



OFFICIAL NOTICE & AGENDA
REGULAR MEETING

MEETING: Wausau Water Works Commission
DATE/TIME: Tuesday, May 5, 2026 at 11:00 AM
LOCATION: Wausau City Hall — Council Chambers
407 Grant Street, Wausau WI, 54403

MEMBERS:
Mayor Doug Diny (P) Peter Gelhar
Michael Martens Deb Hadley
Jim Force

1 Consideration of the minutes of the preceding meeting(s).

April 8, 2026 Regular Wausau Water Works Commission Minutes

2 Director's Reports.

- a. Update on Lead Service Line Replacements.
- b. Wastewater Project Updates- Headworks Screening Project, Cherry Street Lift Station and Lift Station Assessment w/ Clark Dietz.

3 Discussion and Possible Action.

- a. Approving the 2027 through 2031 Capital Improvement Projects (CIP) Budget for the Drinking Water and Wastewater Utility.
- b. Approving the Sole Source Renewal Agreement for HydroCorp Non-Residential Cross Connection Control (CCC) Program.
- c. Approving the Sole Source Request for MCEP9 and K144L-NA Polymers used to thicken solids in the Belt Filter Presses and Gravity Belt Thickeners.

4 Discussion.

- a. Regarding the Wastewater - Final WPDES Permit Issued with a permit term of five years.

5 Adjournment.

**Next meeting scheduled for June 2, 2026 at 11:00 A.M.*

Mayor Doug Diny, President

NOTICE POSTED AT CITY HALL (407 GRANT STREET) AND TRANSMITTED TO THE OFFICIALLY DESIGNATED NEWSPAPER

DATE: 04/29/2026

TIME: 2:40 PM

POSTED BY: Wausau Water Works



This meeting can be viewed on YouTube and Channel 981 on Cable TV

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OFFICIAL MINUTES REGULAR MEETING

MEETING: Wausau Water Works Commission
DATE/TIME: Wednesday, April 8, 2026 at 11:00 AM
LOCATION: Wausau City Hall — Council Chambers
407 Grant Street, Wausau WI, 54403

MEMBERS:
Mayor Doug Diny (P) Aaron Griner
Jim Force Deb Hadley
Peter Gelhar

Members Present: Doug Diny, Jim Force, Deb Hadley, Peter Gelhar, Aaron Griner
Members Not Present:
Members Excused:
Present 5, Not Present 0, Excused 0

Noting the presence of a quorum, the Chairperson called the meeting to order at 11:00 AM.

1 Consideration of the minutes of the preceding meeting(s).

March 3, 2026 Regular Wausau Water Works Commission Minutes.

- Motion to approve the minutes of March 3, 2026 by Gelhar. Seconded by Force. Motion carried 5-0.

2 Director's Reports.

Report Placed on File.

a. Capital Projects Planning and Initial Discussion

Lindman provided an overview of the five-year capital planning process. He noted that the enclosed spreadsheet was approved last year and will be updated annually by adding one additional year. While adjustments to specific projects are expected, the document reflects the initial framework previously approved. A revised list of proposed capital projects, including any updates, will be presented in May. Additional project details can be provided. This is through the Gravity software. In response to Hadley's inquiry, Lindman clarified that the \$300,000 figure includes not only software but also implementation and related components.

b. Wastewater — Update on Headworks Screening Project, Cherry Street Lift Station Project, and Status of Class A Biosolids from WDNR.

Brooks reported the Headworks Screening Project remains on schedule, while the Cherry Street Lift Station has experienced delays that resulted in additional costs to be addressed. The WDNR has issued an approval letter for Class A Biosolids dated April 5, 2026, superseding the memo included in the packet. Copies were provided electronically and placed in members' binders. The only item not included in the approval was the Sludge Management Plan (SMP) drier process information and Class A sludge distribution plan; an update is forthcoming. Brooks clarified that distribution of Class A sludge may proceed in the interim, subject to required tracking/documentation, and the draft SMP will remain in use until formal approval is issued. He noted receiving this approval is a significant accomplishment and indicates the discharge permit is forthcoming. Diny added the approval will substantially reduce the need for internal hauling.

3 Discussion.

a. Discussion and Update on LSL Replacement Project for 2026 and related news on the nationwide cost of new regulations.

Lindman outlined changes between the original budget request and the final funding. He noted that Water Utility borrowing is projected to decrease from nearly \$6 million to approximately \$3.4 million, while City-side borrowing will increase, with updates to be provided to Finance.

He emphasized challenges with lead service line replacements due to the absence of a mandatory ordinance, which limits access to full DNR principal-forgiveness funding. Funding levels will decline over the next several years, increasing private-side costs, and full lead removal is mandated by 2037. Staff will bring forward a proposed lead service line ordinance for Commission support before advancing to Council again. Hydroexcavation and pre-construction work have begun, with an estimated 1,200–1,300 replacements planned for the year. Lindman also noted rising regulatory requirements nationwide, many of which lack associated funding, contributing to increased rates. Upcoming EPA actions may introduce new mandates related to PFAS, microplastics, viruses, and additional wastewater and stormwater requirements. Capital planning efforts will incorporate anticipated regulatory impacts. Diny stated that the City has a 10-year timeline to meet the 2037 deadline, and that decisions regarding borrowing and future contracts, including the Five-Star contract, will affect the pace of work. Lindman added that construction costs are increasing significantly statewide, though current prices remain favorable. In response to questions about future household rates, Lindman noted that Wausau’s proactive planning and the substantial 2023 rate increase should prevent rates from doubling, though moderate increases are expected. Staff continue to seek funding opportunities, including EPA programs and the recently released \$125 million in state PFAS funding, which may assist with GAC replacement costs. Boers noted that representatives from the City of La Crosse toured the facility to inform their own planning efforts.

b. Report for the Corrosion Control Treatment Optimization Study submitted to the WDNR.

Lindman reported on the Corrosion Control Treatment Optimization Study, noting that testing recommends continuing the use of sodium silicate and adding 1 mg/L of polyphosphate to reduce lead and copper leaching. The draft report has been submitted to the DNR, with a meeting scheduled for June 9 and a formal response expected in September or October. If approved, the City will have two years to implement the recommendation. CDM Smith will provide a detailed presentation at a future meeting. In response to questions, Brooks noted that the added phosphate will increase phosphorus loads at the wastewater plant, but existing equipment can remove it, though additional chemical treatment may increase costs. Diny added that the treatment changes are still required even after lead service lines are removed, due to various in-home plumbing fixtures.

c. Discussion and Update on Influent, Effluent and Biosolids PFAS Testing.

Brooks reported that PFAS measurements for effluent are taken in parts per trillion and biosolids in parts per billion, as shown in the spreadsheet. He confirmed that the facility remains compliant with current Wisconsin guidance. Effluent is tested bimonthly/biosolids annually, and there is currently no approved method for influent testing. Biosolids PFOA/PFOS levels remain below the 20 ng/g (ppb) threshold requiring no further action. Brooks noted this should dispel rumors that Wausau’s sludge contains high PFAS levels. Force requested future discussion on rates, and Lindman stated a draft capital budget will be prepared and forwarded to Ehlers for recommendations to the Commission.

4 Adjournment.

Next meeting scheduled for Tuesday, May 5, 2026 at 11:00 A.M.

- Motion to adjourn by Griner. Seconded by Gelhar. Motion carried 5-0. Meeting adjourned at 11:30 A.M.

**The recording of this meeting may be viewed on
[YouTube @CityofWausauMeetings](#)**



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Dept. of Public Works & Utilities

Eric Lindman, P.E.
Director of Public Works & Utilities

TO: Wausau Water Works
FROM: Eric Lindman, P.E.
Director of Public Works & Utilities
DATE: May 5, 2026
SUBJECT: WDNR LSL Funding Update – 2024-2026 Update

This memo is an update on the Lead Service Line Replacement (LSLR) project and an update to current funding towards the project. As discussed previously the DNR has been slow to close on funding related to LSLR projects. The 2024 construction season we did not have funding available for reimbursement until June of 2025 and for the 2025 season we did not receive funding for reimbursement until Nov 2025. The process has been getting better and we expect to have the 2026 funding available in June 2026.

Below is a tabulation of the funding the City has received or is proposed to receive through the BIL LSL funding and any city funding borrowed under general obligation:

Wausau LSL Replacement Project				
2024-2026 Principal Forgiveness and Loan				
Funding Year	Principal Forgiveness		Loan	Total
FY2024 Funding	\$2,749,435		\$2,172,756	\$4,922,191
FY2025	\$8,846,859		\$5,756,229	\$14,603,088
FY2026 (Estimate)	\$7,281,357		\$6,401,899	\$13,683,256
Total to Date =	\$18,877,651		\$14,330,899	\$33,208,550

The city has been doing well receiving significant Principal Forgiveness loans, which has eliminated the cost to the homeowner for LSLR construction. As compared to the last update our overall costs for the LSLR project to date are less. Based on the current funding the utility is receiving about 55% principal forgiveness loan with the majority of the other 45% being subsidized loan at 0.25%. This program and project delivery method has shown to be successful and efficient at replacing LSL’s. Currently, to date, the utility has replaced over 2,100 LSL’s and will replace a minimum of another 1,100 LSL’s in 2026.

The utilities average cost of each LSL, including construction and non-construction costs, is \$9,200. Other communities in Wisconsin bidding for LSLR work in 2026 have been getting construction only costs of \$9,000 to 13,000 per LSLR. This does not include non-construction costs such as engineering, construction inspection and public outreach. Costs in Wausau are the lowest per line in the state, with the exception of Milwaukee, that I am aware.

I would also like to provide an update on previously discussed criteria with funding and water utility restrictions on use of water rates as established by the WI Public Service Commission (WPSC). WPSC sets water rates for utilities in the state of WI, these rates are not controlled locally. The WPSC sets strict regulations of how the water revenue from these water rates may and may not be used. In the context of the LSLR project, the water service from the water main to the property line or curb stop is owned by the utility (public side); the line from the curb stop to the water meter is owned by the property owner (private side). Water rate revenue can be used to pay for the public side of the water service line but cannot be used to pay for the private side of the water service line. This has created some unique challenges for funding since regulations require all LSL's be removed/replaced by 2037.

Some of the challenges we are facing with funding and regulations:

1. Principal Forgiveness may fund up to 100% of the construction of the private side LSL if it is in a disadvantaged census tract that meets the WDNR definition for 100% principal forgiveness funding. If outside of these tracts the principal forgiveness amount is reduced to 75% or 50% leaving a portion of the cost to be paid by the owner or the city, not the utility.
2. Since the City Council failed to adopt a mandatory LSL replacement ordinance the utility has no means to force owners to replace their LSL. Meaning this replacement from a property owner perspective is voluntary and the utility has no enforcement powers. It is the intent to bring the mandatory LSL replacement ordinance back to the city council in the coming months.
3. If the city council were to pass the mandatory LSL replacement ordinance there would be further financing options:
 - a. PSC could authorize water utility rates to pay for up to 50% of the private side LSLR.
 - b. The city could set up a 5-year or 10-year low or not interest loan for the owner to pay the cost back to the utility.
 - c. The utility would have enforcement powers to mandate replacement of the lead line to ensure compliance with regulations and place the cost of the replacement on the tax roll if it remains unpaid by the owner.
4. The principal forgiveness loans are expected to be used up by the end of 2028 and the full cost of the remaining replacements will be a local burden, either by the utility, the city or the property owner.



Wausau Water Works
Ben Brooks, Wastewater Superintendent

DATE: May 5, 2026
TO: Wausau Water Works Commission
SUBJECT: Wastewater Project Updates- Headworks Screening Project, Cherry Street Lift Station and Lift Station Assessment w/ Clark Dietz.

PURPOSE

Provide Wastewater Project Updates

BACKGROUND

Headworks Screening Project Update:

- Ahern & Subcontractors Mobilized: 06/16/2025.
- Substantial Completion: 10/15/2026.
- Final Completion: 11/15/2026.
- Both new screens are in operation and working. Engineers and Contractors are working with HydroDyne on the full automation of screens.

Cherry St. Lift Station Project Update:

- Integrity Mobilized on Site: 09/8/2025
- Substantial Completion Date: 01/31/2026 (new lift station operating with demo work completed)
- Final Completion Date: 05/15/2026 (all work complete, with grass actively growing)
- Demolition of the old lift station structure occurred the week of April 20th, leaving lawn restoration and new asphalt & curb remaining.

Lift Station Assessment with Clark Dietz:

- As a continuation of the rehabilitation of the Wastewater Utility's Lift Stations, Clark Dietz will be evaluating and assessing seven lift stations for deficiencies and ongoing issues. Clark Dietz will provide a roadmap for the City to budget, schedule and complete lift station improvements.

RECOMMENDATION



TO: Wausau Waterworks Commission

FROM: Eric Lindman, P.E.
Director of Public Works & Utilities

DATE: May 5, 2026

SUBJECT: Water 2027-2031 Capital Improvement Project Plan (CIPP)

Find attached the proposed 5-year capital budget for the water utility, 2027 thru 2031. The first page lists each project, the year it is to be completed and the total estimated cost of the project. In the first column of costs labeled "Prior to 2027" are the funds that are being carried over which have not been spent in previous years. This is typically due to a project not being started or a project that is not yet completed and stretching multiple years for completion.

The second page is a list of the projects broken out by funding source. Projects are paid by different funding sources such as principal forgiveness loans, grants, revenue bonds, TID's cash or bonds, and utility cash. We are working with our new capital budgeting software to be able to complete better reporting, this is a work in progress. Included in this memo below is a breakdown of the proposed debt and cash expenditure for the 5-year CIPP. I feel it is important to understand that not all CIPP expenditures are debt, and the utility does well balancing its budget each year and funding its CIPP in a diversified manner.

Over the past couple of years the water utility has and will continue to be burdened with Lead Service Line Replacement requirements. The utility has been fortunate to receive Principal Forgiveness Loans for a significant portion of this work. You will see estimated costs for this project moving forward through 2028, this is likely when the Principal Forgiveness Loans will no longer be available.

As you will see, the utility borrows for long life capital projects, such as booster station structure upgrades and additions, water main replacements with street projects, water storage improvements and treatment facility improvements. This is the best option as the borrowing term is typically 10 years and the asset life is, in many instances, 50+ years. Other assets, such as equipment, and normal operational maintenance are typically paid in cash. The water utility also has a "Capital Replacement Fund" and additional funds are placed into this account each year. This fund is used to purchase/replace larger operational equipment such as pumps, flow meters, electrical control items, etc. This also allows us some additional options for purchasing our own equipment for a project. For example, if a project is funded by federal funds there are many more restrictions and utilizing our internal funds for equipment allows us to choose the best equipment for our operations and standardize equipment throughout the water utility which ultimately lessens the burden on operations.

Water Capital Improvement Project Plan - 2027-2031 Funding Source/Type & Debt/Other Funding

Funding Source	Funding Type	Prior Years	2027	2028	2029	2030	2031	Total
Water Fund	Principal Forgiveness	18,877,651	4,000,000	2,000,000	-	-	-	24,877,651
Water Fund	Safe Drinking Water Fund	9,604,125	3,000,000	2,000,000	700,000	-	-	15,304,125
Water Fund	Cash Funding	780,000	550,000	370,000	415,000	375,000	100,000	2,590,000
Water Fund	GO Bonds	4,726,759	3,000,000	2,000,000	-	-	-	9,726,759
Water Fund	Revenue Bonds	2,382,000	3,055,000	3,469,000	1,846,000	2,619,000	2,130,000	15,501,000
		36,370,535	13,605,000	9,839,000	2,961,000	2,994,000	2,230,000	67,999,535
	Debt - Water Utility	11,986,125	6,055,000	5,469,000	2,546,000	2,619,000	2,130,000	30,805,125
	Cash Funding	780,000	550,000	370,000	415,000	375,000	100,000	2,590,000
	PF/Grants	18,877,651	4,000,000	2,000,000	-	-	-	24,877,651
	Debt - City or Others	4,726,759	3,000,000	2,000,000	-	-	-	9,726,759
		36,370,535	13,605,000	9,839,000	2,961,000	2,994,000	2,230,000	67,999,535

Each year you can see our proposed debt and other funding sources we use to complete projects. Over the course of the next five years this may change as funding sources may change or new ones become available. The above are the estimated costs as well as the proposed funding sources. Typically, every given year, I will bring this back in the Spring to show any changes in projects priorities, funding sources or needs for adding or delaying projects.

Water Capital Improvement Project Plan - 2027-2031

Total Project Costs

Total Cost of Each Project by Year

Department - Project Name	Prior to 2027	Current Year: 2027	Year 1: 2028	Year 2: 2029	Year 3: 2030	Year 4: 2031	Unfunded	Total
Water Division								
2026 Lead Service Line Replacement	33,208,535	10,000,000	6,000,000	-	-	-	-	49,208,535
Asset Management Software	300,000	-	-	-	-	-	-	300,000
Asterra Leak Detection	45,000	-	-	-	-	-	-	45,000
Backhoe/ Excavator	180,000	-	350,000	-	-	-	-	530,000
Hydrovac Valve Turner	-	750,000	-	-	-	200,000	-	950,000
Meters and (Transmitters) Radios	200,000	200,000	100,000	100,000	100,000	100,000	-	800,000
Monroe Booster Reconstruction	60,000	-	500,000	-	-	-	-	560,000
New Well	-	-	-	700,000	-	-	-	700,000
Orthophosphate Addition	-	50,000	200,000	-	-	-	-	250,000
Portable/On Site Generator	-	80,000	-	80,000	-	-	-	160,000
Reservoir Coatings and Maintenance	150,000	150,000	150,000	150,000	150,000	-	-	750,000
Reservoir Inspections	-	-	-	-	40,000	-	-	40,000
Treatment Facility- Paving	-	60,000	-	-	-	-	-	60,000
Vehicles	85,000	120,000	120,000	85,000	85,000	-	-	495,000
Water Main Looping	550,000	-	-	-	-	-	-	550,000
Water Main Looping- 25th St from McIntosh to Townline Rd	-	-	850,000	-	-	-	-	850,000
Water Main Looping- Brown St from Cul-de-sac to 18th St	-	250,000	-	-	-	-	-	250,000
Water Main Looping- Franklin St from 1601 to 1810 & Franklin St from Independence	-	-	-	400,000	-	-	-	400,000
Water Main Looping- Highland Reservoir to Old Coach Rd	-	750,000	-	-	-	-	-	750,000
Water Main Looping- Stettin Dr from Stewart Ave North to the Park	-	-	-	-	350,000	-	-	350,000
Water Main Looping- Townline Rd from Green Vistas to Hawthorne Ln	-	-	-	-	-	650,000	-	650,000
Water Main Replacement - 12th Street from Forest Street to Jackson Street	-	-	-	63,000	-	-	-	63,000
Water Main Replacement - 28th Avenue from Westhill Drive to West Wausau Ave	100,000	-	-	-	-	-	-	100,000
Water Main Replacement - 2nd Street from Forest Street to Division Street	75,000	-	-	-	-	-	-	75,000
Water Main Replacement - 3rd Avenue from West Eldred Street to Randolph Street	-	-	160,000	-	-	-	-	160,000
Water Main Replacement - Brown Street from 5th Street to 13th Street	-	-	1,009,000	-	-	-	-	1,009,000
Water Main Replacement - Division Street from 2nd Street east to the dead end	-	-	-	-	-	-	-	-
Water Main Replacement - Emerson Street from Ethel Street to Eau Claire Boulevard	-	-	-	-	-	-	-	-
Water Main Replacement - Ethel Street from Grand Avenue to Zimmerman Street	-	791,000	-	-	-	-	-	791,000
Water Main Replacement - Forest Street from Bellis Street to 12th Street	-	-	-	335,000	-	-	-	335,000
Water Main Replacement - Garfield Avenue from Marathon Park to 3rd Avenue	-	-	-	353,000	-	-	-	353,000
Water Main Replacement - Mount View Boulevard from Ethel Street to Eau Claire Boulevard	-	-	-	-	-	-	-	-
Water Main Replacement - North 11th Avenue from Elm Street to Cedar Street	-	-	-	-	412,000	-	-	412,000
Water Main Replacement - North 11th Street from East Crocker Street to Sylvan	-	-	264,000	-	-	-	-	264,000
Water Main Replacement - North 4th Avenue from Merrill Avenue to Randolph Street	-	-	-	-	395,000	-	-	395,000
Water Main Replacement - North 8th Avenue from Spruce Street to Bridge Street	400,000	-	-	-	-	-	-	400,000
Water Main Replacement - North 9th Avenue from Bridge Street to West Stowbr	-	-	-	-	-	500,000	-	500,000
Water Main Replacement - North 9th Avenue from Elm Street to Bridge Street	-	-	-	695,000	-	-	-	695,000
Water Main Replacement - Park Avenue from 2nd Street to 10th Street	-	-	-	-	798,000	-	-	798,000
Water Main Replacement - Pied Piper Lane from Ethel Street to Eau Claire Boulevard	-	-	-	-	-	-	-	-
Water Main Replacement - Pine Ridge Boulevard from Westhill Drive to Plaza Drive	-	-	-	-	-	480,000	-	480,000
Water Main Replacement - Plumer Street from Grand Avenue to Battery Street	-	-	-	-	434,000	-	-	434,000
Water Main Replacement - South 11th Avenue from West Thomas Street to Fliet	-	404,000	-	-	-	-	-	404,000
Water Main Replacement - South 17th Avenue from Sherman Street to Stewart A	-	-	-	-	230,000	-	-	230,000
Water Main Replacement - South 17th Avenue from Sherman Street to the Railr	-	-	-	-	-	-	-	-
Water Main Replacement - South 4th Street from River Drive to Forest Street	-	-	-	-	-	300,000	-	300,000
Water Main Replacement - Stark Street from 5th Street to 12th Street	775,000	-	-	-	-	-	-	775,000
Water Main Replacement - West Eldred Street from North 3rd Avenue to North 1:	-	-	136,000	-	-	-	-	136,000
Water Main Replacement - West Wausau Avenue from North 10th Avenue to Ste	242,000	-	-	-	-	-	-	242,000
	36,370,535	13,605,000	9,839,000	2,961,000	2,994,000	2,230,000	-	67,999,535

Water Division Total

Water Capital Improvement Project Plan - 2027-2031

Funding Source/Type & Debt/Other Funding

Funding Sources

The table below shows a summary of the funding sources for CIP projects by year.

Department / Project Title	Funding Source	Funding Type	Fiscal Year					Unfunded	Total	
			Prior to2027	Current Year:2027	Year 1:2028	Year 2:2029	Year 3:2030			Year 4:2031
Water Division										
2026 Lead Service Line Replacement	Water Fund	Principal Forgiveness	\$18,877,651	\$4,000,000	\$2,000,000	\$0	\$0	\$0	\$0	\$24,877,651
2026 Lead Service Line Replacement	Water Fund	Safe Drinking Water Fund	\$9,604,125	\$3,000,000	\$2,000,000	\$0	\$0	\$0	\$0	\$14,604,125
2026 Lead Service Line Replacement	Water Fund	GO Bonds	\$4,726,759	\$3,000,000	\$2,000,000	\$0	\$0	\$0	\$0	\$9,726,759
Asset Management Software	Water Fund	Cash Funding	\$300,000	\$0	\$0	\$0	\$0	\$0	\$0	\$300,000
Asterra Leak Detection	Water Fund	Cash Funding	\$45,000	\$0	\$0	\$0	\$0	\$0	\$0	\$45,000
Backhoes/ Excavator	Water Fund	Revenue Bonds	\$180,000	\$0	\$350,000	\$0	\$0	\$0	\$0	\$530,000
Hydrovac Valve Turner	Water Fund	Revenue Bonds	\$0	\$750,000	\$0	\$0	\$0	\$200,000	\$0	\$950,000
Meters and (Transmitters) Radios	Water Fund	Cash Funding	\$200,000	\$200,000	\$100,000	\$100,000	\$100,000	\$100,000	\$0	\$800,000
Monroe Booster Reconstruction	Water Fund	Revenue Bonds	\$60,000	\$0	\$500,000	\$0	\$0	\$0	\$0	\$560,000
New Well	Water Fund	Safe Drinking Water Fund	\$0	\$0	\$0	\$700,000	\$0	\$0	\$0	\$700,000
Orthophosphate Addition	Water Fund	Revenue Bonds	\$0	\$50,000	\$200,000	\$0	\$0	\$0	\$0	\$250,000
Portable/On Site Generator	Water Fund	Cash Funding	\$0	\$80,000	\$0	\$80,000	\$0	\$0	\$0	\$160,000
Reservoir Coatings and Maintenance	Water Fund	Cash Funding	\$150,000	\$150,000	\$150,000	\$150,000	\$150,000	\$0	\$0	\$750,000
Reservoir Inspections	Water Fund	Cash Funding	\$0	\$0	\$0	\$0	\$40,000	\$0	\$0	\$40,000
Treatment Facility- Paving	Water Fund	Revenue Bonds	\$0	\$60,000	\$0	\$0	\$0	\$0	\$0	\$60,000
Vehicles	Water Fund	Cash Funding	\$85,000	\$120,000	\$120,000	\$85,000	\$85,000	\$0	\$0	\$495,000
Water Main Looping	Water Fund	Revenue Bonds	\$550,000	\$0	\$0	\$0	\$0	\$0	\$0	\$550,000
Water Main Looping- 25th St from McIntosh to Townline Rd	Water Fund	Revenue Bonds	\$0	\$0	\$850,000	\$0	\$0	\$0	\$0	\$850,000
Water Main Looping- Brown St from Cul-de-sac to 18th St	Water Fund	Revenue Bonds	\$0	\$250,000	\$0	\$0	\$0	\$0	\$0	\$250,000
Water Main Looping- Franklin St from 1601 to 1810 & Franklin St from Independence to Freedom Way	Water Fund	Revenue Bonds	\$0	\$0	\$0	\$400,000	\$0	\$0	\$0	\$400,000
Water Main Looping- Highland Reservoir to Old Coach Rd	Water Fund	Revenue Bonds	\$0	\$750,000	\$0	\$0	\$0	\$0	\$0	\$750,000
Water Main Looping- Stettin Dr from Stewart Ave North to the Park	Water Fund	Revenue Bonds	\$0	\$0	\$0	\$0	\$350,000	\$0	\$0	\$350,000
Water Main Looping- Townline Rd from Green Vistas to Hawthorne Ln	Water Fund	Revenue Bonds	\$0	\$0	\$0	\$0	\$0	\$650,000	\$0	\$650,000
Water Main Replacement - 12th Street from Forest Street to Jackson Street	Water Fund	Revenue Bonds	\$0	\$0	\$0	\$63,000	\$0	\$0	\$0	\$63,000
Water Main Replacement - 28th Avenue from Westhill Drive to West Wausau Avenue	Water Fund	Revenue Bonds	\$100,000	\$0	\$0	\$0	\$0	\$0	\$0	\$100,000
Water Main Replacement - 2nd Street from Forest Street to Division Street	Water Fund	Revenue Bonds	\$75,000	\$0	\$0	\$0	\$0	\$0	\$0	\$75,000
Water Main Replacement - 3rd Avenue from West Eldred Street to Randolph Street	Water Fund	Revenue Bonds	\$0	\$0	\$160,000	\$0	\$0	\$0	\$0	\$160,000
Water Main Replacement - Brown Street from 5th Street to 13th Street	Water Fund	Revenue Bonds	\$0	\$0	\$1,009,000	\$0	\$0	\$0	\$0	\$1,009,000
Water Main Replacement - Emerson Street from Ethel Street to Eau Claire Boulevard	Water Fund	Revenue Bonds	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Water Main Replacement - Ethel Street from Grand Avenue to Zimmerman Street	Water Fund	Revenue Bonds	\$0	\$791,000	\$0	\$0	\$0	\$0	\$0	\$791,000
Water Main Replacement - Forest Street from Bellis Street to 12th Street	Water Fund	Revenue Bonds	\$0	\$0	\$0	\$335,000	\$0	\$0	\$0	\$335,000
Water Main Replacement - Garfield Avenue from Marathon Park to 3rd Avenue	Water Fund	Revenue Bonds	\$0	\$0	\$0	\$353,000	\$0	\$0	\$0	\$353,000
Water Main Replacement - Mount View Boulevard from Ethel Street to Eau Claire Boulevard	Water Fund	Revenue Bonds	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Water Main Replacement - North 11th Avenue from Elm Street to Cedar Street	Water Fund	Revenue Bonds	\$0	\$0	\$0	\$0	\$412,000	\$0	\$0	\$412,000
Water Main Replacement - North 11th Street from East Crocker Street to Sylvan Street	Water Fund	Revenue Bonds	\$0	\$0	\$264,000	\$0	\$0	\$0	\$0	\$264,000
Water Main Replacement - North 4th Avenue from Merrill Avenue to Randolph Street	Water Fund	Revenue Bonds	\$0	\$0	\$0	\$0	\$395,000	\$0	\$0	\$395,000
Water Main Replacement - North 8th Avenue from Spruce Street to Bridge Street	Water Fund	Revenue Bonds	\$400,000	\$0	\$0	\$0	\$0	\$0	\$0	\$400,000
Water Main Replacement - North 9th Avenue from Bridge Street to West Strowbridge Street	Water Fund	Revenue Bonds	\$0	\$0	\$0	\$0	\$0	\$500,000	\$0	\$500,000
Water Main Replacement - North 9th Avenue from Elm Street to Bridge Street	Water Fund	Revenue Bonds	\$0	\$0	\$0	\$695,000	\$0	\$0	\$0	\$695,000
Water Main Replacement - Park Avenue from 2nd Street to 10th Street	Water Fund	Revenue Bonds	\$0	\$0	\$0	\$0	\$798,000	\$0	\$0	\$798,000
Water Main Replacement - Pied Piper Lane from Ethel Street to Eau Claire Boulevard	Water Fund	Revenue Bonds	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Water Main Replacement - Pine Ridge Boulevard from Westhill Drive to Plaza Drive	Water Fund	Revenue Bonds	\$0	\$0	\$0	\$0	\$0	\$480,000	\$0	\$480,000
Water Main Replacement - Plumer Street from Grand Avenue to Battery Street	Water Fund	Revenue Bonds	\$0	\$0	\$0	\$0	\$434,000	\$0	\$0	\$434,000
Water Main Replacement - South 11th Avenue from West Thomas Street to Flieth Street	Water Fund	Revenue Bonds	\$0	\$404,000	\$0	\$0	\$0	\$0	\$0	\$404,000
Water Main Replacement - South 17th Avenue from Sherman Street to Stewart Avenue	Water Fund	Revenue Bonds	\$0	\$0	\$0	\$0	\$230,000	\$0	\$0	\$230,000
Water Main Replacement - South 17th Avenue from Sherman Street to the Railroad Tracks	Water Fund	Revenue Bonds	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Water Main Replacement - South 4th Street from River Drive to Forest Street	Water Fund	Revenue Bonds	\$0	\$0	\$0	\$0	\$0	\$300,000	\$0	\$300,000
Water Main Replacement - Stark Street from 5th Street to 12th Street	Water Fund	Revenue Bonds	\$775,000	\$0	\$0	\$0	\$0	\$0	\$0	\$775,000
Water Main Replacement - West Eldred Street from North 3rd Avenue to North 1st Avenue	Water Fund	Revenue Bonds	\$0	\$0	\$136,000	\$0	\$0	\$0	\$0	\$136,000
Water Main Replacement - West Wausau Avenue from North 10th Avenue to Stevens Drive	Water Fund	Revenue Bonds	\$242,000	\$0	\$0	\$0	\$0	\$0	\$0	\$242,000
Water Division Total			36,370,535	13,605,000	9,839,000	2,961,000	2,994,000	2,230,000	-	67,999,535



Eric Lindman, P.E.
Director of Public Works and Utilities

Department of Public Works & Utilities

TO: Wausau Waterworks Commission

FROM: Eric Lindman, P.E.
Director of Public Works & Utilities

DATE: May 5, 2026

SUBJECT: Wastewater 2027-2031 Capital Improvement Project Plan (CIPP)

Find attached the proposed 5-year capital budget for the wastewater utility, 2027 thru 2031. The first page lists each project, the year it is to be completed and the total estimated cost of the project. In the first column of costs labeled "Prior to 2027" are the funds that are being carried over which have not been spent in previous years. This is typically due to a project not being started or a project that is not yet completed and stretching multiple years for completion.

