

Permit Fact Sheet

General Information

Permit Number	WI-0031925-07-0
Permittee Name and Address	Larsen Winchester Sanitary District PO Box 85, Larsen, WI 54947
Permitted Facility Name and Address	Larsen Winchester Sanitary District WWTF SE ¼ of the SW ¼, Section 19, T20N, R16E, Town of Clayton, Winnebago County, Wisconsin
Permit Term	October 01, 2026 to September 30, 2031
Discharge Location	Center of the SW ¼, Section 19, T20N, R16E
Receiving Water	Unnamed tributary (WBIC no. 242200) to Arrowhead River, in the Arrowhead River and Daggets Creek Watershed (WR01), in the Wolf River Basin in Winnebago County
Stream Flow (Q _{7,10})	0.04 cfs (Arrowhead River)
Stream Classification	Limited Aquatic Life (LAL)
Discharge Type	Existing; Continuous (previously fill and draw)
Annual Average Design Flow	0.119 MGD (previously 0.048 MGD)
Industrial or Commercial Contributors	None
Plant Classification	A2 - Attached Growth Processes; A4 - Ponds, Lagoons and Natural Systems; D - Disinfection; P - Total Phosphorus; SS - Sanitary Sewage Collection System
Approved Pretreatment Program?	N/A

Facility Description

The Larsen Winchester Sanitary District (District) wastewater treatment facility (WWTF) was previously permitted to operate a two-cell controlled discharge stabilization pond wastewater treatment system that received exclusively domestic wastewater from the unincorporated communities of Larsen and Winchester in Winnebago County. The treatment facility was designed to treat an average daily flow of 48,300 gallons per day (gpd), and operated on a fill and draw basis, with discharge to an unnamed tributary to the Arrowhead River occurring approximately two weeks each spring and fall.

The District began construction of a wastewater treatment plant improvement project in the summer of 2025 which included abandoning the existing wastewater stabilization pond system and constructing a LemTec treatment system at the existing wastewater treatment plant site. One of the existing ponds has been drained and graded, and the other was abandoned in place at the time of project completion. Treatment components include a mechanical bar screen, a LemTec system for secondary treatment, a chemical feed system for phosphorus removal, a Lemna polishing reactor for ammonia removal, and UV disinfection. Influent and effluent flow meters and refrigerated composite samplers were also installed. A control building was constructed with four separate rooms on the first floor, including a bar screen room, a chemical feed room, an electrical and office room, and a blower room. A basement level room is located below the blower room to house the UV disinfection and effluent flow meter. The improvement project also included extending existing force mains, adding sanitary and storm sewers, and water, aeration and chemical feed piping. The system is designed to treat an

average daily flow of 119,000 gpd and operate on a continuous discharge basis to the same discharge location. Construction is expected to be completed in the summer of 2026.

Substantial Compliance Determination

Enforcement During Last Permit: There were no formal enforcement actions taken during the previous permit term; however, ammonia effluent exceedances have been an ongoing issue. The facility has undergone an upgrade including the addition of a Lemna polishing reactor for ammonia removal and ammonia exceedances are not expected to occur following the upgrade.

After a desktop review of all discharge monitoring reports, CMARs, land application reports, compliance schedule items, and a site visit on April 10, 2024, this facility has been found to be in substantial compliance with their current permit.

Compliance determination made by Mark Stanek, Wastewater Engineer, on 4/3/2026.

Sample Point Descriptions

Sample Point Designation		
Sample Point Number	Discharge Flow, Units, and Averaging Period	Sample Point Location, Waste Type/Sample Contents and Treatment Description (as applicable)
701	0.058 MGD (Avg. October 2017 – February 2026)	Influent - Representative influent samples shall be collected from the composite sampler.
001	0.482 MGD (Avg. October 2017 – February 2026)	Effluent - Representative effluent samples shall be collected prior to discharge to the unnamed tributary to Arrowhead River.

