WATER POLLUTION CONTROL FACILITIES PERMIT
Modification #4

Department of Environmental Quality
Eastern Region
800 S.E. Emigrant Avenue, Suite #330, Pendleton, OR 97801
Telephone: (541) 276-4063
Issued pursuant to ORS 468B.050

ISSUED TO:
Port of Morrow
Post Office Box 200
Boardman, OR 97818

SOURCES COVERED BY THIS PERMIT:

Type of Waste	Method of Disposal
Industrial Wastewater	Land Application

FACILITY TYPE AND LOCATION:
Wastewater Lagoons and
Land Application Treatment System

Boardman, Oregon

RIVER BASIN INFORMATION:
Basin: Umatilla
Sub-Basin: Middle Columbia / Boardman
LLID: 1240483462464-266.02
Columbia River
Location of Farm 3 Lagoon
Lat.: 45.858804
Long.: -119.618202
County: Morrow

Nearest surface stream which would receive waste if it were to discharge: Columbia River

Renewal issued in response to Application No. 977616 received 7-20-2006. This modification is issued in response to the permit modification request #948055 submitted by the permittee.

This permit modification is issued based on the land use findings in the permit record.

Mike Hiatt, Water Quality Permit Manager Eastern Region	10/25/2024 Signature Date	10/25/2024 Effective Date

PERMITTED ACTIVITIES

Until this permit expires or is modified or revoked, the Permittee is authorized to construct, install, modify, or operate a wastewater collection, treatment, control and disposal system in conformance with all the requirements, limitations, and conditions set forth in the attached schedules.

Unless specifically authorized by this permit, by another NPDES or WPCF permit, or by Oregon Administrative Rule, any other direct or indirect discharge to waters of the state is prohibited, including discharge to an underground injection control system.

Table of Contents

SCHEDULE A - Waste Disposal Terms and Conditions

Schedule A, Conditions 5, 8, 11, 13, and 14 are replaced as follows. All other Schedule A conditions of the November 2, 2022 permit are not modified.

Authorized Land Application Sites

(5) The Permittee is authorized to land apply permitted wastes only at the land application sites authorized by a DEQ-approved OM&M Plan. The Permittee must request and receive written authorization from the Department prior to application of wastewater at any site not listed in the DEQ-approved OM&M Plan.

Nitrogen Availability and Loading

(8) Unless otherwise authorized by the Department in writing, the Permittee is prohibited from allowing the nitrogen available to crops at approved application sites to exceed the crop-specific agronomic rates listed in the approved OM&M Plan. For this permit, unless other calculation methods are approved by the Department in writing, the nitrogen available to an individual crop between field preparation at crop start and harvest is the sum total of all nitrogen from the following sources:

(A) All nitrate (NO_3) in the crop-specific root zone of soil,
(B) All ammonium (NH_4) in the first foot of the root zone of soil,
(C) 70% of the Total Kjeldahl Nitrogen (TKN) in applied wastewater[1],
(D) All Nitrate/Nitrite-N in applied wastewater and supplemental irrigation water from any source,
(E) All nitrogen applied as commercial fertilizer,
(F) Plant Available Nitrogen from applied manure and cover crops tilled under (calculated per approved OM&M Plan), and
(G) All nitrogen from any other source applied between crop start and harvest.

[1]Upon completion of the anaerobic digester project (beginning November 1, 2023), the Total Nitrogen in applied wastewater is to be used to calculate wastewater nitrogen loading (all TKN plus Nitrate/Nitrite-N).

Leaching Prohibition

(11) Other than a prescribed leaching event pre-approved by the Department the leaching of moisture and nutrients caused by means of irrigation beyond the 5th foot of the soil column is prohibited.

A violation of this prohibition will have occurred at an approved application site anytime required soil moisture monitoring as described in the OM&M determines that the average soil moisture is at or above the field capacity for the field in the 5th foot of the soil column caused by irrigation, unless the permittee demonstrates that the excess moisture was due to reasons beyond its reasonable control such as excessive precipitation.

Active irrigation activities during the growing season may saturate up to field capacity only the listed rooting depth of the current crop. Irrigation activities during the non-growing season must adhere to the limits specified in Schedules A(13) and A(14) of this permit.

Non-Growing Season Limits

(13) The Permittee must conduct all land application activities during the non-growing season in accordance with this permit and the facility OM&M Plan. The non-growing season is defined by this permit as November 1st through February, unless otherwise approved in writing by DEQ.

