



NPDES Off-Site Compliance Monitoring Clean Water Act Desk Audit Report

City of Tensed Wastewater Treatment Plant

Tensed, Idaho

Permit # ID0025101

Prepared by:

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Attachment A – Aerial Photo

Attachment B - Tables

(Unless otherwise noted, all details in this report were obtained from conversations with Leonard Johnson or Mayor Rick Keaveny, or from observations made during the off-site compliance review.)

I. Facility Information

Facility Name: City of Tensed Wastewater Treatment Plant (WWTP)

Owner: City of Tensed, Idaho

Operator: LJ Sewer & Water LLC

Physical Address: 8761 Branch Road
Tensed, Idaho 83870

Lat/Long: 47.15072, -116.92614

Mailing Address: City of Tensed
P.O. Box 126
Tensed, Idaho 838709

Facility Contacts: Rick Keaveny, Mayor
City of Tensed
Phone: (208) 274-3239
Email: mayorcityoftensed@gmail.com

Leonard Johnson, Operator
LJ Sewer & Water LLC
Phone: (208) 818-6875
Email: ljsewer@gmail.com

Permit Number: ID0025101

NAICS Code: 221320 – Sewage Treatment Facilities

Receiving Water: Hangman Creek, tributary to Spokane River

II. Off-Site Compliance Monitoring Information

An off-site Clean Water Act Desk Audit was conducted for the City of Tensed's Wastewater Treatment Plant. The purpose of the audit was to evaluate the facility's compliance with the National Pollutant Discharge Elimination System (NPDES) permit and the Clean Water Act (CWA). The evaluation included a scheduled phone interview with a facility representative and a records request/review of permit related documents.

EPA Representative: Raymond Andrews, NPDES Inspector
EPA Region 10, ECAD / SWES

Documents Reviewed: Operation & Maintenance Plan
5-Year ICIS Violations Report
Discharge Monitoring Reports from January 2018 through May 2020
Chain of Custody Documents from January 2018 through December 2019

ID0025101 NPDES Permit & Fact Sheet

Phone Interview: 24 September 2020 (approximately 1.5 hours)

Present for Interview: Rick Keaveny, Mayor, City of Tensed
Leonard Johnson, Operator, LJ Sewer & Water LLC

III. Permit Information

The City of Tensed's Wastewater Treatment Plant ("Facility") is permitted to discharge under NPDES permit ID0025101 ("Permit"). On October 1, 2020, the current iteration of the Facility's permit became effective, and it will expire on September 30, 2025. This Desk Audit will primarily use the previous version of the Permit, which was in effect from April 1, 2004, until March 31, 2009. The previous Permit was administratively extended until the new Permit became effective.

IV. Background

The City of Tensed owns the municipal wastewater treatment plant (WWTP) located within the Coeur d'Alene tribal reservation boundary. The Facility has been at its current location since 1982. The WWTP is operated and maintained by LJ Sewer & Water LLC. LJ Sewer took over operation of the Facility in March 2020.

The WWTP treats domestic wastewater from the City of Tensed, serving a population of approximately 120 people through 58 connections. There are no industrial customers discharging to the WWTP.

The Facility was last inspected by EPA on August 26, 2016. On April 27, 2017, EPA issued the Facility a Notice of Violation based on findings noted in the 2016 inspection report.

V. Evaluation Chronology

This off-site compliance evaluation was announced. On September 16, 2020, I called Mr. Leonard Johnson, the Facility operator. I told him that due to COVID-19 pandemic restrictions I would not be conducting a routine site inspection. I told him I would instead be conducting an off-site compliance evaluation, which would consist of a scheduled phone interview to discuss WWTP operations, as well as a records request and review of permit related documents. I explained that my findings of the evaluation would be documented in a report that would be shared with the Facility and reviewed by an EPA compliance officer. I provided a copy of the U.S. EPA Small Business Resources Information through email on November 4, 2020.

Mr. Johnson and I agreed to conduct the interview on September 24, 2020, at 10:00am. I provided Mr. Johnson with a list of records for him to send to me for review. The complete list of records reviewed for the evaluation are listed in Section II of this report.

Mr. Johnson was unable to scan and email the requested documents until the morning of the interview so they could not be reviewed in advance. An aerial photo of the Facility taken from Google Earth is attached as **Attachment A**. Data, organized in Tables, is provided in **Attachment B**.

VI. Facility Summary

Mr. Leonard Johnson, LJ Sewer & Water LLC, is the sole operator of the WWTP. The Facility does not have any other employees. The Honorable Rick Keaveny, Mayor of Tensed, was also present during the phone interview.

