

Public Noticed La Crosse Draft Permit Fact Sheet

General Information

Permit Number	WI-0029581-11-0
Permittee Name and Address	City of La Crosse 905 Joseph Houska Dr., La Crosse, WI 54601
Permitted Facility Name and Address	City of La Crosse 905 Joseph Houska Dr.
Permit Term	October 01, 2026 to September 30, 2031
Discharge Location	The outfall is located on the east bank of the main channel of the Mississippi River approximately 50' from the treatment plant boundary and 0.625 miles downstream of the existing US Highway 14/16/61 main channel bridge. (Lat: 43.80025° N / Lon: 91.25981° W)
Receiving Water	Mississippi River in Lower La Crosse River Watershed of Bad Axe - La Crosse River Basin in La Crosse County
Stream Flow (Q _{7,10})	6940 cfs
Stream Classification	Warm water sport fish community, non-public water supply
Discharge Type	Existing, Continuous
Annual Average Design Flow (MGD)	20 MGD
Industrial or Commercial Contributors	Yes – Brennan Marine, Kwik Trip Kitchens, Crown Cork and Seal, Metallica, S & S Cycle, Trane Company, Vestis, Chart Energy & Chemicals, City Brewing Company, Great Lakes Cheese, Kwik Trip Dairy, and WIS PAK
Plant Classification	A1 - Suspended Growth Processes; B - Solids Separation; C - Biological Solids/Sludges; P - Total Phosphorus; D - Disinfection; L - Laboratory; SS - Sanitary Sewage Collection System
Approved Pretreatment Program?	Yes – Approved September 1, 1986

Facility Description

The City of La Crosse owns and operates an activated sludge type wastewater treatment facility on Isle La Plume with discharge to the Mississippi River and underwent significant upgrades from 2023 to 2025. The annual average design flow of the facility is 20 million gallons per day (MGD). Treatment begins with 1/4" fine screening with a redundant unit as backup. There are then two independent grit removal systems consisting of two Pista Grit tanks and two Huber grit washers, the resulting grit is landfilled. There are 5 primary clarifiers. Two parallel activated sludge tank systems for biological nutrient removal have an emphasis on biological phosphorus removal. There are four final clarifiers and a seasonally operated UV disinfection system. Prior to discharge, all flow goes through disc filter units for tertiary treatment of phosphorus. Ferric chloride is used. The outfall is located on the east bank of the main channel of the Mississippi River approximately 50' from the treatment plant boundary and 0.625 miles downstream of the existing US Highway 14/16/61 main channel bridge.

All sludge from the primary and final clarifiers is pumped into two parallel gravity sludge thickeners and then the thickened sludge is pumped into a gravity belt thickener or the Orege sludge thickening system prior to the four anaerobic digesters. After digestion, the sludge is dewatered with belt filter presses. If needed, the liquid sludge may be stored in two liquid sludge storage tanks and eventual land application through direct injection. Cake sludge is directed to the heat dryer to produce Class A (exceptional quality or EQ) biosolids. Cake sludge from the belt filter press(es), can be stored in

cake storage if necessary where it is either land applied or hauled to a landfill. Class A (EQ) biosolids are stored in a silo prior to distribution.

Operational changes since the last permit term include: 1) Installation of a biosolids heat dryer to better manage biosolids produce and reduction, 2) increased mixing and heat in anaerobic digesters to enhance the digestion process and gain organic capacity, 3) enhanced Bio P system/aeration for better phosphorus and nitrogen removal, 4) increased methane production by adding HSW receiving area where the extra methane is burned in a CO Gen to produce their own electricity and for use in boilers to heat digesters and the facility's campus, and 5) new electrical loop and fiber for better reliability, including a new backup diesel power generator. Permit changes for the upcoming term include: 1) new PFOS effluent monitoring, 2) lower effluent phosphorus limits, 3) new effluent daily variable ammonia limits based on pH, 4) new requirements for the Class A sludge treatment system, 5) requirement for a determination of need of the effluent PFOS monitoring after 2 years of data, 6) PFAS sludge sampling has been included pursuant to ss. NR 214.18(5)(b) and NR 204.06(2)(b)9., Wis. Adm. Code to quantitate risk, and 6) an updated sludge management plan.

Substantial Compliance Determination

Enforcement During Last Permit: The facility has had minor effluent limit violations, primarily phosphorus, due to plant construction and start up issues. The facility has worked these issues out and is producing effluent within permit limitations now. They also received one Notice of Noncompliance for a Treatment Facility Overflow (TFO) caused by construction at the WWTP. The facility has completed all previously required actions as part of the enforcement process.

After a desktop review of all discharge monitoring reports, CMARs, land app reports, compliance schedule items, and a site visit on September 23, 2025, this facility has been found to be in substantial compliance with their current permit.

Compliance determination was entered by Katie Jo Jerzak, PE, Wastewater Compliance Engineer on June 26, 2026.