(A) The OM&M plan must include, but is not limited to, the following terms and conditions for operations during the non-growing season:

(i) Application sites must be ranked and evaluated according to the presence and location of nitrogen and moisture in the soil profile,-water holding capacity (field capacity), modeled nitrate leaching potential using publicly available models, and other factors in consult with DEQ.

(a) Based on the evaluation, the Permittee shall submit a Non-Growing Season Irrigation Plan for DEQ approval prior to the beginning of each non-growing season that describes how the Port plans to irrigate sites based on the criteria in Schedule 13(A)(i).

(b) The permittee shall irrigate sites during the non-growing season in accordance with the DEQ approved Non-Growing Season Irrigation Plan.

(c) Application sites are prohibited from receiving non-growing season irrigation if they are ranked as "high risk" or otherwise ineligible for non-growing season irrigation in accordance with the approved Non-Growing Season Irrigation plan evaluation.

(ii) Application sites where the sum of soil nitrate (as N)-in the top five feet of soil is greater than or equal to 150 lbs/ac are prohibited from receiving non-growing season irrigation,

(iii) Application sites with soil moisture in the 4th foot of the soil profile equal to or greater than 75% of the 4th foot water-holding capacity are prohibited from receiving additional non-growing season irrigation, with the following exceptions:

(a) For application sites with crops harvested between November 1 and December 31 of a calendar year, the 75% of the 4th foot water holding capacity prohibition shall be applied the calendar day following harvest of the crop.

(iv) Non-growing season irrigation is to be limited to utilization of the available water-holding capacity in the top three (3) feet of the soil column, only, and

(v) Non-growing season irrigation events must be planned based on the most recent soil moisture monitoring event.

(vi) These interim limits apply until November 1, 2025 when non-growing season wastewater must be stored except as approved by DEQ for beneficial use with treated effluent in accordance with Schedule A(14).

(B) Supplemental commercial nitrogen fertilizer application is not permitted from November 15 – February 15 without DEQ approval.

Effluent Treatment and Storage

(14) Unless otherwise approved in writing by DEQ, by no later than November 1, 2029, the facility must not exceed the following effluent concentration limits for all wastewater land applied during the non-growing season:

Table A1: Final Effluent Concentration Limits

Parameter	Monthly Average
Total Nitrogen[1]	7 mg/L
Total Suspended Solids (TSS)	20 mg/L
BOD_5	20 mg/L
pH	Instantaneous limit of 6.0 – 9.0

[1] **Total Kjeldahl Nitrogen (TKN) plus Nitrate/Nitrite-N**

(A) The permittee must utilize the wastewater treatment system during the growing season (March 1 – October 31 each calendar year) as necessary to reduce effluent constituent concentrations and ensure permit compliance.

(B) Beginning November 1, 2025, all wastewater is to be stored in lined lagoons for the non-growing season unless authorized for beneficial uses using wastewater treated to the Table A1 standards and as described in a DEQ-approved OM&M.

SCHEDULE B – Minimum Monitoring and Reporting Requirements

Schedule B, Conditions 3, 4(B), 4(C), 4(D), 6, and 14 are replaced as follows. All other Schedule B conditions of the November 2, 2022 permit are not modified.

Visual Inspections

(3) The Permittee shall perform the following visual inspections:

Table B2: Visual Inspections

Item or Parameter	Minimum Frequency	Sample Type/Action
Inspect Storage Lagoon dikes	Weekly	Record Observations[1]
Inspect pipelines	Daily when in use	Record Observations[1]
Inspect land application sites	Daily when irrigating	Record Observations[1]
Inspect sprinkler nozzles	Semi-annually	Record Observations[1]
Storage lagoon volume, MG	Daily, Each Lagoon	Record Observations[1] Record Amount Stored in MG Record Total Storage Capacity in MG
Inspect wastewater treatment units	Daily when in use	Record Observations[2]

[1] Maintain record of inspector, date, time, and operational status.

[2] Maintain record of inspector, date, time and operational status of each wastewater treatment unit including the digesters and secondary treatment system. Inspect in accordance with Operations and Maintenance Manual for each unit when in operation.

With the exception of the storage pond lagoon volumes which must be reported monthly, Table 2 information must be retained by the permittee according to Schedule F- General Conditions- Condition C(4) and must be provided to the Department upon request.