Changes from Previous Permit: Sample Point/Outfall 002 has been deactivated and removed from the permit; the permittee is no longer authorized to land apply sludge under this permit.

Permit Requirements

1 Influent – Monitoring Requirements

1.1 Sample Point Number: 701- Influent

Monitoring Requirements and Limitations					
Parameter	Limit Type	Limit and Units	Sample Frequency	Sample Type	Notes
Flow Rate		MGD	Daily	Continuous	
BOD5, Total		mg/L	3/Week	24-Hr Flow Prop Comp	
Suspended Solids, Total		mg/L	3/Week	24-Hr Flow Prop Comp	

1.1.1 Changes from Previous Permit

Influent limitations and monitoring requirements were evaluated for this permit term and due to the facility upgrade the following changes were made from the previous permit.

- The sample frequency and sample type for BOD₅ and TSS were updated to 3/week and 24-hr flow proportional composite, respectively.

1.1.2 Explanation of Limits and Monitoring Requirements

Monitoring of influent flow, BOD₅ and total suspended solids is required by s. NR 210.04(2), Wis. Adm. Code, to assess wastewater strengths and volumes and to demonstrate the percent removal requirements in s. NR 210.05, Wis. Adm. Code, and in the Standard Requirements section of the permit.

2 Surface Water - Monitoring and Limitations

2.1 Sample Point Number: 001- Effluent

Monitoring Requirements and Limitations					
Parameter	Limit Type	Limit and Units	Sample Frequency	Sample Type	Notes
Flow Rate		MGD	Daily	Continuous	
BOD ₅ , Total	Weekly Avg	30 mg/L	3/Week	24-Hr Flow Prop Comp	
BOD ₅ , Total	Monthly Avg	20 mg/L	3/Week	24-Hr Flow Prop Comp	
Suspended Solids, Total	Weekly Avg	30 mg/L	3/Week	24-Hr Flow Prop Comp	
Suspended Solids, Total	Monthly Avg	20 mg/L	3/Week	24-Hr Flow Prop Comp	
Suspended Solids, Total	Weekly Avg	16.6 lbs/day	3/Week	Calculated	
Suspended Solids, Total	Monthly Avg	11.8 lbs/day	3/Week	Calculated	
Suspended Solids, Total		lbs/month	Monthly	Calculated	Calculate the Total Monthly Discharge of TSS and report on the last day of the month on the DMR. See TMDL Calculations permit section.
Suspended Solids, Total		lbs/yr	Monthly	Calculated	Calculate the 12-month rolling sum of total monthly mass of TSS discharged and report on the last day of the month on the DMR. See TMDL Calculations permit section.
Dissolved Oxygen	Daily Min	4.0 mg/L	Daily	Grab	

Monitoring Requirements and Limitations					
Parameter	Limit Type	Limit and Units	Sample Frequency	Sample Type	Notes
pH Field	Daily Max	9.0 su	Daily	Grab	
pH Field	Daily Min	6.0 su	Daily	Grab	
E. coli	Geometric Mean - Monthly	126 #/100 ml	Weekly	Grab	Monitoring and limit effective May-September.
E. coli	% Exceedance	10 Percent	Monthly	Calculated	Monitoring and limit effective May-September. See the E. coli Percent Limit permit section. Enter the result in the DMR on the last day of the month.
Chloride	Weekly Avg	520 mg/L	4/Month	24-Hr Flow Prop Comp	This is an interim limit. Sampling shall be conducted on four consecutive days one week per month. See the Chloride Variance - Implement Source Reduction Measures permit section and the Chloride SRM (Target Value) Schedule.
Chloride		lbs/day	4/Month	Calculated	Calculate the daily mass discharge of chloride in lbs/day on the same days chloride sampling occurs. Mass (lbs/day) = Concentration (mg/L) x Flow (MGD) x 8.34
Phosphorus, Total	Monthly Avg	5.2 mg/L	3/Week	24-Hr Flow Prop Comp	This is an interim MDV limit effective through September 30, 2030. See the MDV/Phosphorus permit sections and Phosphorus Schedules.
Phosphorus, Total	Monthly Avg	1.0 mg/L	3/Week	24-Hr Flow Prop Comp	This is an interim MDV limit effective on October 1, 2030. See the MDV/Phosphorus permit sections and Phosphorus Schedules.
Phosphorus, Total		lbs/month	Monthly	Calculated	Report the total monthly phosphorus discharged in