Sample Point Descriptions

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	10.35 MGD	Representative influent samples shall be collected prior to the grit removal and any return flows.
106	N/A – Field Blank	A representative in plant sample shall be collected for a Mercury field blank using standard sample handling procedures.
108		In-Plant Diversion OTHER BYPASS: Sample point for reporting diverted flow that overflows the pump chamber and bypasses the rapid mix chambers, coagulation chambers, and flocculation chambers prior to ultraviolet disinfection.
001	9.35 MGD	Representative effluent samples shall be collected following tertiary treatment and prior to discharge to the Mississippi River.
002	223 US tons Land Applied 374 US tons Landfilled (2025)	Class B, Cake, Anaerobically digested, thickened biosolids. Representative samples shall be collected prior to land application. Sludge must be mixed prior to sampling and monitored once for PCBs, annually for PFAS, bimonthly for metals (List 1), nutrients (List 2), pathogen control (List 3) and vector attraction reduction (List 4). With department approval, metals monitoring performed at outfall 010 may be used to satisfy monitoring requirements for metals (List 1) at this outfall provided the results can be correlated with monitoring results for sample point 010. The permittee may request that vector attraction reduction (List 4) monitoring performed at outfall 010 be used to meet vector attraction reduction

Sample Point Designation		
Sample Point Number	Discharge Flow, Units, and Averaging Period	Sample Point Location, Waste Type/Sample Contents and Treatment Description (as applicable)
		requirements at this outfall if the permittee is using volatile solids reduction to meet List 4 requirements.
003	247 US tons Land Applied	Class B, Liquid, Anaerobically digested, thickened liquid biosolids. Representative liquid sludge samples shall be collected from the sludge storage discharge prior to land application. Sludge must be mixed prior to sampling to ensure representative samples are collected. The liquid sludge shall be monitored once for PCBs, annually for PFAS, bimonthly for metals (List 1), nutrients (List 2), PFAS, pathogen control (List 3) and vector attraction reduction (List 4). With department approval, metals monitoring performed at outfall 010 may be used to satisfy monitoring requirements for metals (List 1) at this outfall provided the results can be correlated with monitoring results for sample point 010. The permittee may request that vector attraction reduction (List 4) monitoring performed at outfall 010 be used to meet vector attraction reduction requirements at this outfall if the permittee is using volatile solids reduction to meet List 4 requirements.
004	Approved in early 2026, none reported in 2025	Class A, EQ Biosolids, Granular/pellets. Marketed as fertilizer or a renewable fuel. Representative samples shall be collected from the dried biosolids storage silo and monitored once for PCBs, annually for PFAS, bimonthly for metals (List 1), nutrients (List 2), pathogen control (List 3) and vector attraction reduction (List 4). With department approval, metals monitoring performed at outfall 010 may be used to satisfy monitoring requirements for metals (List 1) at this outfall provided the results can be correlated with monitoring results for sample point 010.
005	Approved in early 2026, none reported in 2025	Class A, Heat dried cake sludge, collected as dust prior to distribution or disposal. Representative samples shall be collected at the dust collector and monitored once for PCBs, annually for PFAS, bimonthly for metals (List 1), nutrients (List 2), pathogen control (List 3) and vector attraction reduction (List 4). With department approval, metals monitoring performed at outfall 010 may be used to satisfy monitoring requirements for metals (List 1) at this outfall provided the results can be correlated with monitoring results for sample point 010.
010	None reported for 2025	Class B, Liquid, Anaerobically digested biosolids. Representative samples shall be collected after the anaerobic digester and prior to splitting between liquid storage and the belt filter press. Sludge shall be monitored bimonthly for metals (List 1) and vector attraction reduction (List 4) if using volatile solids reduction to show compliance with vector attraction reduction requirements at outfalls 002 and 003. With department approval this sample point may be used to satisfy monitoring requirements for metals (List 1)

Sample Point Designation		
Sample Point Number	Discharge Flow, Units, and Averaging Period	Sample Point Location, Waste Type/Sample Contents and Treatment Description (as applicable)
		for outfalls 002, 003, 004 and 005. The permittee shall demonstrate to the satisfaction of the department that the results for this outfall can be correlated with monitoring results for these other sample points and/or outfalls.
011	Approved in early 2026, none reported in 2025	Class A, Cake, Huger Heat drier producing $\geq 90\%$ solids granular/pellets. Representative samples shall be collected immediately after the sludge dryer for pathogen control treatment process monitoring (List 3).

Permit Requirements

1 Influent – Monitoring Requirements

1.1 Sample Point Number: 701- INFLUENT PRIOR TO GRIT REMOVAL

Monitoring Requirements and Limitations					
Parameter	Limit Type	Limit and Units	Sample Frequency	Sample Type	Notes
Flow Rate		MGD	Daily	Continuous	
CBOD5		mg/L	Daily	24-Hr Flow Prop Comp	
BOD5, Total		mg/L	Monthly	24-Hr Flow Prop Comp	
Suspended Solids, Total		mg/L	Daily	24-Hr Flow Prop Comp	
Cadmium, Total Recoverable		ug/L	Monthly	72-Hr Flow Prop Comp	
Chromium, Total Recoverable		ug/L	Monthly	72-Hr Flow Prop Comp	
Copper, Total Recoverable		ug/L	Monthly	72-Hr Flow Prop Comp	
Lead, Total Recoverable		ug/L	Monthly	72-Hr Flow Prop Comp	
Nickel, Total Recoverable		ug/L	Monthly	72-Hr Flow Prop Comp	

Monitoring Requirements and Limitations					
Parameter	Limit Type	Limit and Units	Sample Frequency	Sample Type	Notes
Zinc, Total Recoverable		ug/L	Monthly	72-Hr Flow Prop Comp	
Cyanide, Total		ug/L	Monthly	Grab	
Mercury, Total Recoverable		ng/L	Monthly	24-Hr Flow Prop Comp	

1.1.1 Changes from Previous Permit:

Influent limitations and monitoring requirements were evaluated for this permit term and no changes were required in this permit section.

