

NPDES Inspection Report – Wastewater Treatment Facility

National Database Information	
Inspection Date: August 22, 2024	Inspection Type: CEI – Wastewater Treatment Facility
Entry/Exit Time: 12:30 p.m. – 2:35 p.m.	NPDES ID Number: SDG589519
NAICS Code: 221320	Inspection ID: 202408_SDG589519
Lead inspector and affiliation: Jennifer Ferrando / EPA Region 8	
Inspector and affiliation: Brit Rustad / EPA Region 8	

Facility Location Information	
Site/Facility Name & Location: Prairie Wind Casino Lat/Long: 43.183921, -102.98827 (lagoon) 112 Casino Dr., Pine Ridge, SD 57770	Email Report to: Ben Scabby Face, Facilities Manager ben.scabbyface@pwc.casino

Contact Information	
Facility Contacts:	Name(s)/Title
	Ben Scabby Face / Facilities Manager / present during the opening and closing conferences
	Lyle Weston / Maintenance Supervisor / present during the opening conference
	Reuben Stands / Maintenance Worker / present during the opening and closing conferences and the inspection
	Gary Garnett / Maintenance Worker / present during the opening conference and the inspection
Person/Company meeting definition of “Operator”	Prairie Wind Casino
Authorized Official(s)	Ben Scabby Face / Facilities Manager / Prairie Wind Casino

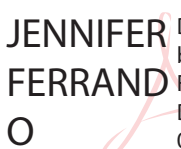
Permit Information		
Is the permit on site and available? No, the inspector provided a hard copy of the permit during the inspection	Lagoon Category: Potential to discharge, but no discharge authorized (NODIS), according to the authorization of coverage letter.	Monitoring Frequency: N/A
Effective Date: 07/01/2024	Expiration Date: 3/31/2027	Is the Facility under a compliance schedule? No
Is correct contact information indicated on ICIS? Yes	Indicate correct contact information: N/A	
Receiving Water(s): Unnamed tributary of Lower South Branch Blacktail Creek (source: ECHO)		

Regulatory Inspector's source of information: Individual permit application, ICIS, ECHO, Google Earth Pro, and facility representatives

Areas Evaluated During Inspection

<u>Permit</u>	<u>Self-Monitoring Program</u>	Pretreatment
<u>Records</u>	Compliance Schedule	Pollution Prevention
<u>Facility Site Review</u>	Laboratory	Stormwater
Effluent/Receiving Waters	<u>Operations and Maintenance</u>	Combined Sewer Overflow
Flow Measurement	Sludge Handling/Disposal	Sanitary Sewer Overflow

Report Review and Signature

Drafter Name	Draft Date	Contact Information
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Brit Rustad	9/13/2024	U.S. EPA Region 8 Denver, Colorado rustad.brit@epa.gov (303) 312-6885
Management Reviewer Name/Signature/Date		Contact Information
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Emilio Llamozas, NPDES and Wetlands Enforcement Section Supervisor		

Inspection Narrative and Site Description

1.0 Introduction

The inspection was conducted at the Prairie Wind Casino wastewater treatment facility (facility; WWTF) located in Oglala Lakota County, South Dakota, to evaluate compliance with the facility's National Pollutant Discharge Elimination System (NPDES) permit. The EPA is responsible for implementing the NPDES program in Indian Country within the State of South Dakota. The inspection was announced approximately one month prior to the inspection to coordinate logistics for the inspection.

On the morning of August 22, 2024, U.S. Environmental Protection Agency (EPA) inspectors Brit Rustad and Jennifer Ferrando (collectively, “we”) met with Prairie Wind Casino Facilities Manager, Ben Scabby Face, and three of his staff, Lyle Weston, Reuben Stands, and Gary Garnett. We presented our credentials and had an opening conference in the Prairie Wind Casino Facility Maintenance office where we explained the purpose of the inspection and discussed the design, operation, and Clean Water Act and NPDES compliance of the WWTF operated by Prairie Wind Casino. After the opening conference, we proceeded with Reuben Stands and Gary Garnett to conduct a site review of the WWTF. Throughout the inspection, we noted our observations in a checklist. Photographs taken during the inspection are included in the attached photo log. After the site review, we returned to the office for a closing conference with Ben Scabby Face and Reuben Stands.

2.0 Facility Operations

During the opening conference we reviewed the records maintained for the facility. The facility records included documentation of weekly lagoon inspections from 2011 through 2021. Ben Scabby Face stated that facility staff visually inspect the lagoon daily but had not documented visual inspections since 2021. The facility representatives stated that Prairie Wind Casino hires an outside contractor to spray the lagoon and berms to control cattails and other vegetation. Facility maintenance staff also mow the lagoon berms. The facility files included operation and maintenance (O&M) manuals including basic lagoon standard operating procedures (SOPs) and a troubleshooting guide, as well as a schedule of facility-specific, routine lagoon maintenance activities. However, the staff did not maintain a log of O&M activities.

The WWTF is operated by the casino’s Facility Maintenance team. At the time of the inspection, Prairie Wind Casino employed nine maintenance staff, including the Facilities Manager. None of the staff are certified wastewater operators; however, Reuben Stands had recently attended EPA’s two-day training for wastewater lagoon operators. Ben Scabby Face stated that he plans to send staff for training to apply pesticides for lagoon maintenance. Ben stated that he has sufficient staff and resources to operate the WWTF in compliance with the general permit.

3.0 Facility Description and Site Review

The facility is permitted as a no discharge facility under the EPA Region 8 General Permit for Wastewater Lagoon Systems in Indian Country in South Dakota (Permit).

The WWTF serves Prairie Wind Casino, which includes the casino, a 78-room hotel, event center, and restaurant. The facility previously included a chlorinated swimming pool that was periodically drained to the lagoon. The pool was closed in 2020 during the COVID-19 pandemic; at the time of the inspection the facility had no immediate plans to reopen the pool.

The facility is a two-cell lagoon system. Wastewater from the hotel and event center flows by gravity into the lagoon system. Restaurant waste flows through a grease trap before entering the lagoon.

The facility does not accept hauled waste. Wastewater overflows from the primary cell into the secondary cell; however, facility representatives were not aware of the location of transfer piping between the cells. Ben Scabby Face stated that there is no outfall pipe and the inspectors did not identify an outlet structure for discharges.

After the opening interview, we observed the grease interceptor located on the south side of the casino. The grease interceptor was overflowing at the time of the inspection (photo 1). We then proceeded to the lagoon. When we arrived at the facility the gate was open (photo 2). The facility representatives stated that the gate had been left open in anticipation of the inspection. A lock was present and intact and the gate was closed after the site visit. A single sign located next to the entrance was in poor repair (photo 2); no other signs were present.

We proceeded to walk around the two cells of the lagoon to evaluate berm integrity, vegetation, and the facility's discharge status. The top and outside slopes of the berms were mowed and the inside slopes been treated for vegetation control (photo 4). Cattails were growing in 3 to 4 small areas near the inside slope of the berm in cell 2 (photo 5); the facility representatives stated that the lagoons had recently been treated to control cattail growth. Cattails were also observed near the toe of the outer slope on the north berm of the lagoon (photo 7). Both cells had a blue-green color with some algae growth and no odor. The perimeter fence was down at the northwest corner of the cell 1 (photo 4).

At the end of our inspection, we held a closing conference with Ben Scabby Face and Reuben Stands where we discussed preliminary findings. The following week on August 27, 2024, the EPA sent an email to Ben Scabby Face with the preliminary findings from the inspection and resources for documenting inspections and a lagoon troubleshooting guide.

Findings, Corrective Actions and Recommendations

Finding #1: The facility had an active and recurrent sanitary sewer overflow (SSO) at the grease interceptor.

During the opening interview, the facility representatives stated that the grease interceptor for the restaurant kitchen was regularly clogging and overflowing. Ben Scabby Face stated that there had been 6 to 8 overflows from grease interceptor in the past 3 years due to kitchen staff routinely disposing of cooking oil and other greasy waste down the drain. Facility representatives stated that they had increased the cleaning frequency for the grease interceptor and were adding enzymes weekly to help break down the grease. They stated that the grease interceptor had been cleaned within the past 2 months and that there had been no overflows since then. The inspectors found the grease interceptor overflowing at the time of the inspection (photo 1). Wastewater was flowing south across the ground surface from the interceptor to a facility access road that runs south of the hotel. The wastewater flowed west along the access road for approximately 150 feet before terminating in the vegetation on the side of the roadway. The Permittee had not reported any SSOs to EPA.

Permit Requirement:

Section 6.6 of the Permit states, "The Permittee shall at all times properly operate and maintain all facilities and systems of treatment and control (and related appurtenances) which are installed or used by the Permittee to achieve compliance with the conditions of this Permit. Proper operation and maintenance also includes adequate laboratory controls and appropriate quality assurance procedures. This provision requires the operation of back-up or auxiliary facilities or similar systems which are installed by a Permittee only when the operation is necessary to achieve compliance with the conditions of this Permit."

Section 5.10.1 of the Permit states, "The Permittee shall report any noncompliance which may endanger health or the environment (including sanitary sewer overflows) as soon as possible, but no later than twenty-four (24) hours from the time the Permittee first became aware of the circumstances. The report shall be made to EPA, Region 8, Superfund & Emergency Management Division (EPA Region 8 24-hr. Emergency Response line) at (303) 293-1788 and the applicable Tribe(s) (see Appendix A for list of Tribes and telephone numbers)."

Section 5.10.3 of the Permit states, "For any noncompliance notification required under Sections 5.10.1 or 5.10.2 of this Permit (above), a written submission shall also be provided to EPA Office of Enforcement and Compliance Assurance Division, Water Enforcement Branch, and to the applicable Tribe(s) within five days of the time that the Permittee becomes aware of the circumstances. The written submission shall be submitted to the addresses indicated in Section 5.6 of this Permit and contain:

- 5.10.3.1. A description of the noncompliance and its cause;
- 5.10.3.2. The period of noncompliance, including exact dates and times;
- 5.10.3.3. The estimated time noncompliance is expected to continue if it has not been corrected; and,
- 5.10.3.4. Steps taken or planned to reduce, eliminate, and prevent reoccurrence of the noncompliance.
- 5.10.3.5. For noncompliance events related to combined sewer overflows, sanitary sewer overflows, or bypass events, these reports must include the data described above as well as the type of event (i.e. combined sewer overflows, sanitary sewer overflows, or bypass events), type of sewer overflow structure (e.g., manhole, combine sewer overflow outfall), discharge volumes untreated by the treatment works treating domestic sewage, types of human health and environmental impacts of the sewer overflow event, and whether the noncompliance was related to wet weather.
- 5.10.3.6. The signed certification statement required by the Signatory Requirements (see Section 7.7 of this Permit)."

Corrective Action:

Ensure that proper operations and maintenance are occurring in the collection system, including the grease interceptor, to prevent SSOs in the future. Ensure that weekly inspections include inspection of the grease interceptor to identify overflows. Ensure that SSOs are reported to the EPA and the Oglala Sioux Tribe Environmental Department in the future per permit requirements. Provide the EPA

with a description of the corrective actions taken to address this finding including photos showing that the grease interceptor has been cleaned. Provide a record of the last grease interceptor cleaning since the EPA inspection. Corrective actions related to reporting SSOs may include a written procedure on what the responsible person will do when an SSO is discovered and a template that will be used when sending the 5-day report to the EPA.

Recommendation:

Consider educating kitchen workers, including all new kitchen workers, on what not to put down the drains and identifying alternative disposal methods that kitchen workers will use to prevent disposal of cooking oil into the sanitary sewer system.

Finding #2: The Permittee was not documenting weekly lagoon inspections.

The facility representative stated that Facility Maintenance Department staff visit the lagoon daily but had not documented the inspections since 2021. The inspection reports reviewed on site did not include the following elements that are required under the current permit: facility name and permit number; facility discharge status; whether a discharge is occurring; presence of leakage, animal burrows, or a visible sheen, floating oil, floating solids or foam; evidence of illicit septic dumping; dates scheduled for operation and maintenance; recommendations and actions taken to remedy operation and maintenance problems, and overall visual observations regarding the overall “health” of the lagoon system. The inspectors provided the facility representatives with a lagoon inspection report template form (Appendix D of the Permit) that the facility representatives could use to document the weekly lagoon inspections.

Permit Requirement:

Section 6.5.1 of the Permit states, “On at least a weekly basis, unless otherwise modified by written approval from EPA, the Permittee shall inspect its wastewater treatment facility. Permission for less frequent inspections must be requested in writing by the Permittee and may be granted on a case-by-case basis where appropriate (e.g. a lagoon located in a remote area where access is a problem during the winter and compliance issues are not present), at the discretion of EPA. The Permittee shall maintain a notebook/logbook recording all information obtained during the inspection using indelible ink pens (or inspection logs may be kept in electronic format in accordance with proper record-keeping procedures) and in sufficient detail so that decision logic may be traced back, once reviewed. At a minimum, the notebook/logbook shall include the following (see Appendix D of this Permit for an Example Lagoon Inspection Form):

- 6.5.1.1. Name of facility and permit number;
- 6.5.1.2. Date and time of the inspection;
- 6.5.1.3. Name of the inspector(s);
- 6.5.1.4. The facility's discharge status;
- 6.5.1.5. The flow rate of the discharge, if occurring;
- 6.5.1.6. Determine if a discharge is occurring, has occurred since the previous inspection, and/or if a discharge is likely to occur before the next inspection. (Note: If a discharge has occurred or is likely to occur before the next inspection, perform the appropriate monitoring and reporting requirements in Sections 3 and 5.4 of this Permit if not already done.);
- 6.5.1.7. If there is any leakage through the dikes;

- 6.5.1.8. If there are any animal burrows in the dike;
- 6.5.1.9. If there is any erosion of the dikes (e.g., rills, cracks or other structural indications of erosion);
- 6.5.1.10. If there are any rooted plants, including weeds or trees growing in the water;
- 6.5.1.11. If the vegetative growth on the dikes need mowing (i.e. no greater than 6" tall or any height that may interfere with monitoring, operation and maintenance of the system);
- 6.5.1.12. Visual observation for visible sheen, floating oil, floating solids and foam;
- 6.5.1.13. Visual observation to check for evidence of illicit septic dumping;
- 6.5.1.14. List the date scheduled for operation and maintenance procedures to be undertaken at the wastewater treatment facility;
- 6.5.1.15. Identification of operational and/or maintenance problems, and a determination of whether proper operation and maintenance procedures are being undertaken at the frequency necessary to maintain working operations and the overall treatment and collection systems of the wastewater treatment lagoon system;
- 6.5.1.16. Recommendations, as appropriate, to remedy identified problems;
- 6.5.1.17. A brief description of any actions taken with regard to problems identified;
- 6.5.1.18. Overall visual observations to identify potential concerns with the "health" of the lagoon system (e.g., water is cloudy, water coloration concerns (e.g. red, black, grey, dark blue-green and cloudy), etc.); and
- 6.5.1.19. Other information, problems identified, or observations, as appropriate.