Monitoring Requirements and Limitations					
Parameter	Limit Type	Limit and Units	Sample Frequency	Sample Type	Notes
					lbs/month on the last day of the month on the DMR. See Standard Requirements for 'Appropriate Formulas' to calculate the Total Monthly Discharge in lbs/month.
Phosphorus, Total		lbs/yr	Annual	Calculated	Report the sum of the total monthly discharges (for the months that the MDV is in effect) for the calendar year on the Annual report form.
Nitrogen, Ammonia (NH ₃ -N) Total	Daily Max - Variable	mg/L	3/Week	24-Hr Flow Prop Comp	See the Daily Maximum Ammonia Nitrogen (NH ₃ -N) Limits permit section.
Nitrogen, Ammonia (NH ₃ -N) Total	Weekly Avg	9.9 mg/L	3/Week	24-Hr Flow Prop Comp	Limit applies October-March.
Nitrogen, Ammonia (NH ₃ -N) Total	Weekly Avg	5.6 mg/L	3/Week	24-Hr Flow Prop Comp	Limit applies April-May.
Nitrogen, Ammonia (NH ₃ -N) Total	Weekly Avg	6.4 mg/L	3/Week	24-Hr Flow Prop Comp	Limit applies June-September.
Nitrogen, Ammonia (NH ₃ -N) Total	Monthly Avg	5.3 mg/L	3/Week	24-Hr Flow Prop Comp	Limit applies October-March.
Nitrogen, Ammonia (NH ₃ -N) Total	Monthly Avg	2.2 mg/L	3/Week	24-Hr Flow Prop Comp	Limit applies April-May.
Nitrogen, Ammonia (NH ₃ -N) Total	Monthly Avg	2.5 mg/L	3/Week	24-Hr Flow Prop Comp	Limit applies June-September.
Nitrogen, Total Kjeldahl		mg/L	See Listed Qtr(s)	24-Hr Flow Prop Comp	Annual in rotating quarters. See Nitrogen Series Monitoring permit section.
Nitrogen, Nitrite + Nitrate Total		mg/L	See Listed Qtr(s)	24-Hr Flow Prop Comp	Annual in rotating quarters. See Nitrogen Series Monitoring permit section.
Nitrogen, Total		mg/L	See Listed Qtr(s)	Calculated	Annual in rotating quarters. See Nitrogen Series Monitoring permit section. Total Nitrogen shall be calculated as the sum of reported values for Total Kjeldahl Nitrogen and Total Nitrite + Nitrate Nitrogen.

Monitoring Requirements and Limitations					
Parameter	Limit Type	Limit and Units	Sample Frequency	Sample Type	Notes
Copper, Total Recoverable		ug/L	Quarterly	24-Hr Flow Prop Comp	Monitoring only until final limits become effective. See the Copper Effluent Limits Schedule.
Hardness, Total as CaCO ₃		mg/L	Quarterly	24-Hr Flow Prop Comp	Sampling shall occur at the same time as copper monitoring.
Arsenic, Total Recoverable		ug/L	Once	24-Hr Flow Prop Comp	Monitoring only January-December 2030. See the Total Recoverable Arsenic Monitoring permit section.
Temperature Maximum		deg F	Weekly	Grab	Monitoring only January-December 2029.

2.1.1 Changes from Previous Permit

Effluent limitations and monitoring requirements were evaluated for this permit term and due to the facility upgrade the following changes were made from the previous permit.

