

INSPECTION REPORT

Inspection Entry Date/Time	08/21/2023 09:28 AM (PT)	Announced: Yes	
Inspection Exit Date/Time	08/21/2023 12:40 PM (PT)	Access: Granted	
Weather	70°F, Sunny		
Media	Water		
Statute/Program	Clean Water Act, NPDES, WWTP		
Type of Inspection	Compliance Evaluation Inspection		
Permittee Name	Makah Tribal Council		
Facility or Site Name	Makah Wastewater Treatment Facility		
Facility/Site Physical Address	2943 Cape Flattery Road		
City, State, Zip Code	Neah Bay, Washington 98357		
County	Clallam		
Facility GPS Coordinates	48.349804, -124.660492		
Mailing Address	P.O. Box 115		
City, State, Zip Code	Neah Bay, Washington 98357		
FRS ID	110009764665		
Permit Number	WA0023213		
SIC	4952 (Sewage Systems)		
Lead Inspector:			
Raymond Andrews	EPA Region10	andrews.raymond@epa.gov	(206) 553-4252
Supervisor Review:			
Peter Contreras	EPA Region 10	contreras.peter@epa.gov	(206) 553-6708

SECTION I – Opening Conference

I arrived at the Makah Wastewater Treatment Facility (the “Site” or “Facility”), located at 2943 Cape Flattery Road, Neah Bay, Washington, at 09:28 AM (PT) on 08/21/2023 for an announced inspection. I presented my credentials to Joshua Herschleb and informed him I was there to conduct an inspection to determine compliance with the Clean Water Act (CWA) and the facility’s National Pollutant Discharge Elimination System (NPDES) permit, permit # WA0023213. This report is based on information supplied by Mr. Herschleb, direct observations made by me, and records and reports maintained by the facility. In addition, information gathered prior to, or after, the inspection from a review of EPA, State, and/or public records may be included in this report.

Attendees

Organization	Attendee Name	Title	Present in Opening Conf.	Present in Closing Conf.
EPA Region 10	Raymond Andrews	Lead Inspector	Yes	Yes
Makah Tribe Wastewater Department	Joshua Herschleb	Lead Operator	Yes	Yes

Facility Information

Responsible Official?	Dave Lucas, Director of Public Works, david.lucas@makah.com
Names and certifications of employees?	Joshua Herschleb – Lead Operator; Level 1 Wastewater Tony Markustrum – Operator; In Training
When is the facility staffed?	The facility is staffed from 8am until 5pm, Monday through Friday. On Saturday and Sunday, a non-operator conducts checks of the facility and calls the operator if there is an issue.
Service population?	The facility serves approximately 2,500 residents.
WWTP Design Capacity & Average Daily Flow?	The facility has a design flow capacity of 1 million gallons per day (mgd). The actual average flow is 0.1 - 0.13 mgd.
Explain the facility’s treatment process.	The influent enters at the headworks. From the headworks the wastewater flows to lagoon 1 where it's aerated. The effluent then flows to lagoon 2 where it is further aerated. Lagoon 2 has a perforated curtain that hangs down vertically into the water and extends the width of the lagoon. The purpose of the curtain is to slow down the flow and allow some settling to occur. The influent then moves to lagoon 3, which is the primary settling lagoon. After settling, the wastewater flows to lagoon 4 for polishing. From lagoon 4, the effluent enters the chlorination building where chlorine is added to begin the disinfection process. From the chlorination building, the effluent enters the chlorine contact chamber to allow the water maximum time for disinfection. The effluent is sampled from the contact chamber prior to being pumped to the outfall. The facility does not dechlorinate the effluent prior to discharge.
How many outfalls does the facility have?	The facility has a single outfall which discharges into the Strait of Juan de Fuca.
How often is the outfall visually inspected?	The discharge point is under water, but an operator conducts an observation of the discharge site at least every other week.
Type of flow meter used?	The facility uses a MagMeter to determine influent and effluent flow.
How often is the flow meter calibrated?	The MagMeter was installed in the system in 2019, and is built into the lines. Per the manufacturer, the MagMeter does not require calibration.