The Permittee shall maintain the notebook/logbook in accordance with required record-keeping items listed above and shall make the log available for inspection, upon request, by authorized representatives of the U.S. Environmental Protection Agency or the applicable Tribe(s) (see Appendix A for list of Tribes).

Problems identified during the inspection (including, but not limited to, those associated with this section of the Permit) shall be corrected at the time of inspection, if possible. If they cannot be corrected at the time of the inspection, the inspector must identify a corrective action to remedy the problem(s), as well as a timeline for completion of the remedy. Corrective actions to remedy problem(s) shall be in line with (and addressed through) proper operation and maintenance (Section 6.6 of this Permit.). All problems identified during inspections, as well as associated corrective actions and timelines, shall be documented in the inspection log."

Section 5.9 of the permit states, "The Permittee shall retain records of all monitoring information, including all calibration and maintenance records and all original strip chart recordings for continuous monitoring instrumentation, copies of all reports required by this Permit, and records of all data used to complete the application for the Permit, for a period of at least three years from the date of the sample, measurement, report or application. Records of monitoring required by the Permit related to sludge use and disposal activities must be kept at least five years (or longer as required by 40 CFR Part 503). This period may be extended by request of the EPA at any time. Data collected on site, data used to prepare the DMR, copies of DMRs, and a copy of this NPDES Permit must be maintained on site."

Corrective Action:

Ensure that lagoon inspections are documented at least weekly in accordance with the permit. Ensure that weekly lagoon inspection reports are retained in accordance with the recordkeeping requirements of the permit. Provide the EPA and the Oglala Sioux Tribe Environmental Department with 1 month's worth of weekly inspection reports documented since the EPA inspection.

Finding #3: No O&M logs were available.

The Permittee was not properly tracking O&M activities. The facility records included a schedule of routine maintenance activities; however, with the exception of invoices for grease trap cleaning, the Permittee did not maintain records documenting completion of maintenance activities.

Permit Requirement:

Section 6.6.1 of the Permit states, "...In addition to the operation and maintenance items in the manual for the lagoon system, ALL Permittees shall do the following maintenance, at a minimum:

The Permittee shall maintain a log in either paper (e.g. bound notebook) or electronic format containing a summary record of any daily operation and maintenance activities at the wastewater treatment lagoon facility and collection system, that is to be updated on each day operation and maintenance activities are performed. At a minimum, the log shall include the following information:

- 6.6.1.5. Date and time;
- 6.6.1.6. Name and title of person(s) making the log entry;
- 6.6.1.7. Name of the persons(s) performing the activity;
- 6.6.1.8. A brief description of any operations and maintenance activity performed on the wastewater treatment lagoon system;
- 6.6.1.9. The Permittee shall ensure that necessary action to promptly correct the problem of leakage through the dikes is taken and documented in the maintenance log;
- 6.6.1.10. The Permittee shall ensure that necessary action to promptly remove burrowing animals from the dikes is taken and documented in the maintenance log;
- 6.6.1.11. The Permittee shall ensure prompt repair of damage to dikes caused by burrowing animals and/or erosion and documentation of all actions in the maintenance log;
- 6.6.1.12. The Permittee shall ensure removal of rooted plants, including weeds and trees, from the water on a regular basis or as needed and documentation of all actions in the maintenance log; and
- 6.6.1.13. The Permittee shall ensure that the dikes are kept mowed on a regular basis during the growing season or as needed (i.e., vegetation not greater than 6" tall or any height that may interfere with monitoring, operation and maintenance of the system) and that documentation of all actions taken are recorded in the maintenance log.
- 6.6.1.14. Other information, as appropriate."

Corrective Action:

Maintain maintenance logs in accordance with the recordkeeping requirements of the permit. Provide the EPA and Oglala Sioux Tribe Environmental Department with a description of the corrective actions taken to address this finding including a form or template that will be used to document operation and maintenance activities.

Finding #4: The lagoon liner was exposed and damaged.

In several places along the inside slopes of cell 2, the synthetic lagoon liner material was exposed beneath the riprap and the inspectors observed holes in the exposed portions of the liner (photo 6).

Permit Requirement:

Section 6.6 of the Permit states, "The Permittee shall at all times properly operate and maintain all facilities and systems of treatment and control (and related appurtenances) which are installed or used by the Permittee to achieve compliance with the conditions of this Permit..."

Corrective Action:

Ensure the lagoon liner is protected as indicated in the facility design plans (e.g., protective soil cover). If the design plans are not available, work with a professional engineer or other appropriate technical service provider to determine and implement an appropriate means of protecting the lagoon liner from further damage. Submit to the EPA and the Oglala Sioux Tribe Environmental Department a description of the corrective actions taken as well as photos of the cells showing the work that has been completed to protect the liner. For any work that will take longer than 30 days to complete, submit to the EPA and the Oglala Sioux Tribe Environmental Department with a plan and description of the work to be completed and schedule for completion of the work.

Finding #5: Perimeter fence was damaged/down in several areas and lacked signage.

The perimeter fence was down in the northwest corner of cell 1 (photo 4) and damaged in other areas around the two cells. Only one sign was observed near the gate and it was in poor condition (photo 2).

EPA Guidance:

EPA has developed guidance manuals on the proper operation and maintenance of lagoons. One of the guidance documents is called "Principles of Design and Operations of Wastewater Treatment Pond Systems for Plant Operators, Engineers, and Managers" (August 2011, EPA/600/R-11/088). <https://www.epa.gov/sites/production/files/2014-09/documents/lagoon-pond-treatment-2011.pdf>

This guidance manual suggests on page 9-20, "[t]o discourage use of the ponds for recreation, the entire area should be fenced and warning signs displayed."

Permit Requirement:

Section 6.6 of the Permit states, "The Permittee shall at all times properly operate and maintain all facilities and systems of treatment and control (and related appurtenances) which are installed or used by the Permittee to achieve compliance with the conditions of this Permit..."

Recommendation:

It is recommended that the fences be repaired around the perimeter of the lagoon. Consider adding legible signage on each side of the lagoon to protect the public and the lagoon by discouraging unauthorized access.

Finding #6: The inspectors observed evidence of a potential leak on the north berm of the lagoon.

Recent and historic aerial imagery dating back to 2010, available through Google Earth, suggest a potential flow path extending northeast from the north berm of the lagoon toward Highway 18 and the unnamed tributary to South Branch Blacktail Creek. Ben Scabby Face stated that a leak had occurred in 2020 when the lagoon casino and hotel were shut down during the COVID-19 pandemic. Ben stated that the lagoon had leaked as it dried out but did not leak when it was refilled in 2021 with reopening of the hotel and casino. Ben stated that the wastewater did not discharge to a surface water. The inspectors observed cattails growing near the toe of the outer slope on north side of the lagoon (photo 7) but did not observe an active leak from the lagoon. The soil was dry in the area around the cattails and there was no discernable odor.

Permit Requirement:

Section 6.5.1 of the permit states, “On at least a weekly basis, unless otherwise modified by written approval from EPA, the Permittee shall inspect its wastewater treatment facility. Permission for less frequent inspections must be requested in writing by the Permittee and may be granted on a case-by-case basis where appropriate (e.g. a lagoon located in a remote area where access is a problem during the winter and compliance issues are not present), at the discretion of EPA. The Permittee shall maintain a notebook/logbook recording all information obtained during the inspection using indelible ink pens (or inspection logs may be kept in electronic format in accordance with proper recordkeeping procedures) and in sufficient detail so that decision logic may be traced back, once reviewed. At a minimum, the notebook/logbook shall include the following (see Appendix D of this Permit for an Example Lagoon Inspection Form):

...

6.5.1.7. If there is any leakage through the dikes;

...

6.5.1.16. Recommendations, as appropriate, to remedy identified problems;

6.5.1.17. A brief description of any actions taken with regard to problems identified; ...

The Permittee shall maintain the notebook/logbook in accordance with required record-keeping items listed above and shall make the log available for inspection, upon request, by authorized representatives of the U.S. Environmental Protection Agency or the applicable Tribe(s) (see Appendix A for list of Tribes).

Problems identified during the inspection (including, but not limited to, those associated with this section of the Permit) shall be corrected at the time of inspection, if possible. If they cannot be corrected at the time of the inspection, the inspector must identify a corrective action to remedy the problem(s), as well as a timeline for completion of the remedy. Corrective actions to remedy problem(s) shall be in line with (and addressed through) proper operation and maintenance (Section 6.6 of this Permit.). All problems identified during inspections, as well as associated corrective actions and timelines, shall be documented in the inspection log.”

Section 6.6 of the Permit states, “The Permittee shall at all times properly operate and maintain all facilities and systems of treatment and control (and related appurtenances) which are installed or used by the Permittee to achieve compliance with the conditions of this Permit. Proper operation and maintenance also includes adequate laboratory controls and appropriate quality assurance

procedures. This provision requires the operation of back-up or auxiliary facilities or similar systems which are installed by a Permittee only when the operation is necessary to achieve compliance with the conditions of this Permit.

The Permittee shall do the following as part of the operation and maintenance program for the wastewater treatment facility...

The Permittee shall maintain a log in either paper (e.g. bound notebook) or electronic format containing a summary record of any daily operation and maintenance activities at the wastewater treatment lagoon facility and collection system, that is to be updated on each day operation and maintenance activities are performed. At a minimum, the log shall include the following information:

...

6.6.1.9. The Permittee shall ensure that necessary action to promptly correct the problem of leakage through the dikes is taken and documented in the maintenance log..."

Corrective Action:

Ensure the outside slopes of the lagoon berms are included in weekly inspections, particularly the area where cattails are growing on the north berm, to identify indications of wastewater leaking from the lagoon. If a leak is identified, take immediate steps to correct the problem in accordance with the Permit requirements. If a leak results in a discharge, ensure the discharge is monitored in accordance with the self-monitoring requirements in section 3.2 of the Permit and reported to EPA and the Oglala Sioux Tribe Environmental Department in accordance with the reporting requirements in sections 3.2 and 5.4.2 of the Permit.

Submit to the EPA and the Oglala Sioux Tribe Environmental Department a plan that describes specific lagoon monitoring procedures to determine whether the lagoon is leaking. Monitoring procedures could include, for example, monitoring wastewater levels to determine if the lagoon is losing volume faster than expected based on estimated volume of influent and expected evaporation rates, monitoring the area around the toe of the north berm to identify wet soils or other signs of seepage or leaks, etc. Also include in the plan specific procedures (responsible parties, agency contacts, etc.) that will be followed to report any leaks that are identified.

Finding #7: The facility representatives did not know the location of the transfer piping between the cells or whether an outfall pipe exists.

The facility maintenance workers did not have access to design plans or as-built drawings of the lagoons and the inspectors did not observe any visible infrastructure that indicates the location of the transfer piping between the lagoons. Facility representatives stated that they have not seen an outfall structure and the inspectors did not find an outfall structure during the inspection. Locating the lagoon plans would clarify whether the facility was designed with an outfall structure and, if so, where the outfall might be located. Evidence of a leak in the northern berm of the lagoon (see Finding #6) could indicate a buried outfall structure in that location.

Permit Requirement:

Section 6.6 of the Permit states, "The Permittee shall at all times properly operate and maintain all facilities and systems of treatment and control (and related appurtenances) which are installed or used by the Permittee to achieve compliance with the conditions of this Permit..."

Corrective Action:

Obtain copies of the lagoon plans and make them available to facility workers to improve their ability to operate and manage the lagoon (e.g., by closing transfer valves if needed to isolate the cells). In a response to EPA and the Oglala Sioux Tribal Environmental Department provide the lagoon plans or as-built drawings, or other documentation showing the locations of transfer piping and the outfall location, if applicable. If the lagoon plans, as-built drawings, or similar documents are not available, describe in the response a plan and timeline for locating the transfer piping and determining whether an outfall structure exists.

Pretreatment Audit Report

City of Loveland

CO-0026701

Loveland, Colorado

March 7, 2022 to March 14, 2022



Prepared by:

Al Garcia, Pretreatment Coordinator

**U.S. Environmental Protection Agency, Region 8
Wastewater Section (8WD-CWW)**

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Report Review and Signature		
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Reviewer Name	Address/Phone Number	Date
Erik Makus	U.S. EPA Region 8 10 West 15 th Street, Suite 3200 8WD-CWW Helena, MT 59626	04/25/22
	406-457-5017	
Supervisor Signature/Name	Address/Phone Number	Date
Makus, Erik  Digitally signed by Makus, Erik Date: 2022.04.25 11:49:52 -06'00'	U.S. EPA Region 8 1595 Wynkoop Street 8WD-CWW Denver, Colorado 80202	04/25/22
	For Stephanie DeJong	

Pretreatment Audit Summary Table

City of Loveland Pretreatment Audit Report

CO-0026701

March 7, 2022 to March 14, 2022

Pretreatment Audit Findings	Pretreatment Requirement and Corrective Action
<i>Section 8.0 – Control Mechanism (Permit) Evaluation and Permit Specific Issues</i>	
1. The Pretreatment Regulations at 40 C.F.R. § 403.8(f)(2)(ii) require the City to “Identify the character and volume of pollutants contributed to the POTW.” The SIU inspection reports include minimal descriptions of the facility’s unit operations.	<u>Pretreatment Requirements</u> 40 C.F.R. § 403.8(f)(2)(ii) <u>Corrective Action Item</u> Provide more detail regarding the SIU’s chemical storage/handling/transfer, process/unit operations, wastestream generation from these unit operations, wastestream management or wastewater treatment, sampling procedures to provide a current characterization, including an evaluation of slug discharge potential and process or treatment plant changes.
2. The Pretreatment Regulations at 40 C.F.R. § 403.8(f)(2)(vii) require the City to “Investigate instances of noncompliance with Pretreatment Standards and Requirements, as indicated in the reports and notices.” 40 C.F.R. § 403.8(f)(2)(vii) requires the city to implement its Enforcement Response Plan (ERP). The Woodward permit establishes compliance monitoring periods from January 1 through June 30 and July 1 through December 31 and the self-monitoring reports (SMR) are due 15 days after each compliance monitoring period or July 15 and January 15, respectively. The SIU emailed its January through June 2020 SMR to the City on July 2, 2020 and the City received the hard signed copy on July 17, 2020. The emailed SMR on July 2, 2020 is considered to be a courtesy copy and provides documentation that the SMR was submitted by the due date. However, the July through December 2020 SMR was received by the City on January 19, 2020, after the SMR due date of January 15, 2020. There is no	<u>Pretreatment Requirements</u> 40 C.F.R. § 403.8(f)(2)(vii) 40 C.F.R. § 403.8(f)(5) City of Loveland Enforcement Response Plan <u>Corrective Action Item</u> Provide an enforcement response to Woodward for the submittal of its July 2020 through December 2020 self-monitoring reports past the deadline due date of January 15, 2021, in accordance with its ERP. <u>Recommended Action Item</u> Ensure Woodward submits self-monitoring reports after the compliance monitoring periods identified in the permit and before the SMR due date. EPA also recommends the City require laboratory hard copies and supporting quality control documentation to be submitted with every self-monitoring report.