The second page is a list of the projects broken out by funding source. Projects are paid by different funding sources such as principal forgiveness loans, grants, revenue bonds, TID's cash or bonds, and utility cash. We are working with our new capital budgeting software to be able to complete better reporting, this is a work in progress. Included in this memo below is a breakdown of the proposed debt and cash expenditure for the 5-year CIPP. I feel it is important to understand that not all CIPP expenditures are debt, and the utility does well balancing its budget each year and funding its CIPP in a diversified manner.

As you will see, the utility borrows for long life capital projects, such as lift station structure upgrades, sewer main replacements with street projects, and treatment facility improvements. This is the best option as the borrowing term is typically 10 years and the asset life is, in many instances, 50+ years. Other assets, such as equipment, are typically paid in cash. The wastewater utility also has a "Capital Replacement Fund" and additional funds are placed into this account each year. This fund is used to purchase/replace larger operational equipment such as pumps, flow meters, electrical control items, etc. This also allows us some additional options for purchasing our own equipment for a project. For example, if a project is funded by federal funds there are many more restrictions and utilizing our internal funds for equipment allows us to choose the best equipment for our operations and standardize equipment throughout the wastewater utility which ultimately lessens the burden on operations.

Wastewater Capital Improvement Project Plan - 2027-2031 Funding Source/Type & Debt/Other Funding

Funding Source	Funding Type	Prior Years	2027	2028	2029	2030	2031	Total
Wastewater Fund	Clean Water Fund	\$0	\$1,060,000	\$436,000	\$0	\$260,333	\$0	\$1,756,333
Wastewater Fund	Cash Funding	\$862,500	\$1,190,000	\$1,281,000	\$775,000	\$905,334	\$120,000	\$5,133,834
Wastewater Fund	Principal Forgiveness	\$0	\$1,060,000	\$437,000	\$0	\$260,333	\$0	\$1,757,333
Wastewater Fund	Revenue Bonds	\$2,502,000	\$910,000	\$1,529,000	\$1,378,000	\$2,166,000	\$1,020,000	\$9,505,000
Capital Projects Fund	Revenue Bonds	\$0	\$0	\$800,000	\$0	\$671,000	\$0	\$1,471,000
		\$3,364,500	\$4,220,000	\$4,483,000	\$2,153,000	\$4,263,000	\$1,140,000	\$19,623,500
	Debt	\$2,502,000	\$1,970,000	\$2,765,000	\$1,378,000	\$3,097,333	\$1,020,000	\$12,732,333
	Cash	\$862,500	\$1,190,000	\$1,281,000	\$775,000	\$905,334	\$120,000	\$5,133,834
	PF/Grants	\$0	\$1,060,000	\$437,000	\$0	\$260,333	\$0	\$1,757,333
		\$3,364,500	\$4,220,000	\$4,483,000	\$2,153,000	\$4,263,000	\$1,140,000	\$19,623,500

Each year you can see our proposed debt and other funding sources we use to complete projects. Over the course of the next five years this may change as funding sources may change or new ones become available. The above are the estimated costs as well as the proposed funding sources. Typically, every given year, I will bring this back in the Spring to show any changes in projects priorities, funding sources or needs for adding projects.

2027 - 2031 Wastewater Utility Capital Improvement Project Plan (CIPP)

Total Cost of Each Project by Year

Department - Project Name	Prior to2027	Current Year:2027	Year 1:2028	Year 2:2029	Year 3:2030	Year 4:2031	Unfunded	Total
Wastewater Division								
Airport and 32nd Ave Lift Station Upgrades	-	1,320,000	-	-	-	-	-	1,320,000
Asset Management/Work Order Program	300,000	-	-	-	-	-	-	300,000
Automated Septage Receiving Station	-	1,200,000	-	-	-	-	-	1,200,000
Biogas Conditioning Skid or New Microturbines and Gas Skid	-	-	1,309,000	-	-	-	-	1,309,000
Collection System Rehab & Maintenance- Forcemain Pigging/Cleaning, Interceptor Line Repairs/Manhole Rehab, Slipline Sewers (Cured in Place/ I&I Repairs)	620,000	525,000	1,145,000	525,000	1,145,000	-	-	3,960,000
Crocker St Lift Station	726,000	-	-	-	-	-	-	726,000
Lift Station Engineering Report & Design- 6 Lift Stations	100,000	100,000	-	-	-	-	-	200,000
New Lift Station Service Truck	-	-	200,000	-	-	-	-	200,000
New Sludge Truck	-	-	-	250,000	-	-	-	250,000
New Tanker Truck	-	175,000	-	-	-	-	-	175,000
New Utility/Sign Truck	-	-	-	-	-	120,000	-	120,000
New Vector Truck	-	-	800,000	-	-	-	-	800,000
Radio or Cellular Communications Upgrade at Lift Stations	83,500	90,000	-	-	-	-	-	173,500
Sanitary Sewer Replacement - 2nd Street from Forest Street to Division Street	75,000	-	-	-	-	-	-	75,000
Sanitary Sewer Replacement - Garfield Avenue from Marathon Park to 3rd Avenue	-	-	-	487,000	-	-	-	487,000
Sanitary Sewer Replacement - 12th Street from Forest Street to Jackson Street	-	-	-	42,000	-	-	-	42,000
Sanitary Sewer Replacement - 28th Avenue from Westhill Drive to West Wausau Avenue	100,000	-	-	-	-	-	-	100,000
Sanitary Sewer Replacement - 3rd Avenue from West Eldred Street to Randolph Street	-	-	82,000	-	-	-	-	82,000
Sanitary Sewer Replacement - Brown Street from 5th Street to 13th Street	-	-	705,000	-	-	-	-	705,000
Sanitary Sewer Replacement - Division Street from 2nd Street east to the dead end	-	-	-	-	-	-	-	-
Sanitary Sewer Replacement - Emerson Street from Ethel Street to Eau Claire Boulevard	-	-	-	-	-	-	-	-
Sanitary Sewer Replacement - Ethel Street from Grand Avenue to Zimmerman Street	-	530,000	-	-	-	-	-	530,000
Sanitary Sewer Replacement - Forest Street from Bellis Street to 12th Street	-	-	-	209,000	-	-	-	209,000
Sanitary Sewer Replacement - North 11th Avenue from Elm Street to Cedar Street	-	-	-	-	288,000	-	-	288,000
Sanitary Sewer Replacement - North 11th Street from East Crocker Street to Sylvan Street	-	-	194,000	-	-	-	-	194,000
Sanitary Sewer Replacement - North 4th Avenue from Merrill Avenue to Randolph Street	-	-	-	-	327,000	-	-	327,000
Sanitary Sewer Replacement - North 8th Avenue from Spring Street to Bridge Street	300,000	-	-	-	-	-	-	300,000
Sanitary Sewer Replacement - North 9th Avenue from Bridge Street to West Strowbridge Street	-	-	-	-	-	435,000	-	435,000
Sanitary Sewer Replacement - North 9th Avenue from Elm Street to Bridge Street	-	-	-	328,000	-	-	-	328,000
Sanitary Sewer Replacement - Park Avenue from 2nd Street to 10th Street	-	-	-	-	671,000	-	-	671,000
Sanitary Sewer Replacement - Pied Piper Lane from Ethel Street to Eau Claire Boulevard	-	-	-	-	-	-	-	-
Sanitary Sewer Replacement - Pine Ridge Boulevard from Westhill Drive to Plaza Drive	-	-	-	-	-	375,000	-	375,000
Sanitary Sewer Replacement - Plumer Street from Grand Avenue to Battery Street	-	-	-	-	271,000	-	-	271,000
Sanitary Sewer Replacement - South 11th Avenue from West Thomas Street to Flieth Street	-	380,000	-	-	-	-	-	380,000
Sanitary Sewer Replacement - South 17th Avenue from Sherman Street to Stewart Avenue	-	-	-	-	498,000	-	-	498,000
Sanitary Sewer Replacement - South 17th Avenue from Sherman Street to the Railroad Tracks	-	-	-	-	-	-	-	-
Sanitary Sewer Replacement - South 4th Street from River Drive to Forest Street	-	-	-	-	-	210,000	-	210,000
Sanitary Sewer Replacement - Stark Street from 5th Street to 12th Street	625,000	-	-	-	-	-	-	625,000
Sanitary Sewer Replacement - West Wausau Avenue from North 10th Avenue to Stevens Drive	176,000	-	-	-	-	-	-	176,000
Sewer Capacity Study of Wausau's Collections System	159,000	-	-	-	-	-	-	159,000
Sewer Replacement - Mount View Boulevard from Ethel Street to Eau Claire Boulevard	-	-	-	-	-	-	-	-
Sludge Loadout Bldg. Addition, Class B Sludge Automatic Diversion and Concrete between STR. 770 & STR. 540	-	-	-	-	781,000	-	-	781,000
Stewart Ave West of 72nd Ave- Sewer Upgrade	-	-	-	-	-	-	-	-
Str. 110 (Parking Garage) Roofing	-	-	-	-	282,000	-	-	282,000
Str. 115 (Cold Storage Bldg.) Remodel	-	-	-	312,000	-	-	-	312,000
West Eldred Street from 3rd Avenue to 1st Avenue	-	-	48,000	-	-	-	-	48,000
Wastewater Division Total	3,264,500	4,320,000	4,483,000	2,153,000	4,263,000	1,140,000	-	19,623,500

2027 - 2031 Wastewater Utility Capital Improvement Project Plan (CIPP)

Funding Sources

The table below shows a summary of the funding sources for CIP projects by year.

Department / Project Title	Funding Source	Funding Type	Fiscal Year					Unfunded	Total	
			Prior to 2027	Current Year:2027	Year 1:2028	Year 2:2029	Year 3:2030			Year 4:2031
Wastewater Division										
Lift Station Upgrades										
Airport and 32nd Ave Lift Station Upgrades	Wastewater Fund	Clean Water Fund	-	660,000	-	-	-	-	-	660,000
Airport and 32nd Ave Lift Station Upgrades	Wastewater Fund	Principal Forgiveness	-	660,000	-	-	-	-	-	660,000
Asset Management/Work Order Program	Wastewater Fund	Cash Funding	300,000	-	-	-	-	-	-	300,000
Automated Septage Receiving Station	Wastewater Fund	Cash Funding	-	400,000	-	-	-	-	-	400,000
Automated Septage Receiving Station	Wastewater Fund	Clean Water Fund	-	400,000	-	-	-	-	-	400,000
Automated Septage Receiving Station	Wastewater Fund	Principal Forgiveness	-	400,000	-	-	-	-	-	400,000
Biogas Conditioning Skid or New Microturbines and Gas Skid	Wastewater Fund	Cash Funding	-	-	436,000	-	-	-	-	436,000
Biogas Conditioning Skid or New Microturbines and Gas Skid	Wastewater Fund	Clean Water Fund	-	-	436,000	-	-	-	-	436,000
Biogas Conditioning Skid or New Microturbines and Gas Skid	Wastewater Fund	Principal Forgiveness	-	-	437,000	-	-	-	-	437,000
Collection System Rehab & Maintenance- Forcemain Pigging/Cleaning, Interceptor Line Repairs/Manhole Rehab, Slipline Sewers (Cured in Place/ I&I Repairs)	Wastewater Fund	Cash Funding	120,000	525,000	645,000	525,000	645,000	-	-	2,460,000
Collection System Rehab & Maintenance- Forcemain Pigging/Cleaning, Interceptor Line Repairs/Manhole Rehab, Slipline Sewers (Cured in Place/ I&I Repairs)	Wastewater Fund	Revenue Bonds	500,000	-	500,000	-	500,000	-	-	1,500,000
Crocker St Lift Station	Wastewater Fund	Revenue Bonds	726,000	-	-	-	-	-	-	726,000
Lift Station Engineering Report & Design- 6 Lift Stations	Wastewater Fund	Cash Funding	100,000	100,000	-	-	-	-	-	200,000
New Lift Station Service Truck	Wastewater Fund	Cash Funding	-	-	200,000	-	-	-	-	200,000
New Sludge Truck	Wastewater Fund	Cash Funding	-	-	-	250,000	-	-	-	250,000
New Tanker Truck	Wastewater Fund	Cash Funding	-	175,000	-	-	-	-	-	175,000
New Utility/Sign Truck	Wastewater Fund	Cash Funding	-	-	-	-	-	120,000	-	120,000
New Vector Truck	Capital Projects Fund	Revenue Bonds	-	-	800,000	-	-	-	-	800,000
Radio or Cellular Communications Upgrade at Lift Stations	Wastewater Fund	Cash Funding	83,500	90,000	-	-	-	-	-	173,500
Sanitary Sewer Replacement - 2nd Street from Forest Street to Division Street	Wastewater Fund	Revenue Bonds	75,000	-	-	-	-	-	-	75,000
Sanitary Sewer Replacement - Garfield Avenue from Marathon Park to 3rd Avenue	Wastewater Fund	Revenue Bonds	-	-	-	487,000	-	-	-	487,000
Sanitary Sewer Replacement - 12th Street from Forest Street to Jackson Street	Wastewater Fund	Revenue Bonds	-	-	-	42,000	-	-	-	42,000
Sanitary Sewer Replacement - 28th Avenue from Westhill Drive to West Wausau Avenue	Wastewater Fund	Revenue Bonds	100,000	-	-	-	-	-	-	100,000
Sanitary Sewer Replacement - 3rd Avenue from West Eldred Street to Randolph Street	Wastewater Fund	Revenue Bonds	-	-	82,000	-	-	-	-	82,000
Sanitary Sewer Replacement - Brown Street from 5th Street to 13th Street	Wastewater Fund	Revenue Bonds	-	-	705,000	-	-	-	-	705,000
Sanitary Sewer Replacement - Division Street from 2nd Street east to the dead end	Wastewater Fund	Revenue Bonds	-	-	-	-	-	-	-	-
Sanitary Sewer Replacement - Emerson Street from Ethel Street to Eau Claire Boulevard	Wastewater Fund	Revenue Bonds	-	-	-	-	-	-	-	-
Sanitary Sewer Replacement - Ethel Street from Grand Avenue to Zimmerman Street	Wastewater Fund	Revenue Bonds	-	530,000	-	-	-	-	-	530,000
Sanitary Sewer Replacement - Forest Street from Bellis Street to 12th Street	Wastewater Fund	Revenue Bonds	-	-	-	209,000	-	-	-	209,000
Sanitary Sewer Replacement - North 11th Avenue from Elm Street to Cedar Street	Wastewater Fund	Revenue Bonds	-	-	-	-	288,000	-	-	288,000
Sanitary Sewer Replacement - North 11th Street from East Crocker Street to Sylvan Street	Wastewater Fund	Revenue Bonds	-	-	194,000	-	-	-	-	194,000
Sanitary Sewer Replacement - North 4th Avenue from Merrill Avenue to Randolph Street	Wastewater Fund	Revenue Bonds	-	-	-	-	327,000	-	-	327,000
Sanitary Sewer Replacement - North 8th Avenue from Spring Street to Bridge Street	Wastewater Fund	Revenue Bonds	300,000	-	-	-	-	-	-	300,000
Sanitary Sewer Replacement - North 9th Avenue from Bridge Street to West Strowbridge Street	Wastewater Fund	Revenue Bonds	-	-	-	-	-	435,000	-	435,000
Sanitary Sewer Replacement - North 9th Avenue from Elm Street to Bridge Street	Wastewater Fund	Revenue Bonds	-	-	-	328,000	-	-	-	328,000
Sanitary Sewer Replacement - Park Avenue from 2nd Street to 10th Street	Capital Projects Fund	Revenue Bonds	-	-	-	-	671,000	-	-	671,000
Sanitary Sewer Replacement - Pied Piper Lane from Ethel Street to Eau Claire Boulevard	Wastewater Fund	Revenue Bonds	-	-	-	-	-	-	-	-
Sanitary Sewer Replacement - Pine Ridge Boulevard from Westhill Drive to Plaza Drive	Wastewater Fund	Revenue Bonds	-	-	-	-	-	375,000	-	375,000
Sanitary Sewer Replacement - Plumer Street from Grand Avenue to Battery Street	Wastewater Fund	Revenue Bonds	-	-	-	-	271,000	-	-	271,000
Sanitary Sewer Replacement - South 11th Avenue from West Thomas Street to Fleth Street	Wastewater Fund	Revenue Bonds	-	380,000	-	-	-	-	-	380,000
Sanitary Sewer Replacement - South 17th Avenue from Sherman Street to Stewart Avenue	Wastewater Fund	Revenue Bonds	-	-	-	-	498,000	-	-	498,000
Sanitary Sewer Replacement - South 17th Avenue from Sherman Street to the Railroad Tracks	Wastewater Fund	Revenue Bonds	-	-	-	-	-	-	-	-
Sanitary Sewer Replacement - South 4th Street from River Drive to Forest Street	Wastewater Fund	Revenue Bonds	-	-	-	-	-	210,000	-	210,000
Sanitary Sewer Replacement - Stark Street from 5th Street to 12th Street	Wastewater Fund	Revenue Bonds	625,000	-	-	-	-	-	-	625,000
Sanitary Sewer Replacement - West Wausau Avenue from North 10th Avenue to Stevens Drive	Wastewater Fund	Revenue Bonds	176,000	-	-	-	-	-	-	176,000
Sewer Capacity Study of Wausau's Collections System	Wastewater Fund	Cash Funding	159,000	-	-	-	-	-	-	159,000
Sewer Replacement - Mount View Boulevard from Ethel Street to Eau Claire Boulevard	Wastewater Fund	Revenue Bonds	-	-	-	-	-	-	-	-
Sludge Loadout Bldg. Addition, Class B Sludge Automatic Diversion and Concrete between STR. 770 & STR. 540	Wastewater Fund	Cash Funding	-	-	-	-	260,334	-	-	260,334
Sludge Loadout Bldg. Addition, Class B Sludge Automatic Diversion and Concrete between STR. 770 & STR. 540	Wastewater Fund	Clean Water Fund	-	-	-	-	260,333	-	-	260,333
Sludge Loadout Bldg. Addition, Class B Sludge Automatic Diversion and Concrete between STR. 770 & STR. 540	Wastewater Fund	Principal Forgiveness	-	-	-	-	260,333	-	-	260,333
Str. 110 (Parking Garage) Roofing	Wastewater Fund	Revenue Bonds	-	-	-	-	282,000	-	-	282,000
Str. 115 (Cold Storage Bldg.) Remodel	Wastewater Fund	Revenue Bonds	-	-	-	312,000	-	-	-	312,000
West Eldred Street from 3rd Avenue to 1st Avenue	Wastewater Fund	Revenue Bonds	-	-	48,000	-	-	-	-	48,000
Wastewater Division Total			3,264,500	4,320,000	4,483,000	2,153,000	4,263,000	1,140,000	-	19,623,500

RENEWAL SERVICE AGREEMENT

DEVELOPED FOR

Scott Boers
Wausau WI, City of

407 GRANT ST
Wausau, WI, 54403

2/6/2026

PROTECTING PEOPLE, WATER, & CRITICAL PIPING INFRASTRUCTURE

For more than four decades, HydroCorp has been dedicated to advancing drinking water safety, compliance, and sustainability nationwide. Specializing in cross-connection control, backflow prevention, and detailed piping system schematics, HydroCorp integrates technology with deep industry expertise to streamline on-site activities, customer service, and data management.

OUR SERVICES



Cross-Connection Control Programs



Backflow Preventer Test Tracking



Water Meter Replacement & Testing



Piping Schematics




Water Quality Management & Sampling



Corporate Office

5700 Crooks Road, Suite 100
Troy, MI 48098

844-493-7646

 info@hydrocorpinc.com

 hydrocorpinc.com



SCOPE OF WORK.....3-4

PROFESSIONAL SERVICE AGREEMENT.....5-9

APPENDIX - QUALIFICATIONS.....10

Statement of Work

HydroCorp™ (“Company”) will provide the following services to the Wausau WI, City of (“Client”). This project is a continued effort for an ongoing Cross-Connection Control Program and will provide the Wausau WI, City of with the necessary data and information to maintain compliance with the Wisconsin Department of Natural Resources, Bureau of Drinking Water and Groundwater Cross Connection Control Regulations. Once this project has been approved and accepted by the Wausau WI, City of and HydroCorp, you may expect completion of the following elements within a 48 month period. The continued components of the project include:

1.1. Program Review and Program Start-up Meeting. Company will conduct a Program Startup Meeting, if requested, for the Cross-Connection Control/Backflow Prevention Program. Items for discussion/review will include the following:

- Review state & local regulations
- Review and/or provide assistance in establishing local Cross-Connection Control Ordinance
- Review/establish wording and timeliness for program notifications including:
 - Inspection Notice, Compliance Notice, Non-Compliance Notices 1-2, and Penalty Notices
 - Testing Notices 1,2, and 3, if applicable
- Special Program Notices and Electronic use of notices/program information
- Obtain updated facility listing, address information and existing program data from Utility.
- Prioritize Inspections (Utility owned buildings, schools, high hazard facilities, special circumstances.)
- Review/establish procedure for vacant facilities.
- Establish facility inspection schedule.
- Review/establish procedures and protocols for addressing specific hazards.
- Review/establish high-hazard, complex facilities and large industrial facility inspection/containment procedures including supplemental information/notification that may be requested from these types of facilities in order to achieve program compliance.
- Review/establish program reporting procedures including electronic reporting tools, educational and public awareness brochures

1.2. Inspections. Company will perform Non-Residential Interior initial inspections, compliance inspections, and re-inspections at individual industrial, commercial, institutional facilities and miscellaneous water users within the utility served by the public water supply for cross-connections. Inspections will be conducted in accordance with the Wisconsin Department of Natural Resources, Bureau of Drinking Water and Groundwater Cross Connection Control Rules.

1.3. Inspection Schedule. Company shall determine and coordinate the inspection schedule. Inspection personnel will check in/out on a daily basis with the Client Contract Manager. The initial check-in will include a list of inspections scheduled. An exit interview will include a list of completed inspections.

1.4. Program Data. Company will generate and document the required program data for the Facility Types listed in the Services using the Company’s Software Data Management Program. Program Data shall remain property of Client; however, Company’s Software Data Management program shall remain the property of Company. View only and report capabilities are granted to Client. Additional Services include:

- (a) Prioritize and schedule inspections
- (b) Notify users of inspections and backflow device installation/testing requirements, if applicable
 - i. If applicable, Qualified Wisconsin Backflow Preventer Testers will register via HydroCorp Managed Software and be verified for current credentials prior to online test forms being accepted. Credential shall be maintained in HydroCorp Software and updated by HydroCorp staff.
 - ii. All testers are required to register & process results online
 - iii. Company does not accept test forms via fax, mail, or email from testers, water customers, or client
- (c) Monitor inspection compliance using Company’s online software management program
- (d) Maintain the program to comply with all Wisconsin Department of Natural Resources, Bureau of Drinking Water and Groundwater regulations
- (e) Provide data management and program notices for all inspection and testing (if applicable) services throughout the term

1.5. Account Listing Information. Client shall provide the following information to Company during initial onboarding. Company will accept updates via standard account template no more often than once per month. **Any development work to enter facility listing in Company database will be charged at the rate of \$80.00 per hour. Incorrect facility addresses will be returned to the Utility contact and corrected address will be requested.** Information to include:

- (a) Account Listing: Wausau WI, City of to provide accurate account listing of active non-residential water customers with and without known backflow preventer assemblies.
- (b) Account Listing Format: Account listing to be provided in Excel format only; Required Account Information: Service Name, Service Street Address, Service City, Service State, Service Zip, Mailing Name, Mailing Street Address, Mailing City, Mailing State, Mailing Zip.
- (c) Required Device Information: Last Test Date, size, make, model, and serial number (if applicable)
 - i. All previous test data must be provided in excel format. Company will not accept paper tests for upload.

1.6. Cross Connection Control Plan and Review of Cross-Connection Control Ordinance. Company will review and/or develop a comprehensive cross-connection control policy manual/plan and submit to the appropriate regulatory agency for approval on behalf of Client. Company will review or assist in the development of a cross-connection control ordinance.

1.7. Public Relations Program. Company will assist Client with a community-wide public relations program, including general awareness brochures and website cross-connection control program content. The utility/city will provide HydroCorp with an electronic copy of the utility logo or utility letterhead and all envelopes for the mailing of all official program correspondence only (300 dpi in either .eps, or other high-quality image format).

1.8. Support. Company will provide ongoing support via phone, website, or email for the Term.

1.9. Facility Types. The facility types included in the program are as follows: industrial; institutional; commercial; miscellaneous water users; and multifamily. Large industrial and high-hazard complexes or facilities may require inspection/survey services outside the scope of this Agreement. Company typically allows a maximum of up to three (3) hours of inspection time per facility. An independent cross-connection control survey (at the business owner's expense) may be required at these larger/complex facilities, and the results submitted to Client to help verify program compliance.

1.10. Inspection Terms. Company will perform a maximum of 1,484.00 inspections over the Term. The total inspections include all initial inspections, compliance, and re-inspections. Additional Inspections above the contract terms will be billed separately at a rate of \$150.09. Company Personnel will not enter confined spaces. *Vacant facilities that have been provided to Company, scheduled no show, or refusal of inspection will count as an inspection/site visit for purposes of the contract.*

1.11. Compliance with Wisconsin Department of Natural Resources, Bureau of Drinking Water and Groundwater . Company will assist in compliance with Wisconsin Department of Natural Resources, Bureau of Drinking Water and Groundwater cross-connection control program requirements for all commercial, industrial, institutional, residential, multifamily, and public authority facilities.

1.12. Inventory. Company shall inventory all accessible (ground level) backflow prevention assemblies and devices. Documentation will include: location, size, make, model, and serial number (if applicable).

1.13. Annual Year-End Review. Company will conduct an annual or year-end review meeting to discuss the overall program status and specific program recommendations.

1.14.

The above services will be provided for:

Year	Monthly Amount	Annual Amount
Year 1	\$4,370.98	\$52,451.98
Year 2	\$4,545.97	\$54,551.84
Year 3	\$4,727.76	\$56,733.32
Year 4	\$4,916.66	\$59,000.13
Contract Total		\$222,737.27

Contract Amount is based upon a 48 Months term and shall renew in 12-month increments after term unless written cancellation by either party received at least 60 days prior to renewal. HydroCorp will invoice in Monthly Amounts. Pricing is valid for 90 days from the date of the proposal.

SIGNATURES

IN WITNESS WHEREOF, the parties have duly executed this Agreement effective as of the date of 6/1/2026.

Wausau WI, City of

HydroCorp



By:
Title:

By: Paul M. Patterson
Its: Senior Vice President

HYDROCORP, LLC
TERMS AND CONDITIONS FOR PROFESSIONAL SERVICES

1. **Applicability.** These terms and conditions (these “**Terms**”) are the only terms which govern the provision of the professional services (“**Services**”) by HydroCorp, LLC, a Michigan limited liability company (“**Company**”) to the customer named on the attached statement of work, order form, proposal, or purchase order (“**Client**”, and together with Company the “**Parties**” and each individually a “**Party**”). The attached statement of work, order form, proposal, or purchase order (the “**Proposal**”) and these Terms (collectively, this “**Agreement**”) comprise the entire agreement between the Parties, and supersede all prior or contemporaneous understandings, agreements, negotiations, representations and warranties, and communications, both written and oral. The Proposal is limited to and conditional upon Client’s acceptance of these Terms exclusively. Any additional or different terms proposed by Client, whether in the Proposal or otherwise, are unacceptable to Company, are expressly rejected by Company, and will not become a part of the Proposal.

2. **Performance of Services; Company Obligations.** Company shall provide to Client the Services described and in accordance with the terms and conditions set forth in this Agreement. Additional Services may be added only by executing a new Proposal. Company shall provide Client with an electronic file copy of the utility logo or utility letterhead and all envelopes for the mailing of all official program correspondence only.

3. **Client Obligations.** Client shall: (a) designate one of its employees or agents to serve as its primary contact with respect to this Agreement and to act as its authorized representative with respect to matters pertaining to this Agreement (the “**Client Contract Manager**”), with such designation to remain in force unless and until a successor Client Contract Manager is appointed; (b) require that the Client Contract Manager respond promptly to any reasonable requests from Company for instructions, information, or approvals required by Company to provide the Services; (c) cooperate with Company in its performance of the Services and provide access to Client’s premises, employees, contractors, and equipment as required to enable Company to provide the Services; (d) take all steps necessary, including obtaining any required licenses or consents, to prevent Client-caused delays in Company’s provision of the Services; (e) comply with all responsibilities listed on the Proposal in connection with Company’s provision of the Services.

4. **Fees and Expenses.** In consideration of the provision of the Services by Company and the rights granted to Client under this Agreement, Client shall pay the fees set out in the applicable Proposal. Payment to Company of such fees and the reimbursement of expenses pursuant to this **Section 4** shall constitute payment in full for the performance of the Services. Unless otherwise provided in the applicable Proposal, all payments shall be due and payable within thirty (30) days of the date set forth on an invoice. Client shall reimburse Company for all reasonable expenses incurred in accordance with the Proposal if such expenses have been pre-approved, in writing by the Client Contract Manager, within thirty (30) days of receipt by Client of an invoice from Company accompanied by receipts and reasonable supporting documentation. Client shall be responsible for all sales, use and excise taxes, and any other similar taxes, duties and charges of any kind imposed by any federal, state or local governmental entity on any amounts payable by Client hereunder; and to the extent Company is required to pay any such sales, use, excise, or other taxes or other duties or charges, Client shall reimburse Company in connection with its payment of fees and expenses as set forth in this **Section 4**. Notwithstanding the previous sentence, in no event shall Client pay or be responsible for any taxes imposed on, or regarding, Company’s income, revenues, gross receipts, personnel, or real or personal property or other assets.

5. **Intellectual Property; Ownership.**

(a) Except as set forth in **Section 5(c)**, Client is, and shall be, the sole and exclusive owner of all right, title, and interest in and to the Deliverables (as defined herein) upon full payment of any fees owed to Company, including all Intellectual Property Rights (as defined herein) therein. Company agrees, and will cause its employees or contractors (the “**Company Representatives**”) to agree, that with respect to any Deliverables that may qualify as “work made for hire” as defined in 17 U.S.C. § 101, such Deliverables are hereby deemed a “work made for hire” for Client. To the extent that any of the Deliverables do not constitute a “work made for hire”, Company hereby irrevocably assigns, and shall cause the Company Representatives to irrevocably assign to Client, in each case without additional consideration, all right, title, and interest throughout the world in and to the Deliverables, including all Intellectual Property Rights therein. Company shall cause the Company Representatives to irrevocably waive, to the extent permitted by applicable law, any and all claims such Company Representatives may now or hereafter have in any jurisdiction to so-called “moral rights” or rights of droit moral with respect to the Deliverables. As used herein: (a) “**Deliverables**” mean all documents, work product, and other materials that are delivered to Client hereunder or prepared by or on behalf of Company in the course of performing the Services; and (b) “**Intellectual Property Rights**” means all (i) patents, patent disclosures, and inventions (whether patentable or not), (ii) trademarks, service marks, trade dress, trade names, logos, corporate names, and domain names, together with all of the goodwill associated therewith, (iii) copyrights and copyrightable works (including computer programs), and rights in data and databases, (iv) trade secrets, know-how, and other confidential information, and (v) all other intellectual property rights, in each case whether registered or unregistered and including all applications for, and renewals or extensions of, such rights, and all similar or equivalent rights or forms of protection in any part of the world.