- The sample type for flow has been changed from total daily to continuous. The flow rate daily maximum limit has been removed as it no longer applies.
- BOD₅ limits have been updated and the sample type has been changed to 24-hr flow proportional composite.
- TSS limits have been updated and the sample type has been changed to 24-hr flow proportional composite. TSS mass limits have also been added due to the total maximum daily load (TMDL).
- DO sample frequency has been increased to daily.
- Fecal coliform monitoring has been replaced with Escherichia coli (E. coli) monitoring and limits. The E. coli sample frequency has been updated to weekly.
- The permittee has applied for a chloride variance. The chloride sample frequency has been increased to 4/month on four consecutive days. The chloride variance interim effluent limit has been decreased to 520 mg/L as a weekly average and updated source reduction measures are included throughout the permit term. The sample type was changed to 24-hr flow proportional composite. A chloride calculated mass discharge parameter was added for analyzing trends in weekly, monthly and annual average chloride concentrations and total mass discharge.
- The permittee has applied for a multi-discharger variance (MDV) for phosphorus for this permit term and the application has been approved by the Department. An MDV interim limit of 5.2 mg/L (monthly average) is effective upon permit reissuance. An MDV interim limit of 1.0 mg/L has been added and goes into effect per the Schedule. The permittee is required to report the total amount of phosphorus discharged in lbs/month and lbs/year. By March 1st of each year the permittee shall make a payment(s) to participating county(s) of \$68.40 per pound of phosphorus discharged during the previous year in excess of the target value of 0.2 mg/L.
- Ammonia nitrogen sample frequency was increased to 3/week and the sample type has been changed to 24-hr flow proportional composite. The ammonia nitrogen weekly average and monthly average limits were updated.
- Annual total nitrogen (TKN, NO₂+NO₃ and Total N) monitoring, in rotating quarters, has been added.

- Copper monitoring and limits (to become effective per the Schedule) were added.
- Hardness monitoring was added due to the relationship between hardness and daily maximum limits based on acute toxicity criteria. Sampling for hardness shall occur at the same time as copper monitoring.
- One time arsenic monitoring has been added in calendar year 2030.
- Weekly temperature monitoring for one year (2029) following the facility upgrade has been added.

2.1.2 Explanation of Limits and Monitoring Requirements

Detailed discussions of limits and monitoring requirements can be found in the attached water quality-based effluent limits (WQBEL) memo, by Nicole Krueger, Water Resources Engineer, dated 05/29/2024.

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. The sample frequencies have been updated/increased for DO, E. coli, chloride, phosphorus, and ammonia.

Expression of Limits – In accordance with the federal regulation 40 CFR 122.45(d) and s. NR 205.065, Wis. Adm. Code, limits in this permit are to be expressed as weekly average and monthly average limits whenever practicable. Minor changes have been made to the limits for copper.

Disinfection and E. coli – Revisions to bacteria surface water quality criteria to protect recreational uses and accompanying E. coli WPDES permit implementation procedures became effective May 1, 2020. Section NR 102.04(5)(a), Wis. Adm. Code, states that all surface waters shall be suitable for recreational use and meet the E. coli criteria established to protect this use. Section NR 102.04(5)(b), Wis. Adm. Code, states that exceptions to the disinfection requirement can be made if the Department determines, in accordance with the procedures specified in s. NR 210.06(3), Wis. Adm. Code, that disinfection is not required to meet water quality criteria. As part of the reissuance process, the requirements for disinfection were reviewed under s. NR 210.06(3), Wis. Adm. Code.

It was determined that the permittee is required to disinfect, during the months of May – September each year. At permit reissuance, disinfection requirements and E. coli limits of 126 #/100 mL as a monthly geometric mean that may not be exceeded and 410 #/100 mL as a daily maximum that may not be exceeded more than 10 percent of the time in any calendar month will apply.