documentation that an email courtesy copy of the SMR was submitted to meet the deadline. It appears that Woodward is submitting SMRs before the compliance monitoring period is complete to identify potential permit violations and to submit periodic data. These SMRs submitted before the compliance monitoring period result in unclear recordkeeping regarding the official date of the SMR submittal. In addition, it appears that the City evaluates laboratory hard copies during its annual facility inspection. However, the City may devote more time to evaluate the supporting documentation in the office setting instead of during a facility inspection performed once per year.	
3. The Pretreatment Regulations at 40 C.F.R. § 403.8(f)(2)(vii) require the City to “Investigate instances of noncompliance with Pretreatment Standards and Requirements, as indicated in the reports and notices.” 40 C.F.R. § 403.8(f)(2)(vii) requires the city to implement its ERP. Woodward had a violation of the Cyanide (CN) permit limit of 0.44 mg/L on September 9, 2021 at Outfall 001. The data from September 9, 2021 showed a CN result of 0.45 mg/L. The City identified this permit violation, however, there is no documentation that the City provided an enforcement response.	<u>Pretreatment Requirements</u> 40 C.F.R. § 403.8(f)(2)(vii) 40 C.F.R. § 403.8(f)(5) City of Loveland Enforcement Response Plan <u>Corrective Action Item</u> Provide an enforcement response to Woodward for its permit violation of the CN permit limit of 0.44 mg/L on September 9, 2021, in accordance with the City’s ERP.
4. The Pretreatment Regulations at 40 C.F.R. § 403.8(f)(2)(vii) require the City to “Investigate instances of noncompliance with Pretreatment Standards and Requirements, as indicated in the reports and notices.” 40 C.F.R. § 403.8(f)(2)(vii) requires the city to implement its ERP. Woodward had a violation of the phenol limit of 2.13 mg/L at Outfall 002 on September 21, 2021. The data from September 21, 2021 showed a phenol result of 4.3 mg/L. Although the City identified this permit violation, there is no documentation that the City provided an enforcement response.	<u>Pretreatment Requirements</u> 40 C.F.R. § 403.8(f)(2)(vii) 40 C.F.R. § 403.8(f)(5) City of Loveland Enforcement Response Plan <u>Corrective Action Item</u> Provide an enforcement response to Woodward for its permit violation of the phenol permit limit of 2.13 mg/L on September 21, 2021, in accordance with the City’s ERP.
<i>Section 10.0 – Control Authority Compliance Monitoring</i>	
5. As required in 40 C.F.R. § 403.8(f)(2), the POTW shall “develop and implement procedures to ensure	<u>Pretreatment Requirements</u>

compliance with the requirements of a Pretreatment Program.” The development and implementation of a sampling plan or procedures ensures the POTW is appropriately and consistently performing sampling or monitoring events, as well as providing enforceable data that is representative of the discharge conditions at the facility. The sampling plan should include the following: • purpose and objective of the sampling program, • specific sampling protocols at each facility sampling location to ensure representative sampling, and • appropriate QA/QC procedures to ensure legally defensible data. The City developed sampling procedures and techniques in Section 2.5 of the Pretreatment Program Guidance (SOP). The sampling procedures and techniques in this section provide a general overview of the sampling equipment and techniques to ensure the sample data is valid and enforceable. The sampling SOP does not include QA/QC samples such as equipment blanks, trip blanks, sample duplicates, matrix spikes, control standards to ensure the sampling and analytical techniques are in control and compliance with 40 C.F.R. 136.	40 C.F.R. § 403.8(f)(2) 40 C.F.R. 403.8(f)(2)(vii) <u>Corrective Action Item</u> Update section 2.5 of the Pretreatment Program Guidance to the sampling plan to include appropriate QA/QC such as equipment blanks, trip blanks, sample duplicates, matrix spikes, control standards to ensure the sampling and analytical techniques are in control and comply with 40 C.F.R. 136.
<i>Section 11.0 – Enforcement</i>	
6. The City submitted its ERP to the EPA for review, prior to the audit. Based on the EPA’s review, the ERP needs to be updated to include the following, in accordance with 40 C.F.R. § 403.8(f)(5)(i-iv): (<i>Note: the Loveland ERP Review checklist will be enclosed with the audit report</i>): • Establish an enforcement response for self-monitoring compliance reports submitted past the due date established in the SIU’s permit. • Establish an enforcement response for failure to provide upset notification. • Tampering should be established as an anticipated non-compliance. • The Failure to Report Noncompliance in the ERP is not equivalent to the Failure to <u>Accurately</u> Report Noncompliance as an SNC criteria in the Federal Regulations and	<u>Pretreatment Requirements</u> 40 C.F.R. § 403.8(f)(5) <u>Corrective Action Item</u> Modify the enforcement response plan to be in compliance with 40 C.F.R. § 403.8(f)(5)(i-iv) of the Pretreatment Regulations.

established in the City's ordinance at Section 13.10.104.	
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1.0 Introduction

The U.S. Environmental Protection Agency, Region 8 (EPA) conducted a remote audit of the Pretreatment program, administered by the City of Loveland, CO (City) from March 7, 2022 through March 14, 2022. The remote Pretreatment audit was held in lieu of an on-site audit in response to concerns related to the COVID-19 pandemic. The remote inspection, hosted on the MS-Teams platform, started on March 7, 2022, at 8 a.m. with an opening interview. Pretreatment records were reviewed, and a closing conference was held on March 14, 2022, at 10 a.m. during which the EPA presented the preliminary observations, conclusions, and findings from the audit.

Participants in the audit included:

City of Loveland, CO

Bill Thomas	Pretreatment Coordinator
Joe Creaghe	Wastewater Treatment Plant Supervisor (opening interview only)
Tanner Randall	Senior Civil Engineer
Roger Berg	Water Utilities Manager (opening interview only)

EPA

Al Garcia	Region 8 Pretreatment Coordinator
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The primary purpose of the EPA audit was to evaluate the Pretreatment program administered and implemented by the City. In addition, the audit served as a forum for the EPA and the City to discuss issues related to the implementation of the Pretreatment program and for the EPA to provide outreach and training to the City.

The EPA Pretreatment audit consisted of an evaluation of the following:

- The City's legal authority codified in its municipal ordinance; Title 13, Chapter 13.10 - Wastewater Pretreatment Program.
- Development and implementation of the City's local limits.
- The City's resources to implement the Pretreatment program in its service area.
- Implementation policies and templates developed by the City.
- Review and evaluation of the Pretreatment programmatic activities and records maintained for the permitted Significant Industrial Users (SIUs).
- Due to the remote nature of the Pretreatment audit, site inspection of selected SIUs and IUs in the service area were not completed.
- Discussion of the Pretreatment Regulations and implementation.

The following sections of the report highlight the findings, corrective actions, and recommended actions of the audit. The action items to correct program deficiencies and meet regulatory requirements are identified in the Pretreatment Audit Summary Table, beginning on page 2 of this report. Specific actions to clarify and strengthen program implementation are provided as recommendations within the body of the audit report.

2.0 Publicly Owned Treatment Works (POTW) Information

The City owns and operates a Publicly Owned Treatment Works (POTW) located at 920 South Boise Avenue, Loveland, CO 80537. The POTW serves the boundary of the City of Loveland. There are no outside contributing jurisdictions to the City. The service area for the POTW is shown in Figure 1 and the Google Earth view of the City's POTW is shown in Figure 2.

Due to the pandemic and the necessity for a remote audit, a POTW tour was not completed.

2.1 NPDES Permit

The City's NPDES permit #CO-0026701, issued by the Colorado Department of Public Health and Environment (CDPHE), contains provisions for an EPA-approved Pretreatment program in Part I.B.7. The permit expired on August 31, 2020 and was administratively extended by the CDPHE on July 13, 2020. Based on conversations with the CDPHE, the Loveland NPDES permit is projected to be reissued in 2026.

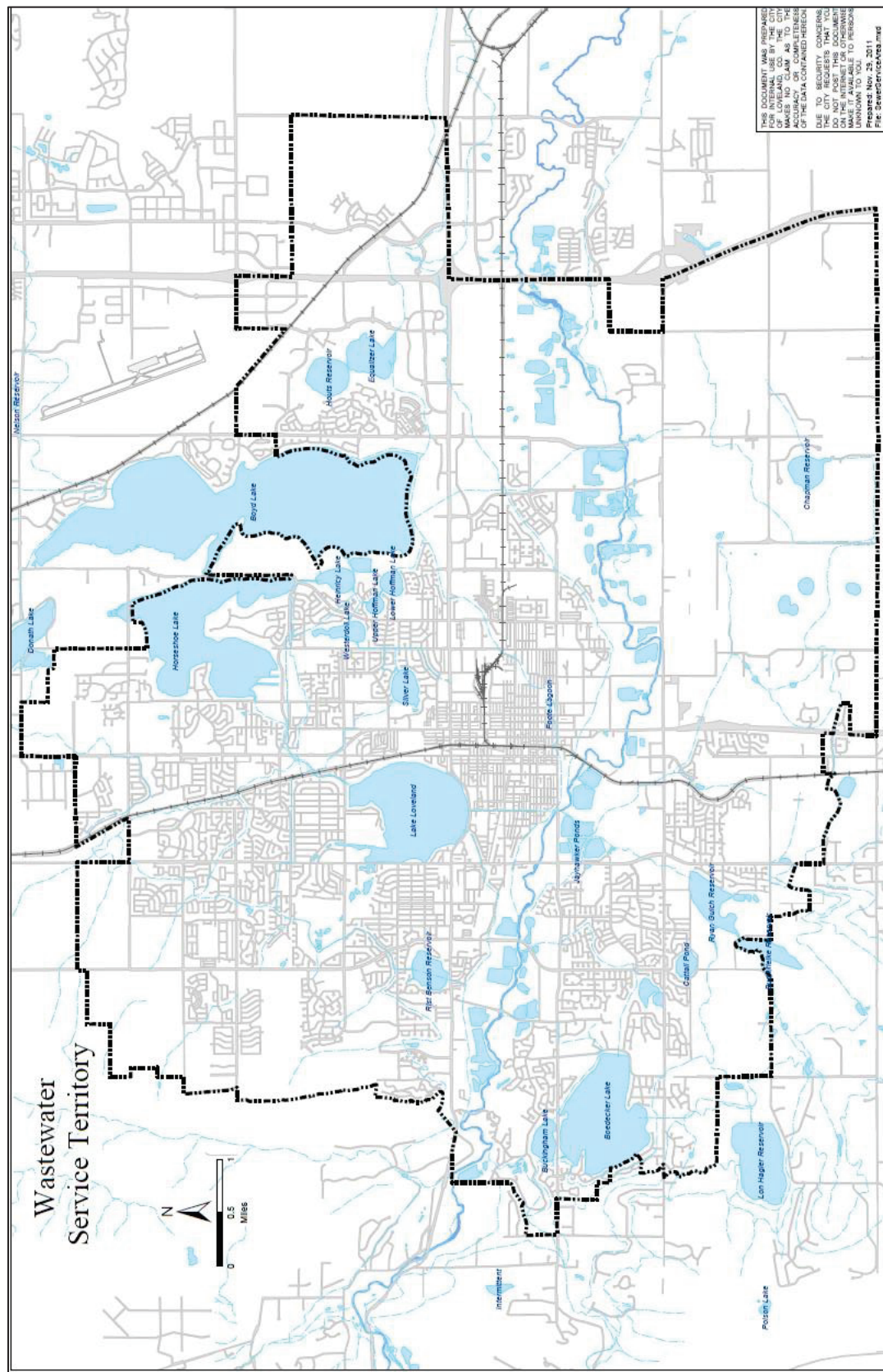




Figure 2 – City of Loveland POTW, Google Maps View

3.0 Resources

3.1 *Resources Regulatory Background*

The Pretreatment Regulations found in 40 C.F.R. § 403.8(f)(1-6) include POTW Pretreatment requirements and procedures to implement an approved Pretreatment program. These requirements and procedures include the legal authority and the implementation procedures of the Pretreatment program (permitting, inspections, sampling, industrial waste survey, receipt of IU reporting and notification, record-keeping, slug discharge control, data evaluation and enforcement for non-compliance). In addition, the Pretreatment Regulations found in 40 C.F.R. § 403.8(f)(3) state that the POTW shall have sufficient resources and qualified personnel to carry out the authorities and implementation procedures of the Pretreatment program.

A Pretreatment program, in compliance with the criteria listed in the Pretreatment Regulations, requires adequate and qualified staffing to implement the Pretreatment program in its service area. The resources required for each implementation activity depend largely on the size of the service area, number of IUs/SIUs/sector control programs, and Pretreatment program policies. A compliant program also requires a consistent funding mechanism to ensure the program is adequately funded and equipped to fully implement the program.

3.2 *Evaluation of the City's Resources and Funding*

According to the FY20 Pretreatment annual report, the City's resource commitment to the Pretreatment program is 1.0 FTE. The Pretreatment Coordinator implements all programmatic activities such as the industrial user inventory/characterization, permitting or BMP sector control, field activities such as inspections/sampling, compliance evaluation and enforcement. The Pretreatment Coordinator is also provided support from the POTW, and the Collections crew/Technical Services. The City's resources and budget commitment appears to be adequate to implement the City's current Pretreatment program effectively. However, non-domestic growth in the service area may change the City's resource commitment to the Pretreatment program.

The City stated in the audit that its Pretreatment program is budgeted \$159,071. The budget is a line item within the wastewater treatment plant budget. The wastewater treatment plant budget is funded by the City's Enterprise Fund, generated from residential and non-residential users in the service area. The City appears to be well equipped to implement the Pretreatment program and has a dedicated field pickup truck, access to portable automatic samplers, sampling equipment, confined space entry equipment, and personal protective equipment.