(b) Upon Client’s reasonable request, Company shall, and shall cause the Company Representatives to, promptly take such further actions, including execution and delivery of all appropriate instruments of conveyance, as may be necessary to assist Client to prosecute, register, perfect, or record its rights in or to any Deliverables.

(c) Company and its licensors are, and shall remain, the sole and exclusive owners of all right, title, and interest in and to the Pre-Existing Materials (as defined herein), including all Intellectual Property Rights therein. Company hereby grants Client a limited, irrevocable, perpetual, fully paid-up, royalty-free, non-transferable, non-sublicenseable, worldwide license to use, perform, display, execute, reproduce, distribute, transmit, modify (including to create derivative works), import, make, have made, sell, offer to sell, and otherwise exploit any Pre-Existing Materials to the extent incorporated in, combined with or otherwise necessary for the use of the Deliverables solely to the extent reasonably required in connection with Client’s receipt or use of the Services and Deliverables. All other rights in and to the Pre-Existing Materials are expressly reserved by Company. As used herein, “**Pre-Existing Materials**” means all documents, data, know-how, methodologies, software, and other materials, including computer programs, reports, and specifications, provided by or used by Company in connection with performing the Services, in each case developed or acquired by Company prior to the commencement or independently of this Agreement.

(d) Client and its licensors are, and shall remain, the sole and exclusive owner of all right, title, and interest in and to the Client Materials (as defined herein), including all Intellectual Property Rights therein. Company shall have no right or license to use any Client Materials except solely during the Term to the extent necessary to provide the Services to Client. All other rights in and to the Client Materials are expressly reserved by Client. As used herein, “**Client Materials**” means any documents, data, know-how, methodologies, software, and other materials provided to Company by Client.

6. Access to Company's Software Data Management Program; Management Reports.

(a) Subject to the terms and conditions in this Section 6, Client may, at Client's option, elect to access and use Company's Software Data Management Program (the "**Software**") during the Term. Company will generate and document the required program data for the facility types listed in the Proposal using the Software. Any Client Materials inserted into the Software by or on behalf of Client, or any Deliverables produced as a result of the Software, shall remain property of Client; however, the Software shall remain the property of HydroCorp.

(b) Client agrees to not (i) copy, modify, or create derivative works of the Software, in whole or in part; (ii) rent, lease, lend, sell, sublicense, assign, distribute, publish, transfer, or otherwise make available the Software; (iii) reverse engineer, disassemble, decompile, decode, adapt or otherwise attempt to derive the source code of the Software, in whole or in part; (iv) remove any proprietary notices from the Software; or (v) use the Software in any manner or for any purpose that infringes, misappropriates, or otherwise violates any intellectual property rights of Company.

(c) Client acknowledges that, as between Client and Company, Company owns all right, title and interest, including all intellectual property rights in and to the Software and any derivative works thereof, including all changes, modification, improvements, updates, version, and new releases or any information or data generated by the Software.

(d) Company warrants as of the date of the Proposal, the Software is in functioning condition and is not delivered with viruses or malicious code. EXCEPT FOR THE WARRANTY SET FORTH ABOVE, THE SOFTWARE IS PROVIDED "AS IS" AND COMPANY DISCLAIMS ALL WARRANTIES, WHETHER EXPRESS, IMPLIED, STATUTORY, OR OTHERWISE, INCLUDING BUT NOT LIMITED TO ALL IMPLIED WARRANTIES OF MERCHANTABILITY, NON-INFRINGEMENT, OR FITNESS FOR A PARTICULAR PURPOSE. COMPANY MAKES NO WARRANTY (i) THAT CLIENT'S USE OF THE SOFTWARE WILL MEET CLIENT'S REQUIREMENTS, BE ACCURATE, OR BE ERROR FREE, (ii) THAT THE SOFTWARE WILL BE AVAILABLE AT ANY PARTICULAR TIME OR LOCATION; (iii) THAT ANY DEFECTS OR ERRORS WILL BE CORRECTED; (iv) THAT CLIENT MAY RELY ON THE SOFTWARE FOR COMPLIANCE WITH ANY STATUTORY OR REGULATORY REQUIREMENTS AND/OR REPORTING OBLIGATIONS; OR (v) THAT THE SOFTWARE WILL BE COMPATIBLE WITH ANY HARDWARE OR SYSTEMS SOFTWARE CONFIGURATION.

(e) Comprehensive management reports in electronic, downloadable format on a, as applicable to Client, monthly, quarterly, and/or annual basis shall be available for access by Client. Reports to include the following information: (i) name, location, and date of inspections; (ii) number of facilities inspected/surveyed; and (iii) number of facilities compliant/non-compliant.

7. Confidentiality. From time to time during the Term, either Party (as the "**Disclosing Party**") may disclose or make available to the other Party (as the "**Receiving Party**"), non-public, proprietary, and confidential information of Disclosing Party, whether disclosed in writing or orally, and whether or not labeled as "confidential" ("**Confidential Information**"); provided, however, that Confidential Information does not include any information that: (a) is or becomes generally available to the public other than as a result of Receiving Party's breach of this Section 7; (b) is or becomes available to the Receiving Party on a non-confidential basis from a third-party source that was not legally or contractually restricted from disclosing such information; (c) the Receiving Party establishes by documentary evidence, was in Receiving Party's possession prior to Disclosing Party's disclosure hereunder; or (d) the Receiving Party establishes by documentary evidence, was or is independently developed by Receiving Party or its personnel without using any of the Disclosing Party's Confidential Information. The Receiving Party shall: (i) protect and safeguard the confidentiality of the Disclosing Party's Confidential

Information with at least the same degree of care as the Receiving Party would protect its own Confidential Information, but in no event with less than a commercially reasonable degree of care; (ii) not use the Disclosing Party's Confidential Information, or permit it to be accessed or used, for any purpose other than to exercise its rights or perform its obligations under this Agreement; and (iii) not disclose any such Confidential Information to any person or entity, except to the Receiving Party's Representatives (as hereinafter defined) who need to know the Confidential Information to assist the Receiving Party, or act on its behalf, to exercise its rights or perform its obligations under this Agreement. If the Receiving Party becomes legally compelled to disclose any Confidential Information, the Receiving Party shall provide: (A) prompt written notice of such requirement so that the Disclosing Party may seek, at its sole cost and expense, a protective order or other remedy; and (B) reasonable assistance, at the Disclosing Party's sole cost and expense, in opposing such disclosure or seeking a protective order or other limitations on disclosure. If, after providing such notice and assistance as required herein, the Receiving Party remains required by applicable law to disclose any Confidential Information, the Receiving Party shall disclose no more than that portion of the Confidential Information which, on the advice of the Receiving Party's legal counsel, the Receiving Party is legally required to disclose and, upon the Disclosing Party's request, shall use commercially reasonable efforts to obtain assurances from the applicable court or agency that such Confidential Information will be afforded confidential treatment. As used herein, "**Representatives**" mean a Party's affiliates and each of their respective employees, agents, contractors, subcontractors, officers, directors, partners, shareholders, attorneys, third-party advisors, successors and permitted assigns.

8. Indemnification. ~~Client~~ Each Party shall defend, indemnify, and hold harmless ~~Company~~ the Other Party and its affiliates and its and their respective members, managers, officers, directors, employees, agents, successors, and permitted assigns from and against all Losses (as defined herein) arising out of or resulting from any third-party claim arising out of or resulting from: (a) bodily injury, death of any person, or damage to real or tangible, personal property resulting from the grossly negligent or willful acts or omissions of the Other Party ~~Client~~; or (b) Each Party ~~Client~~'s breach of any representation, warranty, or obligation of the Other Party ~~Client~~ in this Agreement. As used herein, "**Losses**" mean all losses, damages, liabilities, deficiencies, actions, judgments, interest, awards, penalties, fines, costs, or expenses of whatever kind, including reasonable attorneys' fees and the cost of enforcing any right to indemnification hereunder and the cost of pursuing any insurance providers.

9. Representations and Warranties. Each Party represents and warrants to the other Party that: (a) if an entity, it is duly organized, validly existing and in good standing as a corporation or other entity as represented herein under the laws and regulations of its jurisdiction of incorporation, organization, or chartering, or, if a municipal agency, it has the authority under the laws of its state of jurisdiction; (b) it has the full right, power, and authority to enter into this Agreement, to grant the rights and licenses granted hereunder, and to perform its obligations hereunder; (c) the execution of this Agreement by its representative whose signature is set forth at the end hereof has been duly authorized by all necessary corporate action of the Party; and (d) when executed and delivered by such Party, this Agreement will constitute the legal, valid, and binding obligation of such Party, enforceable against such Party in accordance with its terms.

10. Limited Warranty.

(a) Company warrants that it shall perform the Services: (i) in accordance with the terms and subject to the conditions set out in the respective Proposal and this Agreement; (ii) using personnel of industry standard skill, experience, and qualifications; and (iii) in a timely,

workmanlike, and professional manner in accordance with generally recognized industry standards for similar services.

(b) Company's sole and exclusive liability and Client's sole and exclusive remedy for breach of this warranty shall be as follows:

i. Company shall use commercially reasonable efforts to promptly cure any such breach; provided, that if Company cannot cure such breach within a reasonable time (but no more than thirty (30) days) after Client's written notice of such breach, Client may, at its option, terminate the Agreement by serving written notice of termination in accordance with Section 12.

ii. In the event the Agreement is terminated pursuant to Section 10(b)(i) above, Company shall within thirty (30) days after the effective date of termination, refund to Client any fees paid by Client as of the date of termination for the Service or Deliverables, less a deduction equal to the fees for receipt or use of such Deliverables or Service up to and including the date of termination on a pro-rated basis.

iii. The foregoing remedy shall not be available unless Client provides written notice of such breach within thirty (30) days after delivery of such Service or Deliverable to Client.

iv. COMPANY MAKES NO WARRANTIES EXCEPT FOR THAT PROVIDED IN SECTION 10(a) ABOVE. ALL OTHER WARRANTIES, EXPRESS AND IMPLIED, ARE EXPRESSLY DISCLAIMED.

11. Limitation of Liability. IN NO EVENT SHALL COMPANY BE LIABLE TO CLIENT OR TO ANY THIRD PARTY FOR ANY LOSS OF USE, REVENUE, OR PROFIT OR LOSS OF DATA OR DIMINUTION IN VALUE, OR FOR ANY CONSEQUENTIAL, INCIDENTAL, INDIRECT, EXEMPLARY, SPECIAL, OR PUNITIVE DAMAGES WHETHER ARISING OUT OF BREACH OF CONTRACT, TORT (INCLUDING NEGLIGENCE), OR OTHERWISE, REGARDLESS OF WHETHER SUCH DAMAGE WAS FORESEEABLE AND WHETHER OR NOT COMPANY HAS BEEN ADVISED OF THE POSSIBILITY OF SUCH DAMAGES, AND NOTWITHSTANDING THE FAILURE OF ANY AGREED OR OTHER REMEDY OF ITS ESSENTIAL PURPOSE. IN NO EVENT SHALL COMPANY'S AGGREGATE LIABILITY ARISING OUT OF OR RELATED TO THIS AGREEMENT, WHETHER ARISING OUT OF OR RELATED TO BREACH OF CONTRACT, TORT (INCLUDING NEGLIGENCE), OR OTHERWISE, EXCEED THREE TIMES (3X) THE AGGREGATE AMOUNTS PAID TO COMPANY PURSUANT TO THE APPLICABLE PROPOSAL GIVING RISE TO THE CLAIM.

12. Term and Termination. This Agreement shall commence on the effective date of the Proposal and shall continue thereafter (a) for the term set forth in the Proposal or (b) if the term is silent, until the Services are completed by Company, unless, in either case, earlier terminated by either Party as set forth herein (the "**Term**"). Upon commencement of each Proposal, Client acknowledges and agrees that the fees owed by Client to Company shall be subject to an annual increase equal to the Consumer Price Index for All Urban Consumers (CPI-U); U.S. City Average; All items, not seasonally adjusted, 1982-1984=100 reference base, as of such annual fee increase date, or 4%, whichever is greater. Either Party may terminate this Agreement, effective upon written notice to the other Party (the "**Defaulting Party**"), if the Defaulting Party: (i) breaches this Agreement, and such breach is incapable of cure, or with respect to a breach capable of cure, the Defaulting Party does not cure such breach within thirty (30) days after receipt of written notice of such breach; (ii) becomes insolvent or admits its inability to pay its debts generally as they become due; (iii) becomes subject, voluntarily or involuntarily, to any proceeding under any domestic or foreign bankruptcy or insolvency law, which is not fully stayed within seven (7) business days or is not dismissed or vacated within forty-five (45) days after filing; (iv) is dissolved or liquidated or takes any corporate action for such purpose; (v) makes a general assignment for the benefit of creditors; or (vi) has a receiver, trustee, custodian, or similar agent appointed by order of any court of competent jurisdiction to take charge of or sell any material portion of its property or business. Termination of this Agreement will not automatically terminate any other outstanding Proposal/Agreement, and

the applicable Proposal/Agreement shall continue in full force and effect until (A) completion of the Services set forth in the applicable outstanding Proposal/Agreement (B) termination of the applicable Proposal/Agreement pursuant to additional terms set forth therein, or (C) termination of the Proposal/Agreement by the non-Defaulting Party.

13. Insurance.

(a) During the term of this Agreement, Client shall, at its own expense, maintain and carry insurance with financially sound and reputable insurers, in full force and effect that includes, but is not limited to, commercial general liability on an all-risk basis and including extended coverage for matters set forth in this Agreement with financially sound and reputable insurers. Upon Company's request, Client shall provide Company with a certificate of insurance from Client's insurer evidencing the insurance coverage specified in this Agreement. The certificate of insurance shall name Company as an additional insured. Client shall provide Company with thirty (30) days' advance written notice in the event of a cancellation or material change in Client's insurance policy. Except where prohibited by law, Client shall require its insurer to waive all rights of subrogation against Company's insurers and Company.

(b) During the term of this Agreement, Company shall, at its own expense, maintain and carry the following types of insurance: (i) Comprehensive General Liability with limits no less than one million dollars (\$1,000,000) per occurrence and two million dollars (\$2,000,000) in the aggregate; (ii) Excess Umbrella Liability with limits no less than five million dollars (\$5,000,000) per occurrence and five million dollars (\$5,000,000) in the aggregate; (iii) Automobile Liability with limits no less than one million dollars (\$1,000,000), combined single limit; (iv) Worker's Compensation with limits no less than one million dollars (\$1,000,000) per occurrence; and (v) Errors and Omissions Liability with limits no less than two million dollars (\$2,000,000) per occurrence and two million dollars (\$2,000,000) in the aggregate. Upon Client's request, Company shall provide Client with a certificate of insurance from Company's insurer evidencing the insurance coverage specified in this Agreement. The certificate of insurance for the Comprehensive General Liability policy shall name Client as an additional insured. Company shall provide Client with thirty (30) days' advance written notice in the event of a cancellation or material change in Client's insurance policy.

14. Entire Agreement. This Agreement, including and together with any related Proposals, exhibits, schedules, attachments, and appendices, constitutes the sole and entire agreement of the Parties with respect to the subject matter contained herein, and supersedes all prior and contemporaneous understandings, agreements, representations, and warranties, both written and oral, regarding such subject matter.

15. Notices. All notices, requests, consents, claims, demands, waivers, and other communications under this Agreement (each, a "**Notice**") must be in writing and addressed to the other Party at its address set forth on the Proposal (or to such other address that the receiving Party may designate from time to time in accordance with this Section 15). Unless otherwise agreed herein, all Notices must be delivered by personal delivery, nationally recognized overnight courier or certified or registered mail (in each case, return receipt requested, postage prepaid). Except as otherwise provided in this Agreement, a Notice is effective only (a) on receipt by the receiving Party; and (b) if the Party giving the Notice has complied with the requirements of this Section 15.

16. Severability. If any term or provision of this Agreement is found by a court of competent jurisdiction to be invalid, illegal, or unenforceable in any jurisdiction, such invalidity, illegality, or unenforceability shall not affect any other term or provision of this Agreement or invalidate or render unenforceable such term or provision in any other jurisdiction.

17. Waiver. No waiver by any Party of any of the provisions of this Agreement shall be effective unless explicitly set forth in writing and signed by the Party so waiving. Except as otherwise set forth in this Agreement, no failure to exercise, or delay in exercising, any right, remedy, power, or privilege arising from this Agreement shall operate or be construed as a waiver thereof, nor shall any single or partial exercise of any right, remedy, power, or privilege hereunder preclude any other or further exercise thereof or the exercise of any other right, remedy, power, or privilege.

18. Assignment; Successors and Assigns. Client shall not assign, transfer, delegate, or subcontract any of its rights or delegate any of its obligations under this Agreement without the prior written consent of Company. Any purported assignment or delegation in violation of this Section 18 shall be null and void. No assignment or delegation shall relieve Client of any of its obligations under this Agreement. Company may assign any of its rights or delegate any of its obligations to any affiliate or to any person acquiring all or substantially all of Company's assets without Client's consent. Company shall notify city of this change via written or electronic communication within a reasonable amount of time. This Agreement is binding on and inures to the benefit of the Parties to this Agreement and their respective permitted successors and permitted assigns.

19. Relationship of the Parties. The relationship between the Parties is that of independent contractors. The details of the method and manner for performance of the Services by Company be under its own control, Client being interested only in the results thereof. Company shall be solely responsible for supervising, controlling, and directing the details and manner of the completion of the Services. Nothing in this Agreement shall give Client the right to instruct, supervise, control, or direct the details and manner of the completion of the Services. The Services must meet Client's final approval and shall be subject to Client's general right of inspection throughout the performance of the Services and to secure satisfactory final completion. Nothing contained in this Agreement shall be construed as creating any agency, partnership, joint venture, or other form of joint enterprise, employment, or fiduciary relationship between the Parties, and neither Party shall have authority to contract for or bind the other Party in any manner whatsoever.

20. No Third-Party Beneficiaries. This Agreement benefits solely the Parties to this Agreement and their respective permitted successors and assigns and nothing in this Agreement, express or implied, confers on any other person or entity any legal or equitable right, benefit, or remedy of any nature whatsoever under or by reason of this Agreement.

21. Choice of Law. This Agreement and all related documents including all exhibits attached hereto and all matters arising out of or relating to this Agreement, whether sounding in contract, tort, or statute are governed by, and construed in accordance with, the laws of the State in which Client's principal place of business is located, without giving effect to the conflict of laws provisions thereof to the extent such principles or rules would require or permit the application of the laws of

any jurisdiction other than those of the State in which Client's principal place of business is located.

22. Waiver of Jury Trial. EACH PARTY ACKNOWLEDGES THAT ANY CONTROVERSY THAT MAY ARISE UNDER THIS AGREEMENT, INCLUDING EXHIBITS, SCHEDULES, ATTACHMENTS, AND APPENDICES ATTACHED TO THIS AGREEMENT, IS LIKELY TO INVOLVE COMPLICATED AND DIFFICULT ISSUES AND, THEREFORE, EACH SUCH PARTY IRREVOCABLY AND UNCONDITIONALLY WAIVES ANY RIGHT IT MAY HAVE TO A TRIAL BY JURY IN RESPECT OF ANY LEGAL ACTION ARISING OUT OF OR RELATING TO THIS AGREEMENT, INCLUDING ANY EXHIBITS, SCHEDULES, ATTACHMENTS, OR APPENDICES ATTACHED TO THIS AGREEMENT, OR THE TRANSACTIONS CONTEMPLATED HEREBY.

23. Force Majeure. No Party shall be liable or responsible to the other Party, or be deemed to have defaulted under or breached this Agreement, for any failure or delay in fulfilling or performing any term of this Agreement (except for any obligations of Client to make payments to Company hereunder), when and to the extent such failure or delay is caused by or results from acts beyond the impacted Party's ("**Impacted Party**") reasonable control, including, without limitation, the following force majeure events ("**Force Majeure Event(s)**"): (a) acts of God; (b) flood, fire, earthquake, pandemics, epidemics, or explosion; (c) war, invasion, hostilities (whether war is declared or not), terrorist threats or acts, riot, or other civil unrest; (d) government order, law, or actions; (e) embargoes or blockades in effect on or after the date of this Agreement; (f) national or regional emergency; (g) strikes, labor stoppages, or slowdowns, or other industrial disturbances; (h) telecommunication breakdowns, power outages or shortages, lack of warehouse or storage space, inadequate transportation services, or inability or delay in obtaining supplies of adequate or suitable materials; and (i) other similar events beyond the reasonable control of the Impacted Party. The Impacted Party shall give notice within ten (10) days of the Force Majeure Event to the other Party, stating the period of time the occurrence is expected to continue. The Impacted Party shall use diligent efforts to end the failure or delay and ensure the effects of such Force Majeure Event are minimized. The Impacted Party shall resume the performance of its obligations as soon as reasonably practicable after the removal of the cause. In the event that the Impacted Party's failure or delay remains uncured for a period of fifteen (15) days following written notice given by it under this Section 23, the other Party may thereafter terminate this Agreement upon fifteen (15) days' written notice.

~~24. Publicity. Unless the a Party provides the other Party with written notice to the contrary or of any reasonable restrictions or requirements, such Party acknowledges and agrees that the other Party shall have the right to use such Party's name, likeness, and logos in any digital, online, and printed publicity or marketing materials prepared by the other Party and in presentations to current or prospective clients and others.~~

Appendix

Specific Qualifications & Experience

HydroCorp™ is a professional service organization that specializes in Cross Connection Control Programs. Cross Connection Control Program Management & Training is the main core and focus of our business. We are committed to providing water utilities and local communities with a cost-effective and professionally managed cross-connection control program in order to assist in protecting the public water supply.

- HydroCorp conducts over 110,000 Cross Connection Control Inspections **annually**.
- HydroCorp tracks and manages over 135,000+ backflow prevention assemblies for our Municipal client base.
- Our highly trained staff works in an efficient manner in order to achieve maximum productivity and keep program costs affordable. We have a detailed **system** and **process** that each of our field inspectors follow in order to meet productivity and quality assurance goals.
- Our municipal inspection team is committed to providing outstanding customer service to the water users in each of the communities we serve. We teach and train customer service skills in addition to the technical skills since our team members act as representatives of the community that we service.
- Our municipal inspection team has attended training classes and received certification from the following recognized Cross Connection Control Programs: UF TREEO, UW-Madison, and USC – Foundation for Cross Connection Control and Hydraulic Research, American Backflow Prevention Association (ABPA), American Society for Sanitary Engineering (ASSE). HydroCorp recognizes the importance of Professional Development and Learning. We invest heavily in internal and external training with our team members to ensure that each Field Service and Administrative team member has the skills and abilities to meet the needs of our clients.
- We have a trained administrative staff to handle client needs, water user questions and answer telephone calls in a professional, timely, and courteous manner. Our administrative staff can answer most technical calls related to the cross-connection control program and have attended basic cross-connection control training classes.
- HydroCorp currently serves over 550 communities in Michigan, Wisconsin, Minnesota, Maryland, Delaware, Virginia, California, Idaho, Utah & Florida. We still have our first customer!
- HydroCorp and its' staff are active members in many water industry associations including: National Rural Water Association, State Rural Water Associations, National AWWA, State AWWA Groups, HydroCorp is committed to assisting these organizations by providing training classes, seminars, and assistance in the area of Cross Connection Control.
- Several Fortune 500 companies have relied on HydroCorp to provide Cross Connection Control Surveys, Program Management & Reporting to assist in meeting state/local regulations as well as internal company guidelines.



April 15, 2026

To: Ben Brooks

Re: Quote for polymer at Wausau Water Works

On behalf of Midwest Chemical & Equipment, below is our proposed pricing for your polymer needs effective April 1, 2026 through December 31, 2026. Rates are the same as 2025 pricing.

Pricing and terms are as follows:

Product: MCEP9 Pricing: \$2.38 per lb delivered
Based upon: 16 totes (annual usage of 36,640 lbs)

Product: K144L-NA Pricing: \$2.33 per lb delivered
Based upon: 15 totes (annual usage of 34,350 lbs)

Base on usage amounts above, estimated annual cost for MCEP9 is \$80,036 and for K144L-NA is \$87,204 bringing total estimated annual polymer cost to \$167,240.

Terms: Net 20 days

Ordering: David Olson@phone/text 920-615-2288 or
email djolson@midwestce.com

Sincerely,
Dave Olson

In the event of a significant increase in raw material or other costs or a significant change in market conditions, Supplier reserves the right to open negotiation on pricing outside of the normal price adjustment schedule. If a revised price cannot be agreed upon, the procuring entity will agree to trial alternative technology in a timely manner provided Supplier can identify an alternative product. If no agreement can be reached, either party may terminate the affected application on thirty (30) days prior notice.”



CITY OF WAUSAU
SOLE SOURCE PURCHASE JUSTIFICATION
REQUIRED FORM PURCHASE OF GOODS OR SERVICES EXCEEDING \$10,000

Purchase of goods or services for no more than \$25,000 may be made without competition when it is agreed *in advance* between the Department Head and the Finance Director. Sole source purchasing allows for the procurement of goods and services from a single source without soliciting quotes or bids from multiple sources. Sole source procurement cannot be used to avoid competition, rather it is used in certain situations when it can be documented that a vendor or contractor holds a unique set of skills or expertise, that the services are highly specialized or unique in character or when alternate products are unavailable or unsuitable from any other source. Sole source purchasing should be avoided unless it is clearly necessary and justifiable. The justification must withstand public and legislative scrutiny. The Department Head is responsible for providing written documentation justifying the valid reason to purchase from one source or that only one source is available. Sole source purchasing criteria include: urgency due to public safety, serious injury financial or other, other unusual and compelling reasons, goods or service is available from only one source and no other good or service will satisfy the City’s requirements, legal services provided by an attorney, lack of acceptable bids or quotes, an alternate product or manufacturer would not be compatible with current products resulting in additional operating or maintenance costs, standardization of a specific product or manufacturer will result in a more efficient or economical operation or aesthetics, or compatibility is an overriding consideration, the purchase is from another governmental body, continuity is achieved in a phased project, the supplier or service demonstrates a unique capability not found elsewhere, the purchase is more economical to the city on the basis of time and money of proposal development.

1. Sole source purchase under \$10,000 shall be evaluated and determined by the Department Head.
2. Sole source purchase of \$10,001 to \$25,000 a formal written justification shall be forwarded to the Finance Director who will concur with the sole source or assist in locating additional competitive sources.
3. Sole source purchase exceeding \$25,000 must be approved by the Finance Committee.

Ongoing Sole Source – 365 days **One Time Sole Source Request**

1. Provide a detailed explanation of the good or service to be purchased and vendor.

Belt Filter Press (KL144-NA) and Gravity Belt Thickener (MCEP9) Polymer’s. Vendor= Midwest Chemical & Equipment

2. Provide a brief description of the intended application for the service or goods to be purchased.

The above mentioned polymers are both formulated specifically for the new Belt Filter Presses and New Gravity Belt Thickeners that are located within the Solids Handling Facility.

3. State why other products or services that compete in the market will not or do not meet your needs or comply with your specifications.

Both polymers are the manufacture recommended polymers formulated specifically for the new belt filter presses and gravity belt thickeners. These polymers were specifically selected to meet performance testing criteria and offer the most pounds per dry ton of solids and provide the most dewatering capabilities which produce the driest sludge. This polymer does not separate like other polymers and doesn’t require frequent mixing prior to use. It would be my recommendation to sole source these polymers with Midwest Chemical & Equipment for 365 days in order to for plant staff to continue with the optimization of the equipment and operate efficiently. Midwest Chemical also offers an outstanding quality of service providing technical assistance 24 hrs per day. They check in every month to see how things are operating and stop in frequently to assist with chemical dosing optimizing that effectively reduces overall cost to the City.

4. Describe your efforts to identify other vendors to furnish the product or services.
The product is proprietary and can only be made or distributed by the vendor owning the rights to these products.
5. How did you determine that the sole source vendor's price was reasonable? Similar products on the market are comparably priced.
6. Which of the following best describes this sole source procurement? Select all that apply.
- Product or vendor is uniquely qualified with capability not found elsewhere.
 - Urgency due to public safety, serious financial injury or other. (explain)
 - The procurement is of such a specialized nature that by virtue of experience, expertise, proximity or ownership of intellectual property
 - Lack of acceptable quotes or bids.
 - Product compatibility or the standardization of a product.
 - Continuation of a phased project.
 - Proposal development is uneconomical.

Department: *Wausau Waterworks - Wastewater*

Preparer: *Ben Brooks*

Vendor Name: *Midwest Chemical & Equipment*

Expected amount of purchase or contract: *\$167,240.00*

Department Head Signature: _____ **Date:** _____

Finance Director Signature: _____ **Date:** _____



To: Wausau Waterworks Commissioners
From: Ben Brooks, Wastewater Superintendent
Date: May 5, 2026

Subject: Receipt of Wisconsin Pollutant Discharge Elimination System (WPDES) Permit

The Wastewater Utility received its renewed Wisconsin Pollutant Discharge Elimination System (WPDES) Permit from the Wisconsin Department of Natural Resources (WDNR) on April 16, 2026. The new permit becomes effective May 1, 2026, and will expire on March 31, 2031.

The updated permit includes several new or revised compliance requirements as summarized below:

- **E. coli Monitoring:** Testing for E. coli has replaced fecal coliform monitoring. Sampling frequency has increased from once per week to twice per week. This is not considered a significant operational change.
- **Effluent PFAS Monitoring:** Bi-monthly testing of treated effluent for PFAS compounds will be required during the first two years of the permit term.
- **Biosolids PFAS Monitoring:** Annual PFAS testing of biosolids will be required throughout the permit term.
- **Mercury Monitoring:** A mercury variance is no longer required. Through collaboration with the Marathon County Health Departments Mercury Reduction Program, mercury concentrations have decreased significantly and are now within acceptable WDNR limits. Monthly mercury monitoring will continue throughout this permit term to demonstrate ongoing compliance.

Staff will continue to review the permit conditions and ensure all monitoring, reporting, and compliance obligations are met throughout the permit term. Please feel free to reach out to me with any questions.

Best regards,

Ben Brooks
Wastewater Superintendent



WPDES PERMIT

STATE OF WISCONSIN
DEPARTMENT OF NATURAL RESOURCES
**PERMIT TO DISCHARGE UNDER THE WISCONSIN POLLUTANT DISCHARGE
ELIMINATION SYSTEM**

Wausau Water Works


is permitted, under the authority of Chapter 283, Wisconsin Statutes, to discharge from a facility
located at
435 Adrian Street, Wausau, WI 54403
to

**the Wisconsin River located in the Lower Eau Claire River Watershed of the Central Wisconsin River Basin in
Marathon County**

in accordance with the effluent limitations, monitoring requirements and other conditions set
forth in this permit.

The permittee shall not discharge after the date of expiration. If the permittee wishes to continue to discharge after
this expiration date an application shall be filed for reissuance of this permit, according to Chapter NR 200, Wis.
Adm. Code, at least 180 days prior to the expiration date given below.