1.1.2 Explanation of Limits and Monitoring Requirements

Pursuant to s. NR 210.04(2), Wis. Adm. Code, influent wastewater strengths and volumes shall be characterized at treatment facilities subject to ch. NR 210, Wis. Adm. Code, by monitoring for flow, BOD5 and total suspended solids (TSS). If the permit contains effluent limits for CBOD5 based on s. NR 210.07, Wis. Adm. Code, the permit shall include influent monitoring for both CBOD5 and BOD5. Monitoring for influent CBOD5 satisfies the percent removal requirements of s. NR 210.05, Wis. Adm. Code, and monitoring for influent BOD5 satisfies operational requirements for the CMAR and other code requirements. Monitoring influent for total recoverable cadmium, chromium, copper, cyanide, lead, nickel and zinc is also required because the La Crosse Wastewater Treatment Facility operates a local pretreatment program for the many industries that discharge to the treatment facility. Pursuant to s. NR 106.145(3)(a)1., Wis. Adm. Code, monthly influent mercury monitoring is required for a major municipal discharge with an average flow rate greater than or equal to 5 million gallons per day.

2 Inplant - Monitoring and Limitations

2.1 Sample Point Number: 106- MERCURY FIELD BLANK

Monitoring Requirements and Limitations					
Parameter	Limit Type	Limit and Units	Sample Frequency	Sample Type	Notes
Mercury, Total Recoverable		ng/L	Monthly	Blank	

2.1.1 Changes from Previous Permit:

In-plant limitations and monitoring requirements were evaluated for this permit term and no changes were required in this permit section.

2.1.2 Explanation of Limits and Monitoring Requirements

Mercury Field Blank- Monitoring is included in the permit pursuant to s. NR 106.145, Wis. Adm. Code. Field blanks must meet the requirements under s. NR 106.145(9) and (10), Wis. Adm. Code. The permittee shall collect a mercury

field blank for each set of mercury samples (a set of samples may include a combination of influent, effluent or other samples all collected on the same day). Field blanks are required to verify a sample has not been contaminated during collection, transportation or analysis.

2.2 Sample Point Number: 108- InPlant Diversion-Other Bypass

Monitoring Requirements and Limitations					
Parameter	Limit Type	Limit and Units	Sample Frequency	Sample Type	Notes
Flow Rate		MGD	Daily	Continuous	Start flow measurement at the commencement of bypass operations. Measure flow in daily increments until operation ends and report daily bypass flow on the eDMR. See section 2.2.2.1 of the permit.
Time		hours	Daily	Calculated	Report the total duration of 'Other Bypass' within any given day (12:00am - 11:59pm) in which the 'Other Bypass' occurs. See section 2.2.2.1 of the permit.

2.2.1 Changes from Previous Permit:

In-plant limitations and monitoring requirements were evaluated for this permit term and no changes were required in this permit section.

2.2.2 Explanation of Limits and Monitoring Requirements

Pursuant to s. NR 106.145(9)(c)1., Wis. Adm. Code, at least one mercury field blank shall be collected at each site for each day an effluent mercury sample is collected.

3 Surface Water - Monitoring and Limitations

3.1 Sample Point Number: 001- PRIOR TO DISCHARGE

Monitoring Requirements and Limitations					
Parameter	Limit Type	Limit and Units	Sample Frequency	Sample Type	Notes
Flow Rate		MGD	Daily	Continuous	
CBOD5	Monthly Avg	25 mg/L	Daily	24-Hr Flow Prop Comp	

Monitoring Requirements and Limitations					
Parameter	Limit Type	Limit and Units	Sample Frequency	Sample Type	Notes
CBOD5	Weekly Avg	40 mg/L	Daily	24-Hr Flow Prop Comp	
Suspended Solids, Total	Monthly Avg	30 mg/L	Daily	24-Hr Flow Prop Comp	
Suspended Solids, Total	Weekly Avg	45 mg/L	Daily	24-Hr Flow Prop Comp	
pH Field	Daily Max	9.0 su	Daily	Grab	See pH subsection.
pH Field	Daily Min	6.0 su	Daily	Grab	See pH subsection.
Nitrogen, Ammonia (NH3-N) Total	Daily Max - Variable	mg/L	Weekly	24-Hr Flow Prop Comp	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	108 mg/L	Weekly	24-Hr Flow Prop Comp	
Nitrogen, Ammonia (NH3-N) Total	Weekly Avg	108 mg/L	Weekly	24-Hr Flow Prop Comp	
Nitrogen, Ammonia Variable Limit		mg/L	Weekly	24-Hr Flow Prop Comp	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.
E. coli	Geometric Mean - Monthly	126 #/100 ml	Weekly	Grab	Limit applies May - Sept annually.
E. coli	% Exceedance	10 Percent	Monthly	Calculated	Limit applies May - Sept annually. See E. coli subsection.
Chloride		mg/L	Monthly	24-Hr Flow Prop Comp	Monitoring required in 2029 only.
Cadmium, Total Recoverable		ug/L	Monthly	72-Hr Flow Prop Comp	
Chromium, Total Recoverable		ug/L	Monthly	72-Hr Flow Prop Comp	
Copper, Total Recoverable		ug/L	Monthly	72-Hr Flow Prop Comp	