Based on EPA's review of the City's implementation of its Pretreatment program, it appears that the City's current resources and budget is adequate to implement all programmatic activities of the Pretreatment, such as the industrial user inventory and characterization, permit management, field activities, food service oil and grease sector control program and the dental amalgam program. It appears that this is due to the fact that the current Pretreatment Coordinator has a significant amount of experience implementing

the Pretreatment Regulations for the City. The City should evaluate its resources committed to the Pretreatment program to ensure the program is equipped and fully staffed to maintain the current level to implementation, in case of future non-domestic growth in the service area and in addition, to maintain institutional knowledge of the current program.

3.3 Examples of Available Pretreatment Training/Resources

This is not a comprehensive list of all Pretreatment related training/resources available. The City is encouraged to seek out training and resources that will support its Pretreatment program implementation. EPA is also available to the City for Pretreatment training opportunities.

The Region 8 Pretreatment workshop provided by Region 8 Pretreatment Association provides training sessions directly related to Pretreatment implementation, updates to upcoming regulations and policies, and networking opportunities.

The EPA provides “Pretreatment 101” webinar training designed to provide consistent national training to local and state Pretreatment programs. The webinar series is located at <https://www.epa.gov/npdes/national-pretreatment-program-training-and-webinars>. Archived presentations may be downloaded, and a schedule of future training opportunities is located at the website.

An additional resource available is the Pretreatment Coordinators Group discussion forum, found at the following website:

<https://groups.io/g/Pretreatment/topics>

4.0 Municipal Ordinance and Intergovernmental Agreements

4.1 Legal Authority Background

40 C.F.R. § 403.8(f)(1) of the Pretreatment Regulations states:

“The POTW shall operate pursuant to legal authority enforceable in Federal, State, or local courts, which authorizes or enables the POTW to apply and to enforce the requirements of sections 307 (b) and (c), and 402(b)(8) of the Clean Water Act (Act) and any regulations implementing those sections. Such authority may be contained in a statute, ordinance, or series of contracts or joint powers agreements which the POTW is authorized to enact, enter into or implement, and which are authorized by State law.

At a minimum, this legal authority shall enable the POTW to:

- i.* Deny or condition new or increased contributions of pollutants, or changes in the nature of pollutants, to the POTW by Industrial Users where such contributions do not meet applicable Pretreatment Standards and Requirements or where such contributions would cause the POTW to violate its NPDES permit;

- ii. Require compliance with applicable Pretreatment Standards and Requirements by Industrial Users;
- iii. Control through Permit, order, or similar means, the contribution to the POTW by each Industrial User to ensure compliance with applicable Pretreatment Standards and Requirements. In the case of Industrial Users identified as significant under §403.3(v), this control shall be achieved through individual permits or equivalent individual control mechanisms issued to each such User...
- iv. Require (A) the development of a compliance schedule by each Industrial User for the installation of technology required to meet applicable Pretreatment Standards and Requirements and (B) the submission of all notices and self-monitoring reports from Industrial Users as are necessary to assess and assure compliance by Industrial Users with Pretreatment Standards and Requirements, including but not limited to the reports required in §403.12.
- v. Carry out all inspection, surveillance and monitoring procedures necessary to determine, independent of information supplied by Industrial Users, compliance or noncompliance with applicable Pretreatment Standards and Requirements by Industrial Users. Representatives of the POTW shall be authorized to enter any premises of any Industrial User in which a Discharge source or treatment system is located or in which records are required to be kept under §403.12(o) to assure compliance with Pretreatment Standards. Such authority shall be at least as extensive as the authority provided under section 308 of the Act;
- vi. (A) Obtain remedies for noncompliance by any Industrial User with any Pretreatment Standard and Requirement. All POTW's shall be able to seek injunctive relief for noncompliance by Industrial Users with Pretreatment Standards and Requirements. All POTWs shall also have authority to seek or assess civil or criminal penalties in at least the amount of \$1,000 a day for each violation by Industrial Users of Pretreatment Standards and Requirements.

(B) Pretreatment requirements which will be enforced through the remedies set forth in paragraph (f)(1)(vi)(A) of this section, will include but not be limited to, the duty to allow or carry out inspections, entry, or monitoring activities; any rules, regulations, or orders issued by the POTW; any requirements set forth in control mechanisms issued by the POTW; or any reporting requirements imposed by the POTW or these regulations in this part. The POTW shall have authority and procedures (after informal notice to the discharger) immediately and effectively to halt or prevent any discharge of pollutants to the POTW which reasonably appears to present an imminent endangerment to the health or welfare of persons. The POTW shall also have authority and procedures (which shall include notice to the affected industrial users and an opportunity to respond) to halt or prevent any discharge to the POTW which presents or may present an endangerment to the environment or which threatens to interfere with the operation of the POTW. The Approval Authority shall have authority to seek judicial relief and may also use administrative penalty authority when the POTW has sought a monetary penalty which the Approval Authority believes to be insufficient.
- vii. Comply with the confidentiality requirements set forth in §403.14.”

The provisions in 40 C.F.R. § 403.8(f)(1)(i-vii) do not provide local Pretreatment programs with legal authority, but they do establish the minimum requirements for the local municipality to implement the Pretreatment program. A POTW's legal authority is derived from State law. Therefore, State law must confer the minimum legal authority required by the Pretreatment Regulations on a POTW.

To apply the regulatory authority provided by State law, it is necessary for the POTW to establish local regulations to legally implement and enforce pretreatment requirements. A POTW's legal authority is typically established in a sewer use ordinance as part of the municipality's code, or in the case of a sanitation district, its Rules and Regulations. The EPA's 2007 *Model Pretreatment Ordinance* provides a template for POTWs that are required to develop pretreatment programs and can be found at the following website:

https://www3.epa.gov/npdes/pubs/pretreatment_model_suo.pdf

4.2 City of Loveland Municipal Ordinance

EPA approved the City's Pretreatment program on October 9, 1985. According to records maintained by EPA, the City completed modifications to its program and submitted updates to its legal authority in 1991 for the Domestic Sewage Exclusion amendments, 1998 to incorporate penalty actions, and in 2004 and 2006 to incorporate the grease interceptor program and general changes. The City of Loveland recently updated its ordinance in 2020 to update the dental amalgam program, to clarify BMPs used in sector control programs and to incorporate the hazardous waste pharmaceutical prohibition. The recent ordinance update was public noticed by EPA on August 11, 2020 and approved on September 27, 2020.

The City provided its Pretreatment legal authority found in Title 13; Chapter 13.1-Wastewater System of the municipal ordinance for the EPA to review. Based on EPA's review, the Pretreatment Regulations incorporated in Title 13; Chapter 13.10-Wastewater System of the municipal ordinance provide the City the framework to implement the Pretreatment Regulations in the POTW's service area.

4.3 Inter-Jurisdictional or Governmental Agreements (IGA)

4.3.1 IGA Regulatory Background

A POTW's authority to implement and enforce its approved Pretreatment program is directly related to its regulatory jurisdiction. The POTW's authority is established in ordinance or Rules and Regulations, which are in effect for its service area. Local entities with connectors, or outside jurisdictions to the service area that contribute wastewater, must establish legally binding mechanisms to ensure that all IUs in these outside contributing jurisdictions are subject to enforceable Pretreatment standards and requirements, as required in §403.8(f)(1).

40 C.F.R. § 403.8(f)(1)(i) states, "The POTW shall operate pursuant to legal authority enforceable in Federal, State or local courts, which authorizes or enables the POTW to apply and to enforce the requirements of sections 307 (b) and (c), and 402(b)(8) of the Act

and any regulations implementing those sections. *Such authority may be contained in a statute, ordinance, or series of contracts or joint powers agreements which the POTW is authorized to enact, enter into or implement, and which are authorized by State law.*” [Emphasis added]

The local entity that implements the Pretreatment program must either obtain this authority for itself through an IGA or ensure that the outside contributing jurisdiction has both the authority and the obligation to implement and enforce the Pretreatment Standards and Requirements against every IU that discharges to the POTW.

4.3.2 Evaluation of the City’s IGAs with Outside Contributing Jurisdictions

According to information gathered during the audit, there are no outside jurisdictions contributing wastewater to the City’s POTW.

5.0 Local Limits

5.1 Local Limits Regulatory Background

40 C.F.R. § 403.8(f)(4) of the Pretreatment Regulations require POTWs that are developing pretreatment programs to develop and enforce specific limits on prohibited discharges or demonstrate that the limits are not necessary. 40 C.F.R. § 403.5(c)(1) states, “Each POTW developing a POTW Pretreatment Program pursuant to §403.8 shall develop and enforce specific limits to implement the prohibitions listed in paragraphs (a)(1) and (b) of this section [*general and specific prohibitions*]. Each POTW with an approved pretreatment program shall continue to develop these limits as necessary and effectively enforce such limits.” [Clarification and emphasis added].

The National Pretreatment Program consists of three types of national pretreatment standards established by regulation that apply to industrial users. These include prohibited discharge standards, categorical standards, and local limits. Prohibited discharge and categorical standards are developed by the EPA to establish nationwide Pretreatment Standards. Prohibited discharge standards, comprised of general and specific prohibitions found in 40 C.F.R. 403.5(a) and (b) of the Pretreatment Regulations, apply to all IUs regardless of the size or type of operation. Categorical standards are uniform, technology-based standards that apply to specific process wastewater discharges from industrial categories. These categorical standards are found at 40 C.F.R. Parts 405 through 471.

The EPA’s promulgation of categorical standards does not relieve a POTW from its obligation to evaluate the need for and to develop local limits to meet the general and specific prohibitions in the Pretreatment Regulations. Because specific prohibitions and categorical standards provide only general protection against pass through and interference, local limits based on POTW-specific conditions may be necessary. Local limits are developed by POTWs to enforce the specific and general prohibitions, as well as any state and local regulations.

An EPA-approved Pretreatment program is required to develop local limits that are protective of the POTW, the collection system, and the POTW’s site-specific standards.

These site-specific standards may be NPDES permit effluent limits, biosolids limits, environmental criterion, worker health and safety standards or other local standards.

The EPA recommends that POTWs establish their local limits based on the maximum allowable headworks loading (MAHL) calculated for each pollutant of concern. The MAHL approach enables the POTW to calculate local limits considering the portion of the MAHL that is controllable (non-domestic discharges from IUs) from the uncontrollable portion (domestic sources, background concentrations, etc.). A pollutant's MAHL is determined by first calculating its Allowable Headworks Loading (AHL) for each POTW's site-specific standard or environmental criterion. Local limit development uses a mass-balance approach to determine the AHLs for a POTW based on the environmental and treatment plant criteria.

An AHL is the estimated maximum loading of a pollutant that can be received at a POTW's headworks, that should not cause a POTW to violate a treatment plant limit or environmental criterion. An AHL is developed to prevent interference or pass through. An AHL is calculated for each applicable POTW site-specific standard: pass through, sludge contamination, air quality standards, and the various forms of interference (i.e. biological treatment inhibition, sludge digestion inhibition). The AHLs for each pollutant of concern (POC) are calculated based on the various suitable environmental criteria, plant flow rates, and plant removal efficiency. After calculating a series of AHLs for each POC, the lowest AHL is chosen as the MAHL.

MAHLs estimate the maximum combined loadings that can be received at the POTW's headworks from all sources. Maximum allowable industrial loadings (MAIL), developed by the POTW, represent the amount of pollutant loadings the POTW can receive from controlled sources (i.e., industrial users, some commercial sources, and some hauled waste) that the POTW chooses to control through local limits. Local limits can take many forms based on how MAILs are allocated by the POTW. The designation and implementation of these MAILs, including the allocation of loadings to SIUs, are left to each POTW. The POTW should provide a reasonable method of allocating the MAIL to the SIUs while ensuring the implementation procedures do not exceed the calculated MAHL. Typically, the POTWs allocate the MAIL as a uniform concentration-based or a mass limit to each SIU.

The local limits should be based on the following:

- Sampling of the service area to develop a representative data set collected for local limits (e.g., influent, effluent, biosolids, commercial, residential, industrial, trucked/hauled waste),
- Evaluation of the current POTW standards/criteria (including, but not limited to: NPDES permit limits/conditions, water quality standards, biosolids standards),
- Identification of the POTW removal efficiency and pollutant partitioning,
- Evaluation of data to ensure it is current and representative of current conditions,
- Identification of pollutants of concern,
- Calculations of loadings and determination of MAHL,

- Development of local limits and allocation methods.

5.2 Local Limits Requirements Established in the City's NPDES Permits

The City's NPDES permit issued by the CDPHE and currently administratively extended include local limit requirements in Part I.B.7.C. The local limits requirements are as follows:

"The Permittee shall establish and enforce specific local limits to implement the general and specific prohibitions found in 40 C.F.R. 403.5(a) and (b). The Permittee shall continue to develop these limits as necessary and effectively enforce such limits.

Where the Permittee determines that revised or new local limits are necessary, the Permittee shall submit the proposed local limits to the Approval Authority in an approvable form in accordance with 40 C.F.R. 403.18. In accordance with 40 C.F.R. 122.44(j)(2)(ii), the permittee shall submit to the Division and Approval Authority a technical evaluation of the need to revise or develop local limits in accordance with 40 C.F.R. 403.5(c) and a local limits package if a technical evaluation reveals that development or revision of local limits is necessary, by **September 1, 2016**. The evaluation shall include, but not be limited to, a consideration of any new or revised numeric and practice-based effluent limits in this permit."

The local limits technical evaluation required by 40 C.F.R. 122.44(j)(2)(ii) will be incorporated in the permit scheduled to be reissued by the CDPHE in 2026. The City will have 12 months from the permit reissuance date to complete the local limits technical evaluation.

5.3 The EPA Evaluation of the City's Local Limits

5.3.1 Technically-based Local Limits

The City's current local limits were public noticed on March 8, 2017 for a 30-day public comment period and approved by EPA on April 21, 2017. The City's local limits are incorporated in Section 13.10.205(4)(a) of the municipal ordinance.