State of Wisconsin Department of Natural Resources
For the Secretary

By 
Geisa Bittencourt
Wastewater Field Supervisor

April 13, 2026
Date Permit Signed/Issued

PERMIT TERM: EFFECTIVE DATE - May 01, 2026

EXPIRATION DATE – March 31, 2031

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1 Influent Requirements

1.1 Sampling Point(s)

Sampling Point Designation	
Sampling Point Number	Sampling Point Location, Waste Type/Sample Contents and Treatment Description (as applicable)
701	Representative composite influent samples shall be taken from the influent channel after the mechanical bar screens and just prior to the PISTA grit removal chamber.

1.2 Monitoring Requirements

The permittee shall comply with the following monitoring requirements.

1.2.1 Sampling Point 701 - INFLUENT TO PLANT

Monitoring Requirements and Limitations					
Parameter	Limit Type	Limit and Units	Sample Frequency	Sample Type	Notes
Flow Rate		MGD	Daily	Continuous	
BOD ₅ , Total		mg/L	5/Week	24-Hr Flow Prop Comp	
Suspended Solids, Total		mg/L	5/Week	24-Hr Flow Prop Comp	
Mercury, Total Recoverable		ng/L	Monthly	24-Hr Flow Prop Comp	See 'Mercury Monitoring' permit section.
Cadmium, Total Recoverable		µg/L	Monthly	24-Hr Flow Prop Comp	
Chromium, Total Recoverable		µg/L	Monthly	24-Hr Flow Prop Comp	
Copper, Total Recoverable		µg/L	Monthly	24-Hr Flow Prop Comp	
Cyanide, Total		µg/L	Monthly	24-Hr Flow Prop Comp	
Lead, Total Recoverable		µg/L	Monthly	24-Hr Flow Prop Comp	
Nickel, Total Recoverable		µg/L	Monthly	24-Hr Flow Prop Comp	
Silver, Total Recoverable		µg/L	Monthly	24-Hr Flow Prop Comp	
Zinc, Total Recoverable		µg/L	Monthly	24-Hr Flow Prop Comp	

1.2.1.1 Total Metals Analyses

Measurements of total metals and total recoverable metals shall be considered as equivalent.

1.2.1.2 Sample Analysis

Samples shall be analyzed using a method which provides adequate sensitivity so that results can be quantified at a level of quantitation below the calculated/potential effluent limit, unless not possible using the most sensitive approved method.

1.2.1.3 Mercury Monitoring

The permittee shall collect and analyze all mercury samples according to the data quality requirements of ss. NR 106.145(9) and (10), Wisconsin Administrative Code. The limit of quantitation (LOQ) used for the effluent and field blank shall be less than 1.3 ng/L, unless the samples are quantified at levels above 1.3 ng/L. The permittee shall collect at least one mercury field blank for each set of mercury samples (a set of samples may include combinations of intake, influent, effluent or other samples all collected on the same day). The permittee shall report results of samples and field blanks to the Department on Discharge Monitoring Reports.

2 In-Plant Requirements

2.1 Sampling Point(s)

Sampling Point Designation	
Sampling Point Number	Sampling Point Location, Waste Type/Sample Contents and Treatment Description (as applicable)
104	The field blank shall be collected using standard handling procedures every day that mercury samples are collected at influent and effluent.

2.2 Monitoring Requirements and Limitations

The permittee shall comply with the following monitoring requirements and limitations.

2.2.1 Sampling Point 104 - 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	See 'Mercury Monitoring' permit section.

2.2.1.1 Mercury Monitoring

The permittee shall collect and analyze all mercury samples according to the data quality requirements of ss. NR 106.145(9) and (10), Wisconsin Administrative Code. The limit of quantitation (LOQ) used for the effluent and field blank shall be less than 1.3 ng/L, unless the samples are quantified at levels above 1.3 ng/L. The permittee shall collect at least one mercury field blank for each set of mercury samples (a set of samples may include combinations of intake, influent, effluent or other samples all collected on the same day). The permittee shall report results of samples and field blanks to the Department on Discharge Monitoring Reports.

3 Surface Water Requirements

3.1 Sampling Point(s)

Sampling Point Designation	
Sampling Point Number	Sampling Point Location, Waste Type/Sample Contents and Treatment Description (as applicable)
001	Representative effluent samples, except those for E. Coli, shall be collected at the disinfection channel prior to disinfection; samples for E. coli shall be collected after disinfection.
601	Temperature and flow of the Wisconsin River shall be monitored for determination of Waste Load Allocation (WLA) limits at Outfall 001. See subsections below for specific monitoring information.

3.2 Monitoring Requirements and Effluent Limitations

The permittee shall comply with the following monitoring requirements and limitations.

3.2.1 Sampling Point (Outfall) 001 - EFFLUENT TO WISCONSIN RIVER

Monitoring Requirements and Effluent Limitations					
Parameter	Limit Type	Limit and Units	Sample Frequency	Sample Type	Notes
Flow Rate		MGD	Daily	Continuous	
BOD ₅ , Total	Weekly Avg	45 mg/L	5/Week	24-Hr Comp	
BOD ₅ , Total	Monthly Avg	30 mg/L	5/Week	24-Hr Comp	
WLA BOD ₅ Discharged	Daily Max - Variable	lbs/day	5/Week	Calculated	Limits apply May-Oct. Report applicable variable limit on DMR. See 'Waste Load Allocation (WLA) Limits for BOD ₅ ' below.
WLA BOD ₅ Value		lbs/day	5/Week	24-Hr Comp	Limits apply May-Oct. Report applicable variable limit on DMR. See 'Waste Load Allocation (WLA) Limits for BOD ₅ ' below.
Suspended Solids, Total	Weekly Avg	45 mg/L	5/Week	24-Hr Flow Prop Comp	
Suspended Solids, Total	Monthly Avg	30 mg/L	5/Week	24-Hr Flow Prop Comp	
pH Field	Daily Min	6.0 su	5/Week	Grab	
pH Field	Daily Max	9.0 su	5/Week	Grab	
Nitrogen, Ammonia (NH ₃ -N) Total		mg/L	Monthly	24-Hr Flow Prop Comp	
E. coli	Geometric Mean - Monthly	126 #/100 ml	2/Week	Grab	Limit Effective May through September annually.

Monitoring Requirements and Effluent Limitations					
Parameter	Limit Type	Limit and Units	Sample Frequency	Sample Type	Notes
E. coli	% Exceedance	10 Percent	Monthly	Calculated	Limit Effective May through September annually. See the E. coli Percent Limit section below. Enter the result in the DMR on the last day of the month.
Mercury, Total Recoverable		ng/L	Monthly	Grab	See mercury monitoring section below and Schedules section.
Cadmium, Total Recoverable		µg/L	Monthly	24-Hr Flow Prop Comp	
Chromium, Total Recoverable		µg/L	Monthly	24-Hr Flow Prop Comp	
Copper, Total Recoverable		µg/L	Monthly	24-Hr Flow Prop Comp	
Cyanide, Total		µg/L	Monthly	24-Hr Flow Prop Comp	
Lead, Total Recoverable		µg/L	Monthly	24-Hr Flow Prop Comp	
Nickel, Total Recoverable		µg/L	Monthly	24-Hr Flow Prop Comp	
Pentachloro- phenol		µg/L	Monthly	Grab	
Silver, Total Recoverable		µg/L	Monthly	24-Hr Flow Prop Comp	
Zinc, Total Recoverable		µg/L	Monthly	24-Hr Flow Prop Comp	
Hardness, Total as CaCO ₃		mg/L	Monthly	24-Hr Flow Prop Comp	
Phosphorus, Total	Monthly Avg	1.0 mg/L	5/Week	24-Hr Flow Prop Comp	
Phosphorus, Total	Monthly Avg	34 lbs/day	5/Week	Calculated	See TMDL permit section.
Phosphorus, Total		lbs/month	Monthly	Calculated	Calculate the Total Monthly Discharge of phosphorus and report on the last day of the month on the DMR. See TMDL permit section.
Phosphorus, Total		lbs/yr	Monthly	Calculated	Calculate the 12-month rolling sum of total monthly mass of phosphorus discharged and report on the last day of the month on the DMR. See TMDL permit section.

Monitoring Requirements and Effluent Limitations					
Parameter	Limit Type	Limit and Units	Sample Frequency	Sample Type	Notes
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	
PFOS		ng/L	1/ 2 Months	Grab	Monitoring only. See PFOS/PFOA Minimization Plan Determination of Need schedule.
PFOA		ng/L	1/ 2 Months	Grab	Monitoring only. See PFOS/PFOA Minimization Plan Determination of Need schedule.
Acute WET		TU _a	See Listed Qtrs	24-Hr Flow Prop Comp	Annual tests in rotating quaters. See 'Whole Effluent Toxicity (WET)' permit section.
Chronic WET		rTU _c	See Listed Qtrs	24-Hr Flow Prop Comp	Annual tests in rotating quaters. See 'Whole Effluent Toxicity (WET)' permit section.

3.2.1.1 Annual Average Design Flow

The annual average design flow of the permittee’s wastewater treatment facility is 8.2 MGD.

3.2.1.2 Waste Load Allocation (WLA) Limits for BOD₅

Waste load allocation (WLA) Limits in lbs/day for BOD₅ River Mile 265.0 to 260.0

May and June:

River Temperature (previous day average in °F)	Flow at Rothschild Dam (previous day average in cfs)																	
	980 or Less	981 to 1220	1221 to 1470	1471 to 1730	1731 to 1990	1991 to 2260	2261 to 2540	2541 to 2830	2831 to 3130	3131 to 3430	3431 to 3780	3781 to 4230	4231 to 4730	4731 to 5250	5251 to 5780	5781 to 6340	6341 to 6910	6911 or More
	← A →		← B →			← C →												
≥78	1314	1275	1321	1422	1494	1541	1624	1729	1862	2002	2179	2406	2709	3051	3415	3822	4103	4597
74 to 77	1213	1228	1339	1462	1617	1610	1736	1898	2078	2287	2507	2806	3195	3620	4103	4456	5097	5811
70 to 73	1152	1213	1350	1476	1552	1700	1880	2089	2147	2586	2864	3235	3728	4103	4716	5433	6236	6982
66 to 69	1170	1253	1412	1534	1696	1905	2143	2413	2712	3029	3372	3840	4244	4961	5757	6640	7616	7706
62 to 65	1195	1394	1534	1721	1959	2240	2557	2907	3278	3685	4103	4525	5353	6279	7317	7706	7706	7706
58 to 61	1350	1538	1761	2046	2384	2773	3195	3656	4103	4492	5105	5944	7065	7706	7706	7706	7706	7706
54 to 57	1541	1804	2165	2590	3069	3599	4103	4622	5339	6131	7000	7706	7706	7706	7706	7706	7706	7706
50 to 53	1844	2291	2838	3454	4103	4708	5577	6546	7605	7706	7706	7706	7706	7706	7706	7706	7706	7706
46 to 49	2413	3123	3959	4658	5721	6928	7706	7706	7706	7706	7706	7706	7706	7706	7706	7706	7706	7706

WPDES Permit No. WI-0025739-10-0
Wausau Water Works

42 to 45	3404	4298	5598	7112	7706	7706	7706	7706	7706	7706	7706	7706	7706	7706	7706	7706	7706	7706
≤41	4921	6787	7707	7706	7706	7706	7706	7706	7706	7706	7706	7706	7706	7706	7706	7706	7706	7706

July and August:

River Temperature (previous day average in °F)	Flow at Rothschild Dam (previous day average in cfs)																	
	980 or Less	981 to 1220	1221 to 1470	1471 to 1730	1731 to 1990	1991 to 2260	2261 to 2540	2541 to 2830	2831 to 3130	3131 to 3430	3431 to 3780	3781 to 4230	4231 to 4730	4731 to 5250	5251 to 5780	5781 to 6340	6341 to 6910	6911 or More
	A	← B →				← C →												
≥78	1426	1415	1498	1617	1696	1732	1822	1930	2067	2215	2381	2611	2910	3242	3606	4017	4254	4784
74 to 77	1332	1383	1509	1617	1685	1790	1927	2089	2269	2474	2698	2986	3375	3808	4103	4643	5274	5977
70 to 73	1278	1365	1516	1617	1721	1876	2060	2273	2503	2763	3040	3408	3908	4244	4885	5595	6387	7259
66 to 69	1289	1397	1566	1689	1858	2064	2309	2579	2871	3191	3530	4009	4406	5115	5908	6776	7706	7706
62 to 65	1314	1534	1675	1869	2111	2392	2712	3058	3429	3847	4103	4679	5508	6423	7447	7706	7706	7706
58 to 61	1476	1671	1898	2193	2536	2921	3346	3815	4103	4651	5260	6092	7209	7706	7706	7706	7706	7706
54 to 57	1664	1941	2305	2737	3220	3757	4128	4784	5497	6290	7155	7706	7706	7706	7706	7706	7706	7706
50 to 53	1974	2435	2986	3606	4103	4874	5750	6719	7707	7706	7706	7706	7706	7706	7706	7706	7706	7706
46 to 49	2557	3278	4103	4834	5905	7115	7706	7706	7706	7706	7706	7706	7706	7706	7706	7706	7706	7706
42 to 45	3573	4103	5804	7328	7706	7706	7706	7706	7706	7706	7706	7706	7706	7706	7706	7706	7706	7706
≤41	5133	7025	7707	7706	7706	7706	7706	7706	7706	7706	7706	7706	7706	7706	7706	7706	7706	7706

September:

River Temperature (previous day average in °F)	Flow at Rothschild Dam (previous day average in cfs)																	
	980 or Less	981 to 1220	1221 to 1470	1471 to 1730	1731 to 1990	1991 to 2260	2261 to 2540	2541 to 2830	2831 to 3130	3131 to 3430	3431 to 3780	3781 to 4230	4231 to 4730	4731 to 5250	5251 to 5780	5781 to 6340	6341 to 6910	6911 or More
	← A →	← B →				← C →												
≥78	1062	1062	1062	1062	1062	1062	1174	1293	1448	1610	1786	2038	2370	2723	3109	3516	3977	4294
74 to 77	1062	1062	1062	1062	1062	1195	1350	1523	1725	1938	2183	2503	2896	3336	3829	4168	4827	5555
70 to 73	1062	1062	1062	1062	1167	1343	1545	1768	2017	2287	2575	2964	3465	4031	4452	5195	6016	6921
66 to 69	1062	1062	1076	1185	1376	1595	1851	2132	2446	2777	3127	3588	4103	4737	5551	6452	7447	7706
62 to 65	1062	1062	1203	1419	1675	1966	2298	2662	3044	3454	3912	4305	5151	6092	7144	7706	7706	7706
58 to 61	1062	1210	1466	1772	2132	2528	2964	3429	3948	4276	4896	5746	6888	7706	7706	7706	7706	7706
54 to 57	1195	1505	1891	2334	2831	3368	3977	4402	5123	5926	6802	7706	7706	7706	7706	7706	7706	7706
50 to 53	1520	2002	2572	3206	3912	4467	5346	6322	7393	7706	7706	7706	7706	7706	7706	7706	7706	7706
46 to 49	2093	2831	3663	4388	5458	6672	7706	7706	7706	7706	7706	7706	7706	7706	7706	7706	7706	7706
42 to 45	3073	4103	5292	6812	7706	7706	7706	7706	7706	7706	7706	7706	7706	7706	7706	7706	7706	7706
≤41	4535	6413	7707	7706	7706	7706	7706	7706	7706	7706	7706	7706	7706	7706	7706	7706	7706	7706

October:

	Flow at Rothschild Dam (previous day average in cfs)
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River Temperature (previous day average in °F)	980 or Less	981 to 1220	1221 to 1470	1471 to 1730	1731 to 1990	1991 to 2260	2261 to 2540	2541 to 2830	2831 to 3130	3131 to 3430	3431 to 3780	3781 to 4230	4231 to 4730	4731 to 5250	5251 to 5780	5781 to 6340	6341 to 6910	6911 or More
	← A →		← B →			← C →												
≥78	1062	1062	1062	1062	1062	1062	1062	1138	1275	1448	1621	1866	2190	2550	2925	3332	3775	4103
74 to 77	1062	1062	1062	1062	1062	1062	1206	1379	1566	1779	2028	2334	2737	3177	3653	4103	4618	5342
70 to 73	1062	1062	1062	1062	1062	1203	1408	1631	1880	2143	2428	2820	3318	3865	4283	5011	5825	6722
66 to 69	1062	1062	1062	1062	1249	1473	1721	2006	2312	2644	2997	3454	4092	4579	5386	6279	7270	7706
62 to 65	1062	1062	1087	1303	1559	1855	2186	2543	2925	3332	3775	4168	5004	5937	6985	7706	7706	7706
58 to 61	1062	1102	1358	1667	2020	2420	2853	3314	3818	4146	4759	5602	6737	7706	7706	7706	7706	7706
54 to 57	1091	1401	1783	2226	2719	3256	3750	4276	4993	5789	6658	7706	7706	7706	7706	7706	7706	7706
50 to 53	1419	1898	2464	3098	3790	4341	5213	6186	7245	7706	7706	7706	7706	7706	7706	7706	7706	7706
46 to 49	1984	2723	3545	4258	5324	6528	7706	7706	7706	7706	7706	7706	7706	7706	7706	7706	7706	7706
42 to 45	2950	4089	5148	6658	7706	7706	7706	7706	7706	7706	7706	7706	7706	7706	7706	7706	7706	7706
≤41	6388	6250	7707	7706	7706	7706	7706	7706	7706	7706	7706	7706	7706	7706	7706	7706	7706	7706

Definitions

Point source allocation values (pounds per day BOD) in the above tables represent water quality related effluent limitations. The flow and temperature conditions (reported at Sample Point 601) used to determine a point source allocation value for a given day shall be the representative measurements of the flow and temperature. River flows used should be those collected and reported by Wisconsin Valley Improvement Company (WVIC) for the period beginning at 7 a.m. of the previous day and ending at 7 a.m. of the current day. Temperature values used should be those collected and reported by Wisconsin Public Service Corporation for the period beginning at 12 midnight of the previous day and ending 12 midnight of the current day. Wasteload Allocation (WLA) limits shall be calculated with BOD₅ values of samples collected for the current day, which are collected by Wausau for the period from 7 a.m. of the current day to 7 a.m. of the following day.

Monitoring Requirements: The same 24-hour period shall be utilized for the collection of composite and continuous samples for river flow and temperature and all effluent characteristics including effluent flow and BOD₅. Presently, the WVIC utilizes the 24-hour monitoring period ending at 7 a.m. for river flow.

Reporting Requirements: During the months of May through October inclusive the permittee shall report the following information:

- The daily river flow (cfs);
- The daily river temperature (oF);
- The daily point source allocation value (lbs BOD₅ per day);
- The actual daily discharge value of BOD₅ (lbs BOD₅ per day);

WLA Water Quality Related Effluent Limitations Restriction: In no case shall the WLA water quality related effluent limitations be less stringent than the applicable categorical effluent limitations contained in the effluent limits and monitoring table.

3.2.1.3 E. coli Percent Limit

No more than 10 percent of *E. coli* bacteria samples collected in any calendar month may exceed 410 #/100 ml. Bacteria samples may be collected more frequently than required. All samples shall be reported on the monthly discharge monitoring reports (DMRs). The following calculation should be used to calculate percent exceedances.

$$\frac{\text{\# of Samples greater than 410 \#/100 mL}}{\text{Total \# of samples}} \times 100 = \% \text{ Exceedance}$$

3.2.1.4 Total Metals Analyses

Measurements of total metals and total recoverable metals shall be considered as equivalent.

3.2.1.5 Sample Analysis

Samples shall be analyzed using a method which provides adequate sensitivity so that results can be quantified at a level of quantitation below the calculated/potential effluent limit, unless not possible using the most sensitive approved method.

3.2.1.6 Mercury Monitoring

The permittee shall collect and analyze all mercury samples according to the data quality requirements of ss. NR 106.145(9) and (10), Wis. Adm. Code. The limit of quantitation (LOQ) used for the effluent and field blank shall be less than 1.3 ng/L, unless the samples are quantified at levels above 1.3 ng/L. The permittee shall collect at least one mercury field blank for each set of mercury samples (a set of samples may include combinations of intake, influent, effluent or other samples all collected on the same day). The permittee shall report results of samples and field blanks to the Department on Discharge Monitoring Reports.

3.2.1.7 Total Maximum Daily Load (TMDL) Limitations for Total Phosphorus

The Wisconsin River Basin TMDL for total phosphorus was approved by the U.S. Environmental Protection Agency on April 26, 2019. Additional Site-Specific Criteria (SSC) for Lakes Petenwell, Castle Rock, and Wisconsin and the related Waste Load Allocation (WLA) included in Appendix K of the TMDL report were adopted by rule in s. NR 102.06 (7), Wis. Adm. Code, on June 1, 2020, and approved by the U.S. Environmental Protection Agency on July 9, 2020. The permittee's approved SSC-based WLA is 9,145 lbs/year, and results in calculated phosphorus mass limits of 34 lbs/day. The 12-month rolling sum of total monthly phosphorus (lbs/yr) shall be reported each month for direct comparison to the facility's WLA.

Effluent results shall be calculated as follows:

Total Monthly Discharge (lbs/month): = monthly average concentration (mg/L) x total flow for the month (MG/month) x 8.34.

12-Month Rolling Sum of Total Monthly Discharge (lbs/yr): =the sum of the most recent 12 consecutive months of Total Monthly Discharges.

3.2.1.8 PFOS/PFOA Sampling and Reporting Requirements

For grab samples, as defined per s. NR 218.04(10), Wis. Adm. Code, a single sample at a location as defined by the sample point description shall be taken during the time of the day most representative to capture all potential discharges. If extra equipment besides the sample bottle is used to collect the sample, it is recommended that a one-time equipment blank is collected with the first sample. An equipment blank would be collected by passing laboratory-verified PFAS-free water over or through field sampling equipment before the collection of a grab sample to evaluate potential contamination from the equipment used during sample.

If any equipment blanks are performed, these results shall be reported in the comments section of the eDMR and shall also be documented in the reports submitted as part of the PFOS/PFOA Minimization Plan Determination of Need schedule of the permit.

3.2.1.9 PFOS/PFOA Minimization Plan Determination of Need

The permittee shall monitor PFOS and PFOA as specified in the table above and report on the effluent concentrations including trends in monthly and annual average PFOS and PFOA concentrations as specified in the PFOS/PFOA Minimization Plan Determination of Need Schedule.

If, after reviewing the data, the Department determines that a minimization plan for PFOS and PFOA is necessary based on the procedures in s. NR 106.98(4), Wis. Adm. Code, the Department will notify the permittee in writing that

a PFOS and PFOA minimization plan that satisfies the requirements in s. NR 106.99, Wis. Adm. Code, is required. The permittee shall submit an initial plan for Department approval no later than 90 days after written notification was sent from the Department in accordance with s. NR 106.985(2)(a), Wis. Adm. Code. Pursuant to s. NR 106.985(2)(b), Wis. Adm. Code, as soon as possible after Department approval of the PFOS and PFOA minimization plan, the Department will modify or revoke and reissue the permit in accordance with public notice procedures under ch. 283, Wis. Stats., and ch. NR 203, Wis. Adm. Code, to include the PFOS and PFOA minimization plan and other related terms and condition.

If, however, the Department determines that a PFOS and PFOA minimization plan is unnecessary based on the procedures in s. NR 106.98(4), Wis. Adm. Code, the Department shall notify the permittee that no further action is required. Per s. NR 106.98(3)(a), Wis. Adm. Code, the Department may reduce monitoring frequency to once every 3 months (quarterly) on a case-by-case basis, but only after at least 12 representative results have been generated. If the permittee requests a reduction in monitoring and the Department agrees a reduction would be appropriate, the permit may be modified in accordance with public notice procedures under ch. 283, Wis. Stats., and ch. NR 203, Wis. Adm. Code, to incorporate this change.

3.2.1.10 Whole Effluent Toxicity (WET) Testing

Primary Control Water: Wisconsin River

Instream Waste Concentration (IWC): 6%

Acute Mixing Zone Concentration: N/A

Dilution series: At least five effluent concentrations and dual controls must be included in each test.

- **Acute:** 100, 50, 25, 12.5, 6.25% and any additional selected by the permittee.
- **Chronic:** 100, 30, 10, 3, 1% and any additional selected by the permittee.

WET Testing Frequency:

Acute tests are required during the following quarters:

- **Acute:**
 - July – September 2026
 - April – June 2027
 - January – March 2028
 - October – December 2029
 - April – June 2030

Acute WET testing shall continue after the permit expiration date (until the permit is reissued) in accordance with the WET requirements specified for the last full calendar year of this permit. For example, the next test would be required in October – December 2030.

Chronic tests are required during the following quarters:

- **Chronic:**
 - July – September 2026
 - April – June 2027
 - January – March 2028
 - October – December 2029
 - April – June 2030

Chronic WET testing shall continue after the permit expiration date (until the permit is reissued) in accordance with the WET requirements specified for the last full calendar year of this permit. For example, the next test would be required in October – December 2030.

Testing: WET testing shall be performed during normal operating conditions. Permittees are not allowed to turn off or otherwise modify treatment systems, production processes, or change other operating or treatment conditions during WET tests.

Reporting: The permittee shall report test results on the Discharge Monitoring Report form and complete the "Whole Effluent Toxicity Test Report Form" (Section 6, "State of Wisconsin Aquatic Life Toxicity Testing Methods Manual, 2nd Edition"), for each test. The original, complete, signed version of the Whole Effluent Toxicity Test Report Form shall be sent to the Biomonitoring Coordinator, Bureau of Water Quality, 101 S. Webster St., P.O. Box 7921, Madison, WI 53707-7921, within 45 days of test completion. The Discharge Monitoring Report (DMR) form shall be submitted electronically by the required deadline.

Determination of Positive Results: An acute toxicity test shall be considered positive if the Toxic Unit - Acute (TU_a) is greater than 1.0 for either species (fathead minnow (*Pimephales promelas*) and waterflea (*Ceriodaphnia dubia*)). The TU_a shall be calculated as follows: $TU_a = 100 \div LC_{50}$. A chronic toxicity test shall be considered positive if the Toxic Unit - Chronic (TU_c) is greater than 17 for either species. The TU_c shall be calculated as follows: $TU_c = 100 \div IC_{25}$.

Additional Testing Requirements: Within 90 days of a test which showed positive results, the permittee shall submit the results of at least 2 retests to the Biomonitoring Coordinator on "Whole Effluent Toxicity Test Report Forms". The 90-day reporting period shall begin the day after the test which showed a positive result. The retests shall be completed using the same species and test methods specified for the original test (see the Standard Requirements section herein).

3.2.2 Sampling Point 601 - WISCONSIN RIVER

Monitoring Requirements and Effluent Limitations					
Parameter	Limit Type	Limit and Units	Sample Frequency	Sample Type	Notes
WLA Previous Day River Flow		cfs	5/Week	Measure	Monitoring required May through October when Waste Load Allocated BOD ₅ limits apply.
WLA Previous Day River Temp		deg F	5/Week	Measure	Monitoring required May through October when Waste Load Allocated BOD ₅ limits apply.

3.2.2.1 Definitions

River flow shall be defined as the daily average flow value derived from continuous river flow monitoring data for the Wisconsin River collected at the Rothschild Dam. If such flow data is unavailable for any day, flow shall be calculated by multiplying by 1.3 the daily average flow value derived from continuous stream flow monitoring data for the Wisconsin River collected at the Merrill Dam to correspond to the flow at Rothschild Dam. Daily average flow values reported by the Wisconsin Valley Improvement Co. for the Rothschild Dam and Merrill Dam locations are acceptable.

Temperature shall be defined as the daily average temperature value derived from continuous river temperature monitoring data for the Wisconsin River collected at the Wisconsin Public Service Corporation, Weston Generating Station. If such temperature data is unavailable for any day, a single grab sample for river temperature collected at the Domtar raw river water intake may be substituted for continuous river temperature monitoring. Daily average temperature values, or alternately, daily temperatures, reported by the Wisconsin Valley Improvement Company for the Weston Generating Station and Domtar locations are acceptable.

4 Land Application Requirements

4.1 Sampling Point(s)

The discharge(s) shall be limited to land application of the waste type(s) designated for the listed sampling point(s) on Department approved land spreading sites or by hauling to another facility.

Sampling Point Designation	
Sampling Point Number	Sampling Point Location, Waste Type/Sample Contents and Treatment Description (as applicable)
002	Class B, Cake, Anaerobically digested dewatered biosolids. Representative composite samples shall be collected from the wet cake loadout valve prior to land application or disposal. This is not a primary outfall and considered an emergency outfall.
003	Class B, Liquid, Anaerobically digested thickened biosolids. Representative composite samples shall be collected from the dewatering feed pumps prior to land application or disposal. This is not a primary outfall and considered an emergency outfall.
004	Class A, Cake Biosolids, Heat dried exceptional quality biosolids for distribution to the public, land application or landfilling. Representative samples shall be collected from the truck load-out area and monitored quarterly. Pathogen control (List 3) monitoring is not required if the sludge is not stored at this location. All pathogen control samples shall be discrete samples. Each pathogen control sample shall meet the pathogen limit to prove effective pathogen treatment.
005	Class A, Cake Biosolids, Heat dried exceptional quality biosolids from the biosolids storage building for distribution to the public, land application or landfilling. Representative samples shall be collected from the dried biosolids piles in the storage building. Fecal (List 3) and percent total solids (List 4) monitoring is not required during quarters when there is no public distribution. Retesting for pathogen control (List 3) is required prior to distribution of Class A sludge product to the public. Percent total solids monitoring (List 4) is required prior to distribution.
006	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 quarterly for metals (List 1), nutrients (List 2), pathogen control (List 3) and vector attraction reduction (List 4).
010	Class B, Liquid, Anaerobically digested thickened biosolids. Representative composite samples shall be collected from the dewatering feed pumps prior to the dewatering belt filter presses. Sludge must be mixed prior to sampling and monitored quarterly 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) for outfalls 002, 003, 004, 005 and 006. 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. This is a common sample point for metals (List 1), PPS and PCBs and is not an outfall for distribution.
011	Class A, Cake, Heat dried exceptional quality biosolids. Representative composite samples shall be collected immediately after the sludge dryer for pathogen control treatment process monitoring (List 3). Class A heat drying requirements apply to show conformance with Class A. This is a sample point and not an outfall for distribution.

4.2 Monitoring Requirements and Limitations

The permittee shall comply with the following monitoring requirements and limitations.

4.2.1 Sampling Point (Outfall) 002 - CLASS B CAKE SLUDGE; 003- CLASS B LIQUID SLUDGE

Monitoring Requirements and Limitations					
Parameter	Limit Type	Limit and Units	Sample Frequency	Sample Type	Notes
Solids, Total		Percent	Quarterly	Composite	
Arsenic Dry Wt	Ceiling	75 mg/kg	Quarterly	Composite	
Arsenic Dry Wt	High Quality	41 mg/kg	Quarterly	Composite	
Cadmium Dry Wt	Ceiling	85 mg/kg	Quarterly	Composite	
Cadmium Dry Wt	High Quality	39 mg/kg	Quarterly	Composite	
Copper Dry Wt	Ceiling	4,300 mg/kg	Quarterly	Composite	
Copper Dry Wt	High Quality	1,500 mg/kg	Quarterly	Composite	
Lead Dry Wt	Ceiling	840 mg/kg	Quarterly	Composite	
Lead Dry Wt	High Quality	300 mg/kg	Quarterly	Composite	
Mercury Dry Wt	Ceiling	57 mg/kg	Quarterly	Composite	
Mercury Dry Wt	High Quality	17 mg/kg	Quarterly	Composite	
Molybdenum Dry Wt	Ceiling	75 mg/kg	Quarterly	Composite	
Nickel Dry Wt	Ceiling	420 mg/kg	Quarterly	Composite	
Nickel Dry Wt	High Quality	420 mg/kg	Quarterly	Composite	
Selenium Dry Wt	Ceiling	100 mg/kg	Quarterly	Composite	
Selenium Dry Wt	High Quality	100 mg/kg	Quarterly	Composite	
Zinc Dry Wt	Ceiling	7,500 mg/kg	Quarterly	Composite	
Zinc Dry Wt	High Quality	2,800 mg/kg	Quarterly	Composite	
Nitrogen, Total Kjeldahl		Percent	Quarterly	Composite	
Nitrogen, Ammonium (NH ₄ -N) Total		Percent	Quarterly	Composite	
Phosphorus, Total		Percent	Quarterly	Composite	
Phosphorus, Water Extractable		% of Tot P	Quarterly	Composite	
Potassium, Total Recoverable		Percent	Quarterly	Composite	

Monitoring Requirements and Limitations					
Parameter	Limit Type	Limit and Units	Sample Frequency	Sample Type	Notes
PFOA + PFOS		µg/kg	Annual	Calculated	Report the sum of PFOA and PFOS. See PFAS Permit Sections for more information.
PFAS Dry Wt			Annual	Grab	Perfluoroalkyl and Polyfluoroalkyl Substances based on updated DNR PFAS List. See PFAS Permit Sections for more information.

