



NPDES Compliance Inspection Report

Municipality of Skagway
Wastewater Treatment Facility
Skagway, Alaska

NPDES Tracking Number
#AK0020010

Inspection Date: 5/31/2024

Prepared by:

CJ Langlois
U.S. Environmental Protection Agency, Region 10
Enforcement & Compliance Assurance Division
Water Enforcement & Field Branch
Field, Data & Drinking Water Enforcement Section

Inspector Signature/Date:

Langlois, Curmit

Digitally signed by Langlois, Curmit
Date: 2024.08.09 08:45:47 -07'00'

Supervisor Signature/Date:

PETER CONTRERAS

Digitally signed by PETER CONTRERAS
Date: 2024.08.09 09:03:56 -07'00'

Contents

I.	Facility Information	1
II.	Inspection Information	1
III.	Permit Information	2
IV.	Enforcement Background	2
V.	Inspection Chronology	3
VI.	Opening Conference.....	4
VII.	Laboratory Inspection.....	4
VIII.	Site Review.....	5
IX.	File Review.....	5
IX.	Areas of Concern	6
X.	Closing Conference.....	8

Attachment A – Aerial Image

Attachment B – Photograph Log

[Unless otherwise noted, all details in this inspection report were obtained from conversations with Mr. Tyson Ames, a review of facility documents, and/or from observations made during the inspection.]

I. Facility Information

Facility Name: Municipality of Skagway WWTP

Facility Owner/Operator: Owner – City of Skagway
Operator – Adam Smith & John Cain

Physical/Mailing Address: Physical: 470 Point St
Skagway, AK 99840
Mailing: P.O. Box 415
Skagway, AK 99840

Lat/Long: 59.4537098° N, -135.3224686° W

Facility Contacts: Tyson Ames, Public Works Director
City of Skagway
Office: (907) 612-0051
Cell: (907) 983-2449
Email: t.ames@skagway.org

Permit Number: AK0020010

NAICS Code: 221320 (Sewage Treatment Facilities)

Nearest Surface Water: Taiya Inlet shoreline area

II. Inspection Information

Inspection Date: May 31, 2024

Inspectors: CJ Langlois
EPA Region 10, ECAD / WEFB / FDDWES
Phone: 206-553-2739

Arrival Time: 10:45 a.m.

Departure Time: 12:15 p.m.

Weather: Cloudy, 55° F

Purpose: To evaluate compliance with the requirements of the Clean Water Act (CWA) and the National Pollutant Discharge Elimination System (NPDES) permit # AK0020010 for the Municipality of Skagway Wastewater Treatment Facility

III. Permit Information

On August 6, 2002, the U.S. Environmental Protection Agency (EPA) issued the National Pollutant Discharge Elimination System (NPDES) permit for the Municipality of Skagway Wastewater Treatment Facility, permit #AK0020010. The permit became effective on October 1, 2002. The EPA received the Skagway WWTP application for permit renewal and determined the application to be timely and complete. The permit has been administratively extended multiple times since its expiration on September 7, 2007.

IV. Enforcement Background

The Municipality of Skagway WWTP was issued a Notice of Continuing Non-Compliance (NON).

The following is taken from the NON:

“On March 14, 2018, EPA issued a Notice of Continuing Non-Compliance (NON) for violations found during a July 13, 2017, EPA compliance inspection. As part of the NON, EPA reviewed DMR data from July 2015 through February 2018. Following the August 28, 2019, inspection, EPA reviewed Facility DMR data from March 2018 through December 2019. In the review, EPA identified effluent limitation exceedances that constitute 291 violations of the CWA, 33 U.S.C. § 1251 et seq.”

“Part I.B.3, Table 2 shows that several of the sampled parameters should be sampled by taking a “24-hour composite” sample.

Part II.A of the Permit states, in part, "Samples and measurements shall be representative of the volume and nature of the monitored discharge."

Part V of the Permit states that a "24-hour composite sample shall mean a flow-proportioned mixture of not less than eight discrete aliquots. Each aliquot shall be a grab sample of not less than 100 mL..."

At the time of the inspection, Mr. Tyson Ames, Public Works Director, told the inspector the Facility does not collect flow-proportional composite samples. Instead, the Facility collects a timed-composite sample by collecting an aliquot every hour. As stated in the NON of March 14, 2018, timed-composite sampling is not a method supported by the Permit. Failure to collect a flow-proportional 24-hour composite sample is a violation of Part I.B.3 of the Permit.”

During the opening conference, I learned, from Mr. Ames, that the facility does utilize samplers (from grant money) that are now flow-proportioned (**Photo 1**).

V. Inspection Chronology

This was an announced inspection. On May 17, 2024, I reached out to Mr. Ames to schedule the Clean Water Act inspection of the Municipality of Skagway Wastewater Treatment Facility.