Flow Monitoring

(4) The Permittee shall monitor wastewater treatment system flows as follows:

(B) Wastewater system internal measured flow, gallons per day (gpd):

Table B4: Internal Flow Monitoring

Item or Parameter	Minimum Frequency	Sample Type/Action
South Pump Station Discharge	Daily	Record Daily Data, Totalize Monthly
North Pump Station Discharge	Daily	Record Daily Data, Totalize Monthly
Discharge to Storage Lagoons	Daily	Record Daily Data, Totalize Monthly For Each Lagoon
Influent to Each Wastewater Treatment System Unit[1]	Daily	Record Daily Data, Totalize Monthly
Effluent from Each Wastewater Treatment System Unit[1]	Daily	Record Daily Data, Totalize Monthly

[1] Each digester and secondary treatment oxidation ditch is a treatment unit.

(C) Wastewater applied as irrigation to each farm area, gallons per day (gpd):

Table B5: Wastewater Irrigation

Item or Parameter	Minimum Frequency	Sample Type/Action
Farm 1	Daily	Record Daily Data, Totalize Monthly
Farm 2	Daily	Record Daily Data, Totalize Monthly
Farm 3	Daily	Record Daily Data, Totalize Monthly
Farm 4	Daily	Record Daily Data, Totalize Monthly
Farm 5	Daily	Record Daily Data, Totalize Monthly
Farm 6	Daily	Record Daily Data, Totalize Monthly
Additional Farm Areas as approved by DEQ	Daily	Record Daily Data, Totalize Monthly

(D) Supplemental water applied as irrigation to each farm area, gallons per day (gpd):

Table B6: Supplemental Water Irrigation

Item or Parameter	Minimum Frequency	Sample Type/Action
Farm 1	Daily	Record Daily Data, Totalize Monthly
Farm 2	Daily	Record Daily Data, Totalize Monthly
Farm 3	Daily	Record Daily Data, Totalize Monthly
Farm 4	Daily	Record Daily Data, Totalize Monthly
Farm 5	Daily	Record Daily Data, Totalize Monthly
Farm 6	Daily	Record Daily Data, Totalize Monthly
Additional Farm Areas as approved by DEQ	Daily	Record Daily Data, Totalize Monthly

Commercial Fertilizer and Additional Nitrogen Sources

(6) The Permittee must monitor nitrogen applied as commercial fertilizer (Commercial Fertilizer - N, lbs/ac) and any other nitrogen sources applied, to each crop, at each approved application site in the following manner:

Table B9: Additional Nitrogen Sources

Item or Parameter, Units	Minimum Frequency	Sample Type/Action
Commercial Fertilizer Nitrogen, lbs/ac, Other Nitrogen sources including manure (lbs/ac)	As applied	Record amounts, Totalize monthly for each application site, and totalize collectively for each Farm

Reporting Requirements

Facility Monthly Report

(14) The Permittee must submit a monthly facility monitoring report (FMR). The reporting period for the FMR is the calendar month. The FMR for each calendar month must be submitted, to the Department, on or before the 15th of the next calendar month. The FMR format and content must be in accordance with DEQ approval, and must include, but not be limited to:

- **(A)** Monitoring results as required by Schedule B- Condition (3)- Table B2[1]
- **(B)** Monitoring results as required by Schedule B- Condition (4)(A)- Table B3,
- **(C)** Monitoring results as required by Schedule B- Condition (4)(B)- Table B4,
- **(D)** Monitoring results as required by Schedule B- Condition (4)(C)- Table B5,
- **(E)** Monitoring results as required by Schedule B- Condition (4)(D)- Table B6,
- **(F)** Monitoring results as required by Schedule B- Condition (4)(E)-Table B7,
- **(G)** Monitoring results as required by Schedule B- Condition (5)-Table B8,
- **(H)** Monitoring results as required by Schedule B- Condition (6) -Table B9,
- **(I)** A narrative summary to include, but not be limited to a written evaluation of:
  - **(i)** General wastewater system performance, issues and concerns,
  - **(ii)** Wastewater system maintenance, repair and construction,
  - **(iii)** Changes at authorized wastewater sources with the potential to impact system operation or capacity, and
  - **(iv)** A statement that either confirms compliance with all the terms and conditions of the permit and OM&M Plan or lists violations that have occurred during the reporting month[2].

[1]**Report the stored wastewater volume and total storage capacity in each lagoon on last day of reporting month.**
[2]**In response to a violation notification, DEQ may investigate to evaluate the nature and extent of the violation and may require additional information and/or corrective actions from the Permittee. Compliance with this requirement does not relieve the Permittee from responsibility to maintain continuous compliance with the conditions of this permit or the resulting liability for failure to comply.**

SCHEDULE C – COMPLIANCE SCHEDULE

Schedule C, Conditions 4 and 5 are replaced as follows. Condition 7 is new. Schedule C, Conditions 1, 2, 3, and 6 of the November 2, 2022 permit are not modified.