Other Sludge Requirements	
Sludge Requirements	Sample Frequency
List 3 Requirements – Pathogen Control: The requirements in List 3 shall be met prior to land application of sludge.	Annual
List 4 Requirements – Vector Attraction Reduction: The vector attraction reduction shall be satisfied prior to, or at the time of land application as specified in List 4.	Annual

4.2.1.1 List 2 Analysis

If the monitoring frequency for List 2 parameters is more frequent than "Annual" then the sludge may be analyzed for the List 2 parameters just prior to each land application season rather than at the more frequent interval specified.

4.2.1.2 Changes in Feed Sludge Characteristics

If a change in feed sludge characteristics, treatment process, or operational procedures occurs which may result in a significant shift in sludge characteristics, the permittee shall reanalyze the sludge for List 1, 2, 3 and 4 parameters each time such change occurs.

4.2.1.3 Reduced Monitoring and Reporting for Sludge when Landfilled

If sludge from this outfall is only landfilled during the monitoring period, monitoring and reporting for Lists 2, 3 and 4 may be omitted for this outfall. All other required monitoring and reporting shall be continued. Additional requirements may be required for acceptance by department approved landfill. All disposal shall conform to Ch. NR 204, Wis. Adm. Code and other administrative chapters.

4.2.1.4 Multiple Sludge Sample Points (Outfalls)

If there are multiple sludge sample points (outfalls), but the sludges are not subject to different sludge treatment processes, then a separate List 2 analysis shall be conducted for each sludge type which is land applied, just prior to land application, and the application rate shall be calculated for each sludge type. In this case, List 1, 3, and 4 and PCBs need only be analyzed on a single sludge type, at the specified frequency. If there are multiple sludge sample

points (outfalls), due to multiple treatment processes, List 1, 2, 3 and 4 and PCBs shall be analyzed for each sludge type at the specified frequency.

4.2.1.5 Sludge Which Exceeds the High Quality Limit

Cumulative pollutant loading records shall be kept for all bulk land application of sludge which does not meet the high quality limit for any parameter. This requirement applies for the entire calendar year in which any exceedance of Table 3 of s. NR 204.07(5)(c), Wis. Adm. Code, is experienced. Such loading records shall be kept for all List 1 parameters for each site land applied in that calendar year. The formula to be used for calculating cumulative loading is as follows:

$$[(\text{Pollutant concentration (mg/kg)} \times \text{dry tons applied/ac}) \div 500] + \text{previous loading (lbs/acre)} = \text{cumulative lbs pollutant per acre}$$

When a site reaches 90% of the allowable cumulative loading for any metal established in Table 2 of s. NR 204.07(5)(b), Wis. Adm. Code, the Department shall be so notified through letter or in the comment section of the annual land application report (3400-55).

4.2.1.6 Lists 1, 2, 3, and 4

List 1 TOTAL SOLIDS AND METALS
See the Monitoring Requirements and Limitations table above for monitoring frequency and limitations for the List 1 parameters
Solids, Total (percent)
Arsenic, mg/kg (dry weight)
Cadmium, mg/kg (dry weight)
Copper, mg/kg (dry weight)
Lead, mg/kg (dry weight)
Mercury, mg/kg (dry weight)
Molybdenum, mg/kg (dry weight)
Nickel, mg/kg (dry weight)
Selenium, mg/kg (dry weight)
Zinc, mg/kg (dry weight)

List 2 NUTRIENTS
See the Monitoring Requirements and Limitations table above for monitoring frequency for the List 2 parameters
Solids, Total (percent)
Nitrogen Total Kjeldahl (percent)
Nitrogen Ammonium (NH4-N) Total (percent)
Phosphorus Total as P (percent)
Phosphorus, Water Extractable (as percent of Total P)
Potassium Total Recoverable (percent)

List 3		
PATHOGEN CONTROL FOR CLASS B SLUDGE		
The permittee shall implement pathogen control as listed in List 3. The Department shall be notified of the pathogen control utilized and shall be notified when the permittee decides to utilize alternative pathogen control.		
The following requirements shall be met prior to land application of sludge.		
Parameter	Unit	Limit
Fecal Coliform *	MPN/gTS or CFU/gTS	2,000,000
OR, ONE OF THE FOLLOWING PROCESS OPTIONS		
Aerobic Digestion	Air Drying	
Anaerobic Digestion	Composting	
Alkaline Stabilization	PSRP Equivalent Process	
* The Fecal Coliform limit shall be reported as the geometric mean of 7 discrete samples on a dry weight basis.		

List 4		
VECTOR ATTRACTION REDUCTION		
The permittee shall implement any one of the vector attraction reduction options specified in List 4. The Department shall be notified of the option utilized and shall be notified when the permittee decides to utilize an alternative option.		
One of the following shall be satisfied prior to, or at the time of land application as specified in List 4.		
Option	Limit	Where/When it Shall be Met
Volatile Solids Reduction	≥38%	Across the process
Specific Oxygen Uptake Rate	≤1.5 mg O ₂ /hr/g TS	On aerobic stabilized sludge
Anaerobic bench-scale test	<17 % VS reduction	On anaerobic digested sludge
Aerobic bench-scale test	<15 % VS reduction	On aerobic digested sludge
Aerobic Process	>14 days, Temp >40°C and Avg. Temp > 45°C	On composted sludge
pH adjustment	>12 S.U. (for 2 hours) and >11.5 (for an additional 22 hours)	During the process
Drying without primary solids	>75 % TS	When applied or bagged
Drying with primary solids	>90 % TS	When applied or bagged
Equivalent Process	Approved by the Department	Varies with process
Injection	-	When applied
Incorporation	-	Within 6 hours of application

4.2.1.7 Daily Land Application Log

Daily Land Application Log		
Discharge Monitoring Requirements and Limitations		
The permittee shall maintain a daily land application log for biosolids land applied each day when land application occurs. The following minimum records must be kept, in addition to all analytical results for the biosolids land applied. The log book records shall form the basis for the annual land application report requirements.		
Parameters	Units	Sample Frequency
DNR Site Number(s)	Number	Daily as used
Outfall number applied	Number	Daily as used
Acres applied	Acres	Daily as used
Amount applied	As appropriate * /day	Daily as used
Application rate per acre	unit */acre	Daily as used
Nitrogen applied per acre	lb/acre	Daily as used
Method of Application	Injection, Incorporation, or surface applied	Daily as used

*gallons, cubic yards, dry US Tons or dry Metric Tons

4.2.1.8 Sludge Monitoring for PFAS

Sampling shall occur for perfluoroalkyl and polyfluoroalkyl compounds (PFAS) listed in the table below and as indicated in sampling point sections above. Monitoring shall occur at each sample point when sludge is generated and discharged regardless of the end use (i.e. land applied, hauled to another facility, landfilled). If a discharge is not made from a specific sludge outfall, PFAS monitoring is not required.

PERFLUOROALKYLCARBOXYLIC Acids (PFCAs)	
PFBA	Perfluorobutanoic acid
PFPeA	Perfluroropentanoic acid
PFHxA	Perfluorohexanoic acid
PFHpA	Perfluoroheptanoic acid
PFOA	Perfluorooctanoic acid
PFNA	Perfluorononanoic acid
PFDA	Perfluorodecanoic acid
PFUnA	Perfluroundecanoic acid
PFDoA	Perfluorododecanoic acid
PFTTrDA	Perfluorotridecanoic acid
PFTeDA	Perfluorotetradecanoic acid
PERFLUOROALKYLSULFONIC Acids (PFSAs)	
PFBS	Perfluorobutane sulfonic acid
PFPeS	Perfluroropentane sulfonic acid
PFHxS	Perfluorohexane sulfonic acid

PFHpS	Perfluoroheptane sulfonic acid
PFOS	Perfluorooctane sulfonic acid
PFNS	Perfluorononane sulfonic acid
PFDS	Perfluorodecane sulfonic acid
PFDoS	Perfluorododecane sulfonic acid
TELOMER SULFONIC Acids	
4:2FTSA	<i>1H,1H,2H,2H</i> -Perfluorohexane sulfonic acid
6:2FTSA	<i>1H,1H,2H,2H</i> -Perfluorooctane sulfonic acid
8:2FTSA	<i>1H,1H,2H,2H</i> -Perfluorodecane sulfonic acid
PERFLUOROOCETANCESULFONAMIDES (FOSAs)	
PFOSA	Perflurorooctane sulfonamide
NMeFOSA	N-Methyl perfluorooctane sulfonamide
NEtFOSA	N-Ethyl perfluorooctane sulfonamide
PERFLUOROOCETANCESULFONAMIDOACETIC Acids	
NMeFOSAA	N-Methyl perfluorooctane sulfonamidoacetic acid
NEtFOSAA	N-Ethyl perfluorooctane sulfonamidoacetic acid
NATIVE PERFLUOROOCETANCESULFONAMIDOETHANOLS (FOSEs)	
NMeFOSE	N-Methyl perfluorooctane sulfonamidoethanol
NEtFOSE	N-Ethyl perfluorooctane sulfonamidoethanol
PERFLUOROALKYLETHERCARBOXYLIC Acids (PFECAs)	
HFPO-DA	Hexafluoropropylene oxide dimer acid
ADONA	4,8-dioxa-3 <i>H</i> -perfluorononanoic acid
PFMPA	Perfluoro-3-methoxypropanoic acid
PFMBA	Perfluoro-4-methoxybutanoic acid
NFDHA	Nonafluoro-3,6-dioxaheptaonic acid
CHLORO-PERFLUOROALKYLSULFONATE	
9Cl-PF3ONS	9-chlorohexadecafluoro-3-oxanone-1-sulfonic acid
11Cl-PF3OUdS	11-chloroelcosafluoro-3-oxaundecane-1-sulfonic acid
PFEESA	Perfluroro(2-ethoxyethane)sulfonic acid
TELOMER SULFONIC Acids	
3:3FTCA	3-Perfluoropropyl propanoic acid
5:3FTCA	<i>2H,2H,3H,3H</i> -Perfluorooctanoic acid
7:3FTCA	3-Perfluoroheptyl propanoic acid

Note: If WDNR Lab Certification removes a particular compound from the reporting list above and upon receiving written communication from the department, reporting for that compound is no longer required.

4.2.1.9 Sampling and Reporting Sludge Samples for PFAS

Representative sludge samples shall be collected at each sample point as listed. At minimum, liquid sludge storage/digesters should be thoroughly mixed prior to sampling. Cake sludge samples should consist of seven equal size discrete samples and be collected from different areas and depths then composited into one sample for laboratory analysis.

Note: If additional equipment is used for collecting sludge samples (i.e., shovels, composting buckets, bottles, etc.), then a one-time equipment blank is recommended to be collected with the first sample. An equipment blank sample is collected by passing laboratory verified PFAS-free water over or through field sampling equipment before the collection of a representative sludge sample. The equipment blank result shall be reported on the annual Sludge Characteristics Form (3400-049) in the comment section when reporting PFAS concentrations in the sludge.

The permittee shall report each of the PFAS sludge monitoring results on the annual Sludge Characteristics and Monitoring Form (3400-049) as provided by the department. The permittee shall also report the summation of PFOS and PFOA on this same form. All results shall be reported in dry weight. The annual Sludge Characteristics and Monitoring Form (3400-049) are due January 31, of the year following the collection of the sludge samples.

The laboratory performing the analysis on any samples shall be certified for the applicable PFAS compounds in the solids matrix by the Wisconsin Laboratory Certification Program established under s. 299.11, Wis. Stats., and in accordance with s. NR 149.41, Wis. Adm. Code. The department may reject any sample results if results are produced by a laboratory that is not in compliance with certification requirements under ch. NR 149, Wis. Adm. Code.

4.2.1.10 PFAS Land Application Requirements

The department recommends the landspreading and/or land application of sludge be done in a manner consistent with the most recent version of the [“Interim Strategy for Land Application of Biosolids and Industrial Sludges containing PFAS”](#).

4.2.2 Sampling Point (Outfall) 004 - CLASS A EQ SLUDGE DISTRIBUTION; 005- CLASS A EQ SLUDGE STORAGE; 006- CLASS A EQ DUST

Monitoring Requirements and Limitations					
Parameter	Limit Type	Limit and Units	Sample Frequency	Sample Type	Notes
Solids, Total		Percent	Quarterly	Composite	
Arsenic Dry Wt	Ceiling	75 mg/kg	Quarterly	Composite	
Arsenic Dry Wt	High Quality	41 mg/kg	Quarterly	Composite	
Cadmium Dry Wt	Ceiling	85 mg/kg	Quarterly	Composite	
Cadmium Dry Wt	High Quality	39 mg/kg	Quarterly	Composite	
Copper Dry Wt	Ceiling	4,300 mg/kg	Quarterly	Composite	
Copper Dry Wt	High Quality	1,500 mg/kg	Quarterly	Composite	
Lead Dry Wt	Ceiling	840 mg/kg	Quarterly	Composite	
Lead Dry Wt	High Quality	300 mg/kg	Quarterly	Composite	
Mercury Dry Wt	Ceiling	57 mg/kg	Quarterly	Composite	
Mercury Dry Wt	High Quality	17 mg/kg	Quarterly	Composite	
Molybdenum Dry Wt	Ceiling	75 mg/kg	Quarterly	Composite	
Nickel Dry Wt	Ceiling	420 mg/kg	Quarterly	Composite	
Nickel Dry Wt	High Quality	420 mg/kg	Quarterly	Composite	
Selenium Dry Wt	Ceiling	100 mg/kg	Quarterly	Composite	

Monitoring Requirements and Limitations					
Parameter	Limit Type	Limit and Units	Sample Frequency	Sample Type	Notes
Selenium Dry Wt	High Quality	100 mg/kg	Quarterly	Composite	
Zinc Dry Wt	Ceiling	7,500 mg/kg	Quarterly	Composite	
Zinc Dry Wt	High Quality	2,800 mg/kg	Quarterly	Composite	
Nitrogen, Total Kjeldahl		Percent	Quarterly	Composite	
Nitrogen, Ammonium (NH ₄ -N) Total		Percent	Quarterly	Composite	
Phosphorus, Total		Percent	Quarterly	Composite	
Phosphorus, Water Extractable		% of Tot P	Quarterly	Composite	
Potassium, Total Recoverable		Percent	Quarterly	Composite	
PFOA + PFOS		µg/kg	Annual	Calculated	Report the sum of PFOA and PFOS. See PFAS Permit Sections for more information.
PFAS Dry Wt			Annual	Grab	Perfluoroalkyl and Polyfluoroalkyl Substances based on updated DNR PFAS List. See PFAS Permit Sections for more information.

Other Sludge Requirements	
Sludge Requirements	Sample Frequency
List 3 Requirements – Pathogen Control: The requirements in List 3 shall be met prior to land application of sludge.	Annual
List 4 Requirements – Vector Attraction Reduction: The vector attraction reduction shall be satisfied prior to, or at the time of land application as specified in List 4.	Annual

4.2.2.1 List 2 Analysis

If the monitoring frequency for List 2 parameters is more frequent than "Annual" then the sludge may be analyzed for the List 2 parameters just prior to each land application season rather than at the more frequent interval specified.

4.2.2.2 Reduced Monitoring and Reporting when Landfilled

If sludge from this outfall is only landfilled during the monitoring period, monitoring and reporting for Lists 2, 3 and 4 may be omitted for this outfall. All other required monitoring and reporting shall be continued. Additional requirements may be required for acceptance by department approved landfill. All disposal shall conform to Ch. NR 204, Wis. Adm. Code and other administrative chapters.

4.2.2.3 Changes in Feed Sludge Characteristics

If a change in feed sludge characteristics, treatment process, or operational procedures occurs which may result in a significant shift in sludge characteristics, the permittee shall reanalyze the sludge for List 1, 2, 3 and 4 parameters each time such change occurs.

4.2.2.4 Multiple Sludge Sample Points (Outfalls)

If there are multiple sludge sample points (outfalls), but the sludges are not subject to different sludge treatment processes, then a separate List 2 analysis shall be conducted for each sludge type which is land applied, just prior to land application, and the application rate shall be calculated for each sludge type. In this case, List 1, 3, and 4 and PCBs need only be analyzed on a single sludge type, at the specified frequency. If there are multiple sludge sample points (outfalls), due to multiple treatment processes, List 1, 2, 3 and 4 and PCBs shall be analyzed for each sludge type at the specified frequency.

4.2.2.5 Sludge Which Exceeds the High Quality Limit

Cumulative pollutant loading records shall be kept for all bulk land application of sludge which does not meet the high quality limit for any parameter. This requirement applies for the entire calendar year in which any exceedance of Table 3 of s. NR 204.07(5)(c), Wis. Adm. Code, is experienced. Such loading records shall be kept for all List 1 parameters for each site land applied in that calendar year. The formula to be used for calculating cumulative loading is as follows:

$$[(\text{Pollutant concentration (mg/kg)} \times \text{dry tons applied/ac}) \div 500] + \text{previous loading (lbs/acre)} = \text{cumulative lbs pollutant per acre}$$

When a site reaches 90% of the allowable cumulative loading for any metal established in Table 2 of s. NR 204.07(5)(b), Wis. Adm. Code, the Department shall be so notified through letter or in the comment section of the annual land application report (3400-55).

4.2.2.6 Lists 1, 2, 3, and 4

<p>List 1 TOTAL SOLIDS AND METALS See the Monitoring Requirements and Limitations table above for monitoring frequency and limitations for the List 1 parameters</p>
Solids, Total (percent)
Arsenic, mg/kg (dry weight)
Cadmium, mg/kg (dry weight)
Copper, mg/kg (dry weight)
Lead, mg/kg (dry weight)
Mercury, mg/kg (dry weight)
Molybdenum, mg/kg (dry weight)
Nickel, mg/kg (dry weight)
Selenium, mg/kg (dry weight)

List 1 TOTAL SOLIDS AND METALS See the Monitoring Requirements and Limitations table above for monitoring frequency and limitations for the List 1 parameters
Zinc, mg/kg (dry weight)

List 2 NUTRIENTS See the Monitoring Requirements and Limitations table above for monitoring frequency for the List 2 parameters
Solids, Total (percent)
Nitrogen Total Kjeldahl (percent)
Nitrogen Ammonium (NH ₄ -N) Total (percent)
Phosphorus Total as P (percent)
Phosphorus, Water Extractable (as percent of Total P)
Potassium Total Recoverable (percent)

List 3		
PATHOGEN CONTROL FOR CLASS A SLUDGE		
The permittee shall implement pathogen control as listed in List 3. The Department shall be notified of the pathogen control utilized and shall be notified when the permittee decides to utilize alternative pathogen control.		
The following requirements shall be met prior to land application of sludge.		
Parameter	Unit	Limit
Fecal Coliform*	MPN/gTS	1000
OR		
Salmonella	MPN/4gTS	3
AND, ONE OF THE FOLLOWING PROCESS OPTIONS		
Temp/Time based on % Solids	Alkaline Treatment	
Prior test for Enteric Virus/Viable Helminth Ova	Post test for Enteric Virus/Viable Helminth Ova	
Composting	Heat Drying	
Heat Treatment	Thermophilic Aerobic Digestion	
Beta Ray Irradiation	Gamma Ray Irradiation	
Pasteurization	PFRP Equivalent Process	
* Fecal Coliform results shall be reported 7 discrete samples on a dry weight basis. The 7 discrete samples shall be collected through the monitoring period.		

List 4		
VECTOR ATTRACTION REDUCTION		
The permittee shall implement any one of the vector attraction reduction options specified in List 4. The Department shall be notified of the option utilized and shall be notified when the permittee decides to utilize an alternative option.		
One of the following shall be satisfied prior to, or at the time of land application as specified in List 4.		
Option	Limit	Where/When it Shall be Met
Volatile Solids Reduction	≥38%	Across the process
Specific Oxygen Uptake Rate	≤1.5 mg O ₂ /hr/g TS	On aerobic stabilized sludge
Anaerobic bench-scale test	<17 % VS reduction	On anaerobic digested sludge
Aerobic bench-scale test	<15 % VS reduction	On aerobic digested sludge
Aerobic Process	>14 days, Temp >40°C and Avg. Temp > 45°C	On composted sludge
pH adjustment	>12 S.U. (for 2 hours) and >11.5 (for an additional 22 hours)	During the process
Drying without primary solids	>75 % TS	When applied or bagged
Drying with primary solids	>90 % TS	When applied or bagged
Equivalent Process	Approved by the Department	Varies with process
Injection	-	When applied
Incorporation	-	Within 6 hours of application

4.2.2.7 Daily Land Application Log

Daily Land Application Log		
Discharge Monitoring Requirements and Limitations		
The permittee shall maintain a daily land application log for biosolids land applied each day when land application occurs. The following minimum records must be kept, in addition to all analytical results for the biosolids land applied. The log book records shall form the basis for the annual land application report requirements.		
Parameters	Units	Sample Frequency
DNR Site Number(s)	Number	Daily as used
Outfall number applied	Number	Daily as used
Acres applied	Acres	Daily as used
Amount applied	As appropriate * /day	Daily as used
Application rate per acre	unit */acre	Daily as used
Nitrogen applied per acre	lb/acre	Daily as used
Method of Application	Injection, Incorporation, or surface applied	Daily as used

*gallons, cubic yards, dry US Tons or dry Metric Tons

4.2.2.8 Sludge Monitoring for PFAS

Sampling shall occur for perfluoroalkyl and polyfluoroalkyl compounds (PFAS) listed in the table below and as indicated in sampling point sections above. Monitoring shall occur at each sample point when sludge is generated and discharged regardless of the end use (i.e. land applied, hauled to another facility, landfilled). If a discharge is not made from a specific sludge outfall, PFAS monitoring is not required.

PERFLUOROALKYLCARBOXYLIC Acids (PFCAs)	
PFBA	Perfluorobutanoic acid
PFPeA	Perfluroropentanoic acid
PFHxA	Perfluorohexanoic acid
PFHpA	Perfluoroheptanoic acid
PFOA	Perfluorooctanoic acid
PFNA	Perfluorononanoic acid
PFDA	Perfluorodecanoic acid
PFUnA	Perfluroroundecanoic acid
PFDoA	Perfluorododecanoic acid
PFTTrDA	Perfluorotridecanoic acid
PFTeDA	Perfluorotetradecanoic acid
PERFLUOROALKYLSULFONIC Acids (PFSAs)	
PFBS	Perfluorobutane sulfonic acid
PFPeS	Perfluroropentane sulfonic acid
PFHxS	Perfluorohexane sulfonic acid

PFHpS	Perfluoroheptane sulfonic acid
PFOS	Perfluorooctane sulfonic acid
PFNS	Perfluorononane sulfonic acid
PFDS	Perfluorodecane sulfonic acid
PFDoS	Perfluorododecane sulfonic acid
TELOMER SULFONIC Acids	
4:2FTSA	<i>1H,1H,2H,2H</i> -Perfluorohexane sulfonic acid
6:2FTSA	<i>1H,1H,2H,2H</i> -Perfluorooctane sulfonic acid
8:2FTSA	<i>1H,1H,2H,2H</i> -Perfluorodecane sulfonic acid
PERFLUOROOCETANCESULFONAMIDES (FOSAs)	
PFOSA	Perfluorooctane sulfonamide
NMeFOSA	N-Methyl perfluorooctane sulfonamide
NEtFOSA	N-Ethyl perfluorooctane sulfonamide
PERFLUOROOCETANCESULFONAMIDOACETIC Acids	
NMeFOSAA	N-Methyl perfluorooctane sulfonamidoacetic acid
NEtFOSAA	N-Ethyl perfluorooctane sulfonamidoacetic acid
NATIVE PERFLUOROOCETANCESULFONAMIDOETHANOLS (FOSEs)	
NMeFOSE	N-Methyl perfluorooctane sulfonamidoethanol
NEtFOSE	N-Ethyl perfluorooctane sulfonamidoethanol
PERFLUOROALKYLETHERCARBOXYLIC Acids (PFECAs)	
HFPO-DA	Hexafluoropropylene oxide dimer acid
ADONA	4,8-dioxa-3 <i>H</i> -perfluorononanoic acid
PFMPA	Perfluoro-3-methoxypropanoic acid
PFMBA	Perfluoro-4-methoxybutanoic acid
NFDHA	Nonafluoro-3,6-dioxaheptaonic acid
CHLORO-PERFLUOROALKYLSULFONATE	
9Cl-PF3ONS	9-chlorohexadecafluoro-3-oxanone-1-sulfonic acid
11Cl-PF3OUdS	11-chloroelcosafluoro-3-oxaundecane-1-sulfonic acid
PFEESA	Perfluoro(2-ethoxyethane)sulfonic acid
TELOMER SULFONIC Acids	
3:3FTCA	3-Perfluoropropyl propanoic acid
5:3FTCA	<i>2H,2H,3H,3H</i> -Perfluorooctanoic acid
7:3FTCA	3-Perfluoroheptyl propanoic acid

Note: If WDNR Lab Certification removes a particular compound from the reporting list above and upon receiving written communication from the department, reporting for that compound is no longer required.

4.2.2.9 Sampling and Reporting Sludge Samples for PFAS

Representative sludge samples shall be collected at each sample point as listed. At minimum, liquid sludge storage/digesters should be thoroughly mixed prior to sampling. Cake sludge samples should consist of seven equal size discrete samples and be collected from different areas and depths then composited into one sample for laboratory analysis.

Note: If additional equipment is used for collecting sludge samples (i.e., shovels, composting buckets, bottles, etc.), then a one-time equipment blank is recommended to be collected with the first sample. An equipment blank sample is collected by passing laboratory verified PFAS-free water over or through field sampling equipment before the collection of a representative sludge sample. The equipment blank result shall be reported on the annual Sludge Characteristics Form (3400-049) in the comment section when reporting PFAS concentrations in the sludge.

The permittee shall report each of the PFAS sludge monitoring results on the annual Sludge Characteristics and Monitoring Form (3400-049) as provided by the department. The permittee shall also report the summation of PFOS and PFOA on this same form. All results shall be reported in dry weight. The annual Sludge Characteristics and Monitoring Form (3400-049) are due January 31, of the year following the collection of the sludge samples.

The laboratory performing the analysis on any samples shall be certified for the applicable PFAS compounds in the solids matrix by the Wisconsin Laboratory Certification Program established under s. 299.11, Wis. Stats., and in accordance with s. NR 149.41, Wis. Adm. Code. The department may reject any sample results if results are produced by a laboratory that is not in compliance with certification requirements under ch. NR 149, Wis. Adm. Code.

4.2.2.10 PFAS Land Application Requirements

The department recommends the landspreading and/or land application of sludge be done in a manner consistent with the most recent version of the [“Interim Strategy for Land Application of Biosolids and Industrial Sludges containing PFAS”](#).

4.2.3 Sampling Point (Outfall) 010 - CLASS B LIQUID SLUDGE

Monitoring Requirements and Limitations					
Parameter	Limit Type	Limit and Units	Sample Frequency	Sample Type	Notes
Solids, Total		Percent	Quarterly	Composite	
Arsenic Dry Wt	Ceiling	75 mg/kg	Quarterly	Composite	
Arsenic Dry Wt	High Quality	41 mg/kg	Quarterly	Composite	
Cadmium Dry Wt	Ceiling	85 mg/kg	Quarterly	Composite	
Cadmium Dry Wt	High Quality	39 mg/kg	Quarterly	Composite	
Copper Dry Wt	Ceiling	4,300 mg/kg	Quarterly	Composite	
Copper Dry Wt	High Quality	1,500 mg/kg	Quarterly	Composite	
Lead Dry Wt	Ceiling	840 mg/kg	Quarterly	Composite	
Lead Dry Wt	High Quality	300 mg/kg	Quarterly	Composite	
Mercury Dry Wt	Ceiling	57 mg/kg	Quarterly	Composite	
Mercury Dry Wt	High Quality	17 mg/kg	Quarterly	Composite	
Molybdenum Dry Wt	Ceiling	75 mg/kg	Quarterly	Composite	
Nickel Dry Wt	Ceiling	420 mg/kg	Quarterly	Composite	
Nickel Dry Wt	High Quality	420 mg/kg	Quarterly	Composite	
Selenium Dry Wt	Ceiling	100 mg/kg	Quarterly	Composite	
Selenium Dry Wt	High Quality	100 mg/kg	Quarterly	Composite	

Monitoring Requirements and Limitations					
Parameter	Limit Type	Limit and Units	Sample Frequency	Sample Type	Notes
Zinc Dry Wt	Ceiling	7,500 mg/kg	Quarterly	Composite	
Zinc Dry Wt	High Quality	2,800 mg/kg	Quarterly	Composite	

Other Sludge Requirements	
Sludge Requirements	Sample Frequency
List 4 Requirements – Vector Attraction Reduction: The vector attraction reduction shall be satisfied prior to, or at the time of land application as specified in List 4.	Annual

4.2.3.1 List 2 Analysis

If the monitoring frequency for List 2 parameters is more frequent than "Annual" then the sludge may be analyzed for the List 2 parameters just prior to each land application season rather than at the more frequent interval specified.

4.2.3.2 Changes in Feed Sludge Characteristics

If a change in feed sludge characteristics, treatment process, or operational procedures occurs which may result in a significant shift in sludge characteristics, the permittee shall reanalyze the sludge for List 1, 2, 3 and 4 parameters each time such change occurs.

4.2.3.3 Multiple Sludge Sample Points (Outfalls)

If there are multiple sludge sample points (outfalls), but the sludges are not subject to different sludge treatment processes, then a separate List 2 analysis shall be conducted for each sludge type which is land applied, just prior to land application, and the application rate shall be calculated for each sludge type. In this case, List 1, 3, and 4 and PCBs need only be analyzed on a single sludge type, at the specified frequency. If there are multiple sludge sample points (outfalls), due to multiple treatment processes, List 1, 2, 3 and 4 and PCBs shall be analyzed for each sludge type at the specified frequency.

4.2.3.4 Sludge Which Exceeds the High Quality Limit

Cumulative pollutant loading records shall be kept for all bulk land application of sludge which does not meet the high quality limit for any parameter. This requirement applies for the entire calendar year in which any exceedance of Table 3 of s. NR 204.07(5)(c), Wis. Adm. Code, is experienced. Such loading records shall be kept for all List 1 parameters for each site land applied in that calendar year. The formula to be used for calculating cumulative loading is as follows:

$$[(\text{Pollutant concentration (mg/kg)} \times \text{dry tons applied/ac}) \div 500] + \text{previous loading (lbs/acre)} = \text{cumulative lbs pollutant per acre}$$

When a site reaches 90% of the allowable cumulative loading for any metal established in Table 2 of s. NR 204.07(5)(b), Wis. Adm. Code, the Department shall be so notified through letter or in the comment section of the annual land application report (3400-55).