The treatment process consists of wastewater entering the WWTP at a lift station equipped with grinder pumps. From the lift station, wastewater is pumped to two lagoons for treatment. The lagoons are connected in series.

Each lagoon has a volume of 4.5 million gallons. Effluent from the lagoons is disinfected with chlorine and then routed to a small holding pond for dechlorination prior to discharging into Hangman Creek via a single outfall, outfall 001. The Facility's design flow is approximately 0.03 million gallons per day (mgd) with an average monthly flow of 0 to 0.15 mgd. Since the design flow is less than 1 mgd, the Facility is considered a minor facility.

The Facility is staffed on a part-time basis. Mr. Johnson is on-site from about 6:30 – 7:30am daily to conduct operational checks. He is also responsible for sample collection when required. Sampling is only conducted during the months where a discharge occurs. The Facility is currently authorized to discharge from November through January, then March through May. The Facility holds wastewater in its lagoons outside of the discharge period. As of September 24, 2020, the date of the phone interview, the Facility had last discharged on April 30, 2020.

Influent samples are collected at lift station and effluent samples are collected after dechlorination. Although the Facility measures flow, it is not measured with a flow meter. Flow is determined by calculating how long it takes to fill a five-gallon bucket.

The Facility is required by permit to sample and test for biochemical oxygen demand BOD₅, total suspended solids (TSS), *E. coli*, total residual chlorine (TRC), total phosphorus (TP), total ammonia, (TA), pH, and temperature (°C). Mr. Johnson tests for pH and temperature himself. Accurate Testing Labs LLC in Coeur d'Alene, Idaho conducts sample analysis for all other parameters.

VII. File Review

As part of this off-site compliance evaluation, I reviewed the following documents that were provided to me by the facility:

- ICIS Violations Report – September 2015 through August 2020
- Discharge Monitoring Reports (DMRs) – January 2018 through August 2020
- Chain of Custody Documents – May 2018 through December 2019
- Operations & Maintenance Manual – Dated 1978

VIII. Areas of Concern

I noted the following areas of concern during the off-site evaluation:

A. Effluent Limit Exceedances

Part I.A.I. of the permit states, in part, “that “During the period beginning on the effective date of this permit the Permittee is authorized to discharge wastewater...provided the discharge meets the limitations and monitoring requirements set forth herein.”

Based on my review of the reported 5-year effluent data, using EPA's Integrated Compliance Information System (ICIS), the Town of Tensed has reported 24 instances of effluent exceedances in 7 months over the past 5 years as shown in the Attachment B, Table I. My concern is that facility is not preventing effluent exceedances.

B. Discharge Monitoring Reports (DMR)

Part II.B.1 of the permit states, “The permittee must summarize monitoring results each month on the Discharge Monitoring Report (DMR) form (EPA No. 3320-1) or equivalent or forms provided or specified by the Director for reporting results of monitoring of sludge use or disposal practices. The permittee must submit reports monthly, postmarked by the 15th day of the following month.”

DMRs must be submitted monthly whether there was a discharge or not. In cases of no discharge, the “No Discharge” block must be checked on the DMR to alleviate the facility from the requirement to provide data. During the audit, I reviewed electronic copies of DMR’s provided by the facility covering the time period from January 2018 through August 2020. Additionally, I reviewed the ICIS data from September 2015 through August 2020. I found numerous DMRs were late, incomplete, or not filled out properly, as shown in Attachment B, Table II. My concern is that the facility is not submitting correct and complete DMRs by the due date.

C. Operations & Maintenance (O&M) Manual

Part II.A of the permit issued in October 2020 states, in part, “Any changes occurring in the operation of the plant must be reflected within the O&M Plan.”

The O&M manual currently used by the City of Tensed is dated 1978. Per Mr. Johnson, the facility purchased two new influent pumps. My concern is that the O&M Manual might need to be updated to include changes to the facility that have occurred since the facility’s manual was originally written.

D. Quality Assurance Plan (QAP)

Part I.D of the Permit states that “The permittee must develop a quality assurance plan (QAP) for all monitoring required by this permit. The plan must be developed and implemented by October 1, 2004. Any existing QAPs may be modified for the requirements under this section.”

Per Mr. Johnson, the Facility did not have a Quality Assurance Plan at the time of the phone interview. My concern is the facility does not have a QAP that would ensure quality control is maintained in laboratory procedures.