Chloride – The permittee has applied for a chloride variance, under the provisions of s. NR 106.83, Wis. Adm. Code, with its application for permit reissuance. The Department reviewed the permittee’s application for a chloride variance and the information supplied in the application supports the establishment of an interim effluent limit. The proposed permit includes an interim chloride limit of 520 mg/L (expressed as a weekly average), a target value of 470 mg/L (weekly average), implementation of the chloride source reduction measures identified in the Larsen Winchester Sanitary District Chloride Source Reduction Plan dated February 2026, and submittal of annual progress reports each year by March 31st. The Department concludes that the Larsen Winchester Sanitary District is qualified for a variance from the water quality standard for chloride and proposes reissuance of this permit with the proposed variance.

Phosphorus – Phosphorus rules became effective December 1, 2010 per ch. NR 217, Wis. Adm. Code, that required the permittee to comply with water quality-based effluent limits (WQBELs) for total phosphorous. The final phosphorus WQBELs are 0.267 lbs/day as a monthly average, 0.089 lbs/day as a 6-month average, and 25 lbs/year as an annual total, and were to become effective as scheduled unless a variance was granted. For this permit term, the permittee has applied for the multi-discharger variance (MDV) for phosphorus as provided for in s. 283.16, Wis. Stats., and approved by USEPA on September 3, 2025, for a 10-year duration. The permittee qualifies for the MDV because it is an existing source and a major facility upgrade is needed to comply with the applicable phosphorus WQBELs, thereby creating a financial burden. The interim effluent limit for total phosphorus is 5.2 mg/L as a monthly average limit. The limit was derived using DMR data from 11/13/2017 to 11/13/2023.

Conditions of the MDV require the permittee to optimize phosphorus removal throughout the proposed permit term, comply with interim limits and make annual payments to participating county(s) by March 1st of each year based on the pounds of phosphorus discharged during the previous year in excess of the specified target value.

The “price per pound” value is \$50.00 adjusted for CPI annually as defined by s. 283.16(8)(a)2, Wis. Stats, and takes effect for reissued permits with effective dates starting April 1st. This may differ from the “price per pound” that is public noticed; however, the “price per pound” is set upon reissuance and is applicable for the entire permit term. The participating county(s) uses these payments to implement nonpoint source phosphorus control strategies at the watershed level.

Upper Fox and Wolf River Basin (UFWRB) Total Maximum Daily Load (TMDL) Derived Limits – Waste load allocations (WLAs) specified in TMDLs are expressed as WQBELs (water quality-based effluent limits). The WLA-derived WQBELs are consistent with the assumptions and requirements of the approved UFWRB TMDL. The UFWRB TMDL sets TSS and total phosphorus WLAs for dischargers throughout the project area. WLA-derived limits must be included in WPDES permits once the TMDL has been approved by USEPA (the UFWRB TMDL was approved in February 2020). Since WLAs are expressed as annual loads (lbs/yr), permits with TMDL-derived monthly average permit limits require the permittee to calculate and report rolling 12-month sums of total monthly loads for TSS and total phosphorus. Rolling 12-month sums can be compared directly to the annual WLA. Larsen Winchester Sanitary District can currently meet the TMDL-based limits for TSS. The MDV is being used for phosphorus compliance.

Total Nitrogen Monitoring (TKN, NO₂+NO₃, and Total N) – The Department has included effluent monitoring for total nitrogen in the permit through the authority under s. 283.55(1)(e), Wis. Stats. Testing is required during the following quarters: October – December 2026; July – September 2027; April – June 2028; January – March 2029; and October – December 2030.

Copper – Considering effluent data from the permit reissuance application, copper limits are required. A schedule for complying with the copper effluent limits is included in the proposed permit. The final copper effluent limits are 33 µg/L (daily maximum), 23 µg/L (weekly average), 23 µg/L (monthly average), 0.13 lbs/day (daily maximum) and 0.023 lbs/day (weekly average). Limits become effective at the end of the schedule. However, the permittee may request a re-evaluation of the need for copper limits. If the Department determines there is no reasonable potential to exceed the calculated copper limits, permit modification would be required to remove the copper effluent limits and remaining schedule actions.