Monitoring Requirements and Limitations					
Parameter	Limit Type	Limit and Units	Sample Frequency	Sample Type	Notes
Lead, Total Recoverable		ug/L	Monthly	72-Hr Flow Prop Comp	
Nickel, Total Recoverable		ug/L	Monthly	72-Hr Flow Prop Comp	
Zinc, Total Recoverable		ug/L	Monthly	72-Hr Flow Prop Comp	
Cyanide, Total		ug/L	Monthly	Grab	
Mercury, Total Recoverable		ng/L	Monthly	Grab	See Mercury subsection.
PFOS		ng/L	Monthly	Grab	Monitoring only. See PFOS/PFOA Minimization Plan Determination of Need schedule.
PFOA		ng/L	Monthly	Grab	Monitoring only. See PFOS/PFOA Minimization Plan Determination of Need schedule.
Phosphorus, Total	6-Month Avg	0.1 mg/L	5/Week	24-Hr Flow Prop Comp	
Phosphorus, Total	Monthly Avg	0.3 mg/L	5/Week	24-Hr Flow Prop Comp	
Phosphorus, Total	6-Month Avg	17 lbs/day	5/Week	24-Hr Flow Prop Comp	
Nitrogen, Total Kjeldahl		mg/L	Quarterly	24-Hr Flow Prop Comp	
Nitrogen, Nitrite + Nitrate Total		mg/L	Quarterly	24-Hr Flow Prop Comp	
Nitrogen, Total		mg/L	Quarterly	Calculated	Total Nitrogen shall be calculated as the sum of reported values for Total Kjeldahl Nitrogen and Total Nitrite + Nitrate Nitrogen.
Acute WET		TUa	See Listed Qtr(s)	24-Hr Flow Prop Comp	See WET subsection.

3.1.1 Changes from Previous Permit

Effluent limitations and monitoring requirements were evaluated for this permit term and the following changes were made from the previous permit. See additional explanation of limits under “Explanation of Limits and Monitoring Requirements” below.

PFOS and PFOA – addition of once every two months monitoring and an associated determination of need schedule in accordance with s. NR 106.98(2)(b), Wis. Adm. Code.

3.1.2 Explanation of Limits and Monitoring Requirements

Detailed discussions of limits and monitoring requirements can be found in the attached water quality-based effluent limits (WQBEL) memo dated June 18, 2026 from Benjamin Hartenbower to Angela Parkhurst and titled “Water Quality-Based Effluent Limitations for the La Crosse WWTF WPDES Permit No. WI-002958”.

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 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.

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 whenever practicable. Minor changes have been made to Ammonia nitrogen.

Categorical Limits

CBOD₅, Total Suspended Solids (TSS) and pH – Where the receiving water is classified as fish and aquatic life in s. NR 102.04(3), Wis. Adm. Code, s. NR 210.05, Wis. Adm. Code, establishes categorical effluent limits for CBOD₅, TSS and pH. The permittee has requested, pursuant to s. NR 210.07(4), Wis. Adm. Code, that the department substitute the parameter CBOD₅ for the parameter BOD₅.

Pretreatment Parameters – La Crosse WWTF has a design flow of more than 5 million gallons per day (MGD) of treated effluent and is required, pursuant to s. NR 211.20, Wis. Adm. Code, to administer a pretreatment program. Monthly effluent monitoring is required for cadmium, chromium, copper, cyanide, lead, mercury, nickel, and zinc.

Water Quality Based Limits and WET Requirements and Disinfection

Refer to the WQBEL memo for the detailed calculations, prepared by the Water Quality Bureau dated June 18, 2026 used for this reissuance.

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. The proposed permit has variable daily maximum effluent limits based on effluent pH. The variable daily maximum ammonia limits table has been expanded to include ammonia limits throughout the allowed pH range of 6.0 s.u. through 9.0 s.u. (corresponding to limits from 108 mg/L to 2.6 mg/L, respectively) and is below. The daily maximum limits vary with effluent pH, so additional limits are set equal to the highest recommended limit. Therefore, monthly and weekly average limits of 108 mg/L are included in the permit.

Daily Maximum Ammonia Nitrogen Limits – WWSE

Effluent pH s.u.	Limit mg/L	Effluent pH s.u.	Limit mg/L	Effluent pH s.u.	Limit mg/L
6.0 ≤ pH ≤ 6.1	108	7.0 < pH ≤ 7.1	66	8.0 < pH ≤ 8.1	14
6.1 < pH ≤ 6.2	106	7.1 < pH ≤ 7.2	59	8.1 < pH ≤ 8.2	11
6.2 < pH ≤ 6.3	104	7.2 < pH ≤ 7.3	52	8.2 < pH ≤ 8.3	9.4

6.3 < pH ≤ 6.4	101	7.3 < pH ≤ 7.4	46	8.3 < pH ≤ 8.4	7.8
6.4 < pH ≤ 6.5	98	7.4 < pH ≤ 7.5	40	8.4 < pH ≤ 8.5	6.4
6.5 < pH ≤ 6.6	94	7.5 < pH ≤ 7.6	34	8.5 < pH ≤ 8.6	5.3
6.6 < pH ≤ 6.7	89	7.6 < pH ≤ 7.7	29	8.6 < pH ≤ 8.7	4.4
6.7 < pH ≤ 6.8	84	7.7 < pH ≤ 7.8	24	8.7 < pH ≤ 8.8	3.7
6.8 < pH ≤ 6.9	78	7.8 < pH ≤ 7.9	20	8.8 < pH ≤ 8.9	3.1
6.9 < pH ≤ 7.0	72	7.9 < pH ≤ 8.0	17	8.9 < pH ≤ 9.0	2.6

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. The new rule requires that WPDES permits for facilities with required disinfection include monitoring for E. coli while facilities are disinfecting during the recreation period and establish effluent limitations for E. coli established in s. NR 210.06 (2), Wis. Adm. Code. The administrative code rule changes included the following actions: revised the bacteria water quality criteria from fecal coliform to E. coli to protect recreation in ch. NR 102, Wis. Adm. Code.; removed fecal coliform criteria for certain individual waters from ch. NR 104, Wis. Adm. Code.; revised permit requirements for publicly and privately owned sewage treatment works in ch. NR 210, Wis. Adm. Code.; and, updated approved analytical methods for bacteria in ch. NR 219, Wis. Adm. Code. Monitoring and limits for E. Coli are required seasonally May-September throughout the permit term.

