STATE OF WASHINGTON
DEPARTMENT OF ECOLOGY
Southwest Region Office
PO Box 47775, Olympia, WA 98504-7775 • 360-407-6300

April 15, 2024

The Honorable Tyler Trimble, Mayor
112 N Main St
Montesano, WA 98563

Re: WA0024660, Montesano Wastewater Treatment Plant, 2024 Inspection

Dear Mayor Trimble,

On April 2, 2024, The Department of Ecology conducted an announced inspection of the Montesano Wastewater Treatment Plant. Below you will find a copy of the inspection report for your records. We would like to thank Kevin Hegel, Jeff McElliott, and Mike Olden for the courtesy extended during the inspection and providing answers to follow-up questions.

We appreciate the care taken by the operators in running this treatment plant.

If you have any questions about the inspection report or otherwise, please contact Joe Rauzi at joe.rauzi@ecy.wa.gov or (564) 669-3114.

Sincerely,

Joe Rauzi
Municipal Permit Engineer
Water Quality Program
Southwest Regional Office

United States Environmental Protection Agency
Washington D.C. 20460

Water Compliance Inspection Report

Section A: National Data System Coding (i.e., PCS)

Transaction Code		NPDES	yr/mo/dy	Inspection Type	Inspector	Facility Type
1 N	2 5	3 WA0024660 11	12 24 04 02 17	18 C	19 S	20 1

Remarks

21 | | 66

Inspection Work Days	Facility Self-Monitoring Evaluation Rating	B1	QA	----Reserved----	
67 0 0 1 69	70 5	71 N	72 N	73 74	75 80

Section B: Facility Data

Name and Location of Facility Inspected *(For industrial users discharging to POTW, also include POTW name and NPDES permit number)*	Entry Time/Date	Permit Effective Date
Montesano WWTP 128 State Route 107 South Montesano, WA 98563	**10:00am** **04/02/2024**	09/01/2014
	Exit Time/Date **12:00pm** **04/02/2024**	Permit Expiration Date 08/31/2019
Name(s) of On-Site Representative(s)/Title(s)/Phone and Fax Number Kevin Hegel, Group II – 360-249-3532 Jeff McElliott, Group II – 360-470-2419 Mike Olden, Public Works Director – 360-249-3939	Other Facility Data *(e.g., SIC NAICS, and other description information)*	
Name, Address of Responsible Official/Title/Phone and Fax Number Tyler Trimble Mayor Contacted ☐ Yes ☒ No		

Section C: Areas Evaluated During Inspection ***(Check only those areas evaluated)***

☒ Permit	☒ Self-Monitoring Program	☐ Pretreatment	☐ MS4
☒ **Records/Reports**	☐ Compliance Schedules	☐ Pollution Prevention	
☒ Facility Site Review	☒ Laboratory	☐ Stormwater	
☒ Effluent/Receiving Waters	☒ Operations & Maintenance	☐ Combined Sewer Overflow	
☒ Flow Measurement	☒ Sludge Handling/Disposal	☐ Sanitary Sewer Overflow	

Section D: Summary of Findings/Comments
(Attach additional sheets of narrative and checklists, including Single Event Violation codes, as necessary)

See Attached.

Verify Latitude and Longitude
Latitude: 46.968
Longitude: -123.607

☒ Announced
☐ Unannounced

Name(s) and Signature(s) of Inspector(s)	Agency/Office/Phone	Date
Joe Rauzi	Ecology/SWRO/564-669-3114	4/11/2024
Dave Dougherty, P.E.	Ecology/SWRO/564-999-3586	4/11/2024
Signature of Management QA Reviewer Steve Ogle, P.E.	Ecology/SWRO/564-999-3591	4/12/2024

Section D Narrative:

Ecology inspector and permit manager, Joe Rauzi, accompanied by Dave Dougherty, arrived at the Montesano Wastewater Treatment Plant (Montesano WWTP) at approximately 10:00am on April 2, 2024. This was a routine, announced inspection. Chief Operator Kevin Hegel (Group II) provided access and direction around the plant process components. Operator Jeff McElliott (Group II) also participated in the inspection and will be taking over the role of Chief Operator in June when Kevin retires. Montesano Public Works Director Mike Olden was present for the beginning of the inspection.

