

Permit Fact Sheet

General Information

Permit Number:	WI-0031755-08-0	
Permittee Name:	JAMESTOWN SANITARY DISTRICT NO 3	
Address:	2049 Louisburg Road	
City/State/Zip:	Louisburg WI 53807	
Discharge Location:	West end of treatment ponds, 200 yards west of lift station. SW ¼ of NW ¼, Section 12, T1N, R2W.	
Receiving Water:	Louisburg Creek (Galena River Watershed, GP01 – Grant-Platte River Basin) in Grant County	
StreamFlow (Q _{7,10}):	0.20 cfs	
Stream Classification:	Warm Water Sport Fish (WWSF), non-public water supply	
Discharge Type:	Existing, Intermittent	
Design Flow(s)	Annual Average	0.0088 MGD
Significant Industrial Loading?	None	
Operator at Proper Grade?	Facility is Basic with subclasses A4 – Ponds, Lagoons, and Natural Systems; SS – Sanitary Sewage Collection System. One operator is certified.	
Approved Pretreatment Program?	N/A	

Facility Description

The Jamestown Sanitary District #3 operates a wastewater treatment facility that serves a population of approximately 100 residents with no significant industrial contributors. Treatment consists of a three-cell fill and draw stabilization pond that provides secondary treatment to a combination of domestic and commercial wastewater. Occasionally, flow will travel from the first pond to the second pond; flow does not travel from the second pond to the third pond. The facility currently receives an average of approximately 6,000 gallons per day of influent wastewater and did not discharge to Louisburg Creek during the previous permit term.

Substantial Compliance Determination

During the previous permit term, secondary enforcement actions were implemented. The permittee is currently in the process of completing corrective actions.

After a desk top review of all discharge monitoring reports, CMARs, land application reports, compliance schedule items, and a site visit on December 6, 2023, this facility has been found to be in substantial compliance with their current permit as long as the corrective action compliance schedule continues to be implemented.

Sample Point Designation		
Sample Point Number	Discharge Flow, Units, and Averaging Period	Sample Point Location, Waste Type/Sample Contents and Treatment Description (as applicable)
701	6,000 gpd (Average April 2019 – November 2023)	Influent: Representative grab samples shall be collected at the main lift station wet well. Flow is calculated by multiplying pump flow capacity and pump time from the meters located at the main lift station.
001	N/A No discharge occurred during previous permit term	Effluent: Representative grab samples for fill & draw discharge (April-May & October-November) shall be collected at the holding pond outfall manhole, prior to discharge to Louisburg Creek.
003	N/A Did not dispose of sludge during previous permit term	Liquid, Class B. Representative sludge samples collected from the lagoons.
101	0.0094 MGD (Average April 2019 – November 2023)	In-plant monitoring: Representative grab samples collected from the discharge pipe from pond number one (primary pond) into pond number two. Flow is estimated.

1 Influent – Monitoring Requirements

Sample Point Number: 701- INFLUENT

Monitoring Requirements and Limitations					
Parameter	Limit Type	Limit and Units	Sample Frequency	Sample Type	Notes
Flow Rate		MGD	Daily	Calculated	Report the total daily gallons.
BOD ₅ , Total		mg/L	2/Month	Grab	
Suspended Solids, Total		mg/L	2/Month	Grab	

Changes from Previous Permit:

Flow: The sample frequency and sample type have changed to ‘Daily’ and ‘Calculated,’ respectively, for eDMR reporting purposes.

Explanation of Limits and Monitoring Requirements

BOD₅ and Total Suspended Solids: Tracking of BOD₅ and Suspended Solids are required for percent removal requirements found in s. NR 210.05, Wis. Adm. Code and in the standard requirements section of the permit.