Does the system have a failure alarm?	The Makah WWTP is a small system and does not have a failure alarm. If the flow gets too high, the effluent recirculates so it does not overflow. If the level in the contact chamber gets too high, an audible alarm goes off to alert staff.
What portion of the plant does the backup power operate?	The facility has a back-up generator that runs all treatment processes. If there is a power failure, an operator must go to the facility to turn on the generator. The generator is started manually to prevent damage to attached equipment that may be caused by a hard start.
Industrial Users?	The facility does not have industrial users.
Are any changes to the system planned to allow for increased wastewater flow?	There are no plans for any changes or upgrades. When the facility was originally installed, it was overbuilt to allow for community growth.
Is any part of the treatment process inoperable?	The facility was fully operational.
Do you accept waste from septage haulers? If so, what problems have you experienced?	The facility receives approximately 4,000 gallons of waste from septage haulers per month. Per Mr. Herschleb, acceptance of the septage has never given the facility issues.
Do you use in-house or contract out for laboratory analyses?	The facility analyzes all standard effluent parameters in-house. Once a quarter, the facility sends water samples to a contract laboratory for analysis of nitrates/nitrites, ammonia, and alkalinity. The facility's contract lab is: Spectra labs - Kitsap, LLC 26276 Twelve Trees Lane SW, Suite C Poulsbo, Washington 98370 (360) 779-5141
Where does the facility collect effluent samples?	Daily grab samples are collected from the chlorine contact chamber and the headworks. Auto-samplers collect 24-hour flow proportional composite samples for analysis of 5-day biochemical oxygen demand (BOD ₅).
Who collects samples?	Joshua Herschleb, Lead Operator
How often is the pH meter calibrated?	Daily

SECTION II – Observations

No Areas of Concern were observed during the site tour.

Location: Lagoon 4

Observation #: RA1-OB-001

Date: 08/22/2023

Weather: 70°F, Sunny

I observed accumulated duckweed on the eastern end of Lagoon 4, pictured in **Photo 1**. Mr. Herschleb said he has tried various herbicidal treatments to keep the duckweed under control. He also said he has used manual removal as a control measure. Manual removal appears to be the most effective control method.



Photo 1/P1010842 – Lagoon 4 with duckweed

SECTION III – Records Review

Records may not be in sequential order.

Record: Other - Facility NPDES Permit		AOC: Yes
Ref #: RA1-RR-009	Reviewed By: Raymond Andrews	Reviewed Date: 08/21/2023
At the time of the inspection, I reviewed the facility's NPDES Permit, permit # WA0023213. The permit was issued on June 15, 2016, with an effective date of July 1, 2016, and an expiration date of June 30, 2021. The permit required the facility to apply for renewal a minimum of 180 days prior to the permit's expiration date of January 1, 2021. Submitting a renewal application by the due date, would allow the facility to continue operating under the permit even after its expiration in an "administratively continued" status. The facility was unable to provide me with evidence the renewal application was submitted by the due date.		
Record: Other - EPA's Integrated Compliance Information System (ICIS) Database		AOC: Yes
Ref #: RA1-RR-008	Reviewed By: Raymond Andrews	Reviewed Date: 08/16/2023
Prior to the inspection, I reviewed data in EPA's ICIS database from August 1, 2018, through July 31, 2023. The ICIS database showed the Makah wastewater treatment facility had 585 effluent exceedances during the timeframe reviewed.		
Record: Other - EPA's Integrated Compliance Information System (ICIS) Database		AOC: Yes
Ref #: RA1-RR-007	Reviewed By: Raymond Andrews	Reviewed Date: 08/16/2023
During the ICIS database review, I found the Makah wastewater treatment facility was late in submitting one Discharge Monitoring Report (DMR). The DMR for the monitoring period ending January 31, 2022, was due by February 2, 2022, but was not received by EPA until April 18, 2022.		
Record: Permit Renewal Application		AOC: Yes
Ref #: RA1-RR-005	Reviewed By: Raymond Andrews	Reviewed Date: 08/21/2023
At the time of the inspection, I reviewed a permit renewal application dated February 1, 2023. This renewal application does not appear to have been accepted by EPA. A complete renewal application was due to EPA not later than January 1, 2021. This area of concern is encompassed in AOC Reference #: RA1-RR-009, below.		
Record: Other - Operation and Maintenance Plan		AOC: No
Ref #: RA1-RR-004	Reviewed By: Raymond Andrews	Reviewed Date: 08/21/2023
The O&M Plan was undated. It seemed to meet the intent of the permit. I recommended the O&M Plan be reviewed and updated if necessary.		
Record: Other - Emergency Response and Public Notification Plan		AOC: Yes
Ref #: RA1-RR-003	Reviewed By: Raymond Andrews	Reviewed Date: 08/21/2023
The facility did not have an Emergency Response and Public Notification Plan.		
Record: Other - Quality Assurance Plan		AOC: Yes
Ref #: RA1-RR-002	Reviewed By: Raymond Andrews	Reviewed Date: 08/21/2023
At the time of the inspection, I reviewed the facility's Quality Assurance (QA) Plan. The plan was undated, and I noted the following deficiencies: 1. It was not completed in accordance with reference documents. 2. It did not contain required sampling details. 3. It did not contain required map. 4. It did not contain qualifications and training of personnel. 5. It did not contain details about the lab used by the permittee.		

