1, 2 and 3) within the Project Area. The water features are shown on Figure 3.

Ditch #1 is a shallow ditch that runs parallel to the north side of a portion of Airport Way. And then continues north along the east side of Paulson Road. The ditch collects stormwater and runoff from the western half of the site and conveys it north to an outfall at the north end of the ditch which conveys water to the Refuge to the west. This ditch was constructed as part of the NPDES general permit (WAR000130), to convey treated stormwater to an outfall to the west toward the Refuge and Grays Harbor. Vegetation identified in Ditch 1 includes reed canary grass, soft rush, colonial bent grass, velvet grass, white clover, horsetail, and cattail, among other species. Soils within this ditch exhibited primary indicators of hydrology at the time of the field investigations, as well as indicators of hydric soil conditions.

Figure 3 Project Water Features



Ditch #2 is a shallow ditch that flows east along Airport way, and then south along the eastern side of Paulson Road. Ditches #1 and #2 are hydrologically isolated from one another by a rock-filled driveway/access. This ditch was constructed as part of NPDES general permit (WAY000132), to convey treated stormwater to an outfall south of the study area along Grays Harbor shoreline. Vegetation, hydrology, and soil conditions are similar to those in Ditch #1.

Ditch #3 consists of two wide, shallow ponds/swales located near the center of the study area. These two ponds are hydrologically connected by a culvert, though the culvert is currently in disrepair. These ponds were created as part of NPDES general permit (WAR000131), for the purpose of detaining and treating stormwater and then conveying it northward toward similar drainage features excavated into Wetlands B and C, and ultimately on to waters of Grays Harbor through the outlet in the northwest corner of Wetland C. Vegetation, hydrology, and soil conditions in the ponds that comprise Ditch #3 are similar to those species present in Ditch #1 and Ditch #2. At the time of the site investigation, the eastern pond appears to have had a recent modification in hydrologic regime, as most of the vegetation, including several willows, has died.

The project has been designed to avoid all direct impacts to the water features described.

**2. Will the project require any work over, in, or adjacent to (within 200 feet) the described waters? If yes, please describe and attach available plans.**

The project will not require any work over, nor within 200 feet, of state shorelines.

**3. Estimate the amount of fill and dredge material that would be placed in or removed from surface water or wetlands and indicate the area of the site that would be affected. Indicate the source of fill material.**

There will be no fill or dredge material that would be placed in or removed from the surface water or wetlands.

**4. Will the proposal require surface water withdrawals or diversions? Give a general description, purpose, and approximate quantities if known.**

The project will not require any surface water withdrawal or diversion.

**5. Does the proposal lie within a 100-year floodplain? If so, note the location on the site plan.**

A small portion of the northeast corner of the parcel is within the 1% annual chance floodplain, but that section is outside of the project footprint (Figure 4)

**6. Does the proposal involve any discharge of waste materials to surface waters? If so, describe the type of waste and anticipated volume of discharge.**

The project does not involve any discharge of waste materials to surface waters.

**Figure 4 Flood Hazard Areas**



**b. Ground Water:**

- 1. Will groundwater be withdrawn from a well for drinking water or other purposes? If so, give a general description of the well, proposed uses and approximate quantities withdrawn from the well. Will water be discharged to groundwater? Give a general description, purpose, and approximate quantities if known.**

No groundwater will be withdrawn from a well for drinking water or other purposes. The City of Hoquiam’s municipal drinking water will be used on the project site.

- 2. Describe waste material that will be discharged into the ground from septic tanks or other sources, if any (domestic sewage; industrial, containing the following chemicals...; agricultural; etc.). Describe the general size of the system, the number of such systems, the number of houses to be served (if applicable), or the number of animals or humans the system(s) are expected to serve.**