4. Secondary Treatment of Wastewater Effluent

Complete By	Requirement
September 1, 2025	Submit a Preliminary Design Report to DEQ for review of Secondary Treatment System. The preliminary design report must include nitrogen and hydraulic balances to document system capacity upon completion of the project.
April 1, 2026	Submit 90% Plans and Specifications to DEQ for review of Secondary Treatment System. The 90% plans must address all DEQ comments on the Preliminary Design Report.
December 31, 2026	The permittee must submit to DEQ: 1. Final draft plans and specifications in accordance with OAR 340-052 for a selected secondary treatment system. 2. A completed Land Use Compatibility Statement (LUCS) for the selected project.
April 1, 2027	Submit to DEQ a progress status report.
April 1, 2028	Submit to DEQ a progress status report.
April 1, 2029	Submit to DEQ a progress status report.
July 1, 2029	Complete construction and startup of the secondary treatment system as per the DEQ-approved plans and specifications.
October 1, 2029	Submit to DEQ a summary of performance for the Secondary Treatment System. The summary must include a comparison of the wastewater characteristics in Table B8 before and after secondary treatment.
November 1, 2029	The permittee must comply with Schedule A(14) effluent limits for wastewater land applied in the non-growing season and use the secondary treatment system in the growing season to ensure permit compliance and groundwater protection.

5. Storage of Non-Growing Season Effluent

Complete By	Requirement
May 31, 2023	Submit Preliminary Design Report to DEQ for review of Storage Addition to cease non-growing season disposal program. The preliminary design must include nitrogen and hydraulic balances to document system capacity upon completion of the project.
November 30, 2023	Submit 90% Plans and Specifications to DEQ for review of Storage Addition. The 90% plans must address all DEQ comments on the Preliminary Design Report.
April 1, 2024	The permittee must submit to DEQ: 1. Final draft plans and specifications in accordance with OAR 340-052 for the storage system. 2. A completed Land Use Compatibility Statement (LUCS) for the selected project.
April 1, 2025	Submit to DEQ a progress status report.
November 1, 2025	The permittee must complete construction and provide DEQ a start-up summary for the project in accordance with DEQ approval.

7. Groundwater Corrective Measures and Remedial Actions

Complete By	Requirement
March 31, 2025	Submit an update to the August 29, 2023 Farms 1-5 Remedial Investigation/Feasibility Study and Corrective Measures Plan. The updated plan must include: 1. A summary of current groundwater monitoring trend analysis at Farms 1, 2, 3, 4, and 5. 2. A summary of groundwater trend analysis and proposed groundwater concentration limits at the acreage expansion for Farm 6. 3. All RI/FS information required under OAR 340-040-0040. 4. An update on corrective actions completed and identification of new proposed corrective actions as necessary, to include the new Farm 6 acreage.

8. Responsibility to Meet Compliance Dates

No later than 14 days following each compliance date listed in the tables above, the permittee must notify DEQ in writing of its compliance or noncompliance with the requirements. Any reports of noncompliance must include the cause of noncompliance, any remedial actions taken, and a discussion of the likelihood of meeting the next scheduled requirement.

SCHEDULE D - Special Conditions

Schedule D, Condition 13 is replaced as follows. New Schedule D, Condition 17 is added to the permit. All other Schedule D conditions of the November 2, 2022 permit are not modified.

Total Kjeldahl Nitrogen Availability

(13) Unless otherwise approved by DEQ in writing, the Permittee must assume that 70% of Total Kjeldahl Nitrogen (TKN) applied to an authorized application site becomes plant available during the crop season when calculating nitrogen loading rates until the date specified in Schedule A(8).

Soil Moisture Monitoring Sensor Density and Calibration

(17) By November 1, 2024, the facility must install additional soil moisture monitoring sensors at all fields that will receive non-growing season irrigation at a minimum density of one sensor per twenty-five acres. The facility must provide written verification to DEQ of completion of install and use of the additional soil moisture sensors prior to the November 1, 2024 non-growing season period. Sensors must be installed and calibrated in accordance with the OM&M Plan and used to assess permit non-growing season and leaching compliance as per the approved OM&M.

By no later than the April 15th, 2025 OM&M plan update, the facility must provide a plan and schedule to also begin assessing site soil field capacity using additional verified methodology of 1) the Saxton and Rawls Method, or 2) the pressure plate method. The facility may propose other methods along with information to support the requested approach.