The inspection started at the headworks. Influent flow arrives at the facility through a force main and travels by gravity through the plant. Influent flowrate is measured by ultrasonic flow meter. Kevin noted in a 2018 inspection that the influent flowrate measurements can be inaccurate due to air bubbles in the wastewater and expressed the need to relocate the flowmeter. They had not yet moved the flow meter at the time of this inspection. The facility does not screen the influent or remove grit because the City of Montesano (City) has a Septic Tank Effluent Pump (STEP) collection system that removes screenings and grit before the WWTP. The influent sampling station was in good condition. Kevin reported that they double check sample temperature to be sure the temperature reported on the control panel is accurate. They also just received additional thermometers to install in both the influent and effluent sampling stations.

After sampling and flow measurement, influent wastewater flows to an anoxic selector basin. The basin is controlled in a low dissolved oxygen, high BOD condition to encourage the desired bacterial conditions in the aeration basin. Influent wastewater is mixed with RAS in the selector. Lime is added as needed to increase the pH. Kevin would like to switch to magnesium hydroxide for pH regulation. At the time of inspection, the basin was covered in a thin film of foam. Kevin reported that this happens every morning and eventually dissipates by the afternoon without causing any foaming issues in the aeration basin. Inspectors confirmed that there was minimal foam on the aeration basin.

From the anoxic selector, wastewater flows into the Biolac® aeration basin. The aeration basin has eight floating chains with aerators hanging below the surface to maintain oxygen levels and mix the wastewater in the basin. The WWTP has three blowers to supply air to the basin, but typically only runs one at a time at about 50% capacity. The floating aerators appeared to be in good condition. Kevin reported that the aerators on the basin's edge drag on the rocks and wear out, requiring faster replacement. He indicated two locations where more vigorous bubbling was visible on the surface to show where this issue occurs. The operators inspect the aerators about every two years and replace aerators with signification wear. Kevin tracks MLSS, SVI, and occasionally MLVSS to maintain the aeration basin. MLSS is typically around 3000 mg/L and SVI typically averages 100 mL/g. Kevin reported one previous incident of a significant foaming issue that resolved on its own after reaching out to a consultant. He has had no other major foaming problems. The aeration basin liner was installed in 1999 and is reaching the end of its 25-year design life. The liner needs to be inspected for impaired function and replaced if needed.

Wastewater leaves the aeration basin and flows to the two secondary clarifiers. During high flows, Kevin runs both clarifiers. At the beginning of the dry season, Kevin empties the clarifiers one at a time for cleaning and maintenance and continues operating one clarifier until the start of wet weather in the fall. The operators have to manually plug the clarifier inlets to stop flow and they would prefer to have valves turn the flow on and off. The typical sludge depth is 1-2 feet, measured weekly. Kevin reported that when duckweed growth is high, they have to clean it out of the inlet wet well weekly. The weirs had minimal algae. RAS is continuously returned to the anoxic selector basin. When the MLSS starts to rise, they turn on the WAS pump and divert some of the sludge to the sludge basin. The scum valve for the north clarifier is broken and drains continuously unless it is manually turned off. Both RAS and WAS pumps are four to five years old and backup pumps and parts are on site if needed.

Following clarification, effluent enters the chlorine contact tanks. Montesano WWTP uses gaseous chlorine for disinfection. Both operators indicated that they are comfortable working with gaseous chlorine, but they would prefer to install an ultraviolet (UV) disinfection system. The City previously had plans to switch to UV disinfection but did not have the funding. In the event of a gaseous chlorine leak, there are chlorine masks on site. However, the safety plan is just to evacuate and allow the tank to fully empty into the air and dissipate after alerting 911.