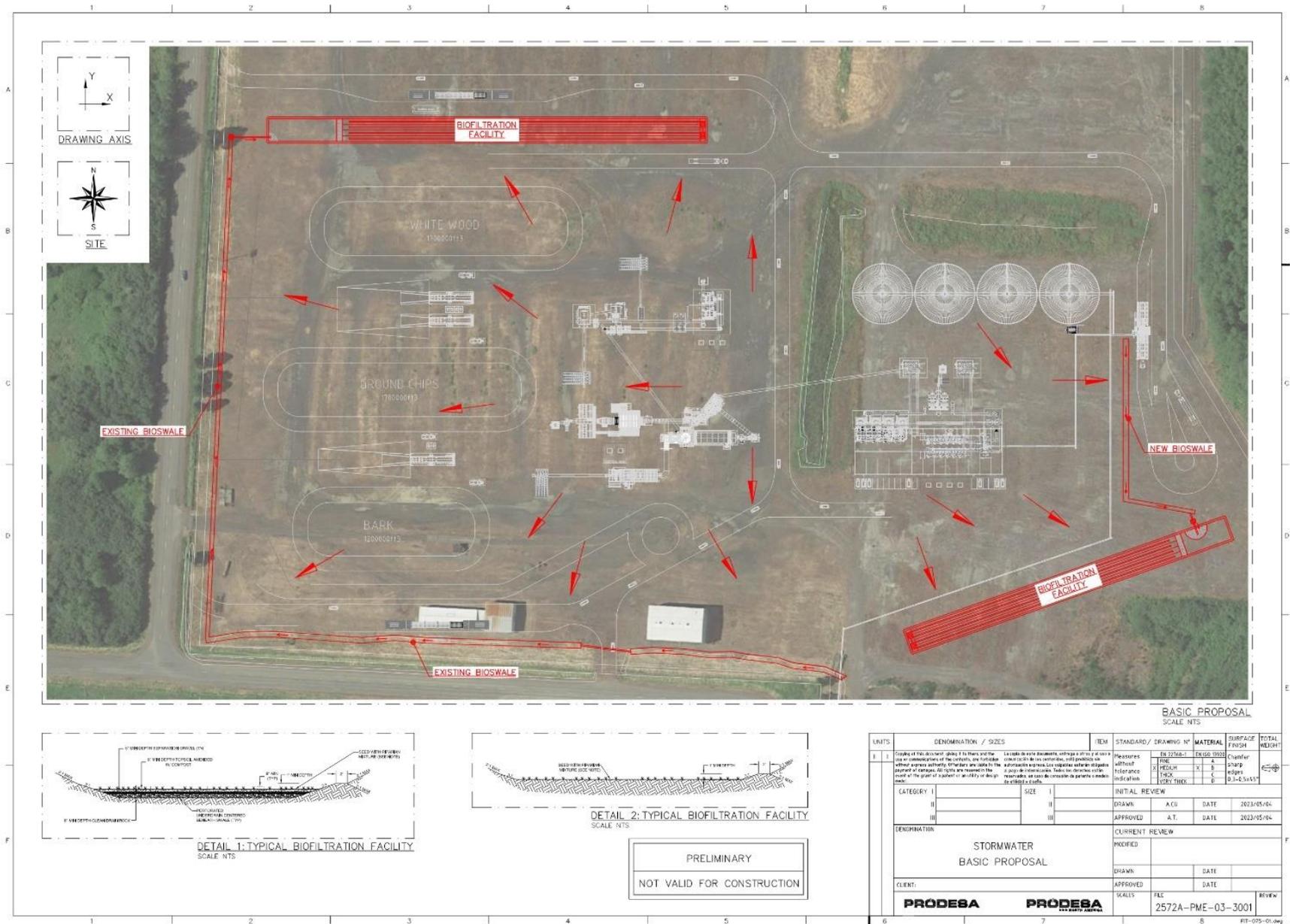
No waste material will be discharged into the groundwater from septic tanks or other sources.

**c. Water Runoff (including stormwater):**

- 1. Describe the source of runoff (including storm water) and method of collection and disposal, if any (include quantities, if known). Where will this water flow? Will this water flow into other waters? If so, describe.**

A stormwater basic proposal is provided below, which depicts the locations of two biofiltration facilities, one existing bioswale, and one new bioswale (Figure 5).

Figure 5 Stormwater Plan



Stormwater runoff during construction will be managed through implementation of BMPs consistent with construction stormwater permit requirements and plans, and may include the following:

- Construction activities will be conducted in compliance with Ecology’s construction stormwater NPDES permit requirements, the Surface Water Quality Standards for Washington (WAC 173-201A), or other conditions as specified in the Water Quality Certificate (WQC).
- Project construction will be completed subject to a water quality certification and in compliance with Washington State Water Quality Standards (WAC 173-201A), including limits on turbidity.
- Petroleum products, fresh cement, lime, concrete, chemicals, or other toxic or deleterious materials will not be allowed to enter into surface waters or onto land where there is a potential for reentry into surface waters.
- Fuel hoses, oil drums, oil or fuel transfer valves, fittings, etc., will be checked regularly for leaks, and materials will be maintained and stored properly to prevent spills.
- The contractor will prepare a Spill Prevention Control and Countermeasure (SPCC) plan and use it during all in-water demolition and construction operations. A copy of the plan will be maintained at the work site.
- The SPCC plan will outline BMPs, responsive actions in the event of a spill or release, and notification and reporting procedures. The plan will also outline management elements, such as personnel responsibilities, Project Site security, site inspections, and training.
- The SPCC plan will outline the measures to prevent the release or spread of hazardous materials found on site and encountered during construction but not identified in contract documents, including any hazardous materials that are stored, used, or generated on the construction site during construction activities. These items include, but are not limited to, gasoline, diesel fuel, oils, and chemicals.
- Applicable spill response equipment and material will be designated in the SPCC plan.

**2. Could waste materials enter ground or surface waters? If so, generally describe.**

Stormwater at the site has a low potential to be impacted; cleanup of any spills of dry material in the facility would be accomplished with vacuum equipment and the material would be returned to product storage, loaded into the vessel, or disposed off-site.

**3. Does the proposal alter or otherwise affect drainage patterns in the vicinity of the site? If so, describe.**

The project will not alter or otherwise affect drainage patterns in the vicinity of the project site.

**4. Proposed measures to reduce or control surface, ground, and runoff water, and drainage pattern impacts, if any.**

The project will include the following mitigation measures to reduce impacts associated with stormwater runoff below the level of significance:

- The proposed stormwater detention and treatment facilities have been designed at two locations (shown on stormwater basic proposal above) to preserve existing drainage patterns to the largest extent possible.

- The project will comply with City of Hoquiam stormwater regulations (HMC 11.05).
- The project will include new stormwater detention and treatment ponds to provide flow control and water quality treatment of stormwater, if necessary, before discharge through existing outfalls on the site.
- Catch basins will be blocked in the event of a pellet spill, and potentially impacted runoff will be contained and discharged to the wastewater system or to an approved disposal facility.
- Stormwater management will be conducted and managed in accordance with state and local regulatory requirements.