The local limits applicability language Section 13.78.050(4)(a) is as follows:

"The following pollutant limits are established to protect against pass through and interference and to protect beneficial use of biosolids. No significant industrial user shall discharge wastewater containing in excess of the following daily maximum limits (all concentrations are total):"

Table 1 – City of Loveland Local Limits – SIU Concentration-based limits

Pollutant	Symbol	Daily Maximum (mg/L)
Arsenic, Total	As	0.30
Cadmium, Total	Cd	0.12
Chromium, Total	Cr	1.49
Cyanide, Total	CN	0.44
Copper, Total	Cu	4.04
Lead, Total	Pb	1.53
Mercury, Total	Hg	0.0001
Molybdenum, Total	Mo	0.99
Nickel, Total	Ni	2.49
Selenium, Total	Se	0.09
Silver, Total	Ag	1.67
Zinc, Total	Zn	11.12

5.3.2 Numeric Ordinance Limits

In addition to the established technically-based local limits, the City has incorporated the following numeric ordinance limits in Section 13.10.202(b) of the municipal ordinance. These numeric ordinance limits are not site-specific and have not undergone the rigor of approval/public participation for the technically-based local limits:

- pH – > 5.0 and < 11.5
- Lower Explosive Limit – “Wastewater causing two readings on an explosion hazard meter at the point of discharge into the POTW, or at any point in the POTW, of more than five percent or any single reading over ten percent of the lower explosive limit of the meter.”

5.3.3 Dilution Prohibition

The City has incorporated a prohibition on dilution in Section 13.10.207 of the municipal ordinance to ensure the IUs are appropriately managing their regulated wastestreams to meet compliance with an applicable Pretreatment Standard or Requirement:

“No industrial user shall ever increase the use of process water or in any way attempt to dilute a discharge as a partial or complete substitute for adequate treatment to achieve compliance with a discharge limitation unless expressly authorized by an applicable pretreatment standard or requirement.”

The dilution prohibition language in Section 13.10.207 meets the requirement in 40 C.F.R. Part 403.6(d) of the Pretreatment Regulations.

5.4 Local Limits Technical Evaluation-Regulatory Background

40 C.F.R. § 122.44(j)(2)(ii) of the NPDES regulations require POTWs to provide a written technical evaluation of the need to revise local limits following permit issuance or reissuance. The technical evaluation is a detailed re-evaluation of data, criteria, conditions, and assumptions on which local limits are based to determine whether any significant changes affecting the local limits have occurred. Chapter 7 of the *Local Limits Development Guidance Manual*, EPA-833-R-04-002A, July 2004 provides guidance on completing the technical evaluation of local limits.

The Annual Pretreatment Reports submitted to the EPA provide the POTW with an opportunity to perform reviews for exceedances of the established MAHL for the POCs, on an annual basis. The POTW compares both the maximum and average influent data for the reporting year against the MAHL to determine if there were any exceedances. In addition, the POTW is required to report biosolids data to determine if there were any changes or concerns with the biosolids loadings. An exceedance of the established MAHL may be indicative of a change in the service area, changes to the POTW operations or changes to domestic or non-domestic loadings and may indicate a need to recalculate the local limits. However, the annual review may not have addressed conditions that can change over time, such as operating conditions, environmental criteria/standards, data, or assumptions that may make local limits no longer appropriate, protective or legally-defensible.

As a follow-up to MAHL exceedances listed on the annual report and as required during a permit reissuance, a POTW should compare its current conditions and requirements with those that existed when the local limits were developed. The EPA recommends that POTWs determine if re-calculating existing local limits, or developing MAHLs for new pollutants of concern, is necessary in response to the following criteria:

1. Removal Efficiencies
 - a. Modification to the POTW or new POTW brought online.
 - b. Changes in POTW processes or operations that have affected the POTW removal efficiencies.
2. Total POTW or IU Loading

- a. Significant changes to flow to the POTW.
 - b. Significant changes to loadings to the POTW due to new IUs, changes in loadings at existing IUs or significant growth in the service area.
 - c. Significant changes in loadings from SIUs in the service area.
- 3. Limiting Criteria
 - a. New or revised NPDES permit limits.
 - b. New or revised biosolids standards.
 - c. Changes in EPA or State Criteria (acute and chronic water quality standards for the receiving waters, reuse water quality criteria) at the time of local limit development to existing criteria.
- 4. Sludge Characteristics or Method of Disposal
 - a. Changes in loadings to biosolids.
 - b. Changes in biosolids disposal methods.
- 5. Background Concentrations of Pollutants in Receiving Water

5.5 Technical Evaluation of the City's Local Limits

Part I.B.7(C) of the City's NPDES permit issued by the CDPHE includes the following requirements for a technical evaluation of the local limits:

"The Permittee shall establish and enforce specific local limits to implement the general and specific prohibitions found in 40 C.F.R. 403.5(a) and (b). The Permittee shall continue to develop these limits as necessary and effectively enforce such limits. Where the Permittee determines that revised or new local limits are necessary, the Permittee shall submit the proposed local limits to the Approval Authority in an approvable form in accordance with 40 C.F.R. 403.18.

In accordance with 40 C.F.R. 122.44(j)(2)(ii), the permittee shall submit to the Division and Approval Authority a technical evaluation of the need to revise or develop local limits in accordance with 40 C.F.R. 403.5(c) and a local limits package if a technical evaluation reveals that development or revision of local limits is necessary, by **September 1, 2016**. The evaluation shall include, but not be limited to, a consideration of any new or revised numeric and practice-based effluent limits in this permit."

As a result of the technical evaluation requirement in the 2016 NPDES permit issued by the CDPHE, the City updated its local limits that were approved by EPA on April 21, 2017. As discussed in Section 2.1 of this report, the City's NPDES permit expired on August 31, 2020 and was administratively extended by the CDPHE on July 13, 2020. Based on conversations with the CDPHE, the Loveland NPDES permit is projected to be reissued in 2026. The technical evaluation requirements in accordance with 40 C.F.R. 122.44(j)(2)(ii) will be included in the reissued permit.

5.6 Permit or Site-Specific Limits

Local municipalities implementing the Pretreatment program should have the ability to establish site or permit-specific limits as deemed necessary to be protective of the POTW. This is a beneficial authority because situations or projects may occur in the service area

that the municipality may want to provide control to protect the POTW. However, the current limits in the ordinance may not address the pollutant of concern.

The EPA considers the development of any local limit, whether codified in the municipal ordinance/rules and regulations or developed on a site-specific situation (i.e., permits-specific limit) to be a program modification under 40 C.F.R. §403.18 (53 FR 40579, Final Rule, General Pretreatment Regulations for Existing and New Sources, October 17, 1988). The development of any local limit is required to follow the approval and public notice provisions, both at the local level and by submitting to the EPA.

40 C.F.R. §403.5(c)(3) of the Pretreatment Regulations states, “Specific effluent limits shall not be developed and enforced without individual notice to persons or groups who have requested such notice and an opportunity to respond.” The EPA recommends that POTWs conduct public participation in the local limits process (whether codified in the municipal ordinances/rules and regulations or new limits developed in a permit) as openly as possible. This may involve notifying the SIUs/IUs and other affected parties of the proposed limits or announcing a 30-day public comment period. This would allow sufficient time for the public to participate, which is a fundamental goal of the Clean Water Act in Section 101(e).

The City has established the ability to develop site or permit-specific limits in Section 13.10.206 of its municipal ordinance:

“The city reserves the right to establish, by ordinance, control mechanism, or other appropriate means more stringent or additional standards or requirements for any industrial user to protect the POTW against pass through, interference, or as necessary, in the director's opinion, to protect the health and safety of POTW personnel or the general public.”

Based on the EPA’s review of the Pretreatment records, the City has not established site-specific limits in the SIU permits.

6.0 Pretreatment Operating Procedures

6.1 Regulatory Background

40 C.F.R. §403.8(f)(2) of the Pretreatment Regulations states, “The POTW shall *develop and implement* procedures to ensure compliance with the requirements of a Pretreatment Program.” [*emphasis added*] The Pretreatment Regulations identify these minimum procedures in 40 C.F.R. §403.8(f)(2)(i-viii) to include the following **implementation** activities, summarized below:

- Identify and locate all possible IUs that might be subject to the Pretreatment program,
- Obtain information describing the character and volume of wastes discharged by IUs,
- Notify IUs of all applicable Pretreatment standards and other applicable State or Federal standards or requirements,
- Review self-monitoring reports and other notices submitted by IUs,

- Randomly sample and analyze effluents from IUs,
- Evaluate whether each SIU needs a slug discharge control plan,
- Investigate instances of noncompliance with Pretreatment standards and requirements,
- Comply with public participation requirements.

The requirements listed in 40 C.F.R. §403.8(f)(2) include the **development** of procedures. Adequate and updated standard operating procedures (SOPs) provide the following benefits to a Pretreatment program:

- Develop the baseline knowledge of the Pretreatment Regulations and establish the framework for program implementation,
- Adequately implement the authorities established in the municipal ordinance and ensure consistency in program implementation,
- Retain institutional and historical knowledge developed within the POTW's program, and
- Provide a valuable training resource for new or inexperienced staff members.

Ultimately, the benefits of valid SOPs to the Pretreatment program are increased efficiency, along with improved data comparability, credibility, and legal defensibility. In addition, the development of written SOPs and templates allow the EPA to determine if the procedures adequately implement the legal authority developed in the municipal ordinance/rules and regulations as required in 40 C.F.R. §403.8(f):

“A POTW Pretreatment program must be based on the following legal authority and include the following procedures. These authorities and procedures shall at all times be fully and effectively exercised and implemented.”

6.2 Standard Operating Procedures (SOPs)

EPA evaluated the City's procedures and templates during the audit to ensure these meet the requirements listed in 40 C.F.R. § 403.8(f)(2). As previously discussed, developing SOPs are beneficial for the City's Pretreatment program but most importantly, to ensure adequate implementation of the authorities established in the municipal ordinance and ensure consistency in program implementation. EPA considers the Industrial User Inventory and Characterization, Sampling Plan/QA-QC, and the Enforcement Response Plan to be priority and required SOPs to ensure consistent implementation of the City's legal authority. EPA evaluated these priority SOPs and provides comments in the following sections within this audit report:

- Industrial User Inventory and Characterization Procedures (*discussed in §7.0*),
- Sampling Plan, Site-Specific Sampling Protocol, Quality Assurance and Quality Control (*discussed in §10.0*), and
- Enforcement Response Plan and Data Compliance Evaluation (*discussed in §11.0*).

The City has developed an SOP manual for implementation of the Pretreatment program that is intended to ensure the City complies with applicable Industrial Pretreatment

Program regulations and requirements. The SOP manual captures current institutional knowledge and serves as a resource that should enable a person (with or without Pretreatment experience) to address circumstances that may be encountered relative to the City's Pretreatment Program. Although the SOP appears to be a valuable resource to the City, EPA recommends the City evaluate the need to develop Pretreatment procedures, as necessary.

6.3 Templates

Templates and checklists are also critical to a Pretreatment program to ensure consistent and appropriate implementation of the Pretreatment regulations. The City has developed a permit application for discharging facilities and an SIU permit template. The permit application appears to provide adequate information and data for the City to develop an appropriate control mechanism. The evaluation of the permit template is included in §8.4 of this audit report.

6.4 Records and Data Management

6.4.1 Regulatory Background

The recordkeeping requirements of the Pretreatment program are established in 40 C.F.R. §403.12(o)(1-3):

“(1) Any Industrial User and POTW subject to the reporting requirements established in this section shall maintain records of all information resulting from any monitoring activities required by this section, including documentation associated with Best Management Practices. Such records shall include for all samples:

- (i) The date, exact place, method, and time of sampling and the names of the person or persons taking the samples.
- (ii) The dates analyses were performed.
- (iii) Who performed the analyses.
- (iv) The analytical techniques/methods use; and
- (v) The results of such analyses.

(2) Any Industrial User or POTW subject to the reporting requirements established in this section (including documentation associated with Best Management Practices) shall be required to retain for a minimum of 3 years, any records of monitoring activities and results (whether or not such monitoring activities are required by this section) and shall make such records available for inspection and copying by the Director and the Regional Administrator (and POTW in the case of an Industrial User). This period of retention shall be extended during the course of any unresolved litigation regarding the Industrial User or POTW or when requested by the Director or the Regional Administrator.

(3) Any POTW to which reports are submitted by an Industrial User pursuant to paragraphs (b), [baseline monitoring reports] (d), [90-day compliance reports] (e), [categorical industrial user monitoring reports] and (h) [significant industrial user monitoring reports]

of this section shall retain such reports for a minimum of 3 years and shall make such reports available for inspection and copying by the Director and the Regional Administrator. This period of retention shall be extended during the course of any unresolved litigation regarding the discharge of pollutants by the Industrial User or the operation of the POTW Pretreatment Program or when requested by the Director or the Regional Administrator.”

6.4.2 Recordkeeping and Data Management Procedures

Based on information gathered during the audit, the Pretreatment Coordinator maintains the SIU permit and IU records in their office. The records are maintained for at least three years and are digitized to maximize record space. The SIUs are chronologically organized, the Dental Industrial Users records include building permit surveys, correspondence, facility inspections and the one-time compliance report. The non-significant IUs include records such as building permit, survey, inspection reports, hazardous waste notifications, slug plans, as necessary. Due to the Covid-19 pandemic and the remote nature of the audit, the physical recordkeeping and organization was not observed by EPA.

6.5 *Receipt of Discharge Monitoring Reports and Notifications*

The Pretreatment regulations in 40 C.F.R. §403.8(f)(2)(vii) require a POTW to “Investigate instances of noncompliance with Pretreatment Standards and Requirements, as indicated in the reports and notices required under §403.12 [IU compliance reports], or indicated by analysis, inspection, and surveillance activities [control authority monitoring].” This requires the POTW to ensure adequate receipt and tracking of self-monitoring reports and notifications, have procedures to evaluate the data and information contained within these reports and notices, and determine compliance with the Pretreatment standards (e.g., permit limits and conditions).

The SIU self-monitoring reports, notifications and other reports submitted are date stamped by hand as received. The City evaluates compliance, based on its review of the information in the reports and notifications. The City uses a self-monitoring report (SMR) compliance checklist to document compliance with the SIU permit’s numeric limits and provide an SNC evaluation.

6.6 *Management of Confidential Records*

40 C.F.R. § 403.14 of the Pretreatment Regulations establishes the public availability of the Pretreatment records and the provisions to establish confidential business information (CBI). The City has incorporated the public availability and confidentiality requirements in Section 13.10.801 of the municipal ordinance:

“A. Information and data on an industrial user obtained from reports, surveys, permit applications, wastewater discharge permits, monitoring programs, and inspection and sampling activities shall be available to the public without restriction, subject to the provisions of the Law and 40 C.F.R. 403.14. Wastewater constituents and characteristics and other effluent data, as defined at 40 C.F.R. 2.302 shall not be recognized as confidential information and shall be available to the public without restriction.

B. Upon receiving a request by the director for entry to premises, an industrial user may claim that its premises and activities contain confidential business information, including trade secrets. In such event, the industrial user must make such claim in writing and follow the procedures described in subsection c. The director shall ensure that any of the industrial user's information that qualifies as confidential business information is protected to the maximum extent allowed by relevant law. Submittal of such a claim shall not be grounds to refuse or deny entry to the premises of any industrial user.