On May 29, 2024, I arrived at the facility at 11:15 a.m. and I presented my credential to Mr. Ames. I was accompanied by Mr. Ames throughout the inspection and was not denied access to any area of the facility. Mr. Ames answered all my questions and concerns.

I began the inspection with a brief opening conference with Mr. Ames and explained the scope of the inspection. We first sat down inside the office building while I conducted a file review and asked Mr. Ames pertinent questions. Mr. Ames then led me on a tour of the facility and explained the various processes of their operation. We ended with a brief closing conference inside the plant to discuss observations and next steps around 12:15 p.m.

VI. Opening Conference

I began the inspection with a brief opening conference in the facility office, with Mr. Ames, and explained the scope of the inspection. I handed over an SBA (Small Business Administration) form, a business card, and commenced a file review.

The Municipality of Skagway WWTP is located in the downtown area of Skagway, Alaska. This facility is a 301(h) facility which allows the WWTP to discharge wastewater into marine waters with less than full secondary treatment. The outfall is located in deep waters with large tidal fluctuations and substantial currents that provide adequate mixing of the effluent with the salt water in Taiya Inlet.

The Skagway WWTP treated approximately 80.5 million gallons of wastewater in 2023. There were 242 cubic yards of biosolids were recovered, after dewatering, and incineration. Due to an increase in tourism from cruise ships arriving in April through October, the WWTP exceeded its daily BOD limits in June through October.

The treatment plant serves a local population of 1100, but this is increased up to 16x during the cruise ship season. This large influx of people can sometimes overwhelm the WWTP and its ability to properly treat wastewater. The facility also treats wastewater from local industry. Average daily flow is between 220,000 and 250,000 gallons and flow is continuous. This is heavily dependent on the season and the number of cruise ships that are docked/moored. Influent samples are collected at the inlet well and effluent samples are collected at the flume.

VII. Laboratory Inspection

Delivery of influent and effluent samples in this area of Alaska can be difficult. Samples must be transported by plane due to time constraints and weather. Samples are delivered to Admiralty Environmental in Juneau, Alaska, but inclement weather often prevents sampling and flights out of Skagway. Because of this issue, there are a large number of “non-receipt violations” listed in the Integrated Compliance Information System (ICIS).

Temperature, dissolved oxygen, pH, and chlorine are all analyzed in-house and the other required sample testing parameters are sent off to Admiralty Environmental in Juneau for analyzing. I inspected the facility's lab and various lab equipment including their dissolved oxygen meter, pH buffers, the pH meter, thermometer, and chlorine meter.

VIII. Site Review

Mr. Ames led me on a tour of the facility. A site map and aerial image appear in **Attachment A** and a photograph log appears in **Attachment B**.

The City of Skagway submitted its first application for a Section 301(h) waiver on September 13, 1979. The WWTP's first permit incorporating 301(h) guidelines was issued on September 6, 1983. The permit has been reissued and administratively continued several times since and therefore under the conditions of 40 CFR 122.6, the City is authorized to continue discharging under the terms of the existing permit.

Influent comes into the Skagway WWTP through an inlet well. This wastewater then passes through a screen (**Photo 2**). The screen filters out larger solid materials from wastewater to help prevent blockages in equipment and piping. After leaving the screen, wastewater passes through a splitter box and into two primary clarifiers (**Photo 3**). The wastewater then passes through a weir. Sludge that is collected from the bottom of the clarifiers (sumps) is transferred over to an aerobic digester (**Photo 4**). Polymer is mixed with the solids and then the mixture is dewatered using a press. The sludge cake is ultimately transported to the municipal waste facility and incinerated along with the screenings and grit. The remaining effluent makes its way to the outfall. This is approximately 55 feet below mean lower low tide, and approximately 410 feet into the Taiya Inlet from the shore.

IX. File Review

I reviewed the following records:

- Quality Assurance Project Plan (QAPP) – July 2018
- DMRs – March & April 2024
- Annual Report - 2023

X. Areas of Concern

- 1) **Section I.A.5.** of the permit specifies effluent limits for several parameters in **Table 1**. Please see Table 1 below.

Table 1. EFFLUENT LIMITATIONS			
Effluent Parameter	Unit of Measurement	Monthly Average	Maximum Daily
Five-Day Biochemical Oxygen Demand (BOD ₅), May 1 - September 30	mg/L	140	200
	lbs/day	740	1050
Five-Day Biochemical Oxygen Demand (BOD ₅), October 1 - April 30	mg/L	80	100
	lbs/day	420	530
Total Suspended Solids (TSS) May 1 - September 30	mg/L	140	200
	lbs/day	740	1050
Total Suspended Solids (TSS) October 1 - April 30	mg/L	70	88
	lbs/day	370	460
Total Flow	mgd	0.53	0.63
Fecal Coliform Bacteria	colonies/100 mL	1.0 x 10 ⁶	1.5 x 10 ⁶
Total Copper ^{1,2}	µg/L	150	210
	lbs/day	0.8	1.1
Total Residual Chlorine ¹	µg/L	120	240
	lbs/day	0.6	1.3
1 Reporting is required within 24-hours if the maximum daily limitation is violated (see Part II.G.).			
2 Metal limitation expressed as total recoverable metal.			