The project will comply with the following measures to protect water resources during project operations:

- Secondary containment will be provided at the onsite fueling station to contain any accidental releases.
- The facility will control risks during operations by following the industrial Stormwater Pollution Prevention Plan (SWPPP) and SPCC plan to prevent liquid products from leaving the containment areas. Spill kits will be placed in strategic and easily accessible locations for use if small spills occur; containment, control, and cleanup procedures will be immediately implemented, including notifying Ecology and other resource agencies as required by law.
- Stormwater treatment facilities would infiltrate stormwater runoff from new and existing impervious surfaces to the extent possible, or the stormwater runoff will be collected, treated, and discharged to the bay via existing outfalls. Stormwater treatment would comply with the most current version of Ecology’s Stormwater Management Manual for Western Washington.
- The wood biomass pellets will be transferred to the product storage building and vessels via covered conveyors in order to protect pellets from rain exposure and avoid fiber feedstock or pellets blowing or spilling from the conveyors. Spill pans and side skirts will contain spills or fugitive dust from the return belt.
- All equipment will be routinely checked for leaks and other problems that could result in the discharge of petroleum-based products or other materials into the waters of Grays Harbor.
- Pellet spills on land will be cleaned up by sweeping, vacuum truck, or other means, and returned to product storage or disposal.

#### 4. Plants

##### a. Check the types of vegetation found on the site:

- deciduous tree: alder, maple, aspen, other
- evergreen tree: fir, cedar, pine, other
- shrubs
- grass
- pasture
- crop or grain
- orchards, vineyards, or other permanent crops.
- wet soil plants: cattail, buttercup, bullrush, skunk cabbage, other
- water plants: water lily, eelgrass, milfoil, other
- other types of vegetation

**b. What kind and amount of vegetation will be removed or altered?**

The impacts to onsite vegetation at the project site have been minimized and avoided to the extent practicable by locating buildings and roads in previously disturbed areas where possible; however, the majority of the site has been previously disturbed and will be cleared for construction of the new facility. The project will require the removal and/or alteration of all vegetation that is within the footprint.

**c. List threatened and endangered species known to be on or near the site.**

The US Fish and Wildlife Service (USFWS) Information for Planning and Consulting (IPaC) tool does not indicate the presence of any threatened or endangered plant species known to be on or near the project site.

**d. Proposed landscaping, use of native plants, or other measures to preserve or enhance vegetation on the site, if any.**

Prior to the issuance of building permits, PNWRE will develop a landscape design for the project to control erosion and to satisfy the City of Hoquiam Landscaping and Screening ordinance (HMC 10.05.065).

**e. List all noxious weeds and invasive species known to be on or near the site.**

Reed canary grass and Himalayan blackberry were both identified in the project vicinity.

**5. Animals** <https://ecology.wa.gov/Regulations-Permits/SEPA/Environmental-review/SEPA-guidance/SEPA-checklist-guidance/SEPA-Checklist-Section-B-Environmental-elements/Environmental-elements-5-Animals>

**a. List any birds and other animals that have been observed on or near the site or are known to be on or near the site.**

**Examples include:**

- **Birds:** hawk, heron, eagle, songbirds, other: osprey
- **Mammals:** deer, bear, elk, beaver, other:
- **Fish:** bass, salmon, trout, herring, shellfish, other:

**b. List any threatened and endangered species known to be on or near the site.**

Information regarding listed species was obtained from the U.S. Fish and Wildlife Service (USFWS) Information Planning and Consultation (IPaC), the WDFW database Priority Habitats and Species (PHS) on the Web and SalmonScape, and NOAA Fisheries Northwest Region website. Table 2 identifies the species listed under the ESA that have the potential to occur within or near the Project Site.

**Table 2 ESA-listed Species in the Project Area**

Species Name	ESA Listing Status	Critical Habitat
<b>Birds</b>		
Marbled Murrelet ( <i>Brachyramphus marmoratus</i> )	Threatened	None
Western Snowy Plover ( <i>Charadrius nivosus nivosus</i> )	Threatened	None
Yellow-billed Cuckoo ( <i>Coccyzus americanus</i> )	Threatened	None
<b>Fishes</b>		
Bull Trout ( <i>Salvelinus confluentus</i> )	Threatened	None
<b>Insects</b>		
Monarch Butterfly ( <i>Danaus plexippus</i> )	Candidate	None

**c. Is the site part of a migration route? If so, explain.**

The City of Hoquiam is located in the Pacific Flyway, which extends from Mexico northward into Canada and the state of Alaska. Non-ESA listed migratory birds that are likely to be found in the area include but are not limited to: eagles, osprey, swifts, gulls, grebes, grosbeaks, flycatchers, hummingbirds, and dowitchers.

**d. Proposed measures to preserve or enhance wildlife, if any.**

According to the Biological Evaluation (WSP, May 2019) and Critical Areas Assessment (WSP, July 2019), birds, fish, and mammals may experience minimal, temporary impacts during construction, increased vessel traffic, noise, and construction lighting, but these impacts do not rise to a level of significance.

Even though the impacts to animals are not considered significant, PNWRE has incorporated mitigation measures into its Project to minimize water quality and noise impacts, which will also reduce construction impacts to terrestrial animals.

Construction activities with the potential to affect nesting migratory birds, such as tree and vegetation removal, would be conducted consistent with the provisions of the Migratory Bird Treaty Act (MBTA), which requires that nests of migratory birds be removed only at times when nests are inactive. Tree and vegetation removal would be conducted outside the active nesting season to the extent practicable. If any tree or vegetation removal is required within the time when nests could potentially be active (generally January to August), pre-disturbance nest surveys would be conducted to document whether any trees or vegetation to be removed contain active nests.