2 Inplant - Monitoring and Limitations

Sample Point Number: 101- GEN PLANT (Pond #1)

Monitoring Requirements and Limitations					
Parameter	Limit Type	Limit and Units	Sample Frequency	Sample Type	Notes
Flow Rate		MGD	Daily	Estimated	
BOD5, Total		mg/L	2/Month	Grab	
Suspended Solids, Total		mg/L	2/Month	Grab	
pH Field		su	2/Month	Grab	
Nitrogen, Ammonia (NH3-N) Total		mg/L	Monthly	Grab	
Nitrogen, Total Kjeldahl		mg/L	Monthly	Grab	
Nitrogen, Nitrite + Nitrate Total		mg/L	Monthly	Grab	
Chloride		mg/L	Monthly	Grab	

Changes from Previous Permit:

No changes from pervious permit.

Explanation of Limits and Monitoring Requirements

Monitoring will provide valuable data.

3 Surface Water - Monitoring and Limitations

Sample Point Number: 001- EFFLUENT (fill & draw)

Monitoring Requirements and Limitations					
Parameter	Limit Type	Limit and Units	Sample Frequency	Sample Type	Notes
Flow Rate	Daily Max	0.022 MGD	Daily	Continuous	April-May & October-November
BOD5, Total	Weekly Avg	45 mg/L	3/Week	Grab	April-May & October-November
BOD5, Total	Monthly Avg	30 mg/L	3/Week	Grab	April-May & October-November
Suspended Solids, Total	Weekly Avg	45 mg/L	3/Week	Grab	April-May & October-November

Monitoring Requirements and Limitations					
Parameter	Limit Type	Limit and Units	Sample Frequency	Sample Type	Notes
Suspended Solids, Total	Monthly Avg	30 mg/L	3/Week	Grab	April-May & October-November
pH Field	Daily Max	9.0 su	5/Week	Grab	April-May & October-November
pH Field	Daily Min	6.0 su	5/Week	Grab	April-May & October-November
Nitrogen, Ammonia Variable Limit		mg/L	3/Week	Grab	Look up the variable ammonia limit from the 'Variable Ammonia Limitation' table and report the variable limit in the Ammonia Variable Limit column on the eDMR.
Nitrogen, Ammonia (NH3-N) Total	Daily Max - Variable	mg/L	3/Week	Grab	Report the daily maximum Ammonia result in the Nitrogen, Ammonia (NH3-N) Total column of the eDMR. See Ammonia Limitation Section.
Nitrogen, Ammonia (NH3-N) Total	Monthly Avg	13 mg/L	3/Week	Grab	April
Nitrogen, Ammonia (NH3-N) Total	Monthly Avg	9.1 mg/L	3/Week	Grab	October
Nitrogen, Ammonia (NH3-N) Total	Monthly Avg	15 mg/L	3/Week	Grab	November
Phosphorus, Total	Monthly Avg	0.225 mg/L	3/Week	Grab	
Phosphorus, Total	6-Month Avg	0.075 mg/L	3/Week	Grab	
Chloride		mg/L	4/Month	Grab	Monitoring in 2027.
Nitrogen, Total Kjeldahl		mg/L	See Listed Qtr(s)	Grab	Annual in rotating quarters. See Nitrogen Series Monitoring section.
Nitrogen, Nitrite + Nitrate Total		mg/L	See Listed Qtr(s)	Grab	Annual in rotating quarters. See Nitrogen Series Monitoring section.
Nitrogen, Total		mg/L	See Listed Qtr(s)	Calculated	Annual in rotating quarters. See Nitrogen Series Monitoring section. Total Nitrogen shall be calculated as the sum of reported values for Total Kjeldahl

Monitoring Requirements and Limitations					
Parameter	Limit Type	Limit and Units	Sample Frequency	Sample Type	Notes
					Nitrogen and Total Nitrite + Nitrate Nitrogen.

Changes from Previous Permit

pH: The sample frequency has increased.

Phosphorus: An annual total mass limit has been included.

Chloride: The sample frequency has changed to 4/Month.