Arsenic – The sample that was collected for the permit reissuance application had a limit of detection (LOD) of 14 µg/L which is greater than 1/5th of the most stringent calculated limit of 40 µg/L based on the human cancer criteria (HCC). Monitoring for total recoverable arsenic is required one time in 2030. The permittee must use an approved analytical test method for total recoverable arsenic such that the LOD is less than or equal to 8.0 µg/L in order to determine the need for arsenic limits at the next permit reissuance in accordance with s. NR 200.027(1), Wis. Adm. Code. The permittee may then use this total recoverable arsenic monitoring data for the next permit reissuance application.

3 Schedules

3.1 Chloride Source Reduction Measures (Target Value)

As a condition of the variance to the water quality based effluent limitation(s) for chloride granted in accordance with s. NR 106.83(2), Wis. Adm. Code, the permittee shall perform the following actions.

Required Action	Due Date
<p>Annual Chloride Progress Report: Submit an annual chloride progress report related to the source reduction activities for the previous year. The annual chloride progress report shall:</p> <p>Indicate which chloride source reduction measures or activities in the Source Reduction Plan have been implemented and state which, if any, source reduction measures from the Source Reduction Plan were not pursued and why. Include an assessment of whether each implemented source reduction</p>	03/31/2027

<p>measure appears to be effective or ineffective at reducing pollutant discharge concentrations and identify actions planned for the upcoming year;</p> <p>Include an analysis of trends in weekly, monthly and annual average chloride concentrations and total mass discharge of chloride based on chloride sampling and flow data; and</p> <p>Include an analysis of how effluent chloride varies with time and with significant loadings of chloride. Note that the interim limitation listed in the Surface Water section of this permit remains enforceable until new enforceable limits are established in the next permit issuance.</p> <p>The first annual chloride progress report is to be submitted by the Date Due.</p>	
<p>Annual Chloride Progress Report #2: Submit the chloride progress report, related to the source reduction activities for the previous year, as defined above.</p>	03/31/2028
<p>Annual Chloride Progress Report #3: Submit the chloride progress report, related to the source reduction activities for the previous year, as defined above.</p>	03/31/2029
<p>Annual Chloride Progress Report #4: Submit the chloride progress report, related to the source reduction activities for the previous year, as defined above.</p>	03/31/2030
<p>Final Chloride Report: Submit the final chloride report documenting the success in meeting the chloride target value of 470 mg/L (weekly average), as well as the anticipated future reduction in chloride sources and chloride effluent concentrations.</p> <p>The report shall:</p> <p>Summarize chloride source reduction measures that have been implemented during the current permit term and state which, if any, source reduction measures from the Source Reduction Plan were not pursued and why;</p> <p>Include an assessment of which source reduction measures appear to have been effective or ineffective. Evaluate any needed changes to the pollutant reduction strategy accordingly;</p> <p>Include an analysis of trends in weekly, monthly and annual average chloride concentrations and total mass discharge of chloride based on chloride sampling and flow data during the current permit term; and</p> <p>Include an analysis of how influent and effluent chloride varies with time and with significant loadings of chloride as identified in the source reduction plan.</p> <p>If the permittee intends to reapply for a chloride variance, for the reissued permit, proposed target limits and a detailed source reduction measures plan, outlining the source reduction activities proposed for the upcoming permit term, shall also be included per ss. NR 106.90 (5) and NR 106.83 (4), Wis. Adm. Code. An updated source reduction measures plan shall:</p> <p>Include an explanation of why or how each source reduction measure will result in reduced discharge of the target pollutant; and</p> <p>Evaluate any available information on pollutant sources, timing, and concentration to update the mass balance assumptions and expected sources of the pollutant, and</p> <p>Identify any information needs that would help to better determine pollutant sources and make plans to collect that information.</p> <p>Note that the target value is the benchmark for evaluating the effectiveness of the chloride source reduction measures but is not an enforceable limitation under the terms of this permit.</p>	03/31/2031
<p>Annual Chloride Reports After Permit Expiration: In the event that this permit is not reissued by the date the permit expires the permittee shall continue to submit annual chloride reports for the</p>	