4.2.3.5 Lists 1 and 4

List 1		
TOTAL SOLIDS AND METALS		
See the Monitoring Requirements and Limitations table above for monitoring frequency and limitations for the List 1 parameters		
Solids, Total (percent)		
Arsenic, mg/kg (dry weight)		
Cadmium, mg/kg (dry weight)		
Copper, mg/kg (dry weight)		
Lead, mg/kg (dry weight)		
Mercury, mg/kg (dry weight)		
Molybdenum, mg/kg (dry weight)		
Nickel, mg/kg (dry weight)		
Selenium, mg/kg (dry weight)		
Zinc, mg/kg (dry weight)		
List 4		
VECTOR ATTRACTION REDUCTION		
The permittee shall implement any one of the vector attraction reduction options specified in List 4. The Department shall be notified of the option utilized and shall be notified when the permittee decides to utilize an alternative option.		
One of the following shall be satisfied prior to, or at the time of land application as specified in List 4.		
Option	Limit	Where/When it Shall be Met
Volatile Solids Reduction	≥38%	Across the process
Specific Oxygen Uptake Rate	≤1.5 mg O ₂ /hr/g TS	On aerobic stabilized sludge
Anaerobic bench-scale test	<17 % VS reduction	On anaerobic digested sludge
Aerobic bench-scale test	<15 % VS reduction	On aerobic digested sludge
Aerobic Process	>14 days, Temp >40°C and Avg. Temp > 45°C	On composted sludge
pH adjustment	>12 S.U. (for 2 hours) and >11.5 (for an additional 22 hours)	During the process
Drying without primary solids	>75 % TS	When applied or bagged
Drying with primary solids	>90 % TS	When applied or bagged
Equivalent Process	Approved by the Department	Varies with process
Injection	-	When applied
Incorporation	-	Within 6 hours of application

4.2.4 Sampling Point (Outfall) 011 - CLASS A CAKE SLUDGE

List 3

PATHOGEN CONTROL FOR CLASS A SLUDGE

The permittee shall implement pathogen control as listed in List 3. The Department shall be notified of the pathogen control utilized and shall be notified when the permittee decides to utilize alternative pathogen control.

The following requirements shall be met prior to land application of sludge.

Parameter	Unit	Limit
Fecal Coliform*	MPN/gTS	1000
OR		
Salmonella	MPN/4gTS	3
AND, ONE OF THE FOLLOWING PROCESS OPTIONS		
Temp/Time based on % Solids	Alkaline Treatment	
Prior test for Enteric Virus/Viable Helminth Ova	Post test for Enteric Virus/Viable Helminth Ova	
Composting	Heat Drying	
Heat Treatment	Thermophilic Aerobic Digestion	
Beta Ray Irradiation	Gamma Ray Irradiation	
Pasteurization	PFRP Equivalent Process	
* Fecal Coliform results shall be reported 7 discrete samples on a dry weight basis. The 7 discrete samples shall be collected through the monitoring period.		

5 Schedules

5.1 Mercury Pollutant Minimization Summary

Required Action	Due Date
<p>Final Mercury Report: Submit a report summarizing the mercury pollutant minimization measures implemented during the current permit term and the success in maintaining effluent quality at or below the current concentrations. The report shall include an analysis of trends in quarterly and annual average mercury concentrations and total mass discharge of mercury based on mercury sampling and flow data covering the current permit term. The report shall also include an analysis of how influent and effluent mercury varies with time and with significant loadings of mercury such as loads from industries or collection system maintenance.</p>	03/31/2030

5.2 PFOS/PFOA Minimization Plan Determination of Need

Required Action	Due Date
<p>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.</p> <p>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.</p>	04/30/2027
<p>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.</p> <p>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.</p> <p>The permittee shall also submit a request to the department to evaluate the need for a PFOS/PFOA minimization plan.</p> <p>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 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.</p> <p>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.</p>	04/30/2028

6 Standard Requirements

Chapter NR 205, Wisconsin Administrative Code: The conditions in ss. NR 205.07(1) and NR 205.07(2), Wis. Adm. Code, are included by reference in this permit. The permittee shall comply with all of these requirements. Some of these requirements are outlined in the Standard Requirements section of this permit. Requirements not specifically outlined in the Standard Requirement section of this permit can be found in ss. NR 205.07(1) and NR 205.07(2), Wis. Adm. Code.

6.1 Reporting and Monitoring Requirements

6.1.1 Monitoring Results

Monitoring results obtained during the previous month shall be summarized and reported on a Department Wastewater Discharge Monitoring Report. The report may require reporting of any or all of the information specified below under 'Recording of Results'. This report is to be returned to the Department no later than the date indicated on the form. A copy of the Wastewater Discharge Monitoring Report Form or an electronic file of the report shall be retained by the permittee.

Monitoring results shall be reported on an electronic discharge monitoring report (eDMR). The eDMR shall be certified electronically by a responsible executive or municipal officer, manager, partner or proprietor as specified in s. 283.37(3), Wis. Stats., or a duly authorized representative of the officer, manager, partner or proprietor that has been delegated signature authority pursuant to s. NR 205.07(1)(g)2, Wis. Adm. Code. The 'eReport Certify' page certifies that the electronic report form is true, accurate and complete.

If the permittee monitors any pollutant more frequently than required by this permit, the results of such monitoring shall be included on the Wastewater Discharge Monitoring Report.

The permittee shall comply with all limits for each parameter regardless of monitoring frequency. For example, monthly, weekly, and/or daily limits shall be met even with monthly monitoring. The permittee may monitor more frequently than required for any parameter.

6.1.2 Sampling and Testing Procedures

Sampling and laboratory testing procedures shall be performed in accordance with Chapters NR 218 and NR 219, Wis. Adm. Code, and completed by a laboratory certified or registered in accordance with the requirements of ch. NR 149, Wis. Adm. Code. Groundwater sampling shall be performed in accordance with procedures contained in s. NR 140.16, Wis. Adm. Code, and the WDNR publications, Groundwater Sampling Desk Reference (PUBL-DG-037-96) and Groundwater Sampling Field Manual (PUBL-DG-038-96). The analytical methodologies used shall enable the laboratory to quantitate all substances for which monitoring is required at levels below the effluent limitation and/or groundwater standard. If the required level cannot be met by any of the methods available in ch. NR 219, Wis. Adm. Code, then the method with the lowest limit of detection shall be selected. Additional test procedures may be specified in this permit.

6.1.3 Pretreatment Sampling Requirements

Sampling for pretreatment parameters (cadmium, chromium, copper, lead, nickel, zinc, and mercury) shall be done during a day each month when industrial discharges are occurring at normal to maximum levels. The sampling of the influent and effluent for these parameters shall be coordinated. All 24 hour composite samples shall be flow proportional.

6.1.4 Recording of Results

The permittee shall maintain records which provide the following information for each effluent measurement or sample taken:

- The date, exact place, method and time of sampling or measurements;

- The individual who performed the sampling or measurements;
- The date the analysis was performed;
- The individual who performed the analysis;
- The analytical techniques or methods used; and
- The results of the analysis.

6.1.5 Reporting of Monitoring Results

The permittee shall use the following conventions when reporting effluent monitoring results:

- Pollutant concentrations less than the limit of detection shall be reported as < (less than) the value of the limit of detection. For example, if a substance is not detected at a detection limit of 0.1 mg/L, report the pollutant concentration as < 0.1 mg/L.
- Pollutant concentrations equal to or greater than the limit of detection, but less than the limit of quantitation, shall be reported and the limit of quantitation shall be specified.
- For purposes of calculating fees under ch. NR 101, Wis. Adm. Code, a reporting limit of 2.0 mg/L for BOD₅ and 2.5 mg/L Total Suspended Solids shall be considered to be limits of quantitation.
- For the purposes of reporting a calculated result, average or a mass discharge value, the permittee may substitute a “0” (zero) for any pollutant concentration that is less than the limit of detection. However, if the effluent limitation is less than the limit of detection, the department may substitute a value other than zero for results less than the limit of detection, after considering the number of monitoring results that are greater than the limit of detection and if warranted when applying appropriate statistical techniques.
- If no discharge occurs through an outfall, flow related parameters (e.g. flow rate, hydraulic application rate, volume, etc.) should be reported as “0” (zero) at the required sample frequency specified for the outfall. For example: if the sample frequency is daily, “0” would be reported for any day during the month that no discharge occurred.

6.1.6 Compliance Maintenance Annual Reports

Compliance Maintenance Annual Reports (CMAR) shall be completed using information obtained over each calendar year regarding the wastewater conveyance and treatment system. The CMAR shall be submitted and certified by the permittee in accordance with ch. NR 208, Wis. Adm. Code, by June 30, each year on an electronic report form provided by the Department.

In the case of a publicly owned treatment works, a resolution shall be passed by the governing body and submitted as part of the CMAR, verifying its review of the report and providing responses as required. Private owners of wastewater treatment works are not required to pass a resolution; but they must provide an Owner Statement and responses as required, as part of the CMAR submittal.

The CMAR shall be certified electronically by a responsible executive or municipal officer, manager, partner or proprietor as specified in s. 283.37(3), Wis. Stats., or a duly authorized representative of the officer, manager, partner or proprietor that has been delegated signature authority pursuant to s. NR 205.07(1)(g)2, Wis. Adm. Code. The certification verifies that the electronic report is true, accurate and complete.

6.1.7 Records Retention

The permittee shall retain records of all monitoring information, including all calibration and maintenance records and all original strip chart recordings or electronic data records for continuous monitoring instrumentation, copies of all reports required by the permit, and records of all data used to complete the application for the permit for a period of at least 3 years from the date of the sample, measurement, report or application. All pertinent sludge information,

including permit application information and other documents specified in this permit or s. NR 204.06(9), Wis. Adm. Code shall be retained for a minimum of 5 years.

6.1.8 Other Information

Where the permittee becomes aware that it failed to submit any relevant facts in a permit application or submitted incorrect information in a permit application or in any report to the Department, it shall promptly submit such facts or correct information to the Department.

6.1.9 Reporting Requirements – Alterations or Additions

The permittee shall give notice to the Department as soon as possible of any planned physical alterations or additions to the permitted facility. Notice is only required when:

- The alteration or addition to the permitted facility may meet one of the criteria for determining whether a facility is a new source.
- The alteration or addition could significantly change the nature or increase the quantity of pollutants discharged. This notification requirement applies to pollutants which are not subject to effluent limitations in the existing permit.
- The alteration or addition results in a significant change in the permittee's sludge use or disposal practices, and such alteration, addition, or change may justify the application of permit conditions that are different from or absent in the existing permit, including notification of additional use of disposal sites not reported during the permit application process nor reported pursuant to an approved land application plan. Additional sites may not be used for the land application of sludge until department approval is received.

6.2 System Operating Requirements

6.2.1 Noncompliance Reporting

Sanitary sewer overflows and sewage treatment facility overflows shall be reported according to the 'Sanitary Sewer Overflows and Sewage Treatment Facility Overflows' section of this permit.

The permittee shall report the following types of noncompliance by a telephone call to the Department's regional office within 24 hours after becoming aware of the noncompliance:

- Any noncompliance which may endanger health or the environment;
- Any violation of an effluent limitation resulting from a bypass;
- Any violation of an effluent limitation resulting from an upset; and
- Any violation of a maximum discharge limitation for any of the pollutants listed by the Department in the permit, either for effluent or sludge.

A written report describing the noncompliance shall also be submitted to the Department's regional office within 5 days after the permittee becomes aware of the noncompliance. On a case-by-case basis, the Department may waive the requirement for submittal of a written report within 5 days and instruct the permittee to submit the written report with the next regularly scheduled monitoring report. In either case, the written report shall contain a description of the noncompliance and its cause; the period of noncompliance, including exact dates and times; the steps taken or planned to reduce, eliminate and prevent reoccurrence of the noncompliance; and if the noncompliance has not been corrected, the length of time it is expected to continue.

A scheduled bypass approved by the Department under the 'Scheduled Bypass' section of this permit shall not be subject to the reporting required under this section.

NOTE: Section 292.11(2)(a), Wisconsin Statutes, requires any person who possesses or controls a hazardous substance or who causes the discharge of a hazardous substance to notify the Department of Natural Resources

immediately of any discharge not authorized by the permit. **The discharge of a hazardous substance that is not authorized by this permit or that violates this permit may be a hazardous substance spill. To report a hazardous substance spill, call DNR's 24-hour HOTLINE at 1-800-943-0003.**

6.2.2 Flow Meters

Flow meters shall be calibrated annually, as per s. NR 218.06, Wis. Adm. Code.

6.2.3 Raw Grit and Screenings

All raw grit and screenings shall be disposed of at a properly licensed solid waste facility or picked up by a licensed waste hauler. If the facility or hauler are located in Wisconsin, then they shall be licensed under chs. NR 500-555, Wis. Adm. Code.

6.2.4 Sludge Management

All sludge management activities shall be conducted in compliance with ch. NR 204 "Domestic Sewage Sludge Management", Wis. Adm. Code.

6.2.5 Prohibited Wastes

Under no circumstances may the introduction of wastes prohibited by s. NR 211.10, Wis. Adm. Code, be allowed into the waste treatment system. Prohibited wastes include those:

- Which create a fire or explosion hazard in the treatment work;
- Which will cause corrosive structural damage to the treatment work;
- Solid or viscous substances in amounts which cause obstructions to the flow in sewers or interference with the proper operation of the treatment work;
- Wastewaters at a flow rate or pollutant loading which are excessive over relatively short time periods so as to cause a loss of treatment efficiency; and
- Changes in discharge volume or composition from contributing industries which overload the treatment works or cause a loss of treatment efficiency.

6.2.6 Bypass

This condition applies only to bypassing at a sewage treatment facility that is not a scheduled bypass, approved blending as a specific condition of this permit, a sewage treatment facility overflow or a controlled diversion as provided in the sections titled 'Scheduled Bypass', 'Blending' (if approved), 'SSO's and Sewage Treatment Facility Overflows' and 'Controlled Diversions' of this permit. Any other bypass at the sewage treatment facility is prohibited and the Department may take enforcement action against a permittee for such occurrences under s. 283.89, Wis. Stats. The Department may approve a bypass if the permittee demonstrates all the following conditions apply:

- The bypass was unavoidable to prevent loss of life, personal injury, or severe property damage;
- There were no feasible alternatives to the bypass, such as the use of auxiliary treatment facilities or adequate back-up equipment, retention of untreated wastes, reduction of inflow and infiltration, or maintenance during normal periods of equipment downtime. This condition is not satisfied if adequate back-up equipment should have been installed in the exercise of reasonable engineering judgment to prevent a bypass which occurred during normal periods of equipment downtime or preventative maintenance. When evaluating feasibility of alternatives, the department may consider factors such as technical achievability, costs and affordability of implementation and risks to public health, the environment and, where the permittee is a municipality, the welfare of the community served; and
- The bypass was reported in accordance with the Noncompliance Reporting section of this permit.

6.2.7 Scheduled Bypass

Whenever the permittee anticipates the need to bypass for purposes of efficient operations and maintenance and the permittee may not meet the conditions for controlled diversions in the ‘Controlled Diversions’ section of this permit, the permittee shall obtain prior written approval from the Department for the scheduled bypass. A permittee’s written request for Department approval of a scheduled bypass shall demonstrate that the conditions for bypassing specified in the above section titled ‘Bypass’ are met and include the proposed date and reason for the bypass, estimated volume and duration of the bypass, alternatives to bypassing and measures to mitigate environmental harm caused by the bypass. The department may require the permittee to provide public notification for a scheduled bypass if it is determined there is significant public interest in the proposed action and may recommend mitigation measures to minimize the impact of such bypass.

6.2.8 Controlled Diversions

Controlled diversions are allowed only when necessary for essential maintenance to assure efficient operation. Sewage treatment facilities that have multiple treatment units to treat variable or seasonal loading conditions may shut down redundant treatment units when necessary for efficient operation. The following requirements shall be met during controlled diversions:

- Effluent from the sewage treatment facility shall meet the effluent limitations established in the permit. Wastewater that is diverted around a treatment unit or treatment process during a controlled diversion shall be recombined with wastewater that is not diverted prior to the effluent sampling location and prior to effluent discharge;
- A controlled diversion does not include blending as defined in s. NR 210.03(2e), Wis. Adm. Code, and as may only be approved under s. NR 210.12. A controlled diversion may not occur during periods of excessive flow or other abnormal wastewater characteristics;
- A controlled diversion may not result in a wastewater treatment facility overflow; and
- All instances of controlled diversions shall be documented in sewage treatment facility records and such records shall be available to the department on request.

6.2.9 Ammonia Limit Not Needed - Continue to Optimize Removal of Ammonia

Applying the procedures in s. NR 106.05, Wis. Adm. Code, to ammonia data that is representative of the current operations of the wastewater treatment plant resulted in a determination that ammonia effluent limits are not necessary in this permit. Pursuant to NR 106.33, throughout the term of this permit, the wastewater treatment plant shall continue to be operated in a manner that optimizes the removal of ammonia within the design capabilities of the wastewater treatment plant.

6.2.10 Proper Operation and Maintenance

The permittee shall at all times properly operate and maintain all facilities and systems of treatment and control which are installed or used by the permittee to achieve compliance with the conditions of this permit. Proper operation and maintenance includes effective performance, adequate funding, adequate operator staffing and training as required in ch. NR 114, Wis. Adm. Code, and adequate laboratory and process controls, including appropriate quality assurance procedures. This provision requires the operation of back-up or auxiliary facilities or similar systems only when necessary to achieve compliance with the conditions of the permit.

6.2.11 Operator Certification

The wastewater treatment facility shall be under the direct supervision of a state certified operator. In accordance with s. NR 114.53, Wis. Adm. Code, every WPDES permitted treatment plant shall have a designated operator-in-charge holding a current and valid certificate. The designated operator-in-charge shall be certified at the level and in all subclasses of the treatment plant, except laboratory. Treatment plant owners shall notify the department of any changes in the operator-in-charge within 30 days. Note that s. NR 114.52(22), Wis. Adm. Code, lists types of facilities

that are excluded from operator certification requirements (i.e. private sewage systems, pretreatment facilities discharging to public sewers, industrial wastewater treatment that consists solely of land disposal, agricultural digesters and concentrated aquatic production facilities with no biological treatment).

6.3 Sewage Collection Systems

6.3.1 Sanitary Sewage Overflows and Sewage Treatment Facility Overflows

6.3.1.1 Overflows Prohibited

Any overflow or discharge of wastewater from the sewage collection system or at the sewage treatment facility, other than from permitted outfalls, is prohibited. The permittee shall provide information on whether any of the following conditions existed when an overflow occurred:

- The sanitary sewer overflow or sewage treatment facility overflow was unavoidable to prevent loss of life, personal injury or severe property damage;
- There were no feasible alternatives to the sanitary sewer overflow or sewage treatment facility overflow such as the use of auxiliary treatment facilities or adequate back-up equipment, retention of untreated wastes, reduction of inflow and infiltration, or preventive maintenance activities;
- The sanitary sewer overflow or the sewage treatment facility overflow was caused by unusual or severe weather-related conditions such as large or successive precipitation events, snowmelt, saturated soil conditions, or severe weather occurring in the area served by the sewage collection system or sewage treatment facility; and
- The sanitary sewer overflow or the sewage treatment facility overflow was unintentional, temporary, and caused by an accident or other factors beyond the reasonable control of the permittee.

6.3.1.2 Permittee Response to Overflows

Whenever a sanitary sewer overflow or sewage treatment facility overflow occurs, the permittee shall take all feasible steps to control or limit the volume of untreated or partially treated wastewater discharged, and terminate the discharge as soon as practicable. Remedial actions, including those in s. NR 210.21 (3), Wis. Adm. Code, shall be implemented consistent with an emergency response plan developed under the CMOM program.

6.3.1.3 Permittee Reporting

Permittees shall report all sanitary sewer overflows and sewage treatment overflows as follows:

- The permittee shall notify the department by telephone, fax or email as soon as practicable, but no later than 24 hours from the time the permittee becomes aware of the overflow;
- The permittee shall, no later than five days from the time the permittee becomes aware of the overflow, provide to the department the information identified in this paragraph using department form number 3400-184. If an overflow lasts for more than five days, an initial report shall be submitted within 5 days as required in this paragraph and an updated report submitted following cessation of the overflow. At a minimum, the following information shall be included in the report:
 - a) The date and location of the overflow;
 - b) The surface water to which the discharge occurred, if any;
 - c) The duration of the overflow and an estimate of the volume of the overflow;
 - d) A description of the sewer system or treatment facility component from which the discharge occurred such as manhole, lift station, constructed overflow pipe, or crack or other opening in a pipe;
 - e) The estimated date and time when the overflow began and stopped or will be stopped;

- f) The cause or suspected cause of the overflow including, if appropriate, precipitation, runoff conditions, areas of flooding, soil moisture and other relevant information;
- g) Steps taken or planned to reduce, eliminate and prevent reoccurrence of the overflow and a schedule of major milestones for those steps;
- h) A description of the actual or potential for human exposure and contact with the wastewater from the overflow;
- i) Steps taken or planned to mitigate the impacts of the overflow and a schedule of major milestones for those steps;
- j) To the extent known at the time of reporting, the number and location of building backups caused by excessive flow or other hydraulic constraints in the sewage collection system that occurred concurrently with the sanitary sewer overflow and that were within the same area of the sewage collection system as the sanitary sewer overflow; and
- k) The reason the overflow occurred or explanation of other contributing circumstances that resulted in the overflow event. This includes any information available including whether the overflow was unavoidable to prevent loss of life, personal injury, or severe property damage and whether there were feasible alternatives to the overflow.

NOTE: A copy of form 3400-184 for reporting sanitary sewer overflows and sewage treatment facility overflows may be obtained from the department or accessed on the department's web site at <http://dnr.wi.gov/topic/wastewater/SSOreport.html>. As indicated on the form, additional information may be submitted to supplement the information required by the form.

- The permittee shall identify each specific location and each day on which a sanitary sewer overflow or sewage treatment facility overflow occurs as a discrete sanitary sewer overflow or sewage treatment facility overflow occurrence. An occurrence may be more than one day if the circumstances causing the sanitary sewer overflow or sewage treatment facility overflow results in a discharge duration of greater than 24 hours. If there is a stop and restart of the overflow at the same location within 24 hours and the overflow is caused by the same circumstance, it may be reported as one occurrence. Sanitary sewer overflow occurrences at a specific location that are separated by more than 24 hours shall be reported as separate occurrences; and
- A permittee that is required to submit wastewater discharge monitoring reports under s. NR 205.07 (1) (r), Wis. Adm. Code, shall also report all sanitary sewer overflows and sewage treatment facility overflows on that report.

6.3.1.4 Public Notification

The permittee shall notify the public of any sanitary sewer and sewage treatment facility overflows consistent with its emergency response plan required under the CMOM (Capacity, Management, Operation and Maintenance) section of this permit and s. NR 210.23 (4) (f), Wis. Adm. Code. Such public notification shall occur promptly following any overflow event using the most effective and efficient communications available in the community. At minimum, a daily newspaper of general circulation in the county(s) and municipality whose waters may be affected by the overflow shall be notified by written or electronic communication.

6.3.2 Capacity, Management, Operation and Maintenance (CMOM) Program

- The permittee shall have written documentation of the Capacity, Management, Operation and Maintenance (CMOM) program components in accordance with s. NR 210.23(4), Wis. Adm. Code. Such documentation shall be available for Department review upon request. The Department may request that the permittee provide this documentation or prepare a summary of the permittee's CMOM program at the time of application for reissuance of the WPDES permit.
- The permittee shall implement a CMOM program in accordance with s. NR 210.23, Wis. Adm. Code.

- The permittee shall at least annually conduct a self-audit of activities conducted under the permittee's CMOM program to ensure CMOM components are being implemented as necessary to meet the general standards of s. NR 210.23(3), Wis. Adm. Code.

6.3.3 Sewer Cleaning Debris and Materials

All debris and material removed from cleaning sanitary sewers shall be managed to prevent nuisances, run-off, ground infiltration or prohibited discharges.

- Debris and solid waste shall be dewatered, dried and then disposed of at a licensed solid waste facility.
- Liquid waste from the cleaning and dewatering operations shall be collected and disposed of at a permitted wastewater treatment facility.
- Combination waste including liquid waste along with debris and solid waste may be disposed of at a licensed solid waste facility or wastewater treatment facility willing to accept the waste.

6.4 Surface Water Requirements

6.4.1 Permittee-Determined Limit of Quantitation Incorporated into this Permit

For pollutants with water quality-based effluent limits below the Limit of Quantitation (LOQ) in this permit, the LOQ calculated by the permittee and reported on the Discharge Monitoring Reports (DMRs) is incorporated by reference into this permit. The LOQ shall be reported on the DMRs, shall be the lowest quantifiable level practicable, and shall be no greater than the minimum level (ML) specified in or approved under 40 CFR Part 136 for the pollutant at the time this permit was issued, unless this permit specifies a higher LOQ.

6.4.2 Appropriate Formulas for Effluent Calculations

The permittee shall use the following formulas for calculating effluent results to determine compliance with average concentration limits and mass limits and total load limits:

Weekly/Monthly/Six-Month/Annual Average Concentration = the sum of all daily results for that week/month/six-month/year, divided by the number of results during that time period. [Note: When a six-month average effluent limit is specified for Total Phosphorus the applicable periods are May through October and November through April, except in cases of Water Quality Trading, wherein the applicable periods are January through June and July through December.]

Weekly Average Mass Discharge (lbs/day): Daily mass = daily concentration (mg/L) x daily flow (MGD) x 8.34, then average the daily mass values for the week.

Monthly Average Mass Discharge (lbs/day): Daily mass = daily concentration (mg/L) x daily flow (MGD) x 8.34, then average the daily mass values for the month.

Six-Month Average Mass Discharge (lbs/day): Daily mass = daily concentration (mg/L) x daily flow (MGD) x 8.34, then average the daily mass values for the six-month period. [Note: When a six-month average effluent limit is specified for Total Phosphorus the applicable periods are May through October and November through April.]

Annual Average Mass Discharge (lbs/day): Daily mass = daily concentration (mg/L) x daily flow (MGD) x 8.34, then average the daily mass values for the entire year.

Total Monthly Discharge: = monthly average concentration (mg/L) x total flow for the month (MG/month) x 8.34.

Total Annual Discharge: = sum of total monthly discharges for the calendar year.

12-Month Rolling Sum of Total Monthly Discharge: = the sum of the most recent 12 consecutive months of Total Monthly Discharges.

6.4.3 Effluent Temperature Requirements

Weekly Average Temperature – If temperature limits are included in this permit, Weekly Average Temperature shall be calculated as the sum of all daily maximum results for that week divided by the number of daily maximum results during that time period.

Cold Shock Standard – Water temperatures of the discharge shall be controlled in a manner as to protect fish and aquatic life uses from the deleterious effects of cold shock pursuant to Wis. Adm. Code, s. NR 102.28. ‘Cold Shock’ means exposure of aquatic organisms to a rapid decrease in temperature and a sustained exposure to low temperature that induces abnormal behavior or physiological performance and may lead to death.

Rate of Temperature Change Standard – Temperature of a water of the state or discharge to a water of the state may not be artificially raised or lowered at such a rate that it causes detrimental health or reproductive effects to fish or aquatic life of the water of the state pursuant to Wis. Adm. Code, s. NR 102.29.

6.4.4 Visible Foam or Floating Solids

There shall be no discharge of floating solids or visible foam in other than trace amounts.

6.4.5 Surface Water Uses and Criteria

In accordance with NR 102.04, Wis. Adm. Code, surface water uses and criteria are established to govern water management decisions. Practices attributable to municipal, industrial, commercial, domestic, agricultural, land development or other activities shall be controlled so that all surface waters including the mixing zone meet the following conditions at all times and under all flow and water level conditions:

- Substances that will cause objectionable deposits on the shore or in the bed of a body of water, shall not be present in such amounts as to interfere with public rights in waters of the state.
- Floating or submerged debris, oil, scum or other material shall not be present in such amounts as to interfere with public rights in waters of the state.
- Materials producing color, odor, taste or unsightliness shall not be present in such amounts as to interfere with public rights in waters of the state.
- Substances in concentrations or in combinations which are toxic or harmful to humans shall not be present in amounts found to be of public health significance, nor shall substances be present in amounts which are acutely harmful to animal, plant or aquatic life.

6.4.6 Percent Removal

During any 30 consecutive days, the average effluent concentrations of BOD₅ and of total suspended solids shall not exceed 15% of the average influent concentrations, respectively. This requirement does not apply to removal of total suspended solids if the permittee operates a lagoon system and has received a variance for suspended solids granted under NR 210.07(2), Wis. Adm. Code.

6.4.7 *E. coli*

The monthly limit for *E. coli* shall be expressed as a geometric mean. In calculating the geometric mean, a value of 1 is used for any result of 0.

6.4.8 Seasonal Disinfection

Disinfection shall be provided from May 1 through September 30 of each year. Monitoring requirements and the limitations for Fecal Coliform (interim) and *E. coli* apply only during the period in which disinfection is required. Whenever chlorine is used for disinfection or other uses, the limitations and monitoring requirements for residual chlorine shall apply. A dechlorination process shall be in operation whenever chlorine is used.

6.4.9 Whole Effluent Toxicity (WET) Monitoring Requirements

In order to determine the potential impact of the discharge on aquatic organisms, static-renewal toxicity tests shall be performed on the effluent in accordance with the procedures specified in the "*State of Wisconsin Aquatic Life Toxicity Testing Methods Manual, 2nd Edition*" (PUB-WT-797, November 2004) as required by NR 219.04, Table A, Wis. Adm. Code). All of the WET tests required in this permit, including any required retests, shall be conducted on the *Ceriodaphnia dubia* and fathead minnow species. Receiving water samples shall not be collected from any point in contact with the permittee's mixing zone and every attempt shall be made to avoid contact with any other discharge's mixing zone.

6.4.10 Whole Effluent Toxicity (WET) Identification and Reduction

Within 60 days of a retest which showed positive results, the permittee shall submit a written report to the Biomonitoring Coordinator, Bureau of Water Quality, 101 S. Webster St., PO Box 7921, Madison, WI 53707-7921, which details the following:

- A description of actions the permittee has taken or will take to remove toxicity and to prevent the recurrence of toxicity;
- A description of toxicity reduction evaluation (TRE) investigations that have been or will be done to identify potential sources of toxicity, including the following actions:
 - a) Evaluate the performance of the treatment system to identify deficiencies contributing to effluent toxicity (e.g., operational problems, chemical additives, incomplete treatment)
 - b) Identify the compound(s) causing toxicity. Conduct toxicity screening tests on the effluent at a minimum of once per month for six months to determine if toxicity recurs. Screening tests are WET tests using fewer effluent concentrations conducted on the most sensitive species. If any of the screening tests contain toxicity, conduct a toxicity identification evaluation (TIE) to determine the cause. TIE methods are available from USEPA "Methods for Aquatic Toxicity Identification Evaluations: Phase I Toxicity Characterization Procedures (EPA/600/6-91/003) and "Toxicity Identification Evaluation: Characterization of Chronically Toxic Effluents, Phase I" (EPA/600/6-91/005F).
 - c) Trace the compound(s) causing toxicity to their sources (e.g., industrial, commercial, domestic)
 - d) Evaluate, select, and implement methods or technologies to control effluent toxicity (e.g., in-plant or pretreatment controls, source reduction or removal)
- Where corrective actions including a TRE have not been completed, an expeditious schedule under which corrective actions will be implemented;
- If no actions have been taken, the reason for not taking action.