Table 1 - Effluent Limitations - Taken from permit

Please see **Table 2** below for effluent limit exceedances.

Effluent Violations											
Violation Code	Monitoring Period End Date	Limit Set	Parameter	Mon. Loc.	Seas. ID	SNC Group	EA Identifier	Value Type/Stat. Base	Reported Value/Units	% Exceed.	Limit Value/Units
E90	08/31/2023	001-A	00310 - BOD, 5-day, 20 deg. C	1	1	1		C2 MO AVG	160 mg/l	14%	<=140 mg/l
E90	07/31/2023	001-A	00310 - BOD, 5-day, 20 deg. C	1	1	1		C2 MO AVG	155 mg/l	11%	<=140 mg/l
E90	06/30/2023	001-A	00310 - BOD, 5-day, 20 deg. C	1	1	1		C2 MO AVG	153 mg/l	9%	<=140 mg/l
E90	11/30/2021	001-A	00310 - BOD, 5-day, 20 deg. C	1	2	1		C3 DAILY MX	150 mg/l	50%	<=100 mg/l
E90	08/31/2021	001-A	50060 - Chlorine, total residual	1	0	2		C2 MO AVG	208 ug/l	73%	<=120 ug/l
E90	08/31/2021	001-A	50060 - Chlorine, total residual	1	0	2		C3 DAILY MX	400 ug/l	67%	<=240 ug/l
E90	07/31/2021	001-A	50060 - Chlorine, total residual	1	0	2		C2 MO AVG	208 ug/l	73%	<=120 ug/l
E90	07/31/2021	001-A	50060 - Chlorine, total residual	1	0	2		C3 DAILY MX	400 ug/l	67%	<=240 ug/l
E90	04/30/2021	001-A	00310 - BOD, 5-day, 20 deg. C	1	2	1		C3 DAILY MX	120 mg/l	20%	<=100 mg/l
E90	12/31/2020	001-A	74076 - Flow	1	0			Q2	9149	45%	<= .63
E90	09/30/2020	001-A	00310 - BOD, 5-day, 20 deg. C	1	1	1		C3 DAILY MX	230 mg/l	15%	<=200 mg/l
E90	10/31/2019	001-A	00310 - BOD, 5-day, 20 deg. C	1	2	1		C2 MO AVG	91 mg/l	14%	<=80 mg/l
E90	10/31/2019	001-A	00310 - BOD, 5-day, 20 deg. C	1	2	1		C3 DAILY MX	160 mg/l	60%	<=100 mg/l
E90	07/31/2019	001-A	00310 - BOD, 5-day, 20 deg. C	1	1	1		C2 MO AVG	165 mg/l	18%	<=140 mg/l
E90	06/30/2019	001-A	00310 - BOD, 5-day, 20 deg. C	1	1	1		C2 MO AVG	145 mg/l	4%	<=140 mg/l

Table 2 - Effluent limit violations - Taken from the Integrated Compliance Information System (ICIS)

- 2) **Section II.C.** of the permit states “Reporting of Monitoring Results.
Monitoring results shall be summarized each month on the DMR form. The reports shall be submitted monthly and are to be postmarked by the 10th day of the following month. Legible copies of these, and all other reports, shall be signed and certified in accordance with the requirements of Part IV.H.”

There are 200+ non-receipt violations in the past 5 years. These are due to both failing to submit the DMRs on time or not submitting them at all.
- 3) **Section I.F.1.** of the permit states that “Within 180 days after the effective date of this permit, the permittee shall review/develop and implement its operation and maintenance (O&M) plan and ensure that it includes appropriate best management practices (BMPs); the plan must be reviewed annually thereafter. BMPs include measures that prevent or minimize the potential for the release

of pollutants to Taiya Inlet. The O&M Plan shall be retained on site and made available to EPA and ADEC upon request.”

The facility wasn’t able to provide the Operation and Maintenance Plan document upon request. I then requested that the document be sent via email and waited 60+ days, but did not receive the plan.

XI. Closing Conference

A closing conference was held with Mr. Ames on the afternoon May 31, 2024, at the Skagway WWTP. The permit limit exceedances were briefly discussed, along with the non-receipt violations. I thanked him for his time and assistance with the inspection.

Attachment A

Aerial Image



Photo 1- Aerial image taken from Google Maps

Attachment B

Photo Log

(All photos were taken by myself on an Olympus Tough TG-6 camera)



Photo 2- Influent composite sampler



Photo 3-Screen



Photo 4-Clarifier (1 of 2)



Photo 5- Aerobic digester