C. Industrial user claim of confidential business information:

1. In the event an industrial user claims that its premises, processes, or activities involve confidential business information that should be protected from disclosure to the public, the industrial user must provide such claim in writing to the director as described herein.

2. A claim of confidentiality relates only to the public availability of the data and cannot be used to deny facility access to the director or to refuse information requested by the director.

3. The industrial user may segregate or protect from inadvertent disclosure to the extent possible, the business information from the information sought by the director under the provisions of this chapter. Information submitted in writing by the industrial user that contains confidential business information must be clearly marked with the words "confidential business information" on every page that the industrial user considers to contain confidential business information. In the event that the industrial user considers certain of its components, processes, materials, or activities at its premises to be confidential business information, the industrial user must provide a statement to the director in writing advising the director which of its onsite components, processes, materials, or activities the industrial user considers to be confidential business information. The director will note such request in his or her notes of any of onsite inspection and will treat such information as confidential business information to the maximum extent allowed by law.

4. All information collected by the director that has been marked clearly by the industrial user, or specifically described in writing as "confidential business information," will be treated as confidential and protected from disclosure by the director, subject to the procedure identified below in the event of a public records request for such information.

5. In the event the City receives a request for public records that relates to information that the industrial user has claimed constitutes confidential business information, the city attorney will review the claim of confidential business information with the director to determine whether such information constitutes confidential business information under the Colorado open records act. In the event the City Attorney determines the information must be disclosed under the relevant provisions of the Colorado Open Records Act, the industrial user may elect to take appropriate action as authorized by law, including, but not necessarily limited to, obtaining an injunction from a court of law to prevent the release of such information."

According to information gathered during the audit, the City has not received confidential business information.

7.0 Industrial User Inventory and Characterization

7.1 Regulatory Background

The Pretreatment Regulations state in 40 C.F.R. § 403.8(f)(2)(i-iii) that a POTW shall develop and implement procedures to ensure compliance with requirements of a Pretreatment Program. [These requirements are summarized after the regulation language in **bold** and *italics* font].

- i. “Identify and locate all possible Industrial Users which might be subject to the POTW Pretreatment Program. Any compilation, index or inventory of Industrial Users made under this paragraph shall be made available to the Regional Administrator or Director upon request.” ***This requires a POTW to develop and maintain an inventory of IUs in the service area.***
- ii. “Identify the character and volume of pollutants contributed to the POTW by the Industrial Users identified under paragraph (f)(2)(i) of this section. This information shall be made available to the Regional Administrator or Director upon request.” ***This requires a POTW to characterize the IUs in the inventory of the service area.***
- iii. “Notify Industrial Users identified under paragraph (f)(2)(i) of this section, of applicable Pretreatment Standards and any applicable requirements under sections 204(b) and 405 of the Act and subtitles C and D of the Resource Conservation and Recovery Act. Within 30 days of approval pursuant to 40 C.F.R. 403.8(f)(6), of a list of significant industrial users, notify each significant industrial user of its status as such and of all requirements applicable to it as a result of such status.” ***These procedures must include the notification of IUs of applicable Pretreatment Standards and other applicable requirements.***

The Pretreatment Regulations at 40 C.F.R. § 403.8(f)(6) state, “The POTW shall prepare and maintain a list of its non-domestic or Industrial Users meeting the criteria in §403.3(v)(1). The list shall identify the criteria in §403.3(v)(1) applicable to each Industrial User and, where applicable, shall also indicate whether the POTW has made a determination pursuant to §403.3(v)(2) that such Industrial User should not be considered a Significant Industrial User. The initial list shall be submitted to the Approval Authority pursuant to §403.9 or as a non-substantial modification pursuant to §403.18(d).”

Approved Pretreatment programs are required by the Pretreatment Regulations to understand their service area and outside contributing jurisdictions, by developing and maintaining an inventory of IUs. In addition, the Pretreatment Regulations require a Pretreatment program to characterize the IUs listed on the inventory and notify the IU of their status under the Pretreatment program. For example, the following characterizations may apply to an IU, based on information received from questionnaires, drive-by or facility inspections:

- The IU is not characterized as significant, based on volume and characteristic of the discharged wastewater.
- The IU is characterized as significant and issued a permit.
- The IU is not characterized as significant, but loadings need to be controlled using

- BMPs in a source control program.
- The IU is generating wastewaters that are significant but is characterized as a zero-discharging facility.

The **Industrial Waste Inventory and Characterization** or industrial waste survey (IWS)/IU inventory procedures are an important component to an effective Pretreatment program because this is a POTW's first exposure to the IUs, allows the POTW to determine if an IU is significant, notify the IU of its status under the Pretreatment regulations, and determine the appropriate type of control mechanisms for these facilities to protect the POTW and collection system.

7.2 Industrial User Identification and Characterization Procedure

40 C.F.R. §403.8(f)(2) of the Pretreatment Regulations require the City to “develop and implement procedures” that “enable the POTW” to comply with these Pretreatment Program requirements. The City developed an IU Identification and Characterization procedure, located in Section V (2.1 – 2.3). These procedures identify techniques to establish current methods and procedures the City uses to identify and characterize IUs in the service area of its POTW and to notify these IUs of applicable Pretreatment Standards.

EPA recommends the City establish procedures in these sections of the current SOP to ensure the information gathered during the IU identification, characterization and notification procedures are documented on the IU inventory and characterization list or spreadsheets. This will help ensure the City's IU Inventory and Characterization list is maintained and updated, as required in 40 C.F.R. § 403.8(f)(6) of the Pretreatment Regulations.

7.3 Industrial User Database of the City's Service Area

40 C.F.R. § 403.8(f)(2)(i-iii) of the Pretreatment regulations require the City to identify and locate all IUs in its service area, identify the character and volume of pollutants contributed by these IUs based on current information, and notify these IUs of applicable Pretreatment Standards and Requirements. According to information gathered during the audit, The City collaborates with the internal Building and Utilities department to identify new businesses moving into the service area or changes from existing industrial users. The City also uses local sources such as newspapers to identify new businesses and changes to existing industrial users.

The City provided a current IU inventory of the IUs in its service area for EPA to review. Based on EPA's review, the City's current IU Inventory is organized by DIU – Dental Industrial Users, MIU – Minor Industrial Users, SIU – Significant Industrial Users, and VAC – Vacant. The MIU inventory consists of IUs that are not currently a concern but may have a potential future concern. The DIU/MIU/SIU inventories provide characterization of the IUs. It appears that the City has developed and is adequately maintaining the industrial user inventory.

The EPA currently provides “Pretreatment 101” webinar training, and a training for

“Industrial User Inventory and Characterization Procedures,” provided in September 2010, is archived at the following website:

<https://www.epa.gov/npdes/national-pretreatment-program-events-training-and-publications#pretreat101>

8.0 Control Mechanism (Permit) Evaluation and Permit Specific Issues

8.1 Regulatory Background

POTWs are required to issue control mechanisms to IUs identified through IU Inventory and Characterization procedures as SIUs. Individual permits or general control mechanisms authorize the discharge of wastewater to a POTW upon condition that the discharger complies with the permit limitations and conditions. An SIU permit is effective for only a limited period and should be revocable by the issuing authority at any time for just cause. In addition, the POTW’s legal authority will typically include a provision that forbids the discharge of industrial wastewater from a SIU without a current permit.

The Pretreatment Regulations establish the required permit conditions in 40 C.F.R. § 403.8(f)(1)(iii)(B)(1-6) that include the following minimum elements:

1. Statement of duration (in no case more than five years);
2. Statement of non-transferability without, at a minimum, prior notification to the POTW and provision of a copy of the existing control mechanism to the new owner or operator;
3. Effluent limits, including Best Management Practices, based on applicable general Pretreatment Standards, categorical Pretreatment Standards, local limits, and State and local law;
4. Self-monitoring, sampling, reporting, notification and recordkeeping requirements, including an identification of the pollutants to be monitored, sampling location, sampling frequency, and sample type, based on the applicable general Pretreatment Standards, categorical Pretreatment Standards, local limits, and State and local law;
5. Statement of applicable civil and criminal penalties for violation of Pretreatment Standards and requirements, and any applicable compliance schedule. Such schedules may not extend the compliance date beyond applicable federal deadlines;
6. Requirements to control Slug Discharges, if determined by the POTW to be necessary.

The reporting and notification requirements in permit condition #4 above are found in 40 C.F.R. § 403.12 of the Pretreatment Regulations and include the following:

- Baseline Monitoring Reports – 403.12(b)
- Compliance Schedule Progress Reports – 403.12(c)
- 90-Day Compliance Reports – 403.12(d)
- CIU Periodic Compliance Reports – 403.12(e)
- Notice of Potential Problems, including Slug Loading – 403.12(f)
- Notification of Changes Affecting Slug Discharge Potential – 403.8(f)(2)(vi)

- 24-Hour Non-Compliance Notification – 403.12(g)
- SIU Periodic Compliance Reports – 403.12(h)
- Notification of Changed Discharge – 403.12(j)
- Notification of Hazardous Waste Discharge – 403.12(p)
- Notification of Bypass – 403.17

Under general principles of administrative law, permit applicants and other interested parties may challenge the POTW's permit decisions, including the permit limitations and conditions and the POTW's authority to issue the permit. The POTW must ensure that it has the requisite legal authority to impose Pretreatment Standards and Requirements in SIU permits and that it exercises its authority in a consistent and non-arbitrary manner. The local ordinance must clearly provide the POTW with the following authorities to support the permit requirements found in 40 C.F.R. § 403.8(f)(1)(iii):

- Authority to regulate all Industrial Users contributing wastewater to the POTW.
- Authority to require and issue permits, orders, or other control mechanisms, including:
 - Authority to require Industrial Users to submit all data that the POTW deems relevant to permit decisions and provisions for public access to data.
 - Authority to enter, inspect, and sample to verify information supplied by the Industrial User as well as to assess the Industrial User's compliance status.
 - Authority to incorporate local limits, including BMPs (if applicable).
 - Authority to incorporate federal and state Pretreatment Standards and Requirements.
 - Authority to require self-monitoring, record keeping, reporting, and notifications by the permittee.
 - Authority to develop other appropriate permit conditions.
- Authority to enforce sewer use ordinance and discharge permit violations.
- Authority to require the development of a slug discharge control plan.

The POTW is required to establish the legal authority to require an IU to complete and file a permit application, with current information, to receive an initial or reissued permit. A permit application enables the POTW to obtain the information necessary to characterize the facility, to evaluate the quality and quantity of wastewater discharged, or projected to be discharged for a new facility, and to determine the applicable Pretreatment Standards and controls. The permit application serves as the formal request from the IU to discharge to the POTW and is required to be signed by a responsible corporate officer of the IU, as defined in 40 C.F.R. § 403.12(l) of the Pretreatment Regulations. In addition to the permit application, the POTW should evaluate, if available, historic IU effluent data, compliance reports, previous inspection reports, Safety Data Sheets, etc.

Throughout the permit drafting process, the POTW should carefully and thoroughly document each step in a permit rationale or statement of basis. A statement of basis is a document that provides a justification of the permit conditions and limits based on a characterization of the IU, its wastewater discharge, and the applicable Pretreatment Standards and Requirements. The statement of basis should include a description of the facility's production, process(es), wastewater generation/management, and discharge

locations to adequately characterize the facility. The statement of basis should also identify the appropriate Federal, State, and Local Pretreatment Standards, based on the IU's characterization; and should provide justification for permit conditions and requirements, such as pollutants of concern, monitoring/reporting frequencies, representative sampling types, notification requirements, slug discharge control, operation and maintenance requirements, etc.

The statement of basis facilitates defending any challenges that the permit terms and conditions were developed arbitrarily or capriciously and provides the required documentation in the permit record of any relief from otherwise applicable requirements (i.e., pollutants not expected to be present, equivalent limits, decisions on general control mechanisms, decisions on Non-Significant Categorical Industrial User (NSCIU) classification, and decisions on reduced monitoring requirements). In addition, the statement of basis can serve as a resident document to preserve institutional knowledge and continuity for new or different staff members.

The EPA updated the IU Permitting Guidance Manual, 833-R-12-0001A in September 2012. This guidance manual supports the implementation of the permit conditions found in 40 C.F. R. § 403.8(f)(1)(iii)(B)(1-6) of the Pretreatment Regulations. The guidance manual is intended to provide both new and experienced permit writers with conceptual support and specific examples to strengthen their permit development expertise. The guidance manual references technical guidance developed by the EPA regarding local limits, enforcing Pretreatment Standards and Requirements, controlling hauled waste, information regarding compliance inspections and sampling, and BMPs.

The IU Permitting Guidance Manual can be found at the following website:

https://www.epa.gov/sites/production/files/2015-10/documents/industrial_user_permitting_manual_full.pdf

8.2 The EPA's Evaluation of the City's Permitting Legal Authority

EPA evaluated the City's municipal ordinance to ensure it provides an adequate framework to require permit coverage, to deny or condition non-domestic wastewater contributions and to establish adequate permit conditions.

- Section 13.10.403 –establishes the requirement for SIUs to obtain a wastewater discharge permit and establishes the requirement for existing IUs to provide a permit application at least 90 days before the expiration of the permit.
- Section 13.10.404 – contains the permit application contents.
- Sections 13.10.201(A)(1) and 13.10.405 – establishes the authority for the City to deny or conditions wastewaters discharged to the public sewers.
- Section 13.10.502 – establishes the permit conditions to prevent Passthrough or Interference and to protect the POTW, worker health and safety, biosolids and the receiving stream water quality.

8.3 Permit Template Overview

The City has developed a permit template but only has one SIU, which is issued a permit. EPA evaluated the Woodward Inc permit to ensure the City is incorporating the required permit conditions found in 40 C.F.R. § 403.8(f)(1)(iii)(B)(1-6) of the Pretreatment required Regulations and Section 13.10.502 of the City's municipal ordinance. Based on EPA evaluation, the SIU permit complies with the permit conditions found in the Pretreatment Regulations. The EPA's evaluation is included in the Permit Template Checklist, attached to the audit report.