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. Based on chloride monitoring during the current permit term effluent chloride concentrations are below the calculated WQBELs for chloride, therefore no effluent limits are needed. The permit requires monthly chloride monitoring in calendar year 2029 to ensure that 11 sample results are available at the next permit issuance

PFOS and PFOA - NR 106 Subchapter VIII – Permit Requirements for PFOS and PFOA Dischargers became effective on August 1, 2022. At the first reissuance of a WPDES permit after August 1, 2022, the new rule requires WPDES permits for major municipal dischargers with an average flow rate greater than 1 MGD but less than 5 MGD, at a minimum sample effluent once every two-months for PFOS and PFOA pursuant s. NR 106.98(2)(b), Wis. Adm. Code.

A sample frequency of 1/2 months means one sample is taken during any two-month period. Examples of 1/2 month sample would be every other month (Jan, March, May, etc.) or back-to-back months with a break in between (February & March, May & June, Aug & Sept, etc.). DMR Short Forms will be generated for the following time periods: January-February, March-April, May-June, July-August, September-October, and November-December. At a minimum one sample result will be present on each form.

The initial determination of the need for sampling shall be conducted for up to two years in order to determine if the permitted discharge has the reasonable potential to cause or contribute to an exceedance of the PFOS or PFOA standards under s. NR 102.04(8)(d)1, Wis. Adm. Code.

Phosphorus – The discharge has reasonable potential to cause or contribute to an exceedance of the water quality criterion and is currently operating the treatment facility to remove phosphorus and meet the WQBELs. Therefore, the WQBELs of 0.1 mg/L 6-month average and 0.3 mg/L monthly average are required to continue in the reissued permit per ss. NR 217.15 and 205.067(5), Wis. Adm. Codes.

According to s. NR 217.14(2), Wis. Adm. Code, because the calculated WQBEL is less than or equal to 0.3 mg/L, the effluent limit of 0.100 mg/L may be expressed as a six-month average. Because a concentration limitation expressed as a six-month average is included in the permit, a monthly average concentration limitation of 0.300 mg/L, equal to three times the WQBEL calculated under s. NR 217.13, Wis. Adm. Code is also included in the permit. The six-month average should be averaged during the months of May – October and November – April.

A mass limit is also required, pursuant to s. NR 217.14(1)(a), Wis. Adm. Code, because the discharge is to a surface water that is impaired for phosphorus. This final mass limit is 17.0 lbs/day expressed as a six-month average. The six-month average should be averaged during the months of May – October and November – April.

Thermal – Requirements for Temperature are included in NR 102 Subchapter II Water Quality Standards for Temperature and NR 106 Subchapter V Effluent Limitations for Temperature. Due to the amount of upstream flow available for dilution in the limit calculation ($Q_s:Q_e > 20:1$), the lowest calculated limitation is 120° F (s. NR 106.55(6)(a), Wis. Adm. Code). There is no reasonable potential for the discharge to exceed this limit. Therefore, no temperature limits or monitoring are recommended.

Total Nitrogen Monitoring (NO₂+NO₃, TKN and Total N) – Based on the “Guidance for Total Nitrogen Monitoring in WPDES Permits” dated October 2012, quarterly effluent monitoring for Total Nitrogen is required for municipal major treatment facilities such as La Crosse WWTF.

Whole Effluent Toxicity – Whole effluent toxicity (WET) testing requirements and limits (if applicable) are determined in accordance with ss. NR 106.08 and NR 106.09, Wis. Adm. Code, as revised August 2016. (See the current version of the Whole Effluent Toxicity Program Guidance Document and checklist and WET information, guidance and test methods at <http://dnr.wi.gov/topic/wastewater/wet.html>). Chronic WET testing is usually not recommended where the ratio of the 7-Q10 to the effluent flow exceeds 100:1. For the La Crosse Wastewater Treatment Facility, that ratio is approximately 224:1, so Chronic WET testing is not required. A minimum of annual acute monitoring is recommended because the La Crosse Wastewater Treatment Facility is a major municipal discharger with a design flow greater than 1.0 MGD.

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)
002	B	Cake	Fecal Coliform or Anaerobic Digestion	Volatile Solids Reduction & Incorporation	Land Application & Landfilling	223 US tons Land Applied 374 US tons Landfilled (2025)
003	B	Liquid	Fecal Coliform or Anaerobic Digestion	Volatile Solids Reduction or Injection or Incorporation	Land Application & Haul to Another Facility	247 US tons Land Applied
004	A	Dried EQ Product	Fecal Coliform Retest	>90% Solids	Dried Solids or granular/ pellets marketed/distributed as fertilizer or a renewable fuel	Approved in early 2026, none reported in 2025
005	A	Cake (collected as dust)	Not applicable if landfilled or used for fuel. Fecal coliform	>90 % solids if distributed or land applied. Allowed to be incorporated if	Landfill, Land Application, or Distribution	Approved in early 2026, none reported in 2025

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)
			required if distribution	not able to >90 % solids		
010	B	Liquid	N/A	Volatile Solids Reduction	Feed Sludge for Class A and Class B Outfalls	None reported for 2025
011	A	Dried EQ Product	Heat Drying Requirements & Discrete Fecal Coliform Monitoring	>90% Solids	Land Fill, Land Application & Distribution	Approved in early 2026, none reported in 2025
Does sludge management demonstrate compliance? Yes						
Is additional sludge storage required? Yes						
Is Radium-226 present in the water supply at a level greater than 2 pCi/liter? No						
Is a priority pollutant scan required? No because a PPS was performed last permit term. They will need one after this permit term.						
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.						