After passing through the chlorine contact channels, effluent is dechlorinated using sulfur dioxide and sampled for effluent monitoring. The final effluent looked clear. The effluent is discharged to the Chehalis River at river mile 13.41. The river has changed its path recently in the vicinity of the outfall, but as far as Kevin is aware it has not impacted the discharge or the integrity of the outfall. If back pressure is too high from flood stage water levels in the river, the facility has two effluent pumps to force effluent into the river. Kevin reported they are very infrequently used.

The WWTP typically removes sludge from the sludge basin every seven to eight years. The last removal was five years ago, and the sludge was sent to the Wasco County landfill in Oregon. In 2019, the northwest half of the basin was filled in to keep sludge away from the Wynoochee River and a new liner was installed on the northeast side. At the time of inspection there was visible solids buildup near the WAS discharge pipe. Kevin said he would like to aerate the sludge basin to evenly distribute the solids and prevent solids buildup.

The WWTP sits on the bank of the Wynoochee River. Since the early 2000s, the City has had to continuously improve fortifications to prevent the encroaching river from impacting the WWTP. This includes sheet pile fortifications on the bank supported by log jacks and sheet pile around the perimeter of the facility at the 500-year floodplain. At the time of inspection, some of the log jacks had washed away and many were not visible as the river continues to scour the fortified bank. The plant appears currently protected, but the City should reconsider plans to move the facility before the river causes another emergency at the WWTP.

If the operators are off site, the facility alarm system only notifies them when the power goes out. It does not have the capability to notify them if individual process components are down or if there is an emergency like a chlorine leak while they are off site. Kevin would like to broaden the capabilities of the alarm system to give him this more detailed information. The backup generator has been having issues during weekly testing and can be unreliable. Kevin said it should manage if needed, but he would like to replace it as soon as possible.

Montesano WWTP has not experienced any major issues with inflow and infiltration recently.

Ecology reviewed documents in the lab confirming lab accreditation, records, access to O&M manuals and the presence of the permit. The lab was well-maintained and clean.

Findings from the inspection:

- The influent flow meter should be moved for more accurate flow measurement.
- The aeration basin liner should be inspected and replaced if needed.
- The scum valve for the northern secondary clarifier should be replaced.
- Ecology recommends the City develop a more comprehensive safety plan for chlorine leak response.
- The City should reconsider switching the disinfection system to UV.
- A distribution method would be helpful in the sludge basin to prevent solids buildup.
- The alarm notification system should be improved to indicate to the operator which process components are causing the alarm even when the operator is off site.
- The backup generator should be repaired to a reliable condition or replaced.
- The City should reevaluate moving the WWTP to an area away from river encroachment and flooding, especially with the aeration basin liner reaching the end of its service life.

INSTRUCTIONS

Section A: National Data System Coding *(i.e., PCS)*

Column 1: Transaction Code: Use N, C, or D for New, Change, or Delete. All inspections will be *new* unless there is an error in the data entered.

Column 3 - 11: NPDES Permit No.: Enter the facility's NPDES permit number – third character in permit number indicates permit type for U=unpermitted, G=general permit, etc.. *(Use the Remarks columns to record the State permit number, if necessary.)*

Columns 12 - 17: Inspection Date: Insert the date entry was made into the facility. Use the year/month/day format (e.g., 94/06/30 = June 30, 1994).

Column 18: Inspection Type*: Use one of the codes listed below to describe the type of inspection:

A	Performance Audit	U	IU Inspection with Pretreatment Audit	!	Pretreatment Compliance (Oversight)
B	Compliance Biomonitoring	X	Toxics Inspection	@	Follow-up (enforcement)
C	Compliance Evaluation (non-sampling)	Z	Sludge – Biosolids	{	Stormwater-Construction-Sampling
		#	Combined Sewer Overflow-Sampling	}	Stormwater-Construction-Non-Sampling
D	Diagnostic	$	Combined Sewer Overflow-Non-Sampling	:	Stormwater-Non-Construction-Sampling
F	Pretreatment Follow-up	+	Sanitary Sewer Overflow-Sampling	~	Stormwater-Non-Construction-Non-Sampling
G	Pretreatment (Audit)	&	Sanitary Sewer Overflow-Non-Sampling	<	Stormwater-MS4-Sampling
I	Industrial User (IU) Inspection	\	CAFO-Sampling	-	Stormwater-MS4-Non-Sampling
M	Multimedia	=	CAFO-Non-Sampling	>	Stormwater-MS4-Audit
N	Spill	2	IU Sampling Inspection		
O	Compliance Evaluation (Oversight)	3	IU Non-Sampling Inspection		
P	Pretreatment Compliance Inspection	4	IU Toxics Inspections		
		5	IU Sampling Inspection With Pretreatment		
R	Reconnaissance	6	IU Non-Sampling Inspection with Pretreatment		
S	Compliance Sampling	7	IU Toxics With Pretreatment		