An osprey nest that is located on a power pole on the western boundary of the site may be affected by the project, so it will be relocated when the nest is inactive as part of the project, in accordance with USFWS best practices. Finally, to minimize the likelihood that vehicles will strike wildlife during construction, PNWRE will require that construction contractors operating vehicles receive training for awareness and avoidance of wildlife in the area.

Because the Project is located in a developed, industrial area, no significant, adverse environmental impacts to birds, fish, and mammals are anticipated from the Project's operation. The Project may slightly increase the impacts from truck traffic, noise, and lighting, but these impacts do not rise to a level of significance.

**e. List any invasive animal species known to be on or near the site.**

There are no known invasive animal species known to be on or near the site.

## **6. Energy and Natural Resources**

**1. What kinds of energy (electric, natural gas, oil, wood stove, solar) will be used to meet the completed project's energy needs? Describe whether it will be used for heating, manufacturing, etc.**

Construction of the project will require the use of electric, natural gas, and petroleum fuels.

The project will use electric and natural gas energy to meet the completed project's needs. The electricity will be provided by Grays Harbor Public Utilities District and will power conveyors, rotating equipment, the WESP/RTO/RCO/Drying system, the ship loader, other equipment, and support facilities (e.g., heating, lighting, etc.) needed to operate the site. The site will also include emergency diesel powered generators and fire pumps. These will be used only when power is not available to the site in an emergency or during a fire and during routine testing. The generators will only supply power to safely shut down the facility and not to operate all systems.

The biomass drying system will use natural gas to start-up the grate furnace, operate the RTO, and operate the RCO. PNWRE estimated the energy consumption for the proposed biomass export facility for use in the air quality and GHG analysis. The total energy consumption is estimated to be 18.5MW.

**2. Would your project affect the potential use of solar energy by adjacent properties? If so, generally describe.**

The project includes the construction of five, 105-foot diameter by 102-foot-high silos, which will be the largest structures on the site. The silos would not interfere with the use of solar energy by adjacent properties, nor would any other part of the project.

**3. What kinds of energy conservation features are included in the plans of this proposal? List other proposed measures to reduce or control energy impacts, if any.**

Energy conservation measures that will be part of the facility design will include the following.

- Compliance with the Washington State Energy code.
- Selecting energy-efficient equipment, including electrical motors designed for energy efficiency.
- Using LED lighting at the site

## 7. Environmental Health

### **a. Are there any environmental health hazards, including exposure to toxic chemicals, risk of fire and explosion, spill, or hazardous waste, that could occur because of this proposal? If so, describe.**

A Phase I Environmental Site Assessment (Phase I) was performed by Stantec Consulting Services, Inc. and is summarized in this section (Stantec, May 11, 2023).

The property was tidal mudflats until the early 1970s when dredged material was used to raise the surface grade and rock was imported for surfacing material. Aerial photographs indicate the Subject Property was used for lumber storage for most of the 1980s and 1990s. Lumber storage was phased out in the late 1990s and there has been no apparent use since that time.

The site has two prefabricated metal buildings located along Airport Way. The buildings appear to have been constructed in the late 1970s or early 1980s and were used for office space, storage space, and vehicle maintenance. The buildings have not been used in approximately 25 years and are currently in poor condition. There is a small wood-frame building associated with truck scales on the north side of the westernmost building.

During the construction of the plant, silos and new conveyor system, the contractor will adhere to the City of Hoquiam's noise, dust, vibration, and hazardous waste standards.

The environmental health hazards within the plant are noise, vibration, dust, and potential for fire. The specialized equipment and techniques will be implemented to limit dust emission, degradation in storage, self-heating and potential ignition. The plant, storage, and conveyor systems will be constructed to meet all the relevant safety guidelines. See Noise section, below, for relevant standards.

The Project will adhere to the City of Hoquiam Air Quality Standards (10.05.120, Chapter 70.94, 173-400 through 173-401, and 173-460 WAC).

The Project will adhere to the City of Hoquiam's Vibration and Concussion standards, which state that no use on a parcel shall generate vibration or concussion that other parcels can detect without the aid of instruments except during periods of construction (Ord. 04-07 §19, 2004; Ord. 00-09 §4, 2000).

The Project will adhere to the City of Hoquiam's Use and Storage of Hazardous Substances. The use and/or storage of hazardous substances, as defined in RCW 70.105.010(14) shall be permitted only in the C-1, C-2, and I district. All hazardous substances shall be stored and/or transported in approved containers that prevent any leakage to the air, earth, and/or surface or ground water.

The Project is not anticipated to have impacts from spills, noise, or vibration associated with construction or the completed project.

**1. Describe any known or possible contamination of the site from present or past uses.**

The Project site appears on the Recovered Government Archive State Hazardous Waste Site (RGA HWS) List. The listing is dated 1995 and this corresponds to the Project area's use as a log and lumber storage yard for the adjoining Rayonier mill. The Rayonier mill is listed as having had previous soil and groundwater impacts from petroleum products, lead, PCBs, and dioxins and furans. The facility was also included on the CSCSL list. Ecology's Site Cleanup Details database indicates that the initial investigation of the Rayonier facility was conducted in July 1992 and Ecology issued an Early Notice Letter in September 1992. The database information indicates that confirmed impacts to soil from petroleum, lead, PCBs, dioxins, and groundwater impacts from petroleum and lead were remediated and the facility received a No Further Action (NFA) determination in January 2002. The reports reference sampling and remedial excavation of soil in the "east ditch" along Airport Way and remedial excavation of lead-impacted soil from the maintenance area. The NFA Letter references several investigations and reports beginning in September 1992 reviewed towards the NFA determination.