4.1 Sample Point Number: 002- CLASS B CAKE SLUDGE; 003- CLASS B LIQUID SLUDGE; 004- CLASS A EQ SLUDGE PRODUCT

Monitoring Requirements and Limitations					
Parameter	Limit Type	Limit and Units	Sample Frequency	Sample Type	Notes
Solids, Total		Percent	1/ 2 Months	Composite	
Arsenic Dry Wt	Ceiling	75 mg/kg	1/ 2 Months	Composite	
Arsenic Dry Wt	High Quality	41 mg/kg	1/ 2 Months	Composite	
Cadmium Dry Wt	Ceiling	85 mg/kg	1/ 2 Months	Composite	
Cadmium Dry Wt	High Quality	39 mg/kg	1/ 2 Months	Composite	
Copper Dry Wt	Ceiling	4,300 mg/kg	1/ 2 Months	Composite	
Copper Dry Wt	High Quality	1,500 mg/kg	1/ 2 Months	Composite	
Lead Dry Wt	Ceiling	840 mg/kg	1/ 2 Months	Composite	
Lead Dry Wt	High Quality	300 mg/kg	1/ 2 Months	Composite	
Mercury Dry Wt	Ceiling	57 mg/kg	1/ 2 Months	Composite	

Monitoring Requirements and Limitations					
Parameter	Limit Type	Limit and Units	Sample Frequency	Sample Type	Notes
Mercury Dry Wt	High Quality	17 mg/kg	1/ 2 Months	Composite	
Molybdenum Dry Wt	Ceiling	75 mg/kg	1/ 2 Months	Composite	
Nickel Dry Wt	Ceiling	420 mg/kg	1/ 2 Months	Composite	
Nickel Dry Wt	High Quality	420 mg/kg	1/ 2 Months	Composite	
Selenium Dry Wt	Ceiling	100 mg/kg	1/ 2 Months	Composite	
Selenium Dry Wt	High Quality	100 mg/kg	1/ 2 Months	Composite	
Zinc Dry Wt	Ceiling	7,500 mg/kg	1/ 2 Months	Composite	
Zinc Dry Wt	High Quality	2,800 mg/kg	1/ 2 Months	Composite	
Nitrogen, Total Kjeldahl		Percent	1/ 2 Months	Composite	
Nitrogen, Ammonium (NH ₄ -N) Total		Percent	1/ 2 Months	Composite	
Phosphorus, Total		Percent	1/ 2 Months	Composite	
Phosphorus, Water Extractable		% of Tot P	1/ 2 Months	Composite	
Potassium, Total Recoverable		Percent	1/ 2 Months	Composite	
PCB Total Dry Wt	Ceiling	50 mg/kg	Once	Composite	Sample once in 2027. See PCB subsection.
PCB Total Dry Wt	High Quality	10 mg/kg	Once	Composite	Sample once in 2027. See PCB subsection.
PFOA + PFOS		ug/kg	Annual	Calculated	See PFAS subsection.
PFAS Dry Wt			Annual	Grab	Perfluoroalkyl and Polyfluoroalkyl Substances based on updated DNR PFAS List. See PFAS Permit Sections for more information.

4.1.1 Changes from Previous Permit:

Sludge limitations and monitoring requirements were evaluated for this permit term and the following changes were made from the previous permit. See additional explanation of limits under “Explanation of Limits and Monitoring Requirements” below.

Removal of the priority pollutant scan at sample point 002 since one was performed under the previous permit. Facilities with design flows 5 MGD or larger are only required every 10 years. Sample point 004 is a new sample point for Class A sludge.

PFAS –Monitoring is required for sample points 002, 003, and 004 annually pursuant to s. NR 204.06(2)(b)9., Wis. Adm. Code.

4.1.2 Explanation of Limits and Monitoring Requirements

Requirements for disposal, including 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). Requirements for pathogens are specified in s. NR 204.07(6) and in s. NR 204.07 (7) for vector attraction requirements. Limitations for PCBs are addressed in s. NR 204.07(3)(k). Radium requirements are addressed in s. NR 204.07(3)(n).

PFAS- The presence and fate of PFAS in municipal and industrial sludges is an emerging public health concern. EPA has developed a draft risk assessment to determine future land application rates and released this risk assessment in January of 2025. The department is evaluating this new information. Until a decision is made, the “Interim Strategy for Land Application of Biosolids and Industrial Sludges Containing PFAS” should be followed

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 this WPDES permit pursuant to ss. NR 214.18(5)(b) and NR 204.06(2)(b)9., Wis. Adm. Code.