E. Sample Preservation Temperature

Part II.C of the permit states, “Monitoring must be conducted according to test procedures approved under 40 CFR 136...”

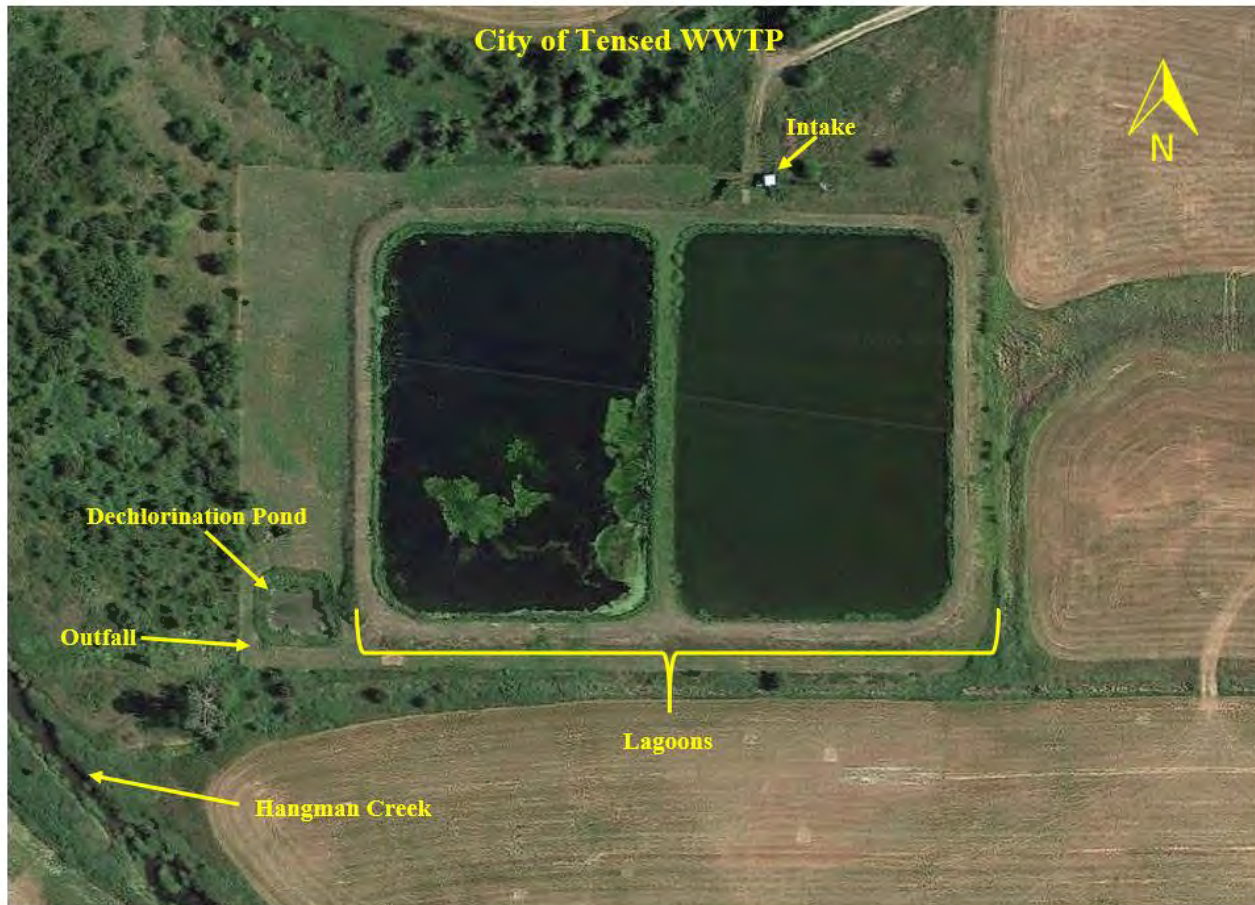
40 CFR Part 136, Table II, dated March 1, 2014, shows the preservation temperature for all tested parameters. The listed preservation temperature for *E. coli* is $< 10^{\circ} \text{C}$. Table II lists the preservation temperature for all other parameters as $\leq 6^{\circ} \text{C}$.

I reviewed 15 chain of custody (COC) documents that were dated from May 16, 2018 through December 23, 2019. Out of the 15 COC documents, 13 documents showed the sample temperature upon receipt by Accurate Testing Labs was above 10°C , as shown in Attachment B, Table III. My concern is that the facility is not properly preserving effluent samples.

IX. Closing Conference

I held a closing conference with Mr. Johnson, we discussed the areas of concern identified during the off-site evaluation. I told him that I would provide him with I thanked him for his time and assistance.