**2. Describe existing hazardous chemicals/conditions that might affect project development and design. This includes underground hazardous liquid and gas transmission pipelines located within the project area and in the vicinity.**

Phase I identified the presence of arsenic in groundwater and dioxins/furans in soil above their applicable allowable levels. No other contaminants were identified. All soil excavated during construction will be handled and disposed of in accordance with the Contaminated Media Management Plan prepared for the project. Soil excavated as part of Project development will be isolated and stored on an impervious layer prior to disposal offsite at an approved facility.

**3. Describe any toxic or hazardous chemicals that might be stored, used, or produced during the project's development or construction, or at any time during the operating life of the project.**

Construction equipment will use petroleum-based fuels and petroleum- or vegetable- based lubricants. The contractor will prepare and implement an SPCC plan to avoid, minimize, and, if necessary, respond to fuel and lubricant releases during construction. Toxic or hazardous chemicals will be stored within containment. Basic safety measures for storage of any chemicals are detailed on the individual safety data sheets, and PNWRE will follow those prevention, response, and storage directions.

Because fiber feedstock is not a hazardous substance, the risks to human health and the environment from a fiber feedstock spill are low. Generally, any fiber feedstock spill is likely to be of a small quantity (from a trace amount to pounds) and would be readily cleaned up due to Project design (impervious surfaces at points where spill could occur). The risk of a marine spill is low based on the Project's location relative to the marine environment. The risk of a truck spill is highest on the Project Site, but truck speeds and impervious site conditions would minimize the risk of spill and allow for cleanup to occur should a spill occur.

**4. Describe special emergency services that might be required.**

Fire suppression equipment (sprinklers) will be installed and used throughout the process. Buildings will comply with local and Washington State requirements for fire suppression systems. The storage silos will be designed with nitrogen injections systems. No special emergency services are anticipated at this time.

**5. Proposed measures to reduce or control environmental health hazards, if any.**

No additional measures to reduce or control environmental health hazards beyond those previously mentioned are required.

**b. Noise**

**1. What types of noise exist in the area which may affect your project (for example: traffic, equipment, operation, other)?**

Noise in the project area is generated by adjacent uses and includes heavy equipment, rotating equipment operation, conveyance equipment, marine shipping traffic, vehicle traffic, and air traffic from a nearby airport. There is no noise in the area that is anticipated to affect the project.

**2. What types and levels of noise would be created by or associated with the project on a short-term or a long-term basis (for example: traffic, construction, operation, other)? Indicate what hours noise would come from the site)?**

Noise would be generated during construction from the use of equipment such as:

- Bulldozers
- Front-End Loaders
- Cranes
- Excavators
- Road Graders
- Dump Trucks
- Semi-Trucks
- Pile Driving Equipment
- Concrete trucks
- Skid Steer

After construction, operation of the facility would be a new source of noise. The primary source of noise would be operation of the hammermill equipment. The estimated noise levels for planned equipment are shown in Table 3 below. The facility will include noise suppression within the plant to minimize the effects offsite.

**Table 3 Equipment Noise Levels**

Equipment	Noise Level	Placement
Wet Hammer mill	100 dBA	Outdoor

Wet Hammer mill fan	88 dBA	Outdoor
Dry Hammer mill	96 dBA	Indoor
Dry Hammer mill fan	85 dBA	Outdoor
Pellet mill	93 dBA	Indoor
Cooler fan	97 dBA	Indoor

The land used immediately adjacent to the site is mostly industrial in nature and would not be affected by the noise from the pellet plant. There is a forested area between the facility and the schools and residences to the northeast of the railroad tracks that will provide a noise buffer.

**3. Proposed measures to reduce or control noise impacts, if any.**

Construction of the project would adhere to City of Hoquiam code (HMC 3A.30.010) for the generation of construction noise only between the hours of 7:00 am through 8:00 pm. Noise minimization methods will include prohibiting pure-tone backup alarms, restrictive diesel-powered equipment locations, using continuous loading methods, and installing temporary noise barriers.

Equipment at the completed plant will be mounted to isolation pads to reduce vibration and sound impacts.

**8. Land and Shoreline Use**

**a. What is the current use of the site and adjacent properties? Will the proposal affect current land uses on nearby or adjacent properties? If so, describe.**

The Project is located in an existing industrial area zoned and designated for industrial use by the Hoquiam Municipal Code (HMC) and Comprehensive Plan and designated as High Intensity by the Shoreline Master Program. The Project will have no significant, adverse environmental impacts to land and shoreline use because it will comply with the policies and regulations of the Hoquiam Municipal Code and Shoreline Master Program. The Project is outside of the Shoreline Buffer. The Project will not affect current land uses nearby or adjacent properties.

**b. Has the project site been used as working farmlands or working forest lands? If so, describe. How much agricultural or forest land of long-term commercial significance will be converted to other uses because of the proposal, if any? If resource lands have not been designated, how many acres in farmland or forest land tax status will be converted to nonfarm or nonforest use?**

The project site has not been used as working farmlands or working forest lands.