4.2 Sample Point Number: 005- CLASS A CAKE SLUDGE DUST

Monitoring Requirements and Limitations					
Parameter	Limit Type	Limit and Units	Sample Frequency	Sample Type	Notes
Solids, Total		Percent	1/ 2 Months	Composite	
Arsenic Dry Wt	Ceiling	75 mg/kg	1/ 2 Months	Composite	
Arsenic Dry Wt	High Quality	41 mg/kg	1/ 2 Months	Composite	
Cadmium Dry Wt	Ceiling	85 mg/kg	1/ 2 Months	Composite	
Cadmium Dry Wt	High Quality	39 mg/kg	1/ 2 Months	Composite	
Copper Dry Wt	Ceiling	4,300 mg/kg	1/ 2 Months	Composite	
Copper Dry Wt	High Quality	1,500 mg/kg	1/ 2 Months	Composite	
Lead Dry Wt	Ceiling	840 mg/kg	1/ 2 Months	Composite	
Lead Dry Wt	High Quality	300 mg/kg	1/ 2 Months	Composite	
Mercury Dry Wt	Ceiling	57 mg/kg	1/ 2 Months	Composite	
Mercury Dry Wt	High Quality	17 mg/kg	1/ 2 Months	Composite	
Molybdenum Dry Wt	Ceiling	75 mg/kg	1/ 2 Months	Composite	
Nickel Dry Wt	Ceiling	420 mg/kg	1/ 2 Months	Composite	
Nickel Dry Wt	High Quality	420 mg/kg	1/ 2 Months	Composite	

Monitoring Requirements and Limitations					
Parameter	Limit Type	Limit and Units	Sample Frequency	Sample Type	Notes
Selenium Dry Wt	Ceiling	100 mg/kg	1/ 2 Months	Composite	
Selenium Dry Wt	High Quality	100 mg/kg	1/ 2 Months	Composite	
Zinc Dry Wt	Ceiling	7,500 mg/kg	1/ 2 Months	Composite	
Zinc Dry Wt	High Quality	2,800 mg/kg	1/ 2 Months	Composite	
Nitrogen, Total Kjeldahl		Percent	1/ 2 Months	Composite	
Nitrogen, Ammonium (NH ₄ -N) Total		Percent	1/ 2 Months	Composite	
Phosphorus, Total		Percent	1/ 2 Months	Composite	
Phosphorus, Water Extractable		% of Tot P	1/ 2 Months	Composite	
Potassium, Total Recoverable		Percent	1/ 2 Months	Composite	

4.2.1 Changes from Previous Permit:

This is a new sample point for Class A sludge. See additional explanation of limits under “Explanation of Limits and Monitoring Requirements” below.

4.2.2 Explanation of Limits and Monitoring Requirements

Requirements for disposal, including 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). Requirements for pathogens are specified in s. NR 204.07(6) and in s. NR 204.07 (7) for vector attraction requirements.

4.3 Sample Point Number: 010- CLASS B LIQUID SLUDGE

Monitoring Requirements and Limitations					
Parameter	Limit Type	Limit and Units	Sample Frequency	Sample Type	Notes
Solids, Total		Percent	1/ 2 Months	Composite	
Arsenic Dry Wt	Ceiling	75 mg/kg	1/ 2 Months	Composite	
Arsenic Dry Wt	High Quality	41 mg/kg	1/ 2 Months	Composite	
Cadmium Dry Wt	Ceiling	85 mg/kg	1/ 2 Months	Composite	
Cadmium Dry Wt	High Quality	39 mg/kg	1/ 2 Months	Composite	
Copper Dry Wt	Ceiling	4,300 mg/kg	1/ 2 Months	Composite	

Monitoring Requirements and Limitations					
Parameter	Limit Type	Limit and Units	Sample Frequency	Sample Type	Notes
Copper Dry Wt	High Quality	1,500 mg/kg	1/ 2 Months	Composite	
Lead Dry Wt	Ceiling	840 mg/kg	1/ 2 Months	Composite	
Lead Dry Wt	High Quality	300 mg/kg	1/ 2 Months	Composite	
Mercury Dry Wt	Ceiling	57 mg/kg	1/ 2 Months	Composite	
Mercury Dry Wt	High Quality	17 mg/kg	1/ 2 Months	Composite	
Molybdenum Dry Wt	Ceiling	75 mg/kg	1/ 2 Months	Composite	
Nickel Dry Wt	Ceiling	420 mg/kg	1/ 2 Months	Composite	
Nickel Dry Wt	High Quality	420 mg/kg	1/ 2 Months	Composite	
Selenium Dry Wt	Ceiling	100 mg/kg	1/ 2 Months	Composite	
Selenium Dry Wt	High Quality	100 mg/kg	1/ 2 Months	Composite	
Zinc Dry Wt	Ceiling	7,500 mg/kg	1/ 2 Months	Composite	
Zinc Dry Wt	High Quality	2,800 mg/kg	1/ 2 Months	Composite	

4.3.1 Changes from Previous Permit:

Sludge limitations and monitoring requirements were evaluated for this permit term and the following changes were made from the previous permit. See additional explanation of limits under “Explanation of Limits and Monitoring Requirements” below.

Removal of the priority pollutant scan since one was performed under the previous permit. Facilities with design flows 5 MGD or larger are only required every 10 years.

4.3.2 Explanation of Limits and Monitoring Requirements

Requirements for disposal, including 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). Requirements for pathogens are specified in s. NR 204.07(6) and in s. NR 204.07 (7) for vector attraction requirements.

4.4 Sample Point Number: 011- CLASS A EQ SLUDGE PRODUCT

4.4.1 Changes from Previous Permit:

This is a new sample point for Class A sludge with List 3 requirements. See additional explanation of limits under “Explanation of Limits and Monitoring Requirements” below.

4.4.2 Explanation of Limits and Monitoring Requirements

Requirements for disposal, including 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). Requirements for pathogens are specified in s. NR 204.07(6) and in s. NR 204.07 (7) for vector attraction requirements.

5 Schedules

5.1 Sludge Management Plan

A management plan is required for the sludge management program

Submit an updated sludge management plan to optimize the land application system performance and demonstrate compliance with Wisconsin Administrative Code NR 204, when sludge disposal practices are updated or modified, treatment processes are modified, or at the request of the department should deficiencies in the SMP be identified. This management plan shall include sufficient detail of the sludge management program for the facility. The plan shall include separate sections for each type of sewage sludge included in this permit.