The permittee may also request approval from the Department to postpone additional retests in order to investigate the source(s) of toxicity. Postponed retests must be completed after toxicity is believed to have been removed.

6.4.11 PFOS and PFOA Requirements

The laboratory performing the analysis on any samples shall be certified for the applicable PFAS compounds in the aqueous matrix by the Wisconsin Laboratory Certification Program established under s. 299.11, Wis. Stats., in accordance with s. NR 149.41, Wis. Adm. Code. All laboratories are required to utilize EPA Method 1633A for sampling PFAS in sludge.

The Department may reject any sample results if results are produced by a laboratory that is not in compliance with certification requirements under ch. NR 149, Wis. Adm. Code.

6.5 Pretreatment Program Requirements

The permittee is required to operate an industrial pretreatment program as described in the program initially approved by the Department of Natural Resources including any subsequent program modifications approved by the

Department, and including commitments to program implementation activities provided in the permittee's annual pretreatment program report, and that complies with the requirements set forth in 40 CFR Part 403 and ch. NR 211, Wis. Adm. Code. To ensure that the program is operated in accordance with these requirements, the following general conditions and requirements are hereby established:

6.5.1 Inventories

The permittee shall implement methods to maintain a current inventory of the general character and volume of wastewater that industrial users discharge to the treatment works and shall provide an updated industrial user listing annually and report any changes in the listing to the Department by March 31 of each year as part of the annual pretreatment program report required herein.

6.5.2 Regulation of Industrial Users

6.5.2.1 Limitations for Industrial Users:

The permittee shall develop, maintain, enforce and revise as necessary local limits to implement the general and specific prohibitions of the state and federal General Pretreatment Regulations.

6.5.2.2 Control Documents for Industrial Users (IUs)

The permittee shall control the discharge from each significant industrial user through individual discharge permits as required by s. NR 211.235, Wis. Adm. Code and in accordance with the approved pretreatment program procedures and the permittee's sewer use ordinance. The discharge permits shall be modified in a timely manner during the stated term of the discharge permits according to the sewer use ordinance as conditions warrant. The discharge permits shall include at a minimum the elements found in s. NR 211.235(1), Wis. Adm. Code and references to the approved pretreatment program procedures and the sewer use ordinance.

6.5.2.3 Review of Industrial User Reports, Inspections and Compliance Monitoring

The permittee shall require the submission of, receive, and review self-monitoring reports and other notices from industrial users in accordance with the approved pretreatment program procedures. The permittee shall randomly sample and analyze industrial user discharges and conduct surveillance activities to determine independent of information supplied by the industrial users, whether the industrial users are in compliance with pretreatment standards and requirements. The inspections and monitoring shall also be conducted to maintain accurate knowledge of local industrial processes, including changes in the discharge, pretreatment equipment operation, spill prevention control plans, slug control plans, and implementation of solvent management plans.

The permittee shall inspect and sample the discharge from each significant industrial user as specified in the permittee's approved pretreatment program or as specified in NR 211.235(3). The permittee shall evaluate whether industrial users identified as significant need a slug control plan according to the requirements of NR 211.235(4). If a slug control plan is needed, the plan shall contain at a minimum the elements specified in s. NR 211.235(4)(b), Wis. Adm. Code.

6.5.2.4 Enforcement and Industrial User Compliance Evaluation & Violation Reports

The permittee shall enforce the industrial pretreatment requirements including the industrial user discharge limitations of the permittee's sewer use ordinance. The permittee shall investigate instances of noncompliance by collecting and analyzing samples and collecting other information with sufficient care to produce evidence admissible in enforcement proceedings or in judicial actions. Investigation and response to instances of noncompliance shall be in accordance with the permittee's sewer use ordinance and approved Enforcement Response Plan.

The permittee shall make a semiannual report on forms provided or approved by the Department. The semiannual report shall include an analysis of industrial user significant noncompliance (i.e. the Industrial User Compliance Evaluation, also known as the SNC Analysis) as outlined in s. NR 211.23(1)(j), Wis. Adm. Code, and a summary of the permittee's response to all industrial noncompliance (i.e. the Industrial User Violation Report). The Industrial User Compliance Evaluation Report shall include monitoring results received from industrial users pursuant to s.

NR 211.15(1)-(5), Wis. Adm. Code. The Industrial User Violation Report shall include copies of all notices of noncompliance, notices of violation and other enforcement correspondence sent by the permittee to industrial users, together with the industrial user's response. The Industrial User Compliance Evaluation and Violation Reports for the period January through June shall be provided to the Department by September 30 of each year and for the period July through December shall be provided to the Department by March 31 of the succeeding year, unless alternate submittal dates are approved.

6.5.2.5 Publication of Violations

The permittee shall publish a list of industrial users that have significantly violated the municipal sewer use ordinance during the calendar year, in the largest daily newspaper in the area by March 31 of the following year pursuant to s. NR 211.23(1)(j), Wis. Adm. Code. A copy of the newspaper publication shall be provided as part of the annual pretreatment report specified herein.

6.5.2.6 Multijurisdictional Agreements

The permittee shall establish agreements with all contributing jurisdictions as necessary to ensure compliance with pretreatment standards and requirements by all industrial users discharging to the permittee's wastewater treatment system. Any such agreement shall identify who will be responsible for maintaining the industrial user inventory, issuance of industrial user control mechanisms, inspections and sampling, pretreatment program implementation, and enforcement.

6.5.3 Annual Pretreatment Program Report

The permittee shall evaluate the pretreatment program, and submit the Pretreatment Program Report to the Department on forms provided or approved by the Department by March 31 annually, unless an alternate submittal date is approved. The report shall include a brief summary of the work performed during the preceding calendar year, including the numbers of discharge permits issued and in effect, pollution prevention activities, number of inspections and monitoring surveys conducted, budget and personnel assigned to the program, a general discussion of program progress in meeting the objectives of the permittee's pretreatment program together with summary comments and recommendations.

6.5.4 Pretreatment Program Modifications

- **Future Modifications:** The permittee shall within one year of any revisions to federal or state General Pretreatment Regulations submit an application to the Department in duplicate to modify and update its approved pretreatment program to incorporate such regulatory changes as applicable to the permittee. Additionally, the Department or the permittee may request an application for program modification at any time where necessary to improve program effectiveness based on program experience to date.
- **Modifications Subject to Department Approval:** The permittee shall submit all proposed pretreatment program modifications to the Department for determination of significance and opportunity for comment in accordance with the requirements and conditions of s. NR 211.27, Wis. Adm. Code. Any substantial proposed program modification shall be subject to Department public noticing and formal approval prior to implementation. A substantial program modification includes, but is not limited to, changes in enabling legal authority to administer and enforce pretreatment conditions and requirements; significant changes in program administrative or operational procedures; significant reductions in monitoring frequencies; significant reductions in program resources including personnel commitments, equipment, and funding levels; changes (including any relaxation) in the local limitations for substances enforced and applied to users of the sewerage treatment works; changes in treatment works sludge disposal or management practices which impact the pretreatment program; or program modifications which increase pollutant loadings to the treatment works. The Department shall use the procedures outlined in s. NR 211.30, Wis. Adm. Code for review and approval/denial of proposed pretreatment program modifications. The permittee shall comply with local public participation requirements when implementing the pretreatment program.

6.5.5 Program Resources

The permittee shall have sufficient resources and qualified personnel to carry out the pretreatment program responsibilities as listed in ss. NR 211.22 and NR 211.23, Wis. Adm. Code.

6.6 Land Application Requirements

6.6.1 Sludge Management Program Standards And Requirements Based Upon Federally Promulgated Regulations

In the event that new federal sewage sludge standards or regulations are promulgated, the permittee shall comply with the new sewage sludge requirements by the dates established in the regulations, if required by federal law, even if the permit has not yet been modified to incorporate the new federal regulations.

6.6.2 General Sludge Management Information

The General Sludge Management Form 3400-48 shall be completed and submitted prior to any significant sludge management changes.

6.6.3 Sludge Samples

All sludge samples shall be collected at a point and in a manner which will yield sample results which are representative of the sludge being tested, and collected at the time which is appropriate for the specific test.

6.6.4 Land Application Characteristic Report

Each report shall consist of a Characteristic Form 3400-49 and Lab Report. The Characteristic Report Form 3400-49 shall be submitted electronically by January 31 following each year whether or not samples are analyzed. In years in which monitoring does not occur, the report shall be completed by checking on the form that monitoring/land application did not occur.

Following submittal of the electronic Characteristic Report Form 3400-49, this form shall be certified electronically via the 'eReport Certify' page by a responsible executive or municipal officer, manager, partner or proprietor as specified in s. 283.37(3), Wis. Stats., or a duly authorized representative of the officer, manager, partner or proprietor that has been delegated signature authority pursuant to s. NR 205.07(1)(g)2, Wis. Adm. Code. The 'eReport Certify' page certifies that the electronic report is true, accurate and complete. The Lab Report must be sent directly to the facility's DNR sludge representative or basin engineer unless approval for not submitting the lab reports has been given.

The permittee shall use the following convention when reporting sludge monitoring results: Pollutant concentrations less than the limit of detection shall be reported as < (less than) the value of the limit of detection. For example, if a substance is not detected at a detection limit of 1.0 mg/kg, report the pollutant concentration as < 1.0 mg/kg .

All results shall be reported on a dry weight basis.

6.6.5 Calculation of Water Extractable Phosphorus

When sludge analysis for Water Extractable Phosphorus is required by this permit, the permittee shall use the following formula to calculate and report Water Extractable Phosphorus:

Water Extractable Phosphorus (% of Total P) =
$$[\text{Water Extractable Phosphorus (mg/kg, dry wt)} \div \text{Total Phosphorus (mg/kg, dry wt)}] \times 100$$

6.6.6 Monitoring and Calculating PCB Concentrations in Sludge

When sludge analysis for "PCB, Total Dry Wt" is required by this permit, the PCB concentration in the sludge shall be determined using either congener-specific analysis or Aroclor analysis. The permittee may decide which of these

analyses is performed. Analyses shall be performed in accordance with the following provisions and Table EM in s. NR 219.04, Wis. Adm. Code:

- If congener-specific analysis is employed: All PCB congeners shall be delineated. Non-detects shall be treated as zero. The values that are between the limit of detection (LOD) and the limit of quantitation shall be used when calculating the total value of all congeners. All results shall be added together and the total PCB concentration by dry weight reported.
- If Aroclor analysis is employed, reporting protocols, consistent with s. NR 106.07(6)(e), should be as follows: If all Aroclors are less than the LOD, then the Total PCB Dry Wt result should be reported as less than the highest LOD. If a single Aroclor is detected, then that is what should be reported for the Total PCB result. If multiple Aroclors are detected, they should be summed and reported as Total PCBs. If the LOD cannot be achieved after using the appropriate clean up techniques, a reporting limit that is achievable for the Aroclors or each congener for the sample shall be determined. This reporting limit shall be reported and qualified indicating the presence of an interference.

6.6.7 Annual Land Application Report

Land Application Report Form 3400-55 shall be submitted electronically by January 31, each year whether or not non-exceptional quality sludge is land applied. Non-exceptional quality sludge is defined in s. NR 204.07(4), Wis. Adm. Code. Following submittal of the electronic Annual Land Application Report Form 3400-55, this form shall be certified electronically via the 'eReport Certify' page by a responsible executive or municipal officer, manager, partner or proprietor as specified in s. 283.37(3), Wis. Stats., or a duly authorized representative of the officer, manager, partner or proprietor that has been delegated signature authority pursuant to s. NR 205.07(1)(g)2, Wis. Adm. Code. The 'eReport Certify' page certifies that the electronic report form is true, accurate and complete.

6.6.8 Other Methods of Disposal or Distribution Report

The permittee shall submit electronically the Other Methods of Disposal or Distribution Report Form 3400-52 by January 31, each year whether or not sludge is hauled, landfilled, incinerated, or exceptional quality sludge is distributed or land applied. Following submittal of the electronic Report Form 3400-52, this form shall be certified electronically via the 'eReport Certify' page by a responsible executive or municipal officer, manager, partner or proprietor as specified in s. 283.37(3), Wis. Stats., or a duly authorized representative of the officer, manager, partner or proprietor that has been delegated signature authority pursuant to s. NR 205.07(1)(g)2, Wis. Adm. Code. The 'eReport Certify' page certifies that the electronic report form is true, accurate and complete.

6.6.9 Approval to Land Apply

Bulk non-exceptional quality sludge as defined in s. NR 204.07(4), Wis. Adm. Code, may not be applied to land without a written approval letter or Form 3400-122 from the Department unless the Permittee has obtained permission from the Department to self-approve sites in accordance with s. NR 204.06(6), Wis. Adm. Code. Analysis of sludge characteristics is required prior to land application. Application on frozen or snow-covered ground is restricted to the extent specified in s. NR 204.07(3)(1), Wis. Adm. Code.

6.6.10 Soil Analysis Requirements

Each site requested for approval for land application must have the soil tested prior to use. Each approved site used for land application must subsequently be soil tested such that there is at least one valid soil test in the four years prior to land application. All soil sampling and submittal of information to the testing laboratory shall be done in accordance with UW Extension Bulletin A-2100. The testing shall be done by the UW Soils Lab in Madison or Marshfield, WI or at a lab approved by UW. The test results including the crop recommendations shall be submitted to the DNR contact listed for this permit, as they are available. Application rates shall be determined based on the crop nitrogen recommendations and with consideration for other sources of nitrogen applied to the site.

6.6.11 Land Application Site Evaluation

For non-exceptional quality sludge, as defined in s. NR 204.07(4), Wis. Adm. Code, a Land Application Site Request Form 3400-053 shall be submitted to the Department for the proposed land application site. The Department will evaluate the proposed site for acceptability and will either approve or deny use of the proposed site. The permittee may obtain permission to approve their own sites in accordance with s. NR 204.06(6), Wis. Adm. Code.

6.6.12 Class A Sludge: Fecal Coliform Density Requirement

The fecal coliform density which must be < 1000 MPN/g TS as required in s. NR 204.07, Wis. Adm. Code, shall be satisfied immediately after the treatment process is completed. If the material is bagged or distributed at that time, no re-testing is required. If the material is bagged, distributed or land applied at a later time, the sludge shall be re-tested and this requirement satisfied at that time also, to ensure that regrowth of bacteria has not occurred. See Municipal Wastewater Sludge Guidance Memo #3 (Fecal Coliform Monitoring - Sampling and Analytical Procedures).

6.6.13 Class A Sludge: Heat Drying Process

Dry the sludge by direct or indirect contact with hot gases to reduce the moisture content of the sludge to 10% or lower. Either the temperature of the sewage sludge particles shall exceed 80° C or the wet bulb temperature of the gas in contact with the sludge as the sludge leaves the dryer shall exceed 80° C.

6.6.14 Class B Sludge: Fecal Coliform Limitation

Compliance with the fecal coliform limitation for Class B sludge shall be demonstrated by calculating the geometric mean of at least 7 separate samples. (Note that a Total Solids analysis must be done on each sample). The geometric mean shall be less than 2,000,000 MPN or CFU/g TS. Calculation of the geometric mean can be done using one of the following 2 methods.

Method 1:

$$\text{Geometric Mean} = (X_1 \times X_2 \times X_3 \dots \times X_n)^{1/n}$$

Where X = Coliform Density value of the sludge sample, and where n = number of samples (at least 7)

Method 2:

$$\text{Geometric Mean} = \text{antilog}[(X_1 + X_2 + X_3 \dots + X_n) \div n]$$

Where X = log₁₀ of Coliform Density value of the sludge sample, and where n = number of samples (at least 7)

Example for Method 2

Sample Number	Coliform Density of Sludge Sample	log ₁₀
1	6.0 x 10 ⁵	5.78
2	4.2 x 10 ⁶	6.62
3	1.6 x 10 ⁶	6.20
4	9.0 x 10 ⁵	5.95
5	4.0 x 10 ⁵	5.60
6	1.0 x 10 ⁶	6.00
7	5.1 x 10 ⁵	5.71

The geometric mean for the seven samples is determined by averaging the log₁₀ values of the coliform density and taking the antilog of that value.

$$(5.78 + 6.62 + 6.20 + 5.95 + 5.60 + 6.00 + 5.71) \div 7 = 5.98$$

$$\text{The antilog of } 5.98 = 9.5 \times 10^5$$

6.6.15 Class B Sludge: Anaerobic Digestion

Treat the sludge in the absence of air for a specific mean cell residence time at a specific temperature. Values for the mean cell residence time and temperature shall be between 15 days at 35° C to 55° C and 60 days at 20° C. Straight-line interpolation to calculate mean cell residence time is allowable when the temperature falls between 35° C and 20° C.

6.6.16 Vector Control: Volatile Solids Reduction

The mass of volatile solids in the sludge shall be reduced by a minimum of 38% between the time the sludge enters the digestion process and the time it either exits the digester or a storage facility. For calculation of volatile solids reduction, the permittee shall use the Van Kleeck equation or one of the other methods described in "Determination of Volatile Solids Reduction in Digestion" by J.B. Farrell, which is Appendix C of EPA's *Control of Pathogens in Municipal Wastewater Sludge* (EPA/625/R-92/013). The Van Kleeck equation is:

$$VSR\% = \frac{VS_{IN} - VS_{OUT}}{VS_{IN} - (VS_{OUT} \times VS_{IN})} \times 100$$

Where: VS_{IN} = Volatile Solids in Feed Sludge (g VS/g TS)

VS_{OUT} = Volatile Solids in Final Sludge (g VS/g TS)

VSR% = Volatile Solids Reduction, (Percent)

6.6.17 Vector Control: Drying Without Primary Solids

Dry the sludge to 75% total solids when the sludge contains no unstabilized solids from primary treatment. This shall be met at the time the sludge is bagged, distributed, land applied or disposed of.

6.6.18 Vector Control: Drying With Primary Solids

Dry the sludge to 90% total solids when the sludge contains unstabilized solids from primary treatment. This shall be met at the time the sludge is bagged, distributed, land applied or disposed of.

6.6.19 Class B Sludge - Vector Control: Injection

No significant amount of the sewage sludge shall be present on the land surface within one hour after the sludge is injected.

6.6.20 Class B Sludge - Vector Control: Incorporation

Class B sludge shall be incorporated within 6 hours of surface application, or as approved by the Department.

6.6.21 Landfilling of Sludge

General: Sewage sludge may not be disposed of in a municipal solid waste landfill unless the landfill meets the requirements of chs. NR 500 to 536, Wis. Adm. Code, and is an approved facility as defined in s. 289.01(3), Wis. Stats. Any facility accepting sewage sludge shall be approved by the Department in writing to accept sewage sludge. Disposal of sewage sludge in a municipal solid waste landfill shall be in accordance with ss. NR 506.13 and 506.14. Sewage sludge may not be disposed of in a surface disposal unit as defined in s. NR 204.03(63).

Approval: The permittee shall obtain approval from the Department prior to the disposal of sludge at a Wisconsin licensed landfill.

6.6.22 Sludge Landfilling Reports

The permittee shall report the volume of sludge disposed of at any landfill facility on Form 3400-52. The permittee shall include the name and address of the landfill, the Department license number or other state's designation or license number for all landfills used during the report period and a letter of acceptability from the landfill owner. In addition, any permittee utilizing landfills as a disposal method shall submit to the Department any test results used to indicate acceptability of the sludge at a landfill. Form 3400-52 shall be submitted annually by January 31, each year whether or not sludge is landfilled.

7 Summary of Reports Due

FOR INFORMATIONAL PURPOSES ONLY

Description	Date	Page
Mercury Pollutant Minimization Summary -Final Mercury Report	March 31, 2030	30
PFOS/PFOA Minimization Plan Determination of Need -Report on Effluent Discharge	April 30, 2027	30
PFOS/PFOA Minimization Plan Determination of Need -Report on Effluent Discharge and Evaluation of Need	April 30, 2028	30
Compliance Maintenance Annual Reports (CMAR)	by June 30, each year	32
Industrial User Compliance Evaluation and Violation Reports	Semiannual	42
Pretreatment Program Report	Annually	42
General Sludge Management Form 3400-48	prior to any significant sludge management changes	43
Characteristic Form 3400-49 and Lab Report	by January 31 following each year whether or not samples are analyzed	43
Land Application Report Form 3400-55	by January 31, each year whether or not non-exceptional quality sludge is land applied	44
Other Methods of Disposal or Distribution Report Form 3400-52	by January 31, each year whether or not sludge is hauled, landfilled, incinerated, or exceptional quality sludge is distributed or land applied	44
Wastewater Discharge Monitoring Report	no later than the date indicated on the form	31

Report forms shall be submitted electronically in accordance with the reporting requirements herein. Any facility plans or plans and specifications for municipal, industrial, industrial pretreatment and non industrial wastewater systems shall be submitted to the Bureau of Water Quality, P.O. Box 7921, Madison, WI 53707-7921. All other submittals required by this permit shall be submitted to:

West Central Region, 1300 W. Clairemont Ave, Eau Claire, WI 54701

Final Wausau Permit Fact Sheet

General Information

Permit Number	WI-0025739-10-0
Permittee Name and Address	Wausau Water Works 407 Grant St City Hall, Wausau, WI 54403
Permitted Facility Name and Address	Wausau Water Works WW Treatment Facility 435 Adrian Street, Wausau, WI 54403
Permit Term	January 01, 2026 to December 31, 2030
Discharge Location	435 Adrian St., Wausau, WI 54403. NW ¼, NW ¼, Section 1, T28N, R7E, City of Wausau, Marathon County. West bank of the Wisconsin River, ¼ mile downstream of the Thomas St. bridge. Outfall: Lat: 44.94404° N / Lon: 89.62826° W.
Receiving Water	Wisconsin River in Lower Eau Claire River Watershed of the Central Wisconsin River Basin located in Marathon County
Stream Flow (Q _{7,10})	850 cfs
Stream Classification	Warm Water Sportfish, Non-public Water Supply
Discharge Type	Continuous, Existing
Annual Average Design Flow (MGD)	8.2 MGD
Industrial or Commercial Contributors	Yes. 12 Categorical Industrial Users and 6 Other significant Industrial Users.
Plant Classification	This is an Advanced facility with required subclasses: A1 – Suspended Growth Processes, B – Solids Separation, C – Biological Solids/Sludges, P – Total Phosphorus, D – Disinfection, L – Laboratory and SS – Sanitary Sewage Collection System. The Operator-in-charge is certified at the advanced level in all subclasses except SS. There are other facility operators that have the SS-Sanitary Sewage Collection System subclass operator certification.
Approved Pretreatment Program?	Yes – Wausau’s local municipal pretreatment program was approved by the department January 1, 1985.

Facility Description

The Wausau Wastewater Treatment Facility (WWTF) receives wastewater from the City of Wausau, the City of Schofield and the Town of Stettin, in addition to industrial wastewater from industries that are regulated under Wausau’s pretreatment program. Wausau WWTF accepts and treats domestic holding tank, septic tank and grease trap interceptors, commercial septage and landfill leachate wastes. Landfill leachate was not accepted in 2022 or 2023, but it may be accepted again in the future. Wausau WWTF accepts approximately 10 gpd of petroleum contaminated groundwater from REI Engineering and also accepts groundwater that was previously contaminated with mineral spirits and pentachlorophenol from Wauleco Sentry Insurance which is pumped and treated prior to discharged into the collection system. Wausau WWTF has an annual average design flow of 8.2 MGD.

Influent from the aforementioned sources is first treated at the Wausau WWTF via two mechanical bar screens, followed by the PISTA grit removal system. Subsequent wastewater treatment consists of primary clarification then continues into four selector zones designed for biological phosphorus removal enhancement prior to entering the aeration basins then to then secondary clarifiers. Effluent from the secondary clarifiers travels to tertiary treatment where three disc filters filter TSS out of the secondary effluent. The disc filters may also be bypassed if treatment is not necessary for meeting limitations. Disc filters also have the option of chemical phosphorus removal through chemical precipitation, by the addition of Alum and Polymer to create a floc which removes phosphorus from the secondary effluent. The chemical precipitation option is only used when biological phosphorus removal is not functioning properly. Effluent from the disc filters is disinfected seasonally via ultraviolet disinfection prior to discharge into the Wisconsin River. Waste Activated Sludge is thickened using gravity belt thickeners prior to anaerobic digestion. Anaerobic sludge from the digester is dewatered using belt filter presses which is collected in a hopper where either Class B sludge can be recycled via land application on WDNR approved sites or wet cake can be routed to a thermal dryer where Class A EQ sludge is produced and recycled via land application on WDNR approved sites. Distribution is being considered, but not yet active.

Permit changes include the following: 1) effluent limit for mercury removed from permit but monitoring and reporting on mitigation efforts remain, 2) replacement of fecal coliform effluent limits with E. coli limits, 3) addition of monitoring for effluent PFOS and PFOA once every two months and an associated determination of need schedule in accordance with s. NR 106.98(2)(b), Wis. Adm. Code., 5) new Class A sludge requirements, and 6)PFAS sludge 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 to quantitate risk.

Substantial Compliance Determination

Enforcement During Last Permit: Notices of Noncompliance were issued for three distinct sanitary sewer overflows on May 21,2020, August 20, 2020, November 5, 2020. Also, a NON was issued on January 09, 2019 for flow rate underreporting. Subsequent treatment plant upgrades were enacted to remediate the issue. The facility has completed all previously required actions as part of these Notices of Noncompliance’s.

After a desk top review of all discharge monitoring reports, CMARs, land app reports, compliance schedule items, and a site visit on 11/20/2024, this facility has been found to be in substantial compliance with their current permit.

Compliance determination made by Nick Linstrom on 06/30/2025

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	4.5 MGD	Representative composite influent samples shall be taken from the influent channel after the mechanical bar screens and just prior to the PISTA grit removal chamber.
001	4.92 MGD	Representative effluent samples, except those for E. coli, shall be collected at the disinfection channel prior to disinfection; samples for E. coli shall be collected after disinfection.
104	N/A – Field Blank	The field blank shall be collected using standard handling procedures every day that mercury samples are collected at influent and effluent.

Sample Point Designation		
Sample Point Number	Discharge Flow, Units, and Averaging Period	Sample Point Location, Waste Type/Sample Contents and Treatment Description (as applicable)
601	N/A – River Monitoring	Temperature and flow of the Wisconsin River shall be monitored for determination of Waste load Allocation (WLA) limits at Outfall 001. See subsections below for specific monitoring information.
002	1823 Dry Metric Tons	Class B, Cake, Anaerobically digested dewatered biosolids. Representative composite samples shall be collected from the wet cake loadout valve prior to land application or disposal. This is not a primary outfall and considered an emergency outfall.
003	0 Dry Tons	Class B, Liquid, Anaerobically digested thickened biosolids. Representative composite samples shall be collected from the dewatering feed pumps prior to land application or disposal. This is not a primary outfall and considered an emergency outfall.
004	N/A – New Sample Point	Class A, Cake Biosolids, Heat dried exceptional quality biosolids for distribution to the public, land application or landfilling. Representative samples shall be collected from the truck load-out area and monitored quarterly. Pathogen control (List 3) monitoring is not required if the sludge is not stored at this location. All pathogen control samples shall be discrete samples. Each pathogen control sample shall meet the pathogen limit to prove effective pathogen treatment.
005	N/A – New Sample Point	Class A, Cake Biosolids, Heat dried exceptional quality biosolids from the biosolids storage building for distribution to the public, land application or landfilling. Representative samples shall be collected from the dried biosolids piles in the storage building. Fecal (List 3) and percent total solids (List 4) monitoring is not required during quarters when there is no public distribution. Retesting for pathogen control (List 3) is required prior to distribution of Class A sludge product to the public. Percent total solids monitoring (List 4) is required prior to distribution.
006	N/A – New Sample Point	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 quarterly for metals (List 1), nutrients (List 2), pathogen control (List 3) and vector attraction reduction (List 4).
010	N/A - Internal Sample Point	Class B, Liquid, Anaerobically digested thickened biosolids. Representative composite samples shall be collected from the dewatering feed pumps prior to the dewatering belt filter presses. Sludge must be mixed prior to sampling and monitored quarterly 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) for outfalls 002, 003, 004, 005 and

Sample Point Designation		
Sample Point Number	Discharge Flow, Units, and Averaging Period	Sample Point Location, Waste Type/Sample Contents and Treatment Description (as applicable)
		006. 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. This is a common sample point for metals (List 1), PPS and PCBs and is not an outfall for distribution.
011	N/A - Internal Sample Point	Class A, Cake, Heat dried exceptional quality biosolids. Representative composite samples shall be collected immediately after the sludge dryer for pathogen control treatment process monitoring (List 3). Class A heat drying requirements apply to show conformance with Class A. This is a sample point and not an outfall for distribution.

Permit Requirements

1 Influent – Monitoring Requirements

1.1 Sample Point Number: 701- INFLUENT TO PLANT

Monitoring Requirements and Limitations					
Parameter	Limit Type	Limit and Units	Sample Frequency	Sample Type	Notes
Flow Rate		MGD	Daily	Continuous	
BOD5, Total		mg/L	5/Week	24-Hr Flow Prop Comp	
Suspended Solids, Total		mg/L	5/Week	24-Hr Flow Prop Comp	
Mercury, Total Recoverable		ng/L	Monthly	24-Hr Flow Prop Comp	See 'Mercury Monitoring' permit section.
Cadmium, Total Recoverable		ug/L	Monthly	24-Hr Flow Prop Comp	
Chromium, Total Recoverable		ug/L	Monthly	24-Hr Flow Prop Comp	
Copper, Total Recoverable		ug/L	Monthly	24-Hr Flow Prop Comp	
Cyanide, Total		ug/L	Monthly	24-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	24-Hr Flow Prop Comp	
Nickel, Total Recoverable		ug/L	Monthly	24-Hr Flow Prop Comp	
Silver, Total Recoverable		ug/L	Monthly	24-Hr Flow Prop Comp	
Zinc, Total Recoverable		ug/L	Monthly	24-Hr Flow Prop Comp	

1.1.1 Changes from Previous Permit:

There have been no changes to influent monitoring requirements from the previous permit.

1.1.2 Explanation of Limits and Monitoring Requirements

Section NR 210.04(2), Wis. Adm. Code, requires that influent wastewater strengths and volumes shall be characterized by monitoring for flow, BOD₅ and Total Suspended Solids (TSS). BOD₅ and TSS influent monitoring results are required to demonstrate the 85% removal requirement for BOD₅ and TSS found in ss. NR 210.05(1)(a)3 and (b)3, Wis. Adm. Code.

Pretreatment Program

The Wausau wastewater treatment facility has a design flow of more than 5 million gallon per day (MGD) and thus is required, pursuant to s. NR 211.20, Wis. Adm. Code, to administer an industrial pretreatment program. Monthly influent monitoring is required for cadmium, chromium, copper, cyanide, lead, mercury, nickel, and zinc.

2 Inplant - Monitoring and Limitations

2.1 Sample Point Number: 104- 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	See 'Mercury Monitoring' permit section.

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.