**1. Will the proposal affect or be affected by surrounding working farm or forest land normal business operations, such as oversize equipment access, the application of pesticides, tilling, and harvesting? If so, how?**

The Project will not affect or be affected by surrounding working farm or forest land normal business operations.

**c. Describe any structures on the site.**

The site has two prefabricated metal buildings located along Airport Way. The buildings appear to have been constructed in the late 1970s or early 1980s and were used for office space, storage space, and vehicle maintenance. The buildings have not been used in approximately 25 years and are currently in poor condition. There is a small wood-frame building associated with truck scales on the north side of the westernmost building.

**d. Will any structures be demolished? If so, what?**

All structures on the site will be demolished.

**e. What is the current zoning classification of the site?**

The site is zoned as Industrial.

**f. What is the current comprehensive plan designation of the site?**

The site has a comprehensive plan designation of Industrial.

**g. If applicable, what is the current shoreline master program designation of the site?**

The project site is not within the shoreline zone.

**h. Has any part of the site been classified as a critical area by the city or county? If so, specify.**

According to the City of Hoquiam's Comprehensive land Use Plan (February 2009), HMC 11.05.830 states "The city does not contain any critical aquifer recharge areas." Therefore, CARAs will not be impacted by the project.

The Project area is classified as a Tsunami hazard zone. The Project site also is mapped as having High Liquefaction susceptibility. The capacity of soft soils to amplify earthquakes has been mapped by DNR.

The Project site is mapped class D to E, as susceptibility to earthquake damage.

**i. Approximately how many people would reside or work in the completed project?**

No people would reside at the Project Site. The completed facility will employ approximately 52 employees.

**j. Approximately how many people would the completed project displace?**

The project will not displace anyone.

**k. Proposed measures to avoid or reduce displacement impacts, if any.**

No measures are required.

**l. Proposed measures to ensure the proposal is compatible with existing and projected land uses and plans, if any.**

The Project is consistent with existing land uses and the current Hoquiam Comprehensive Plan and zoning requirements.

**m. Proposed measures to reduce or control impacts to agricultural and forest lands of long-term commercial significance, if any.**

The project will not affect any agricultural or forest lands.

## 9. Housing

**a. Approximately how many units would be provided, if any? Indicate whether high, middle, or low-income housing.**

No housing is included as part of the Project.

**b. Approximately how many units, if any, would be eliminated? Indicate whether high, middle, or low-income housing.**

No housing would be eliminated as part of the Project.

**c. Proposed measures to reduce or control housing impacts, if any.**

No measures are required.

## 10. Aesthetics

**a. What is the tallest height of any proposed structure(s), not including antennas; what is the principal exterior building material(s) proposed?**

The tallest structures included in the Project are four, 102-foot-high storage silos, which will be constructed of metal. The exhaust stack will be approximately 80 feet high.

**b. What views in the immediate vicinity would be altered or obstructed?**

The Project would be visible from the east, north and south views and would alter some views in the area, however these existing views are of an industrial site. No views would be obstructed or materially blocked by the Project. The Project will have no impact on adjacent residential views of the shoreline.

**c. Proposed measures to reduce or control aesthetic impacts, if any.**

No measures are required to reduce or control aesthetic impacts.

## 11. Light and Glare

**a. What type of light or glare will the proposal produce? What time of day would it mainly occur?**

Lighting used during night-time construction or times of low light, if needed, will be used only in active work areas and for safety. Construction night-time lighting, if nighttime construction is needed, will be directional and will minimize glare and light spillage to the extent practicable.

Light spillage onto adjacent properties or to water during nighttime construction will be minimized to the extent practicable using shaded fixtures and directional lighting aimed only in areas for worker comfort and safety.

The Project will adhere to the City of Hoquiam Light and Glare Standards. Any land use creating intensive glare or light shall obscure the view of this glare or light from any point along the property line through the use of fences, walls, or hedge. Outside lighting will point away from the Wildlife Refuge.

**b. Could light or glare from the finished project be a safety hazard or interfere with views?**

Lights will be generally aimed downward and back towards the site if close to property line, thus reducing spillage. The Project will incorporate lighting design and associated directional lighting to minimize glare and light spillage to the extent practicable while still providing the necessary lighting levels for workers' safety and for Federal Aviation Administration (FAA) lighting requirements due to the proximity to Bowerman Airport.

**c. What existing off-site sources of light or glare may affect your proposal?**

Off-site lighting is typical of urban areas and consists of street and building lights. The adjacent Bowerman Airport includes high-intensity runway lights that are activated on approach. This existing lighting will not affect the project as it does not include activities that are sensitive to light. Lighting of adjacent industrial sites and the high school property to the north also have no effect on the proposal.

**d. Proposed measures to reduce or control light and glare impacts, if any.**

The project will incorporate lighting design and associated directional lighting to minimize glare and light spillage to the extent practicable. FAA-approved lighting will be mounted on buildings and structures for aviation safety. No other measures are required.

## **12. Recreation**

**a. What designated and informal recreational opportunities are in the immediate vicinity?**

The John Gable Community Park and Hoquiam Skate Park are located north of the Project Site, north of Emerson Avenue. The facilities include concrete structures for skating, playground equipment, baseball fields, and parking.

The Grays Harbor National Wildlife Refuge is located west of the Project site and is part of the Grays Harbor Estuary. The refuge, established in 1990, encompasses almost 1,500 acres of intertidal flats, open water, salt marsh, and forested habitats and contains walking trails.

**b. Would the proposed project displace any existing recreational uses? If so, describe.**

Construction of the Project could result in indirect impacts from noise to recreational uses on lands adjacent to or near the site, but these impacts will be temporary and are not expected to rise to the level of significance.