Explanation of Limits and Monitoring Requirements

Please refer to the Water Quality Based Effluent Limits memo for the Jamestown Sanitary District No. 3 prepared by Sarah Luck, dated July 30, 2024, and used for reissuance.

BOD₅, Total Suspended Solids, and pH: No changes are recommended in the categorical permit limitations for BOD₅, total suspended solids, and pH because the water quality criteria and receiving water characteristics have not changed, limitations for these water quality characteristics do not need to be re-evaluated at this time.

Ammonia: Current acute and chronic ammonia toxicity criteria for the protection of aquatic life are included in Tables 2C and 4B of ch. NR 105, Wis. Adm. Code. Subchapter IV of ch. NR 106 establishes the procedure for calculating water quality based effluent limitations (WQBELs) for ammonia.

Phosphorus: Phosphorus requirements are based on the Phosphorus Rules that became effective 12/1/2010 as detailed in NR 102 Water Quality Standards and NR 217 Effluent Standards and Limitations for Phosphorus. Chapter NR 217 of the Wis. Adm. Code addresses point source dischargers of phosphorus to surface waters. WQBELs for phosphorus are needed whenever the discharge contains phosphorus at concentrations or loadings that will cause or contribute to an exceedance of the water quality standards.

For the reasons explained in the April 30, 2012 paper entitled ‘Justification for Use of Monthly, Growing Season and Annual Average Periods for Expression of WPDES Permit Limits for Phosphorus Discharges in Wisconsin’, WDNR has determined that it is impracticable to express the phosphorus WQBEL for the permittee as a maximum daily, weekly or monthly values. The final effluent limit for phosphorus is expressed as a six-month average. It is also expressed as a monthly average equal to three times the derived WQBEL. This final effluent limit was derived from and complies with the applicable water quality criterion. A mass limit is also required, pursuant to s. NR 217.14(1)(a), Wis. Adm. Code. The final mass limit is 0.014 lbs/day expressed as an annual total.

Chloride: Acute and chronic chloride toxicity criteria for the protection of aquatic life are included in Tables 1 and 5 of ch. NR 105, Wis. Adm. Code. Subchapter VII of ch. NR 106 establishes the procedure for calculating water quality based effluent limitations (WQBELs) for chloride. The permittee’s monitoring data shows that there is no reasonable potential to exceed the calculated WQBELs for chloride. Monitoring is included in the permit to ensure that 11 sample results are available at the next permit issuance to meet the data requirements of s. NR 106.85, Wis. Adm. Code.

Total Nitrogen Monitoring (NO₂+NO₃, TKN and Total N): The Department has included effluent monitoring for Total Nitrogen in the permit through the authority under §§ 283.55(1)(e), Wis. Stats., which allows the department to require the permittee to submit information necessary to identify the type and quantity of any pollutants discharged from the point source, and through s. NR 200.065(1)(h), Wis. Adm. Code, which allows for this monitoring to be collected during the permit term. More information on the justification to include total nitrogen monitoring in wastewater permits can be found in the “Guidance for Total Nitrogen Monitoring in Wastewater Permits” dated October 1, 2019. **Disinfection & E. coli:** Revisions to bacteria surface water quality criteria to protect recreational uses and accompanying E. coli WPDES permit implementation procedures became effective May 1, 2020.

Section NR 102.04(5)(a), Wis. Adm. Code, states that all surface waters shall be suitable for recreational use and meet the E. coli criteria established to protect this use. Section NR 102.04(5)(b), Wis. Adm. Code, states that exceptions to the disinfection requirement can be made if the department determines, in accordance with the procedures specified in s. NR 210.06(3), Wis. Adm. Code, that disinfection is not required to meet water quality criteria. As part of the reissuance process, the requirements for disinfection were reviewed under s. NR 210.06(3), Wis. Adm. Code.

It was determined that the permittee is not required to disinfect. See WQBEL for further explanation.