3 Surface Water - Monitoring and Limitations

3.1 Sample Point Number: 001- EFFLUENT TO WISCONSIN RIVER

Monitoring Requirements and Limitations					
Parameter	Limit Type	Limit and Units	Sample Frequency	Sample Type	Notes
Flow Rate		MGD	Daily	Continuous	
BOD5, Total	Weekly Avg	45 mg/L	5/Week	24-Hr Comp	
BOD5, Total	Monthly Avg	30 mg/L	5/Week	24-Hr Comp	
WLA BOD5 Value		lbs/day	5/Week	See Table	Limits apply May-Oct. Report applicable variable limit on DMR. See "Waste Load Allocation (WLA) Limits for BOD ₅ " below.
WLA BOD5 Discharged	Daily Max - Variable	lbs/day	5/Week	Calculated	Limits apply May-Oct. Report applicable variable limit on DMR. See "Waste Load Allocation (WLA) Limits for BOD ₅ " below.
Suspended Solids, Total	Weekly Avg	45 mg/L	5/Week	24-Hr Flow Prop Comp	
Suspended Solids, Total	Monthly Avg	30 mg/L	5/Week	24-Hr Flow Prop Comp	
pH Field	Daily Min	6.0 su	5/Week	Grab	
pH Field	Daily Max	9.0 su	5/Week	Grab	
Nitrogen, Ammonia (NH ₃ -N) Total		mg/L	Monthly	24-Hr Flow Prop Comp	
E. coli	Geometric Mean - Monthly	126 #/100 ml	2/Week	Grab	Limit Effective May through September annually.
E. coli	% Exceedance	10 Percent	Monthly	Calculated	Limit Effective May through September annually. See the E. coli Percent Limit section below. Enter the result in the DMR on the last day of the month.

Monitoring Requirements and Limitations					
Parameter	Limit Type	Limit and Units	Sample Frequency	Sample Type	Notes
Mercury, Total Recoverable		ng/L	Monthly	Grab	See mercury monitoring section below and Schedules section.
Cadmium, Total Recoverable		ug/L	Monthly	24-Hr Flow Prop Comp	
Chromium, Total Recoverable		ug/L	Monthly	24-Hr Flow Prop Comp	
Copper, Total Recoverable		ug/L	Monthly	24-Hr Flow Prop Comp	
Cyanide, Total		ug/L	Monthly	24-Hr Flow Prop Comp	
Lead, Total Recoverable		ug/L	Monthly	24-Hr Flow Prop Comp	
Nickel, Total Recoverable		ug/L	Monthly	24-Hr Flow Prop Comp	
Silver, Total Recoverable		ug/L	Monthly	24-Hr Flow Prop Comp	
Zinc, Total Recoverable		ug/L	Monthly	24-Hr Flow Prop Comp	
Hardness, Total as CaCO ₃		mg/L	Monthly	24-Hr Flow Prop Comp	Sample concurrently with all metals.
Pentachloro- phenol		ug/L	Monthly	Grab	
Phosphorus, Total	Monthly Avg	1.0 mg/L	5/Week	24-Hr Flow Prop Comp	
Phosphorus, Total	Monthly Avg	34 lbs/day	5/Week	Calculated	See TMDL permit section.
Phosphorus, Total		lbs/month	Monthly	Calculated	Calculate the Total Monthly Discharge of phosphorus and report on the last day of the month on the DMR. See TMDL section.
Phosphorus, Total		lbs/yr	Monthly	Calculated	Calculate the 12-month rolling sum of total monthly mass of phosphorus discharged and report on the last day of the month on the DMR. See TMDL section.

Monitoring Requirements and Limitations					
Parameter	Limit Type	Limit and Units	Sample Frequency	Sample Type	Notes
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	
PFOS		ng/L	1/ 2 Months	Grab	Monitoring only. See PFOS/PFOA Minimization Plan Determination of Need schedule.
PFOA		ng/L	1/ 2 Months	Grab	Monitoring only. See PFOS/PFOA Minimization Plan Determination of Need schedule.
Acute WET		TUa	See Listed Qtr(s)	24-Hr Flow Prop Comp	See WET permit section.
Chronic WET		rTUc	See Listed Qtr(s)	24-Hr Flow Prop Comp	See WET permit section.

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.

E. coli- Fecal coliform monitoring and limits have been replaced with Escherichia coli (E. coli) monitoring and limits.

Mercury- The removal of the mercury limit has been replaced with monitoring and a report on mercury is required to ensure mercury minimization efforts continue.

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) and technologically based limits (TBEL) memo dated December 12, 2024 and titled “Wausau Water Works Wastewater Treatment Facility WPDES Permit No. WI-0025739.”

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.

Phosphorus - Chapter NR 217, Wis. Adm. Code. specifies WQBELs for discharges of phosphorus to surface waters of the state. 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.

Wisconsin River Total Maximum Daily Load (TMDL): The permitted facility is included within the Wisconsin River Basin Total Maximum Daily Load (TMDL), which was approved by EPA April 26, 2019. The TMDL establishes Waste Load Allocations (WLAs) for point source dischargers and determines the maximum amounts of phosphorus that can be discharged and still protect water quality. The final effluent limits and monitoring expressed in the permit were derived from Site-Specific Criteria (SSC) for Lakes Petenwell, Castle Rock, and Wisconsin originally included in Appendix K of the TMDL report and approved by the U.S. Environmental Protection Agency on July 9, 2020. The permittee's approved SSC-based limits are consistent with the assumptions and requirements of the EPA-approved WLA in the TMDL, which is 9145 lbs/yr for the permitted facility.

The approved TMDL expresses WLAs as lbs/year and lbs/day (maximum annual load divided by 365 days). As outlined in Section 4.6 of the department's *TMDL Development and Implementation Guidance: Integrating the WPDES and Impaired Waters Program*, mass limits must be given in the permit that are consistent with the TMDL WLA and the phosphorus impracticability agreement that was approved by USEPA in 2012 (see NPDES MOA Addendum dated July 12, 2012 at <https://apps.dnr.wi.gov/swims/Documents/DownloadDocument?id=167886175>). Continuously discharging facilities covered by the WRB TMDL are given monthly average mass limits. The TMDL based mass limits are expressed as 20 lbs/day monthly average.

Facilities with WRB TMDL based effluent limits for phosphorus must report the 12-month rolling sum of total monthly discharge (lbs/yr). If reported 12-month rolling sums exceed the facility's max annual WLA, the facility's mass limits (monthly average and six-month average) may be recalculated using more appropriate CVs or monitoring frequencies when the permit is reissued to bring discharge levels into compliance with the facility's given WLA.

BOD₅ Waste Load Allocation Limits – For the months of May through October waste load allocated BOD₅ limits in pounds per day apply and are based on the flow and temperature of the Wisconsin River. River flow and river temperature monitoring and reporting are used to determine the daily point source allocation for Wausau ("WLA Value"). This value is compared to the actual daily discharge value of BOD₅ in pounds of BOD₅ per day ("WLA BOD₅ Discharged") to determine compliance. The tables of Waste Load Allocation Limits in lbs/day are found in the permit. In no case shall the WLA water quality related mass effluent limitations be less stringent than the applicable categorical concentration effluent limitations contained in the effluent limits and monitoring table.

Pretreatment Parameters – Wausau 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.

The need for effluent limitations for the pretreatment parameters listed above was evaluated in the December 12, 2024 WQBEL memo. Effluent concentrations were well below the calculated acute and chronic limitations and no limits for these parameters are recommended.

Mercury – The WQBEL for total recoverable mercury is set equal to the most stringent criterion of 1.3 ng/L, according to s. NR 106.06 (6), Wis. Adm. Code, because the background concentration in the receiving water and similar inland streams is known to exceed 1.3 ng/L.

Considering available effluent data from the current permit term (January 2022 to October 2024), the 30-day P₉₉ concentration is 1.04 ng/L, the 4-day P₉₉ concentration is 1.34 ng/L, and the 1-day P₉₉ concentration is 1.92 ng/L, with a maximum concentration of 2.19 ng/L. These effluent concentrations are below the calculated WQBELs for mercury, therefore no effluent limits are needed. To ensure that representative sample results are available at the next permit issuance, monthly mercury monitoring is required.

Antidegradation and Antibacksliding

Since current treatment capability and PMP/SRM measures are expected to remain in place, the removal of the daily maximum mercury limit will not increase the concentration, level, or loading of mercury to the Wisconsin River. Therefore, antidegradation would not be applicable. To be consistent with antibacksliding requirements, the current limit was removed in accordance with s. NR 207.12(4)(b), Wis. Adm. Code.

Total Nitrogen Monitoring (NO₂+NO₃, TKN and Total N)- The Department has included effluent monitoring for Total Nitrogen through the authority under s. 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. Quarterly monitoring is required.

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.

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.

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> Since the facility performed an Acute WET test in 2025 which is the same as part of the year 1 of the reissued permit, they were given 4 annual tests in the reissued permit and still fulfill their annual reporting requirements.

3.2 Sample Point Number: 601- WISCONSIN RIVER

Monitoring Requirements and Limitations					
Parameter	Limit Type	Limit and Units	Sample Frequency	Sample Type	Notes
WLA Previous Day River Flow		cfs	5/Week	Measure	Monitoring required May through October when Waste Load Allocation BOD5 limits apply.
WLA Previous Day River Temp		deg F	5/Week	Measure	Monitoring required May through October when Waste Load Allocation BOD5 limits apply.

3.2.1 Changes from Previous Permit

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

3.2.2 Explanation of Limits and Monitoring Requirements

The discharge of BOD₅ to the Wisconsin River for river miles 265.0 to 260.0 is waste load allocated between multiple dischargers to this reach of the river. Monitoring of river flow and river temperature is used to determine the variable “Waste load Allocation Limits in lbs/day for BOD₅” from the tables in the permit and that are reported in the monitoring table at section in the permit for “WLA Value”.

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	Anaerobic Digestion Fecal Coliform	Volatile Solids Reduction	Land Application or Landfilling	1823 Dry Metric Tons
003	B	Liquid	Anaerobic Digestion Fecal Coliform	Volatile Solids Reduction	Land Application	0 Dry Tons
004	A (Exceptional Quality)	Cake	Heat Drying Fecal Coliform Density	Volatile Solids Reduction	Distribution to the public, land application or landfilling	N/A – New Sample Point

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)
005	A (Exceptional Quality)	Cake	Heat Drying Fecal Coliform Density	Volatile Solids Reduction	Distribution to the public, land application or landfilling	N/A – New Sample Point
006	A (Exceptional Quality)	Cake (Collected as Dust)	Heat Drying Fecal Coliform Density	Volatile Solids Reduction	Distribution to the public, land application or landfilling	N/A – New Sample Point
010	B	Liquid	N/A	Volatile Solids Reduction	Sample point only	N/A - Internal Sample Point
011	A (Exceptional Quality)	Cake	Heat Drying Fecal Coliform Density	N/A	Sample point only	N/A - Internal Sample Point
* The permittee primarily uses Volatile Solids Reduction to satisfy Vector Attraction Reduction requirements (List 4), however, based on operational needs may also satisfy List 4 requirements through Drying with Primary Solids, Injection (liquid sludge) or Incorporation.						
Does sludge management demonstrate compliance? Yes						
Is additional sludge storage required? No, 180 days provided on site.						
Is Radium-226 present in the water supply at a level greater than 2 pCi/liter? No.						
Is a priority pollutant scan required? No. Wausau conducted a priority pollutant scan (PPS) during the last permit term. Therefore, the PPS is not required during this permit term as specified in ch. NR 215, Wis. Adm. Code, and under the authority of s. NR 204.06(2)(b)6, Wis. Adm. Code. 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.						

Changes from Previous Permit:

Wausau upgraded its biosolids (sludge) treatment processes to produce Class A Exceptional Quality (EQ) biosolids. Exceptional quality biosolids may be sold or given away in a bag or other container by the permittee to either commercial or domestic users to be applied to lawns and home gardens as well as other sites allowed under ch. NR 204, Wis. Adm. Code. Exceptional quality biosolids are considered not to pose any reasonably anticipated threat to public health or the environment and are exempt from some requirements of ch. NR 204, Wis. Adm. Code (see NR 204.04(3), Exemptions.).

To provide Wausau with operational flexibility for the beneficial reuse of biosolids sample points/outfalls 010, 003, 011, 004, 005 and 006 have been added to the permit. Existing outfall 002 for landspreading Class B cake biosolids is retained with updated monitoring requirements.

The department recommends that the permittee follow the department’s most recent interim strategy for PFAS in biosolids. Sludge discharges from outfalls are required to be monitored for PFAS. If an outfall is not used, then PFAS is not required to be monitored.

Monitoring for lists 2, 3 and 4 are not required when sludge is landfilled in place of distribution and/or land application.

Wausau’s solids treatment train will include anaerobic digestion and thickening of raw sludge from wastewater treatment processes into Class B liquid biosolids (common sample point 010 and outfall 003), dewatering of the thickened Class B liquid biosolids with belt filter presses into Class B cake biosolids (existing outfall 002), heat drying of the Class B cake biosolids to produce a Class A heat dried exceptional quality cake biosolids (sample point 011, and outfalls 004, 005 and 006). See the “Sample Point Designation” table on pages 2 through 3 above for detailed descriptions of the biosolids sampling points/outfalls in this permit and related monitoring requirements.

4.1 Sample Point Number: 002- CLASS B CAKE SLUDGE; 003- CLASS B LIQUID SLUDGE

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

Monitoring Requirements and Limitations					
Parameter	Limit Type	Limit and Units	Sample Frequency	Sample Type	Notes
Nitrogen, Ammonium (NH4-N) Total		Percent	Quarterly	Composite	
Phosphorus, Total		Percent	Quarterly	Composite	
Phosphorus, Water Extractable		% of Tot P	Quarterly	Composite	
Potassium, Total Recoverable		Percent	Quarterly	Composite	
PFOA + PFOS		ug/kg	Annual	Calculated	Report the sum of PFOA and PFOS. See PFAS Permit Sections for more information.
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 new PFAS monitoring added.

PFAS –Monitoring is required 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., The use of the department’s “Interim Strategy for Land Application of Biosolids and Industrial Sludges Containing PFAS” is recommended.

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: 004- CLASS A EQ SLUDGE DISTRIBUTION; 005- CLASS A EQ SLUDGE STORAGE; 006- CLASS A EQ DUST

Monitoring Requirements and Limitations					
Parameter	Limit Type	Limit and Units	Sample Frequency	Sample Type	Notes
Solids, Total		Percent	Quarterly	Composite	
Arsenic Dry Wt	Ceiling	75 mg/kg	Quarterly	Composite	
Arsenic Dry Wt	High Quality	41 mg/kg	Quarterly	Composite	
Cadmium Dry Wt	Ceiling	85 mg/kg	Quarterly	Composite	
Cadmium Dry Wt	High Quality	39 mg/kg	Quarterly	Composite	
Copper Dry Wt	Ceiling	4,300 mg/kg	Quarterly	Composite	
Copper Dry Wt	High Quality	1,500 mg/kg	Quarterly	Composite	
Lead Dry Wt	Ceiling	840 mg/kg	Quarterly	Composite	
Lead Dry Wt	High Quality	300 mg/kg	Quarterly	Composite	
Mercury Dry Wt	Ceiling	57 mg/kg	Quarterly	Composite	
Mercury Dry Wt	High Quality	17 mg/kg	Quarterly	Composite	
Molybdenum Dry Wt	Ceiling	75 mg/kg	Quarterly	Composite	
Nickel Dry Wt	Ceiling	420 mg/kg	Quarterly	Composite	
Nickel Dry Wt	High Quality	420 mg/kg	Quarterly	Composite	
Selenium Dry Wt	Ceiling	100 mg/kg	Quarterly	Composite	
Selenium Dry Wt	High Quality	100 mg/kg	Quarterly	Composite	
Zinc Dry Wt	Ceiling	7,500 mg/kg	Quarterly	Composite	
Zinc Dry Wt	High Quality	2,800 mg/kg	Quarterly	Composite	
Nitrogen, Total Kjeldahl		Percent	Quarterly	Composite	
Nitrogen, Ammonium (NH ₄ -N) Total		Percent	Quarterly	Composite	
Phosphorus, Total		Percent	Quarterly	Composite	
Phosphorus, Water Extractable		% of Tot P	Quarterly	Composite	
Potassium, Total Recoverable		Percent	Quarterly	Composite	
PFOA + PFOS		ug/kg	Annual	Calculated	Report the sum of PFOA and PFOS. See PFAS Permit Sections for more information.
PFAS Dry Wt			Annual	Grab	Perfluoroalkyl and Polyfluoroalkyl Substances based on updated DNR

Monitoring Requirements and Limitations					
Parameter	Limit Type	Limit and Units	Sample Frequency	Sample Type	Notes
					PFAS List. See PFAS Permit Sections for more information.

4.2.1 Changes from Previous Permit:

Sludge limitations and monitoring requirements were evaluated for this permit term and no changes.

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. 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., The use of the department’s “Interim Strategy for Land Application of Biosolids and Industrial Sludges Containing PFAS” is recommended.

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.

4.3 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	Quarterly	Composite	
Arsenic Dry Wt	Ceiling	75 mg/kg	Quarterly	Composite	
Arsenic Dry Wt	High Quality	41 mg/kg	Quarterly	Composite	
Cadmium Dry Wt	Ceiling	85 mg/kg	Quarterly	Composite	
Cadmium Dry Wt	High Quality	39 mg/kg	Quarterly	Composite	
Copper Dry Wt	Ceiling	4,300 mg/kg	Quarterly	Composite	
Copper Dry Wt	High Quality	1,500 mg/kg	Quarterly	Composite	
Lead Dry Wt	Ceiling	840 mg/kg	Quarterly	Composite	
Lead Dry Wt	High Quality	300 mg/kg	Quarterly	Composite	

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

4.3.1 Changes from Previous Permit:

Sludge limitations and monitoring requirements were evaluated for this permit term and no changes.

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. Limitations for PCBs are addressed in s. NR 204.07(3)(k). Radium requirements are addressed in s. NR 204.07(3)(n).

4.4 Sample Point Number: 011- CLASS A EQ SLUDGE

List 3		
PATHOGEN CONTROL FOR CLASS A SLUDGE		
The following requirements shall be met prior to land application of sludge.		
Parameter	Unit	Limit
Fecal Coliform*	MPN/gTS	1000
OR		
Salmonella	MPN/4gTS	3
AND, ONE OF THE FOLLOWING PROCESS OPTIONS		
Temp/Time based on % Solids	Alkaline Treatment	
Prior test for Enteric Virus/Viable Helminth Ova	Post test for Enteric Virus/Viable Helminth Ova	

List 3		
PATHOGEN CONTROL FOR CLASS A SLUDGE		
The following requirements shall be met prior to land application of sludge.		
Parameter	Unit	Limit
Fecal Coliform*	MPN/gTS	1000
Composting	Heat Drying	
Heat Treatment	Thermophilic Aerobic Digestion	
Beta Ray Irradiation	Gamma Ray Irradiation	
Pasteurization	PFRP Equivalent Process	
* The Fecal Coliform limit shall be reported as the discrete monitoring results of 7 discrete samples on a dry weight basis.		

4.4.1 Changes from Previous Permit:

No changes. This is a sample point to monitor for pathogen control treatment processing immediately after the Class A treatment process (heat drying). This is not an outfall for distribution.

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. Limitations for PCBs are addressed in s. NR 204.07(3)(k). Radium requirements are addressed in s. NR 204.07(3)(n).

5 Schedules

5.1 Mercury Pollutant Minimization Summary

Required Action	Due Date
Final Mercury Report: Submit a report summarizing the mercury pollutant minimization measures implemented during the current permit term and the success in maintaining effluent quality at or below the current concentrations. The report shall include an analysis of trends in quarterly and annual average mercury concentrations and total mass discharge of mercury based on mercury sampling and flow data covering the current permit term. The report shall also include an analysis of how influent and effluent mercury varies with time and with significant loadings of mercury such as loads from industries or collection system maintenance.	03/31/2030

5.1.1 Explanation of Schedule

A report on mercury is required to ensure mercury minimization efforts continue and demonstrated.

5.2 PFOS/PFOA Minimization Plan Determination of Need

Required Action	Due Date
<p>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.</p> <p>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.</p>	04/30/2027
<p>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.</p> <p>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.</p> <p>The permittee shall also submit a request to the department to evaluate the need for a PFOS/PFOA minimization plan.</p> <p>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 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.</p> <p>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.</p>	04/30/2028

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

Public notice comments are documented and addressed in the Notice of Final Determination document.

Attachments

Water Quality Based Effluent Limits

Public Notice – Wausau Daily Herald, 800 Scott St, Wausau, WI 54402

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: April 13, 2026



Doug Diny
Mayor
Wausau Water Works
407 Grant st
Wausau, WI 54403

SUBJECT: WPDES Permit Reissuance No. WI-0025739-10-0
Wausau Water Works WW Treatment Facility, 435 Adrian Street, Wausau, WI 54403

Dear Permittee:

Your Wisconsin Pollutant Discharge Elimination System (WPDES) Permit is enclosed. The conditions of the enclosed permit reissuance were determined using the permit application, information from your WPDES permit file, other information available to the Department, comments received during the public notice period, and applicable Wisconsin Administrative Codes. All discharges from this facility and actions or reports relating thereto shall be in accordance with the terms and conditions of the enclosed permit.

This enclosed permit requires you to submit monitoring results to the Department on a periodic basis. Monitoring forms, which must be submitted electronically, are available on the Department's web page. Go to the DNR Switchboard page at <http://dnr.wi.gov/topic/switchboard/> to log in and access your monitoring forms. For your convenience, there is a 'Summary of Reports Due' at the end of the enclosed permit that shows a synopsis of the required reports and monitoring forms.

The WPDES permit program has been approved by the Administrator of the U.S. Environmental Protection Agency pursuant to Section 402(b) of the Federal Water Pollution Control Act Amendments of 1972 (33 U.S.C. Section 1342 (b)). The terms and conditions of the enclosed permit are accordingly subject to enforcement under ss. 283.89 and 283.91, Stats., and Section 309 of the Federal Act (33 U.S.C. Section 1319).

The Department has the authority under chs. 160 and 283, Wis. Stats., to establish effluent limitations, monitoring requirements, and other permit conditions for discharges to groundwater and surface waters of the State. The Department also has the authority to issue, reissue, modify, terminate, or revoke and reissue WPDES permits under ch. 283, Wis. Stats.

The enclosed permit contains water quality-based effluent limitations that are necessary to ensure the water quality standards for Wisconsin River in Lower Eau Claire River Watershed of the Central Wisconsin River Basin located in Marathon County are met.

If your permit contains a stringent Water Quality Based Effluent Limit for Phosphorus, there is a Compliance Schedule requirement to complete a Phosphorus Operational Evaluation and Optimization Report. To streamline the Report preparation and review process the Department has prepared a worksheet which should be used to develop the report. The worksheet may be found at: <https://dnr.wisconsin.gov/topic/Wastewater/Phosphorus>.

To challenge the reasonableness of or necessity for any term or condition of the enclosed permit, s. 283.63, Stats., and ch. NR 203, Wis. Adm. Code, require that you file a verified petition for review with the Secretary of the Department of Natural Resources within 60 days of the date the permit was issued (see “Date Permit Signed/Issued” after the signature on the front page of the enclosed permit). For permit-related decisions that are not reviewable pursuant to s. 283.63, Stats., it may be possible for permittees or other persons to obtain an administrative review pursuant to s. 227.42, Stats., and s. NR 2.05(5), Wis. Adm. Code, or a judicial review pursuant to s. 227.52, Stats. If you choose to pursue one of these options, you should know that Wisconsin Statutes and Administrative Code establish time periods within which requests to review Department decisions must be filed.

Sincerely,



Geisa Bittencourt
Wastewater Field Supervisor

Dated: April 13, 2026

eCC: Nick Lindstrom, DNR – Eau Claire, Nicholas.Lindstrom@wisconsin.gov
Ben Brooks, Superintendent, Wausau Waterworks, Ben.Brooks@wausauwi.gov
Kevin Fable, Environmental Engineer, Wausau Waterworks, Kevin.Fable@wausauwi.gov

STATE OF WISCONSIN DEPARTMENT OF NATURAL RESOURCES

NOTICE OF FINAL DETERMINATION TO REISSUE A WISCONSIN POLLUTANT DISCHARGE ELIMINATION SYSTEM (WPDES) PERMIT No. WI-0025739-10-0

Permittee: Wausau Water Works, 407 Grant St, Wausau, WI, 54403

Facility Where Discharge Occurs: Wausau Water Works WW Treatment Facility, 435 Adrian Street, Wausau, WI 54403

Receiving Water And Location: Wisconsin River in Lower Eau Claire River Watershed of the Central Wisconsin River Basin located in Marathon County

Brief Facility Description: The Wausau Wastewater Treatment Facility (WWTF) receives wastewater from the City of Wausau, the City of Schofield and the Town of Stettin, in addition to industrial wastewater from industries that are regulated under Wausau's pretreatment program. Wausau WWTF accepts and treats domestic holding tank, septic tank and grease trap interceptors, commercial septage and landfill leachate wastes. Landfill leachate was not accepted in 2022 or 2023, but it may be accepted again in the future. Wausau WWTF accepts approximately 10 gpd of petroleum contaminated groundwater from REI Engineering and also accepts groundwater that was previously contaminated with mineral spirits and pentachlorophenol from Wauleco Sentry Insurance which is pumped and treated prior to discharged into the collection system. Wausau WWTF has an annual average design flow of 8.2 MGD.

Influent from the aforementioned sources is first treated at the Wausau WWTF via two mechanical bar screens, followed by the PISTA grit removal system. Subsequent wastewater treatment consists of primary clarification then continues into four selector zones designed for biological phosphorus removal enhancement prior to entering the aeration basins then to then secondary clarifiers. Effluent from the secondary clarifiers travels to tertiary treatment where three disc filters filter TSS out of the secondary effluent. The disc filters may also be bypassed if treatment is not necessary for meeting limitations. Disc filters also have the option of chemical phosphorus removal through chemical precipitation, by the addition of Alum and Polymer to create a floc which removes phosphorus from the secondary effluent. The chemical precipitation option is only used when biological phosphorus removal is not functioning properly. Effluent from the disc filters is disinfected seasonally via ultraviolet disinfection prior to discharge into the Wisconsin River. Waste Activated Sludge is thickened using gravity belt thickeners prior to anaerobic digestion. Anaerobic sludge from the digester is dewatered using belt filter presses which is collected in a hopper where either Class B sludge can be recycled via land application on WDNR approved sites or wet cake can be routed to a thermal dryer where Class A EQ sludge is produced and recycled via land application on WDNR approved sites. Distribution is being considered, but not yet active.

Permit changes include the following: 1) effluent limit for mercury removed from permit but monitoring and reporting on mitigation efforts remain, 2) replacement of fecal coliform effluent limits with E. coli limits, 3) addition of monitoring for effluent PFOS and PFOA once every two months and an associated determination of need schedule in accordance with s. NR 106.98(2)(b), Wis. Adm. Code., 5) new Class A sludge requirements, and 6)PFAS sludge 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 to quantitate risk.

Permit Drafter's Name, Address and Phone: Angela Parkhurst, 1300 W Clairemont Ave, Eau Claire, WI, 54701, (715) 839-3836

Basin Engineer's Name, Address, and Phone: Nicholas Lindstrom, 1300 W Clairemont Avenue, Eau Claire, WI 54701, (715) 492-1787

Date Permit Signed/Issued: April 13, 2026

Date of Effectiveness: January 1, 2026

Date of Expiration: December 31, 2030

Public Informational Hearing Held On: N/A

Following the public notice period the Department has made a final determination to reissue the WPDES permit for the above-named permittee for this existing discharge. The permit application information from the WPDES permit file, comments received on the proposed permit and applicable Wis. Adm. Codes were used as a basis for this final determination.

The Department has the authority to issue, modify, suspend, revoke and reissue or terminate WPDES permits and to establish effluent limitations and permit conditions under ch. 283, Stats.

Following is a summary of significant comments and any significant changes which have been made in the terms and conditions set forth in the draft permit:

Comments Received from the Applicant, Individuals or Groups and Any Permit Changes as Applicable

Comments were submitted via email from Ben Brooks representing Wausau Waterworks on December 19, 2025. The comments and the DNR responses to them are as follows:

- 1.) 3.2.1 Sampling Point (Outfall) 001 – Effluent to Wisconsin River
 - E.coli sample frequency on draft listed a sample frequency of 2/Week. Expired permit required a sample frequency of 1/Wk for Fecals and during the E.coli monitoring period it was also 1/Wk.
 - I am requesting that the sampling frequency requirement of E.coli monitoring match that of the expired permit with a sampling frequency of 1/Wk.

DNR Response: 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. The sample frequency for the E. coli limit compliance was determined to be appropriate for the size and type of the wastewater facility. The frequency remains unchanged at 2/week.

2. It is very unfortunate that Wausau Waterworks-Wastewater has still not received its final approval letter from the WDNR with Class A, EQ Biosolids designation. All required information has been submitted to the WDNR along with the final SMP for review and final approval. It has been two years if not longer. We have consistently produced Class A, EQ Sludge. Since the City hasn't received its final approval letter from the WDNR we have been testing Class B AND Class A sludge for the entire duration and it has become very costly. I will not discontinue testing Class B sludge until we receive a final approval letter from the WDNR.
 - Permit Modifications will be necessary at the time Class A, EQ Biosolids approval is received.

DNR Response: An approval letter dated April 5, 2026 was sent from the department that confirms that the Sewage Sludge Heat Drying equipment is able to meet Class A sewage sludge requirements.

3. PFAS/Biosolids sample point clarification needed on Draft Permit: All Sampling Points listed on 4.1 are not discharge points. The PFAS sampling frequency requirement should be indicated on the specific Sampling Point Number listed in 4.1
 - 4.2.1.8 Sludge Monitoring for PFAS: Monitoring shall occur at each sample point when sludge is generated and discharged regardless of the end use (ie. Land applied, hauled to another facility, landfilled). This language is very vague and doesn't define the exact sample point location's required for PFAS sample collection. Needs to be cleaned up to define specific locations of where samples need to be taken.

DNR Response: The specific biosolids PFAS reporting requirements "Notes" column of the parameter tables in Section 4.2.1 and section 4.2.2 reference Section 4.2.1.8 and section 4.2.2.8 respectively which states "Sampling shall occur for perfluoroalkyl and polyfluoroalkyl compounds (PFAS) listed in the table below and as indicated in sampling point sections above. Monitoring shall occur annually at each sample point when sludge is generated and discharged regardless of the end use (i.e. land applied, hauled to another facility, landfilled). If a discharge is not made from a specific outfall during that calendar year, PFAS monitoring is not required." meaning if a sampling point is not discharged to any of the three end uses aforementioned during a specific reporting period, the PFAS parameters do not need to be sampled for. Conversely, if any sample points are discharged to the specified end use, sampling requirements do apply.

Other changes that were made to the permit after the public notice period:

Permit effective date is 05/01/2026

Permit expiration date is 03/31/2031

Mercury compliance schedule date is 03/31/2030

PFAS/PFOA compliance schedule dates are 04/30/2027 and 04/30/2028, respectively.

Comments Received from EPA or Other Government Agencies and Any Permit Changes as Applicable
None

As provided by s. 283.63, Stats., and ch. 203, Wis. Adm. Code, persons desiring further adjudicative review of this final determination may request a public adjudicatory hearing. A request shall be made by filing a verified petition for review with the Secretary of the Department of Natural Resources within 60 days of the date the permit was signed (see permit signature date above). Further information regarding the conduct and nature of public adjudicatory hearings may be found by reviewing ch. NR 203, Wis. Adm. Code, s. 283.63 Stats., and other applicable law, including s. 227.42, Stats.

Information on file for this permit action may be inspected and copied at either the above-named permit drafter's address or the above-named basin engineer's address, Monday through Friday (except holidays), between 9:00 a.m. and 3:30 p.m. Information on this permit action may also be obtained by calling the permit drafter at (715) 839-3836 or by writing to the Department. Reasonable costs (15 cents per page for copies and 7 cents per page for scanning) will be charged for copies of information in the file other than the public notice and fact sheet. Pursuant to the Americans with Disabilities Act, reasonable accommodation, including the provision of informational material in an alternative format, will be made to qualified individuals upon request.