The Project Site is an existing industrial facility that does not have any recreational uses. Existing recreational uses would be indirectly affected, but not displaced, by Project construction. Operation of the proposed facility is not anticipated to significantly displace or restrict access to any recreational uses as the proposed facility will be an industrial site used similarly to the existing wood chip facility and current shipping uses at Terminal 3.

**c. Proposed measures to reduce or control impacts on recreation, including recreation opportunities to be provided by the project or applicant, if any.**

Recreational facilities in the area have some exposure to noise and diesel emissions from truck traffic, and other diesel vehicles from existing industrial uses in the area. The Project is not anticipated to significantly add to the existing noise and emissions; thus, no measures are required.

### **13. Historic and Cultural Preservation**

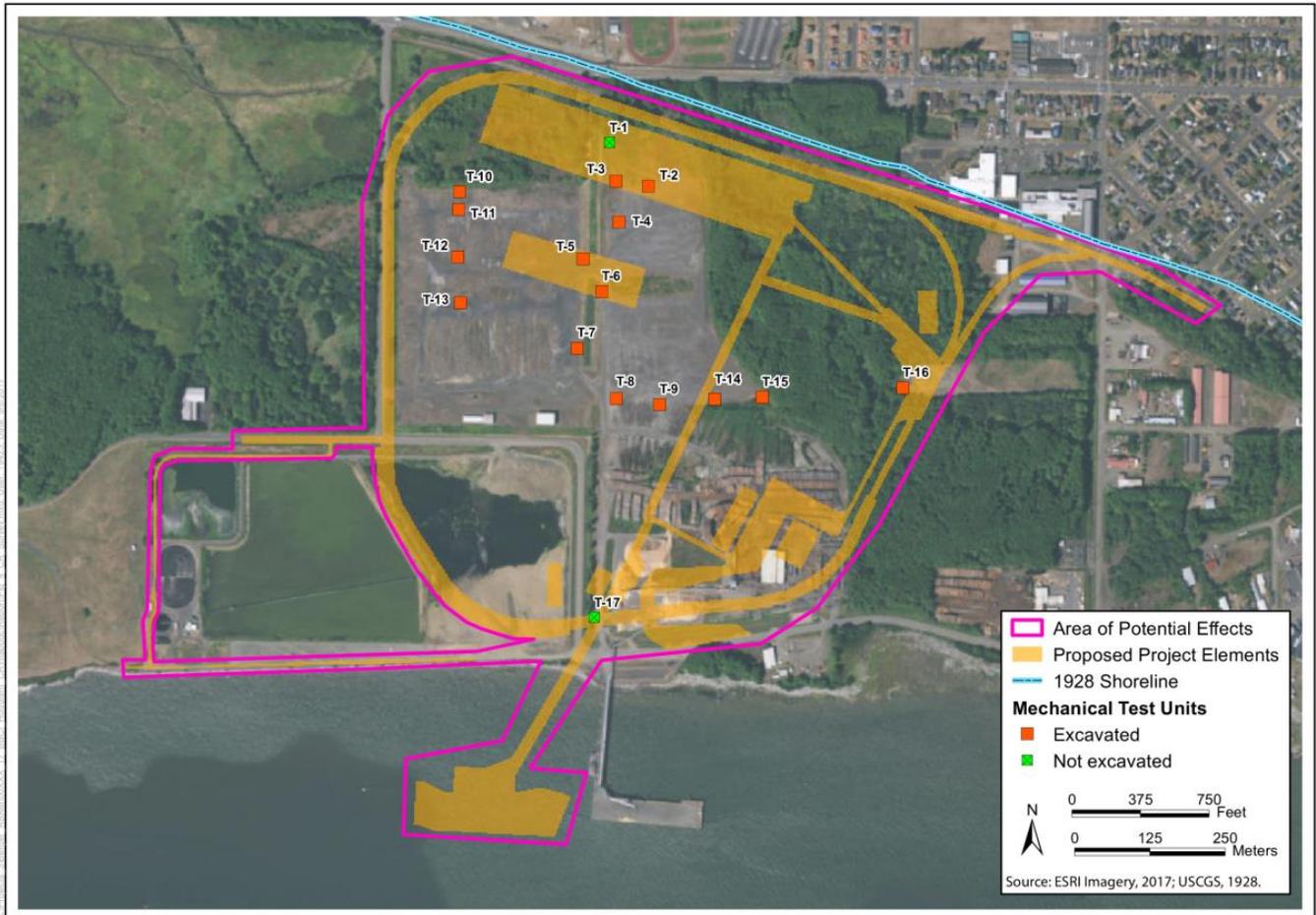
**a. Are there any buildings, structures, or sites, located on or near the site that are over 45 years old listed in or eligible for listing in national, state, or local preservation registers? If so, specifically describe.**

There are no buildings, structures, or sites located on or near the site that are over 45 years listed in or eligible for listing in the national, state, or local preservation registers.

**b. Are there any landmarks, features, or other evidence of Indian or historic use or occupation? This may include human burials or old cemeteries. Are there any material evidence, artifacts, or areas of cultural importance on or near the site? Please list any professional studies conducted at the site to identify such resources.**

No archaeological deposits were identified during subsurface investigations for the previous BHP proposal (*Cultural Resources Tech Report*, ICF 2019). Across much of the Area of Potential Effects (APE), the pre-development ground surface appears to be between 17 and 18 feet below the ground surface, with the exception of four locations where the pre-development ground surface was at a greater depth than the maximum reach of the excavator that was being used (21 feet).