Record: Other - Lab Reports and Chain of Custody Documents	AOC: No
Ref #: RA1-RR-001 Reviewed By: Raymond Andrews	Reviewed Date: 08/21/2023
At the time of inspection, I reviewed lab reports and chain of custody documents from August 2018 through July 2023. No issues were found.	

SECTION IV – Sampling Activity

No sampling was conducted.

SECTION V – Areas of Concern

Areas of Concern may not be in sequential order.

The presentation of Areas of Concern does not constitute a formal compliance determination or violation.

AOC Reference #: RA1-RR-002	Records Review: Other - Quality Assurance Plan
Permit Requirement Permit Part II.B.2, "Throughout all sample collection and analysis activities, the permittee must use the EPA-approved QA/QC and chain-of-custody procedures described in EPA Requirements for Quality Assurance Project Plans (EPA/QA/R-5) and Guidance for Quality Assurance Project Plans (EPA/QA/G-5). The QAP must be prepared in the format that is specified in these documents."	
AOC: The QA Plan is not developed in accordance with required reference documents.	

AOC Reference #: RA1-RR-002	Records Review: Other - Quality Assurance Plan
Permit Requirement Permit Part II.B.3.a, "Details on the number of samples, type of sample containers, preservation of samples, holding times, analytical methods, analytical detection and quantitation limits for each target compound, type and number of quality assurance field samples, precision and accuracy requirements, sample preparation requirements, sample shipping methods, and laboratory data delivery requirements."	
AOC: The QA Plan did not contain required sampling details.	

AOC Reference #: RA1-RR-002	Records Review: Other - Quality Assurance Plan
Permit Requirement Permit Part II.B.3.b, "Map(s) indicating the location of each sampling point."	
AOC: The QA Plan did not contain required map.	

AOC Reference #: RA1-RR-002	Records Review: Other - Quality Assurance Plan
Regulation and/or Permit Requirement Permit Part II.B.3.c, "Qualification and training of personnel."	
AOC: The QA Plan did not contain qualifications and training of personnel.	

AOC Reference #: RA1-RR-002	Records Review: Other - Quality Assurance Plan
Permit Requirement Permit Part II.B.3.d, "Name(s), address(es) and telephone number(s) of the laboratories used by or proposed to be used by the permittee."	
AOC: The QA Plan did not contain details about the lab used by the permittee.	

AOC Reference #: RA1-RR-003	Records Review: Other - Emergency Response and Public Notification (ERPN) Plan
Permit Requirement Permit Part II.D.1, "The permittee must develop and implement an overflow emergency response and public notification plan that identifies measures to protect public health from overflows that may endanger health and unanticipated bypasses or upsets that exceed any effluent limitation in the permit."	
AOC: The facility did not have an Emergency Response and Public Notification Plan.	

AOC Reference #: RA1-RR-007	Records Review: Other - EPA's Integrated Compliance Information System (ICIS) Database
Permit Requirement Permit Part III.B.1.a, "Monitoring data must be submitted electronically to EPA no later than the 20th of the month following the completed reporting period."	
AOC: The Makah wastewater treatment facility was late in submitting one Discharge Monitoring Report (DMR). The DMR for the monitoring period ending January 31, 2022, was due by February 2, 2022, but was not received by EPA until April 18, 2022.	

AOC Reference #: RA1-RR-008	Records Review: Other - EPA's Integrated Compliance Information System (ICIS) Database
Permit Requirement Permit Part I.B.1, "The permittee must limit and monitor discharges from outfall 001 as specified in Table 1. Effluent Limitations and Monitoring Requirements...All figures represent maximum effluent limits unless otherwise indicated. The permittee must comply with the effluent limits in the tables at all times."	
AOC: The Makah wastewater treatment facility had 585 effluent exceedances between August 2018 and July 2023. A table of the exceedances are in Appendix 2 .	