The SMP shall provide standardized information for communication to operators and the department including but not limited to the following:

- 1) Specify information on the sludge treatment processes for each sampling point and outfall;
- 2) Show and describe sample point and outfall monitoring locations on a schematic and provide photos of the specific sampling points;
- 3) Show, describe and tabulate the monitoring requirements at each sampling point and outfall locations;
- 4) Show, describe and explain sampling protocols for each location listing parameters to be monitored including:
 - a) Pollutants,
 - b) Nutrients
 - c) Pathogen treatment process requirements including treatment temperature, moisture content (total solids) and pathogen densities (fecal concentrations)
 - d) Vector Reduction appropriate for the pathogen treatment process such as but not limited to temperatures, volatile solids reduction, moisture content, etc. as required by the WPDES permit and Chs. NR 204, Wis. Adm. Code;
- 5) Monitoring frequencies at each sample point and outfall;
- 6) Analytical methods with appropriate hold times and chain-of-custody procedures;
- 7) Documentation relating to temperature monitoring data recording, retrieval and printing out the data when requested;
- 8) Storage, verification monitoring, loading, transportation and discharge details associated with all outfalls;
- 9) Collection, storage, disposal information for sludge detailing pickups including loading and similar details;
- 10) Collection, storage and disposal processes of sludge when the sludge does not meet minimum requires to meet Class A and EQ requirements. [Note: EQ and Class A are similar. Facility should explain the difference and how they will handle the material if the material meets Class A but fails to meet EQ.]
- 11) Identify land application sites;
- 12) Describe site limitations;

13) Address vegetative cover management and removal including loading to crop needs, crop harvesting; 14) Specific the availability of storage for sludge; 15) Describe the type of transportation and spreading vehicles; 16) Track site loadings to facility's land application sites; 17) Address contingency plans for adverse weather and odor/nuisance abatement; 18) Address construction contingencies when treatment equipment is out of service; and 19) Include any other pertinent information. Once approved, all sludge management 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. Note: The SMP is a living document and should be designed and constructed to allow for future updates. Consider providing an overview to explain the facilities solids flow processes, then using sections and appendices to provide more details. The use of appendices to explain start up, operation and shutdown of the sludge treatment units is encouraged to show that all sludge particles meet Class A requirements.	
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5.1.1 Explanation of Schedule

Sludge Management Plan (municipal)- An up-to-date Sludge Management Plan is required that documents how the permittee will manage the land application of biosolids consistent with ch. NR 204, Wis. Adm. Code

5.2 PFOS/PFOA Minimization Plan Determination of Need

Required Action	Due Date
Report on Effluent Discharge: Submit a report on effluent PFOS and PFOA concentrations and include an analysis of trends in monthly and annual average PFOS and PFOA concentrations. This analysis should also include a comparison to the applicable narrative standard in s. NR 102.04(8)(d), Wis. Adm. Code. This report shall include all additional PFOS and PFOA data that may be collected including any influent, intake, in-plant, collection system sampling, and blank sample results.	10/01/2027
Report on Effluent Discharge and Evaluation of Need: Submit a final report on effluent PFOS and PFOA concentrations and include an analysis of trends in monthly and annual average PFOS and PFOA concentrations of data collected over the last 24 months. The report shall also provide a comparison on the likelihood of the facility needing to develop a PFOS/PFOA minimization plan. This report shall include all additional PFOS and PFOA data that may be collected including any influent, intake, in-plant, collection system sampling, and blank sample results. The permittee shall also submit a request to the department to evaluate the need for a PFOS/PFOA minimization plan. If the Department determines a PFOS/PFOA minimization plan is needed based on a reasonable potential evaluation, the permittee will be required to develop a minimization plan for Department approval no later than 90 days after written notification was sent from the Department. The	10/01/2028

Department will modify or revoke and reissue the permit to include PFOS/PFOA minimization plan reporting requirements along with a schedule of compliance to meet WQBELs. Effluent monitoring of PFOS and PFOA shall continue as specified in the permit until the modified permit is issued. If, however, the Department determines there is no reasonable potential for the facility to discharge PFOS or PFOA above the narrative standard in s. NR 102.04(8)(d), Wis. Adm. Code, no further action is required and effluent monitoring of PFOS and PFOA shall continue as specified in the permit.	
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5.2.1 Explanation of Schedule

PFOS/PFOA Minimization Plan Determination of Need- As stated above, ch. NR 106 Subchapter VIII – Permit Requirements for PFOS and PFOA Dischargers became effective on August 1, 2022. Section NR 106.98, Wis. Adm. Code, specifies steps to generate data in order to determine the need for reducing PFOS and PFOA in the discharge. Data generated per the effluent monitoring requirements will be used to determine the need for developing a PFOS/PFOA minimization plan. As part of the schedule, the permittee is required to submit two annual Reports on Effluent Discharge.

If the Department determines that a minimization plan is needed, the permit will be modified or revoked/reissued to include additional requirements.

Other Comments

TBD

Attachments

Water Quality Based Effluent Limits - (WQBEL) memo dated June 18, 2026 from Benjamin Hartenbower to Angela Parkhurst and titled “Water Quality-Based Effluent Limitations for the La Crosse WWTF WPDES Permit No. WI-002958”

Public Notice – La Crosse Tribune, 401 North Third St, La Crosse, WI 54601

Justification Of Any Waivers From Permit Application Requirements

No waivers requested or granted as part of this permit reissuance

Prepared By: Angela Parkhurst

Wastewater Specialist

Date: [August 10, 2026](#)