**Figure 6 Area of Potential Effects and Cultural Survey Sites (BHP Proposal)**



- c. Describe the methods used to assess the potential impacts to cultural and historic resources on or near the project site. Examples include consultation with tribes and the department of archeology and historic preservation, archaeological surveys, historic maps, GIS data, etc.

The APE is defined as a geographic area or areas within which the proposed project may directly or indirectly cause a change of character or use of historic properties.

According to the Cultural Resources Report (*Cultural Resources Tech Report*, ICF 2019), the City of Hoquiam maintains a local register of historic places which includes individually registered city landmarks, historic districts, or conservation districts (Hoquiam Municipal Code, Chapter 10.06). The upland portions of the Project Site are not currently accessed by tribal members and use of the uplands would not affect access to the Quinault’s treaty resource areas. The Quinault Indian Nation have indicated that members fish in Grays Harbor near the Project Site and areas required for the positioning of vessels for product loading and shipment.

- d. Proposed measures to avoid, minimize, or compensate for loss, changes to, and disturbance to resources. Please include plans for the above and any permits that may be required.

There are no measures proposed to avoid, minimize, or compensate for loss, changes to, and disturbance to resources, as there were none identified within the APE. The Project would have minor effects on fishing by Quinault Indian Nation members during construction and operation of the PNWRE Project. PNWRE is currently coordinating with the Quinault Indian Nation to inform them of the Project and receive input on the proposal.

## 14. Transportation

**a. Identify public streets and highways serving the site or affected geographic area and describe proposed access to the existing street system. Show on site plans, if any.**

The street network in the Project vicinity is shown on the site plan and vicinity maps (Figures 1 and 2) in Section A, above. Roadways in the vicinity include Highway 101, State Route 109/West Emerson Avenue, Paulson Road, and Airport Way.

**b. Is the site or affected geographic area currently served by public transit? If so, generally describe. If not, what is the approximate distance to the nearest transit stop?**

The site is not directly served by public transit. The closest Grays Harbor Transit bus stop is located at Emerson Avenue and Adams Street, approximately one mile from the Project site.

**c. Will the proposal require any new or improvements to existing roads, streets, pedestrian, bicycle, or state transportation facilities, not including driveways? If so, generally describe (indicate whether public or private).**

Private roads connecting the site to the existing roadway network and for interior circulation will be constructed of aggregate for facility traffic and employees only.

**d. Will the project or proposal use (or occur in the immediate vicinity of) water, rail, or air transportation? If so, generally describe.**

The operation of the Project will use shipping vessels from Terminal #3, which is in existing use by Willis Enterprises. The Project would increase vessel traffic by approximately one ship every 5 to 6 weeks, or 10 per year.

There is a rail spur located to the north, between the Project site and Emerson Avenue. The Project will not use rail and is not anticipated to affect existing rail traffic.

The Project Site is located approximately 0.25 miles to the east of Bowerman Airport. The Project was designed to minimize indirect impacts to Bowerman Airport. The layout of the storage building and other structures at the site are dictated primarily by the FAA's regulations governing the safe, efficient use and preservation of the navigable airspace in 40 C.F.R. Part 77. Consultation with the FAA is ongoing to ensure the proposed facility does not represent an obstruction to air navigation. The Project will comply with FAA provisions for lighting to ensure no impacts to Bowerman Airport.

- e. **How many vehicular trips per day would be generated by the completed project or proposal? If known, indicate when peak volumes would occur and what percentage of the volume would be trucks (such as commercial and non-passenger vehicles). What data or transportation models were used to make these estimates?**

The completed Project will include approximately 128 traffic trips per day (truck and employee traffic).

- f. **Will the proposal interfere with, affect, or be affected by the movement of agricultural and forest products on roads or streets in the area? If so, generally describe.**

The Project would not interfere with, affect, or be affected by the movement of agricultural and forest products on road or streets in the area.

- g. **Proposed measures to reduce or control transportation impacts, if any.**

Truck traffic from the completed Project will be routed to avoid local surface streets and rail crossings within plant design requirements. No other measures are required.

## 15. Public Services

- a. **Would the project result in an increased need for public services (for example: fire protection, police protection, public transit, health care, schools, others)? If so, generally describe.**

PNWRE plans to provide its own site security and utilize fire protection and emergency systems that meet or exceed applicable building standards. It is not anticipated that the Project will result in an increased need for public services.

- b. **Proposed measures to reduce or control direct impacts on public services, if any.**

No measures are required.

## 16. Utilities

- a. **Circle utilities currently available at the site:**

electricity, natural gas, water, refuse service, telephone, sanitary sewer, septic system, other:

- b. **Describe the utilities that are proposed for the project, the utility providing the service, and the general construction activities on the site or in the immediate vicinity which might be needed.**

The facilities will use potable water (City), sanitary sewer (City), electricity (Grays Harbor PUD), natural gas (Cascade Natural Gas) and communication services (private). All services will tie into existing nearby utility lines.

### **C. Signature**

The above answers are true and complete to the best of my knowledge. I understand that the lead agency is relying on them to make its decision.

A handwritten signature in black ink, appearing to read "M.D. Boivin". The signature is fluid and cursive, with a long horizontal stroke at the end.

Type name of signee: Mark D. Boivin

Position and agency/organization: CEO, PNWRE

Date submitted: 6/19/2023