Column 19: Inspector Code: Use one of the codes listed below to describe the *lead agency* in the inspection

A - State (Contractor)
B - EPA (Contractor)
E - Corps of Engineers
J - Joint EPA/State Inspectors-EPA Lead
L - Local Health Department (State)
N - NEIC Inspectors
O - Other Inspectors, Federal/EPA (Specify in Remarks columns)
P - Other Inspectors, State (Specify in Remarks columns)
R – EPA Regional Inspector
S – State Inspector
T – Joint State/EPA Inspectors-State Lead

Column 20: Facility Type: Use one of the codes below to describe the facility.

1 - Municipal. Publicly Owned Treatment Works (POTWs) with 1987 Standard Industrial Code (SIC) 4952.
2 - Industrial. Other than municipal, agricultural, and Federal facilities.
3 - Agricultural. Facilities classified with 1987 SIC 0111 to 0971.
4 - Federal. Facilities identified as Federal by the EPA Regional Office.
5 – Oil & Gas. Facilities classified with 1987 SIC 1311 to 1389

Columns 21-66: Remarks: These columns are reserved for remarks at the discretion of the Region.

Columns 67-69: Inspection Work Days: Estimate the total work effort (to the nearest 0.1 work day), up to 99.9 days, that were used to complete the inspection and submit a QA reviewed report of findings. This estimate includes the accumulative effort participating inspectors; any effort for laboratory analyses, testing, and remote sensing; and the billed payroll time for travel and pre and post inspection preparation. This estimate does not require detailed documentation.

Column 70: Facility Evaluation Rating: Use information gathered during the inspection (regardless of inspection type) to evaluate the quality of the facility self-monitoring program. Grade the program using a scale of 1 to 5 with a score of 5 being used for very reliable self-monitoring programs, 3 being satisfactory, and 1 being used for very unreliable programs.

Column 71: Biomonitoring Information: Enter D for static testing. Enter F for flow through testing. Enter N for no biomonitoring.

Column 72: Quality Assurance Data Inspection: Enter Q if the inspection was conducted as follow-up on quality assurance sample results. Enter N otherwise.

Columns 73-80: These columns are reserved for regionally defined information.

Section B: Facility Data

This section is self-explanatory except for "Other Facility Data," which may include new information not in the permit or PCS (e.g., new outfalls, names of receiving waters, new ownership, and other updates to the record).

Section C: Areas Evaluated During Inspection

Check only those areas evaluated by marking the appropriate box. Use Section D and additional sheets as necessary. Support the findings, as necessary, in a brief narrative report. Use the headings given on the report form (e.g., Permit, Records/Reports) when discussing the areas evaluated during the inspection.

Section D: Summary of Findings/Comments

Briefly summarize the inspection findings. This summary should abstract the pertinent inspection findings, not replace the narrative report. Reference a list of attachments, such as completed checklists taken from the NPDES Compliance Inspection Manuals and pretreatment guidance documents, including effluent data when sampling has been done. Use extra sheets as necessary.

*Footnote: In addition to the inspection types listed above under column 18, a state may continue to use the following wet weather and CAFO inspection types until the state is brought into ICIS-NPDES: K-CAFO, V-SSO, Y-COS, W-Stormwater, 9-MS4. States may also use the new wet weather CAFO and MS4 inspection types show in column 19 of this form. The EPA regions are required to use the new wet weather CAFO and MS4 inspection types for inspections with an inspection date (DTIN) on or after July 1, 2005.