8.4 Specific Permit Record Findings

The City has identified one IU in the service area that is determined to be an SIU and that has been issued a permit under the Pretreatment program. The SIU, Woodward Inc. is subject to the Metal Finishing Pretreatment Standards for New Sources found in 40 CFR 433.17 and the City's local limits. Findings from the EPA's review of the Pretreatment records, including the facility inspection report, statement of basis, permit, compliance evaluation, and enforcement records are listed below:

8.4.1 Permit records Overview

1. The Pretreatment Regulations at 40 C.F.R. § 403.8(f)(2)(ii) require the City to "Identify the character and volume of pollutants contributed to the POTW." The SIU inspection reports include minimal descriptions of the facility's unit operations. Facility inspection report need to include more detail regarding the SIU's chemical storage/handling/transfer, process/unit operations, wastestream generation from these unit operations, wastestream management or wastewater treatment, sampling procedures to provide a current characterization, including an evaluation of slug discharge potential and process or treatment plant changes.
2. The Woodward permit rationale adequately captures current conditions at the facility, identifies applicable Pretreatment Standards and justifies permit conditions, including the most stringent permit limits based on an evaluation of all Pretreatment Standards, representative monitoring type/frequencies based on the SIU's wastewater discharge and recent compliance history, slug discharge/spill potential, reporting frequency and reportable data, Toxic Organic Management Plan requirement, requirement for slug discharge control plan based on current conditions.
3. The Pretreatment records are complete and appear to be very well organized and current. The IU Self-Monitoring Report checklists appear to be a useful tool for the City to ensure compliance.

8.4.2 Permit Template

1. The permit template currently used for Woodward, Inc. adequately implements the Pretreatment Regulations found in 40 C.F.R. 403.8(f)(1)(iii)(B)(1) of the Federal Pretreatment Regulations and incorporated in §13.10.502 of the municipal ordinance. The permit template review checklist is enclosed with the

audit report.

8.4.3 Woodward, Inc.

1. The Woodward permit does not establish a pH limit. However, the permit requires pH monitoring and recording of discharges in Part I.C(1) for outfall 001 and Part I.C.(2) for outfall 002. Part III.(2) of the permit requires submittal of all pH monitoring data in a spreadsheet to the City of Loveland for evaluation, when asked. Based on this permit condition for submittal of pH information, it is unclear to EPA if Woodward has been asked to send pH data in self-monitoring reports or as a separate submittal. EPA recommends the City modify the permit to remove the ambiguous “when asked by the City” language and require pH to be reported in all self-monitoring reports.
2. The Woodward permit does not establish a flow limit. However, the permit requires Woodward to report flow as a daily maximum and daily average for outfalls 001 and 002. In addition, the monitoring tables of the permit require Woodward to calculate flow and record when a discharge occurs in Part I.C(1) for outfall 001 and Part I.C.(2) for outfall 002. However, Part III.(2) requires Woodward to provide all flow monitoring data in a spreadsheet and send it to the City of Loveland for evaluation, when asked. Woodward is currently reporting flow data in all self-monitoring reports and it appears that the City has asked for this data, per the permit condition. EPA recommends the City modify the permit to remove the ambiguous “when asked by the City” language and clarify that daily average and daily maximum flow is required to be reported in all self-monitoring reports.
3. The Woodward permit establishes compliance monitoring periods from January 1 through June 30 and July 1 through December 31 and the self-monitoring reports (SMR) are due 15 days after each compliance monitoring period or July 15 and January 15, respectively. The SIU emailed its January through June 2020 SMR to the City on July 2, 2020 and the City received the hard signed copy on July 17, 2020. The emailed SMR on July 2, 2020 is considered to be a courtesy copy and provides documentation that the SMR was submitted by the due date.
 - a. However, the July through December 2020 SMR was received by the City on January 19, 2020, after the SMR due date of January 15, 2020. There is no documentation that an email courtesy copy of the SMR was submitted to meet the deadline. The City needs to provide an enforcement response for this permit violation, in accordance with its ERP.
4. Woodward had a violation of the Cyanide (CN) permit limit of 0.44 mg/L on September 9, 2021 at Outfall 001. The data from September 9, 2021 showed a CN result of 0.45 mg/L. The City identified this permit violation, however, there is no documentation that the City provided an enforcement response. The City needs to provide an enforcement response for this permit violation, in accordance with its ERP.
5. Woodward had a violation of the phenol limit of 2.13 mg/L at Outfall 002 on September 21, 2021. The data from September 21, 2021 showed a phenol result

of 4.3 mg/L. Although the City identified this permit violation, there is no documentation that the City provided an enforcement response. The City needs to provide an enforcement response for this permit violations, in accordance with its ERP.

6. It appears that Woodward is submitting SMRs before the compliance monitoring period is complete to identify potential permit violations and to submit periodic data. These SMRs submitted before the compliance monitoring period result in unclear recordkeeping regarding the official date of the SMR submittal. EPA recommends the City ensure Woodward submit SMRs after the compliance monitoring periods identified in the permit and before the SMR due date. EPA also recommends the City require laboratory hard copies and supporting quality control documentation to be submitted with every SMR. It appears that the City evaluates laboratory hard copies during its annual facility inspection. However, the City may devote more time to evaluate the supporting documentation in the office setting instead of during a facility inspection performed once per year.

9.0 Significant Industrial User Facility Inspections

9.1 Regulatory Background

The General Pretreatment Regulations at 40 C.F.R. § 403.8(f)(1)(v) states that the POTW shall have the legal authority to:

“Carry out all inspection, surveillance and monitoring procedures necessary to determine, independent of information supplied by Industrial Users, compliance or noncompliance with applicable Pretreatment Standards and Requirements by Industrial Users. Representatives of the POTW shall be authorized to enter any premises of any Industrial User in which a Discharge source or treatment system is located or in which records are required to be kept under §403.12(o) to assure compliance with Pretreatment Standards. Such authority shall be at least as extensive as the authority provided under section 308 of the Act;”

40 C.F.R. § 403.8(f)(2)(v) of the Pretreatment Regulations requires the POTW to inspect its SIUs at least once per year. 40 C.F.R. § 403.8(f)(2)(ii) require the City to “Identify the character and volume of pollutants contributed to the POTW.” 40 C.F.R. § 403.8(f)(2)(vii) establishes the standard of evidence collection during sampling or inspection activities:

“Investigate instances of noncompliance with Pretreatment Standards and Requirements, as indicated in the reports and notices required under §403.12, or indicated by analysis, inspection, and surveillance activities described in paragraph (f)(2)(v) of this section. Sample taking and analysis and the collection of other information shall be performed with sufficient care to produce evidence admissible in enforcement proceedings or in judicial actions.”

Typically, an inspector is the only representative from the POTW that regularly appears at the IU’s facility and significantly represents the POTW’s role as a responsible public agency, observing the actions and evaluating the performance of the regulated industry.

9.2 *Right of Entry*

The City has established the authority for right of entry in §13.10.701 of the municipal ordinance:

“A. The director shall have the right to enter the premises of any industrial user to determine whether the industrial user is complying with all requirements of this chapter and any control mechanism or order issued hereunder. Industrial users shall allow the director ready access to all parts of the premises for the purposes of inspection, identifying the character or volume of pollutants, sampling, records examination and copying, photographs, noncompliance investigation, and the performance of any additional duties.

B. Where an industrial user has security measures in force that require proper identification and clearance before entry into its premises, the industrial user shall make necessary arrangements with its security personnel so that, upon presentation of City of Loveland staff identification, staff will be permitted to enter without delay for the purposes of performing specific responsibilities.

C. The director may require the industrial user to install monitoring equipment as necessary. The facility's sampling and monitoring equipment shall be maintained at all times in a safe and proper operating condition by the industrial user at its own expense. All devices used to measure flow and quality shall be calibrated to ensure their accuracy.

D. Any temporary or permanent obstruction to safe and easy access to the facility to be inspected and/or sampled shall be promptly removed by the industrial user at the written or verbal request of the director and shall not be replaced. The costs of clearing such access shall be borne by the industrial user.

E. Unreasonable delays in allowing the director access to the industrial user's premises shall be a violation of this chapter.”

The municipal ordinance adequately establishes the right of entry authority for the City, as required in 40 C.F.R. § 403.8(f)(1)(v) of the Pretreatment Regulations.

9.3 *Facility Inspection Records – Background*

40 C.F.R. § 403.8(f)(2)(vii) of the Pretreatment Regulations requires the POTW to meet the criterion for evidence collection “with sufficient care to produce evidence admissible in enforcement proceedings or in judicial actions.” This is performed during facility inspections by adequate documentation in the inspection report of the observations, surveillance, inspections, sampling performed, and analysis gathered during facility inspections. A complete and well-developed inspection report that provides a current characterization of the facility will benefit the POTW’s Pretreatment program for programmatic decisions such as categorical determinations, slug discharge/spill potential, changes at the facility that may affect the current permit conditions, sampling frequencies, etc.

As discussed in §2.11.2 of the *Industrial User Inspection and Sampling Manual for*

POTWs, EPA-831B17001, January 2017, the inspection report generated from the facility inspections should accomplish the following three objectives: 1) organize and coordinate all information in a comprehensive, usable manner for use by the POTW's compliance personnel; 2) identify areas that may require follow-up activity; and 3) provide significant background information on the facility that can be reviewed prior to conducting subsequent inspections at the facility. The quality of this documentation will, to a large degree, determine how effective these follow-up activities will be at the facility. The information in the inspection report must be presented in a clear, concise, and well-organized manner.

The Industrial User Inspection and Sampling Manual for POTWs describes the information necessary to characterize a facility in §§2.10.3 and 2.12. The manual also discusses the records to review at a facility to help determine the facility's compliance in §2.10.8. It is important for Pretreatment programs to capture the following information during facility inspections to characterize the facility, and document facility changes to ensure the SIU's permit addresses current conditions:

- Chemical storage areas, including potential spill concerns during chemical receiving and transfer/handling.
- Process tanks or processing areas – detailed descriptions of the process including tank contents, capacities.
- Wastestream generation from the process areas and disposal/discharge practices – frequency of discharge rinse water tanks, whether spent chemical solutions tanks discharged to the POTW or hauled off site, proximity to floor/trench drains, slug discharge control and spill containment measures, etc.
- Wastestream management (treatment, recycling, hauling off site, evaporation, etc.).
- Waste treatment system.
- Wastestream or hazardous waste storage areas, including potential spill concerns.
- Discharge monitoring points.
 - Evaluation of the sampling/monitoring protocols to determine if these are appropriate to provide representative data of the wastewaters regulated by the permit.

A facility inspection of a permitted SIU should include a review of relevant records used to support compliance with the permit conditions and that may not be reported in the self-monitoring compliance reports such as pH and continuous flow monitoring records, tank change out logs, analytical reports, waste manifests, operation and maintenance logs, etc. A detailed facility inspection report with descriptions of tank contents, capacities, generated wastestreams, plumbing, and management of the wastestreams will benefit the POTW to establish the baseline for the year and to determine if any changes will impact the permit conditions/limits or associated documents such as the slug discharge control plan, spill plan, treatment system operation manual or sampling protocol.

During the Pretreatment audit, the EPA discussed inspection procedures with the City, including EPA's procedures. The EPA performs facility inspections by gathering verbal information in an opening conference, then performing a walkthrough to visually confirm the information gathered during the opening interview. The EPA structures its information gathering by following the raw materials/chemical supply through the unit operations and

ultimately to the finished product or service. A closing conference is performed to gather follow-up information, review records, and to provide preliminary conclusions to the facility.

9.4 Evaluation of the City's Inspection Reports/Records

The EPA evaluated the inspection reports and other records related to the facility inspection for the SIU annual facility inspection. As discussed in § 8.4.1(1) of this audit report, the SIU inspection reports provides minimal characterization of the facility and needs to be improved to include information regarding the facility's chemical storage/handling, process, (sources, flow volume and types of discharges) wastewater generation, slug discharge potential, waste treatment methods, sampling procedures, and review of records in the annual inspection report. The inspection reports should also include digital photos to further support information gathered during the inspection.

9.5 Notification of Applicable Pretreatment Standards

The Pretreatment Regulations at 40 C.F.R. § 403.8(f)(2)(iii) require the City to notify IUs of applicable Pretreatment Standards and Requirements. Based on the EPA's review of the inspection records, it appears that the City is providing notification to the SIUs regarding the applicable Pretreatment Standards and applicable corrective action items as a follow-up to the facility inspections.

9.6 Facility Inspections

Due to the Covid-19 pandemic and the remote Pretreatment audit, there were no onsite facility inspections completed.

10.0 Control Authority Compliance Monitoring

10.1 Regulatory Background

40 C.F.R. § 403.8(f)(1)(v) of the Pretreatment Regulations requires the POTW to have the legal authority to "Carry out all inspection, surveillance, and monitoring procedures necessary to determine, independent of information supplied by Industrial Users, compliance or noncompliance with applicable Pretreatment Standards and requirements." Further, 40 C.F.R. § 403.8(f)(2)(v) require a POTW to "Randomly sample and analyze the effluent from Industrial Users and conduct surveillance activities in order to identify, independent of information supplied by Industrial Users, occasional and continuing noncompliance with Pretreatment Standards. Inspect and sample the effluent from each Significant Industrial User at least once a year."

The standard to which POTWs are held for purposes of evidence collection during a Control Authority monitoring event is outlined in 40 C.F.R. § 403.8(f)(2)(vii): "Sample taking and analysis and the collection of other information shall be performed with sufficient care to produce evidence which is admissible in enforcement proceedings or judicial actions."

In addition, a POTW is required to ensure the Control Authority monitoring events are based on representative conditions at the monitoring point, to ensure that these sampling events are legally defensible and of the same quality as required for self-monitoring events. 40 C.F.R. § 403.12(g)(3) of the Pretreatment Regulations require, “The reports ...must be based upon data obtained through appropriate sampling and analysis performed during the period covered by the report, which data are representative of conditions occurring during the reporting period.”

An enforceable sample must be representative of the nature and character of the discharges during the reporting period and is required to be representative in composition to that in the larger volume of wastewater being discharged. A POTW is required to implement a Control Authority monitoring program that meets the compliance monitoring requirements of the Pretreatment Regulations, provides representative data for compliance determinations, and that would be legally defensible in court, if such an enforcement action is taken by the POTW. In addition, representative and legally defensible data helps the POTW support other program objectives such as local limits evaluation, and permit development or reissuance.

10.2 Sampling Plan and Protocols

As required in 40 C.F.R. § 403.8(f)(2), the POTW shall “develop and implement procedures to ensure compliance with the requirements of a Pretreatment Program.” The development and implementation of a sampling plan or procedures ensures the POTW is appropriately and consistently performing sampling or monitoring events, as well as providing enforceable data that is representative of the discharge conditions at the facility. The sampling plan should include the following:

- purpose and objective of the sampling program,
- specific sampling protocols at each facility sampling location to ensure representative sampling, and
- appropriate QA/QC procedures to ensure legally defensible data.