AOC Reference #: RA1-RR-009

Records Review: Other - Facility NPDES Permit

Permit Requirement

Permit Part I.A, "During the effective period of this permit, the permittee is authorized to discharge pollutants from the outfall specified herein to the Strait of Juan de Fuca, within the limits and subject to the conditions set forth herein. This permit authorizes the discharge of only those pollutants resulting from facility processes, waste streams, and operations that have been clearly identified in the permit application process."

Permit Part V.B, "If the permittee intends to continue an activity regulated by this permit after the expiration date of this permit, the permittee must apply for and obtain a new permit. In accordance with 40 CFR 122.21(d), and unless permission for the application to be submitted at a later date has been granted by the Regional Administrator, the permittee must submit a new application at least 180 days before the expiration date of this permit."

AOC:

The facility did not submit a complete permit renewal application by the due date of January 1, 2021, so the facility is discharging without a permit.

SECTION VI – Closing Conference

I held a closing conference with Mr. Herschleb at 12:40 PM (PT) on 08/21/2023. During the closing conference, I discussed my observations and Areas of Concern I identified during the inspection. Observations and Areas of Concern have not yet been evaluated for a formal compliance determination.

SECTION VII – List of Appendices

1. Photo Log
2. Effluent Exceedance Table

APPENDIX 1: Photo Log

All photos were taken by Lead EPA Inspector, Ray Andrews, during the inspection.

Photos were not manipulated beyond minor cropping for sizing and labels or callouts to draw attention to the subject of the photo.

All photos taken during the inspection are included in the Photo Log; however, only photos that support an Observation or Area of Concern are included in the inspection report.

P1010826 – Wastewater Plant Monitoring Report
P1010827 – Biochemical Oxygen Demand (BOD) Testing Log Sheet
P1010828 – Fecal Coliform Testing Log Sheet
P1010829 – Solids, Total Suspended (TSS) Bench Sheet
P1010830 – Chain of Custody Document, example, dated March 3, 2022
P1010831 – Quality Assurance (QA) Plan , page 1
P1010832 – Quality Assurance (QA) Plan , page 2
P1010833 – Quality Assurance (QA) Plan , page 3
P1010834 – Quality Assurance (QA) Plan , page 4
P1010835 – Quality Assurance (QA) Plan , page 5
P1010836 – Receipt of Mailing Renewal Application, dated February 1, 2023
P1010837 – Permit Renewal Application, page 1
P1010838 – Lagoon 1, photo 1
P1010839 – Lagoon 1, photo 2
P1010840 – Lagoon 4, Duckweed in Foreground
P1010841 – Lagoon 2
P1010842 – Lagoon 3

APPENDIX 2: Effluent Exceedance Table

Month	Parameter	DMR Value	Permit Limit	Unit	Limit Type	# Violations
October 2018	Cl, total residual	2.6	2.56	lb/d	Wkly Avg	7
October 2018	Cl, total residual	3	1.71	lb/d	Mo Avg	31
November 2018	BOD, 5-day, % rmvl	83	85	%	Mo Av Mn	30
December 2018	Cl, total residual	1.85	1.71	lb/d	Mo Avg	31
December 2018	BOD, 5-day, % rmvl	69	85	%	Mo Av Mn	31
January 2019	BOD, 5-day, % rmvl	72	85	%	Mo Av Mn	31
March 2019	BOD, 5-day, % rmvl	82	85	%	Mo Av Mn	31
April 2019	BOD, 5-day, % rmvl	83	85	%	Mo Av Mn	30
September 2019	BOD, 5-day, 20°C	35	30	mg/L	Mo Avg	30
September 2019	BOD, 5-day, % rmvl	75	85	%	Mo Av Mn	30
January 2020	BOD, 5-day, % rmvl	81	85	%	Mo Av Mn	31
February 2020	BOD, 5-day, % rmvl	84	85	%	Mo Av Mn	29
December 2020	BOD, 5-day, % rmvl	84	85	%	Mo Av Mn	31
January 2021	BOD, 5-day, % rmvl	67	85	%	Mo Av Mn	31
March 2021	BOD, 5-day, % rmvl	83	85	%	Mo Av Mn	31
November 2021	BOD, 5-day, % rmvl	83	85	%	Mo Av Mn	30
December 2022	BOD, 5-day, % rmvl	80	85	%	Mo Av Mn	31
January 2023	BOD, 5-day, % rmvl	71	85	%	Mo Av Mn	31
February 2023	BOD, 5-day, % rmvl	73	85	%	Mo Av Mn	28
April 2023	BOD, 5-day, % rmvl	82	85	%	Mo Av Mn	30