PFOS and PFOA: NR 106 Subchapter VIII – Permit Requirements for PFOS and PFOA Dischargers became effective on August 1, 2022. Pursuant to s. NR 106.98(3)(b), Wis. Adm. Code, the department evaluated the need for PFOS and PFOA monitoring taking into consideration the presence of potential PFOS or PFOA industrial wastes, remediation sites and other potential sources of PFOS or PFOA. Based on information available at the time the proposed permit was drafted, the department has determined the permittee does not need to sample for PFOS or PFOA as part of this permit reissuance. The department may re-evaluate the need for sampling at the next permit reissuance if new information becomes available that suggests PFOS or PFOA may be present in the discharge.

Monitoring Frequencies: The Monitoring Frequencies for Individual Wastewater Permits guidance (April 12, 2021) recommends that standard monitoring frequencies be included in individual wastewater permits based on the size and type of the facility, in order to characterize effluent quality and variability, to detect events of noncompliance, and to ensure fairness and consistency in permits issued across the state. Guidance and requirements in administrative code were considered when determining the appropriate monitoring frequencies for pollutants that have final effluent limits in effect during this permit term.

The department has been revisiting the sampling frequencies at every facility to evaluate whether current frequencies are appropriate or if an increase is warranted. The frequency for pH was increased to align Jamestown Sanitary District No. 3 with other facilities of similar size to ensure fairness and in consideration of department guidance on sampling frequencies.

Requirements in administrative code (NR 108, 205, 210, and 214 Wis. Adm. Code) and Sections 283.55, Wis. Stats., were considered, where applicable, when determining the appropriate monitoring frequencies for pollutants that have final effluent limits in effect during this permit term. The department has determined at this time that the aforementioned changes in monitoring frequency are warranted based on the size and type of the facility.

Expression of Limits: In accordance with the federal regulation 40 CFR 122.45(d) and s. NR 205.065, Wis. Adm. Code, limits in this permit are to be expressed as weekly average and monthly average limits.

4 Land Application - Monitoring and Limitations

Municipal Sludge Description						
Sample Point	Sludge Class (A or B)	Sludge Type (Liquid or Cake)	Pathogen Reduction Method	Vector Attraction Method	Reuse Option	Amount Reused/Disposed (Dry Tons/Year)
003	B	Liquid	Fecal Coliform	Injection/Incorporation	N/A	N/A Lagoon
Does sludge management demonstrate compliance? Yes						
Is additional sludge storage required? No						
Is Radium-226 present in the water supply at a level greater than 2 pCi/liter? N/A. Source of water supply is private wells.						
If yes, special monitoring and recycling conditions will be included in the permit to track any potential problems in landapplying sludge from this facility.						

Municipal Sludge Description						
Sample Point	Sludge Class (A or B)	Sludge Type (Liquid or Cake)	Pathogen Reduction Method	Vector Attraction Method	Reuse Option	Amount Reused/Disposed (Dry Tons/Year)
Is a priority pollutant scan required? No, design flow is less than 5 MGD.						
Priority pollutant scans are required once every 10 years at facilities with design flows between 5 MGD and 40 MGD, and once every 5 years if design flow is greater than 40 MGD.						