10.2.1 Site-Specific Sampling Protocols

The sampling protocols must include specific procedures used at each facility to ensure adequate and representative sampling protocols. The development of the sampling protocols will ensure the sampling events are performed in accordance with appropriate standards and procedures and produce quality data that is legally defensible.

At a minimum, the specific sampling protocols at each sampling location should include the following:

- Sampling locations – should include all monitoring points included in the SIU’s permit, including the use of digital photos for each monitoring point.
- Type of sample – the POTW is required to ensure the sampling event is representative of the SIU’s discharge, as required by 40 C.F.R. §403.12(g)(3). The type of sample will be dependent on the parameter to be sampled and discharge characteristics. The type of sample could include specifications for use of automatic

samplers (including programming to provide representative sampling) or manual sampling techniques.

- Type of Flow Measurement – if applicable
- Parameters for Analysis – based on the SIU’s permit
- Sample Volume
- Type of Sample Containers
- Sample Preservation Techniques
- Sample Identification and Chain of Custody Procedures
- QA/QC Procedures

10.2.2 Quality Assurance/Quality Control (QA/QC)

QA and QC are tools which are necessary in a sampling program to maintain a level of quality, such as legally defensible data, in the measurement, documentation, and interpretation of sampling data. The QA/QC procedures are used to obtain data that are both precise (degree of closeness between two or more samples) and accurate (degree of closeness between the results obtained from the sample analysis and the true value that should have been obtained). Proper implementation of QA/QC procedures will result in an increase in the POTW’s confidence in the validity of the reported analytical data.

The QA/QC procedures used to ensure data collected is valid and legally defensible include, but are not limited to the following:

- equipment maintenance/calibration,
- proper sampling bottles, proper sampling techniques that are adequate and representative of the discharge from the facility,
- field blanks, equipment blanks, method blanks, standards, blind duplicates, and
- ensuring sampling personnel are adequately trained.

10.3 *The EPA Evaluation of the City’s Control Authority Monitoring*

10.3.1 SOPs

The City developed sampling procedures and techniques in Section 2.5 of the Pretreatment Program Guidance (SOP). The sampling procedures and techniques in this section provide a general overview of the sampling equipment and techniques to ensure the sample data is valid and enforceable. The sampling SOP needs to be updated to include QA/QC samples such as equipment blanks, trip blanks, sample duplicates, matrix spikes, control standards to ensure the sampling and analytical techniques are in control and compliance with 40 C.F.R. 136.

The specific sampling techniques at Woodward, based on current discharge practices and ensuring the sampling is representative are adequately addressed in the permit rationale.

10.3.2 City's Control Authority Monitoring

Based on the EPA's review of the Pretreatment records, the City samples the permitted SIUs at least once per year and with a few exceptions identified in Section 8.0, meets the Control Authority monitoring frequency required in 40 C.F.R. § 403.8(f)(2)(v).

11.0 Enforcement

11.1 Regulatory Background

The EPA establishes the regulatory requirement to develop and implement an Enforcement Response Plan (ERP) in 40 C.F.R. § 403.8(f)(5)(i-iv) of the Pretreatment Regulations. The regulations state:

“The POTW shall develop and implement an enforcement response plan. This plan shall contain detailed procedures indicating how a POTW will investigate and respond to instances of industrial user noncompliance. The plan shall, at a minimum:

- (i) Describe how the POTW will investigate instances of noncompliance.
- (ii) Describe the types of escalating enforcement responses the POTW will take in response to all anticipated types of industrial user violations and the time periods within which responses will take place.
- (iii) Identify (by title) the official(s) responsible for each type of response.
- (iv) Adequately reflect the POTW's primary responsibility to enforce all applicable pretreatment requirements and standards.”

The development and implementation of an ERP is an important component of an effective Pretreatment Program. Although a successful Pretreatment program should provide outreach to facilities in the service area regarding the applicability of the Pretreatment Standards and compliance with these standards, in many situations, enforcement is the necessary driving force that makes the Pretreatment program functional.

The ERP establishes a framework for POTWs to formalize procedures for investigating and responding to instances of IU noncompliance and to ensure that POTWs enforce against IUs objectively, consistently, and equitably. A well-developed ERP should help the POTW decide what resources are needed to enforce the Pretreatment Standards/Requirements and assist in dealing with IU violations. In addition, the ERP will provide notice to the IUs regarding the POTW's responsibility to respond to violations of Pretreatment Standards/Requirements.

11.2 Enforcement Legal Authority

The EPA evaluated the City's enforcement authority and remedies found in its municipal ordinance.

1. Civil/Criminal penalties established in §13.10.111
2. Injunctive relief provisions established in §13.10.1101

3. Authority to enforce against falsification/tampering established in §13.10.703
4. Notice of violations authority established in §13.10.1001
5. Administrative orders authority established in §13.10.1004
6. Cease and Desist Order authority established in §13.10.1005
7. Administrative penalty authority established in §13.10.1006
8. Show cause hearing provisions in §13.10.1003
9. Suspensions of service provisions in §§13.10.121(A)
10. Permit termination provisions established in §13.10.506
11. Publication of IUs in significant noncompliance in §13.10.901

11.3 Enforcement Response Plan

The City submitted its ERP to the EPA for review, prior to the audit. Based on the EPA's review, the ERP needs to be updated to include the following, in accordance with 40 C.F.R. § 403.8(f)(5)(i-iv) (*Note: The Loveland ERP Review checklist is enclosed with the audit report*):

- Establish an enforcement response for self-monitoring compliance reports submitted past the due date established in the SIU's permit.
- Establish an enforcement response for failure to provide upset notification.
- Tampering should be established as an anticipated non-compliance.
- The Failure to Report Noncompliance in the ERP is not equivalent to the Failure to Accurately Report Noncompliance as an SNC criteria in the Federal Regulations and established in the City's ordinance at Section 13.10.104.
- EPA recommends the SNC criteria in Table 6.1 of the ERP provide more description or provide a specific reference to the specific SNC criteria in the municipal ordinance.

11.4 Compliance Evaluation

Based on EPA's review described in §8.4 of this audit report, it appears that the City is consistently evaluating compliance in the self-monitoring reports or notices of violation, with a few exceptions.

11.5 SNC Calculations and Public Participation

40 C.F.R. § 403.8(f)(2)(viii) of the Pretreatment Regulations require a POTW to comply with the public participation requirements in the enforcement of National Pretreatment Standards. These procedures shall include a provision for at least annual public notification in a newspaper of general circulation, that provides meaningful public notice within the jurisdictions served by the POTW, of IUs which, at any time during the previous 12 months, were in SNC with applicable Pretreatment requirements. The SNC determinations are both calculation of numeric Pretreatment Standards, as listed in 40 C.F.R. § 403.8(f)(2)(viii)(A-D) and determination of violations of the narrative Pretreatment Standards, as listed in 40 C.F.R. § 403.8(f)(2)(viii)(E-H).

Based on EPA's review of the Pretreatment records, the City does an excellent job at calculating numeric SNC and determining narrative SNC on a quarterly basis and providing documentation.

12.0 Trucked and Hauled Waste

12.1 Regulatory Background

In addition to receiving wastes through the collection system, many POTWs accept trucked and hauled wastes. As stated in 40 C.F.R. § 403.1(b)(1), pollutants from nondomestic sources that are transported to the POTW by truck or rail are also subject to the Pretreatment Regulations. They may also be subject to categorical Pretreatment Standards. Therefore, hauled wastes from CIUs or hauled waste that otherwise qualifies the discharger as an IU must be regulated in accordance with the requirements of the Pretreatment Regulations, including any applicable requirements for permitting and inspecting the generating facility. Hauled wastes, like wastes received through the collection system, have the potential to negatively affect the POTW, making regulatory control of the wastes necessary.

Most wastewaters hauled or trucked to a POTW are domestic septage, typically from homes outside the POTW's service area, but compatible in nature. Because such discharges are predominantly compatible wastes, treatment at a POTW is the most appropriate disposal method. The biosolids regulations at 40 C.F.R. § 503.9(f) define domestic septage as the liquid or solid material removed from a septic tank, cesspool, portable toilet, Type III marine sanitation device, or similar system that holds only domestic sewage. Domestic septage does not include liquid or solid material removed from any system that receives either commercial wastewater or industrial wastewater, and it does not include grease removed from a restaurant grease trap.

The POTW cannot know for certain the nature and concentration of the trucked wastes and the impact on the POTW without implementing some type of control or surveillance program. Unlike discharges from IUs directly connected to the POTW, the makeup of a load of hauled waste is virtually unknown without some type of monitoring, be it visual or analytical. Even compatible loads of domestic septage can cause problems for a POTW due to high strength or discharge rate. Domestic septage can be partially digested, higher in metals concentrations than normal domestic wastes, or contain small amounts of household contaminants (e.g., cleaners). Similarly, disinfectants used in portable toilets have the potential to affect POTW operations.

Receipt of hauled hazardous waste (as defined in Resource Conservation and Recovery Act (RCRA)) might not only affect POTW operations but also could subject the POTW to additional reporting requirements. The Domestic Sewage Exclusion, specified in 40 C.F.R. § 261.4(a)(1)(ii), provides that hazardous wastes mixed with domestic sewage and under control of the Pretreatment program are exempt from the RCRA waste regulations. However, hazardous wastes received by truck or rail (or dedicated pipe) at the treatment plant are not exempt from the regulations. POTWs that accept hazardous wastes from those sources are subject to *permit by rule* status under RCRA [40 C.F.R. § 270.60(c)] provided that certain requirements are met. The POTW must be in compliance with all its NPDES

permit requirements and the waste must comply with all federal, state, and local pretreatment requirements.

12.2 Legal Authority

The City has adopted the Federal specific discharge prohibitions for trucked and hauled wastes found in 40 C.F.R. § 403.5(b)(8) of the Pretreatment Regulations. This is incorporated by the City in §13.10.202(B)(8) of the municipal ordinance:

“Trucked or hauled pollutants, except at discharge points designated by the director in accordance with Section 13.10.305.E.”

Section 13.10.305.E establishes the following Hauled Waste Requirements:

“1. Any hauled waste meeting the definition of an RCRA hazardous waste as defined at 40 C.F.R. Part 261 will not be accepted and shall not be discharged to the POTW.

2. Persons proposing to discharge non-RCRA hazardous waste shall apply for and obtain a control mechanism from the director. Control mechanisms will be issued on a case-by-case basis. No hauled waste may be discharged without prior written consent of the director. Hauled waste may only be discharged at locations designated by the director. Hauled waste is subject to all the requirements of this chapter.

3. Any violation of the terms and conditions of a control mechanism, failure to apply for a control mechanism as required, or discharging without authorization shall be deemed a violation of this chapter.

4. The director may collect samples of each hauled waste load to ensure compliance with this chapter. The director may require the waste hauler to provide a waste analysis of any load or a waste-tracking form for every load prior to discharge.

5. The director has the right to reject any hauled waste that may be harmful to, or cause obstruction of, the wastewater collection system, or that may cause or contribute to interference or pass through of the POTW, or that may violate any local limits adopted by the city.”

12.3 Trucked and Hauled Waste Disposal Location and Control Mechanisms

According to information gathered during the audit, The City does not accept trucked and hauled waste and appears to have adequate control of RV dump stations in the service area of the POTW.

13.0 Best Management Practices – Sector Control Programs

13.1 Regulatory Background

BMPs are defined in 40 C.F.R. § 403.3(e) as “schedules of activities, prohibitions of practices, maintenance procedures, and other management practices to implement the prohibitions listed in 40 C.F.R. § 403.5(a)(1) [General Prohibitions] and (b) [Specific

Prohibitions]. BMPs also include treatment requirements, operating procedures, and practices to control plant site runoff, spillage or leaks, sludge or waste disposal, or drainage from raw materials storage.”

40 C.F.R. § 403.5(c)(4) states, “POTWs may develop Best Management Practices (BMPs) to implement paragraphs (c)(1) [develop limits to implement the general/specific prohibitions] and (c)(2) [develop and enforce specific effluent limits for industrial users that contribute pollutants that may result in Interference and Pass-Through] of this section. Such BMPs shall be considered local limits and Pretreatment Standards for the purposes of this part and section 307(d) of the Act.” The regulations establish that BMPs are enforceable Pretreatment Standards.

13.2 Authority in Rules and Regulations

The City established the authority to implement BMPs in its Rules and Regulations as follows:

- BMP definition in §13.10/104(C).
- BMPs established as a permit condition in §13.10.502(A)(3).
- BMP recordkeeping requirements in §13.10.613.
- BMPs established as an SNC criterion in §13.10.104-SNC Definition.

13.3 Sector Control Programs

13.3.1 Oil and Grease Sector Control Program

The City has identified its food service establishments subject to its oil and grease interceptor sector control program. The oil and grease interceptor sector control program is based on BMPs to ensure appropriately-sized technology (grease and sand interceptors) are installed, the technology is operated/maintained and records are maintained. The City has developed an FSE Authorization to Discharge (purple notebook) that provides site specific information to the FSEs and is an excellent method to provide compliance assistance. The City should continue to evaluate its implementation of the oil and grease BMP-based sector control programs (grease interceptors-FOG and sand interceptors-POG) to ensure the oil and grease loadings to the collection system are minimized.

13.4 Dental Amalgam BMP Sector Control Program

The Dental Amalgam Rule, found in 40 C.F.R. Part 441, was promulgated as a final rule with new source dental facilities required to be in compliance with the Pretreatment Standards as of July 14, 2017, and existing source dental facilities required to be in compliance as of June 14, 2020. Compliance with the rule requires the installation of an ISO1143 amalgam separator or equivalent device, and compliance with the following two BMPs:

- Prohibition on the use of oxidizing or chlorine-containing line cleaners; and

- Ensuring all amalgam process wastewater including chair-side traps, screens, vacuum pump filters, dental tools, cuspidors or collection devices are treated through the amalgam separator.

In addition, the new and existing dental facilities are required in 40 C.F.R. § 441.50 of the Dental Amalgam Rule to provide a report that characterizes the dental facility and certifies compliance. The new source dental facilities are required to be in compliance upon discharge and submit a one-time compliance report within 90 days of startup.

The City has identified 36 dental facilities in its industrial waste survey and has received one-time compliance reports within the deadline required by the Rule. The City adequately tracks the dentists subject to the Rule and the spreadsheet provides an excellent snapshot of the dental offices, their applicability/compliance status, submittal of 1-time compliance reports and characterization.

Based on EPA's evaluation of the dental offices sector, it is recommended the City follow up with Pediatric Dentistry of Loveland located at 2800 Madison Square Drive, #1. The office's 1-time compliance report states that it performs general dentistry but is exempt from the rule because it only removes/places amalgam in limited or emergency circumstances.