ATTACHMENT A – Aerial Photo from Google Earth



Aerial photo of City of Tensed's Wastewater Treatment Facility retrieved October 8, 2020.

ATTACHMENT B – Tables

Table I – Effluent Exceedance Data

Month	Parameter	DMR Value	Permit Limit	Unit	Limit Type
November 2015	Chlorine	.13	.1	mg/L	Daily Max
April 2016	Chlorine	.11	.1	mg/L	Daily Max
May 2016	Chlorine	.11	.1	mg/L	Daily Max
May 2018	TSS	13	11	lb/d	Wkly Avg
May 2018	TSS	40	8	lb/d	Mo Avg
May 2018	TSS	51	30	mg/L	Mo Avg
January 2019	TSS	8.3	8.0	lb/d	Mo Avg
January 2019	Chlorine	.062	.025	lb/d	Daily Max
January 2019	Chlorine	.062	.025	lb/d	Mo Avg
January 2019	Chlorine	.18	.1	mg/L	Daily Max
January 2019	Chlorine	.18	.1	mg/L	Mo Avg
April 2019	TSS	14	8	lb/d	Mo Avg
April 2019	TSS	17	11	lb/d	Wkly Avg
April 2019	Chlorine	.0275	.025	lb/d	Mo Avg
April 2019	Chlorine	.0511	.025	lb/d	Daily Max
April 2019	E. coli	2740	576	#/100mL	Inst Max
April 2019	E. coli	13705	126	#/100mL	Mo Geomn
December 2019	BOD ₅	15.7	8	lb/d	Mo Avg
December 2019	TSS	36	30	mg/L	Mo Avg
December 2019	TSS	38	8	lb/d	Mo Avg
December 2019	Chlorine	.038	.025	lb/d	Mo Avg
December 2019	Chlorine	.05	.025	lb/d	Daily Max
December 2019	Chlorine	.23	.1	mg/L	Mo Avg
December 2019	Chlorine	1	.1	mg/L	Daily Max

Table II – DMR Data

Monitoring Period	Received	Hardcopy Reviewed	Late	Notes
November 2015	September 12, 2016		X	Only Flow and Chlorine data reported.
December 2015	September 12, 2016		X	
January 2016	September 12, 2016		X	
March 2016	September 12, 2016		X	
April 2016	September 12, 2016		X	
May 2016	September 12, 2016		X	
November 2016	May 23, 2018		X	
December 2016	May 23, 2018		X	
January 2017	May 23, 2018		X	
February 2017	May 23, 2018		X	
April 2017	May 23, 2018		X	
May 2017	May 23, 2018		X	
November 2017	May 23, 2018		X	
December 2017	May 23, 2018		X	
January 2018	May 23, 2018	X	X	
March 2018	May 23, 2018	X	X	Only Flow and Chlorine data reported.
April 2018	On Time	X		
May 2018	On Time	X		"No Discharge" box unchecked; no sampling conducted.
June 2018	On Time	X		
July 2018	On Time	X		
October 2018	On Time	X		Page 2 was dated 10/10/2018.
November 2018	On Time	X		Page 2 Monitoring Period "From" and "To" dates missing.
December 2018	On Time	X		
January 2019	On Time	X		Hardcopy DMR date incorrect.
February 2019	On Time	X		
March 2019	On Time	X		
April 2019	On Time	X		Incomplete; missing pH.
May 2019	On Time	X		Page 1 Monitoring Period "From" and "To" dates missing.
June 2019	On Time	X		Hardcopy date incorrect.
July 2019	On Time	X		
September 2019	On Time	X		
November 2019	Not Received			
December 2019	January 07, 2020	X		
March 2020	Not Received	X		"No Discharge" box unchecked; no sampling conducted.
April 2020	Not Received	X		
May 2020	Not Received	X		
June 2020	On Time	X		
July 2020	On Time	X		

Table III – COC Temperature Data

Date	Temperature
May 16, 2018	15.9° C
May 23, 2018	14.3° C
May 30, 2018	18.4° C
January 02, 2019	16.2° C
April 17, 2019	14.9° C
April 22, 2019	23.3° C
April 24, 2019	14.9° C
April 29, 2019	14.7° C
April 30, 2019	15.2° C
October 01, 2019	19.6° C
October 15, 2019	17.5° C
December 03, 2019	7.9° C
December 11, 2019	4.1° C
December 17, 2019	3.8° C
December 23, 2019	4.7° C