Sample Point Number: 003- LAGOON SLUDGE

Monitoring Requirements and Limitations					
Parameter	Limit Type	Limit and Units	Sample Frequency	Sample Type	Notes
Solids, Total		Percent	Once	Composite	
Arsenic Dry Wt	Ceiling	75 mg/kg	Once	Composite	
Arsenic Dry Wt	High Quality	41 mg/kg	Once	Composite	
Cadmium Dry Wt	Ceiling	85 mg/kg	Once	Composite	
Cadmium Dry Wt	High Quality	39 mg/kg	Once	Composite	
Copper Dry Wt	Ceiling	4,300 mg/kg	Once	Composite	
Copper Dry Wt	High Quality	1,500 mg/kg	Once	Composite	
Lead Dry Wt	Ceiling	840 mg/kg	Once	Composite	
Lead Dry Wt	High Quality	300 mg/kg	Once	Composite	
Mercury Dry Wt	Ceiling	57 mg/kg	Once	Composite	
Mercury Dry Wt	High Quality	17 mg/kg	Once	Composite	
Molybdenum Dry Wt	Ceiling	75 mg/kg	Once	Composite	
Nickel Dry Wt	Ceiling	420 mg/kg	Once	Composite	
Nickel Dry Wt	High Quality	420 mg/kg	Once	Composite	
Selenium Dry Wt	Ceiling	100 mg/kg	Once	Composite	
Selenium Dry Wt	High Quality	100 mg/kg	Once	Composite	
Zinc Dry Wt	Ceiling	7,500 mg/kg	Once	Composite	
Zinc Dry Wt	High Quality	2,800 mg/kg	Once	Composite	
PCB Total Dry Wt	Ceiling	50 mg/kg	Once	Composite	
PCB Total Dry Wt	High Quality	10 mg/kg	Once	Composite	
Nitrogen, Total		Percent	Once	Composite	Once when land application

Monitoring Requirements and Limitations					
Parameter	Limit Type	Limit and Units	Sample Frequency	Sample Type	Notes
Kjeldahl					occurs.
Nitrogen, Ammonium (NH ₄ -N) Total		Percent	Once	Composite	Once when land application occurs.
Phosphorus, Total		Percent	Once	Composite	Once when land application occurs.
Phosphorus, Water Extractable		% of Tot P	Once	Composite	Once when land application occurs.
Potassium, Total Recoverable		Percent	Once	Composite	Once when land application occurs.
PFOA + PFOS		ug/kg	Once	Calculated	Report the sum of PFOA and PFOS. See PFAS Permit Sections for more information.
PFAS Dry Wt			Once	Grab	Perfluoroalkyl and Polyfluoroalkyl Substances based on updated DNR PFAS List. See PFAS Permit Sections for more information.

Changes from Previous Permit:

List 2 Nutrient: Monitoring has been added should land application occur and for planning purposes.

PFAS: Once monitoring is included in the permit pursuant s. NR 204.06(2)(b)9, Wis. Adm. Code.

Explanation of Limits and Monitoring Requirements

Requirements for land application of municipal sludge are determined in accordance with ch. NR 204, Wis. Adm. Code. Ceiling and high quality limits for metals in sludge are specified in s. NR 204.07(5), Wis. Adm. Code. Requirements for pathogens are specified in s. NR 204.07(6) and in s. NR 204.07 (7), Wis. Adm. Code, for vector attraction requirements. Limitations for PCBs are addressed in s. NR 204.07(3)(k), Wis. Adm. Code.

List 2 Nutrient: Monitoring for list 2 (nutrients) is highly recommended at the same time as the monitoring of List 1 (metals) in year 2 of the permit (2025). Results will assist in the determination of the acres needed for land application of sludge should it be necessary. The number of acres needed is also required for the Land Application Management Plan schedule item (see schedules for more information). List 2 nutrient sampling is required when land application occurs.

Water Extractable Phosphorus: Water extractable phosphorus (WEP) is the coefficient for determining plant available phosphorus from measured total phosphorus. In Wisconsin, the Penn State Method is utilized and is expressed in percent. While a total P may be significant, the WEP may show that only a small percentage of the P is available to plants because of factors such as treatment processes and chemical addition that “tie-up” phosphorus limiting the amount of phosphorus that is plant available. As part of the Wisconsin’s nutrient management plan (NMP) requirements, the accounting of all fertilizers must be included over the NMP cycle. The fertilizer value of the waste needs to be communicated to the farmer and accounted for in the NMP.

PFAS: The presence and fate of PFAS in municipal and industrial sludges is an emerging public health concern. EPA is currently developing a risk assessment to determine future land application rates and expects to release this risk assessment by the end of 2024. In the interim, the department has developed the “Interim Strategy for Land Application of Biosolids and Industrial Sludges Containing PFAS”.

Collecting sludge data on PFAS concentrations from a wide range of wastewater treatment facilities will help protect public health from exposure to elevated levels of PFAS and determine the department’s implementation of EPA’s recommendations. To quantitate this risk, PFAS sampling has been included in the proposed WPDES permit pursuant to ss. NR 214.18(5)(b) and NR 204.06(2)(b)9, Wis. Adm. Code.

Change in form submittal: In prior permit reissuances when it has been noted in the application that sludge would not be removed during the permit term, the department required sampling during the second year of the permit term and the sludge characteristic report (3400-049) would be generated only during that year. Due to moving to electronic submittal of forms via Switchboard, forms 3400-049 (“Characteristics Report”), 3400-052 (“Other Methods of Disposal”) and 3400-055 (“Annual Land Application”) will now be generated by the department and the permittee will be required to submit all three reports each year of the permit term. This change was adopted to provide the permittee flexibility because many lagoon desludging projects can be unexpected, are delayed or staggered over multiple years. Additionally, it is used to officially report that no land application of sludge has occurred, and annual submittal of the forms is required per the standard requirements section.

5 Schedules

5.1 Water Quality Based Effluent Limits (WQBELs) for Total Phosphorus

Required Action	Due Date
Desludging Management Plan: Submit a management plan to optimize the desludging of the lagoons during this permit term. At a minimum, the plan shall address how the sludge will be sampled, removed, transported, and disposed of. No desludging may occur without plan approval. The Desludging Management Plan is due 90 days prior to desludging.	
Land Application Management Plan: Submit a management plan to optimize the land application system performance. The management plan shall be consistent with the requirements of this permit, and ch. NR 204, Wis. Adm. Code. All Department issued approval maps and Land Application Approval Forms (3400-122) for all approved sites shall be included in the management plan to comply with s. NR 204.07(2), Wis. Adm. Code. Sites that no longer match approval conditions in the Department issued approval maps and Land Application Approval Forms (3400-122) in the management plan, including those sites without approval maps or forms, must be reviewed and potentially reauthorized to comply with ch. NR 204, Wis. Adm. Code. Once approved, all landspreading activities shall be conducted in accordance with the plan. Any changes to the plan must be approved by the Department prior to implementing the changes. The Land Application Management Plan is due 90 days prior to land application.	
Treatment Plant Upgrade to Meet WQBELs: Provide confirmation that the permittee has awarded construction contracts and initiated construction of the upgrades. The permittee shall obtain approval of the final construction plans and schedule from the Department pursuant to s. 281.41, Wis. Stats. Upon approval of the final construction plans and schedule by the Department pursuant to s. 281.41, Wis. Stats., the permittee shall construct the treatment plant upgrades in accordance with the approved plans and specifications.	03/31/2025
Complete Construction: The permittee shall complete construction of wastewater treatment system	09/30/2025

upgrades and shall inform the Department of the substantial completion.	
Achieve Compliance: The permittee shall achieve compliance with the WQBELs and WPDES Permit.	12/31/2025

Explanation of Schedule

This schedule is a result of ongoing issues of noncompliance, the schedule is included to bring the permittee back into compliance.

Special Reporting Requirements

None.

Other Comments:

None.

Attachments:

Water Quality Based Effluent Limits, dated July 30, 2024

Expiration Date:

September 30, 2029

Justification Of Any Waivers From Permit Application Requirements

No waivers were requested or given from permit application requirements.

Prepared By: BetsyJo Howe, Wastewater Specialist

Date: 07/15/2024; 7/31/2024

Updated (based on fact check comments):

Updated (based on public notice comments):