previous year following the due date of Annual Chloride Progress Reports listed above. Annual Chloride Progress Reports shall include the information as defined above.	
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3.1.1 Explanation of Schedule

Chloride Source Reduction Measures (Target Value) – This schedule is required to ensure that the permittee maintains compliance with the conditions and requirements of receiving a variance from the water quality-based chloride effluent limit. Since a compliance schedule is being granted, an interim limit is required, and that limit is established as 520 mg/L as a weekly average. The schedule requires that annual reports indicate which source reduction measures have been implemented during each calendar year, and an analysis of chloride concentration and mass discharge data based on chloride sampling and flow data. The annual reports shall document progress made towards meeting the chloride target value of 470 mg/L (weekly average) by the end of the permit term.

3.2 Copper Effluent Limits

This compliance schedule requires the permittee to achieve compliance by the specified date.

Required Action	Due Date
Report on Effluent Discharges: Submit a report on effluent discharges of copper. The report shall include an evaluation of collected effluent data and the facility's ability to comply with the final copper effluent limits. The report shall conclude whether current treatment, operational improvements, or a pollutant minimization program will result in compliance with the final copper effluent limits.	09/30/2027
Action Plan: Submit an action plan for complying with the final copper effluent limits.	03/31/2028
Initiate Actions: Initiate the actions identified in the plan.	09/30/2028
Progress Report: Submit a progress report detailing progress made toward meeting the final copper effluent limits, including all available copper sample results, a summary of actions taken and any copper pollutant minimization activities conducted during the previous year.	09/30/2029
Final Evaluation Report: Submit a final evaluation report including all copper sampling data and a conclusion on the likelihood that copper effluent limits will still apply. The permittee may submit a request to re-evaluate the need for copper effluent limits. If the Department determines there is no reasonable potential to exceed the calculated copper limits, permit modification would be required to remove the copper effluent limits and remaining schedule actions.	09/30/2030
Complete Actions: Complete actions necessary to achieve compliance with the final copper effluent limits of 33 µg/L (daily maximum), 23 µg/L (weekly average), 23 µg/L (monthly average), 0.13 lbs/day (daily maximum) and 0.023 lbs/day (weekly average).	09/30/2031

3.2.1 Explanation of Schedule

Copper Effluent Limits – Copper effluent limits are required based on copper data submitted with the permit reissuance application. This schedule allows the permittee time to come into compliance with the calculated copper effluent limits. Limits become effective at the end of the schedule on October 1, 2031. However, the permittee may request a re-evaluation of the need for copper limits in the Final Evaluation Report. If the Department determines there is no reasonable potential to exceed the calculated copper limits, permit modification would be required to remove the copper effluent limits and remaining schedule actions before October 1, 2031.

3.3 Phosphorus Multi-Discharger Variance Interim Limit (1.0 mg/L)

The permittee shall comply with the 1.0 mg/L MDV interim effluent limit by the end of this compliance schedule.

Required Action	Due Date
Submit Final Compliance Plan: The permittee shall submit a Facility Plan per s. NR 110.09, Wis. Adm. Code. The permittee may submit an abbreviated facility plan if the modifications are determined to be minor according to the Department.	03/31/2027
Submit Plans & Specifications: The permittee shall submit final construction plans to the Department for approval pursuant to s. 281.41, Wis. Stats., specifying treatment plant upgrades that must be constructed to achieve compliance with the interim phosphorus effluent limit and a schedule for completing construction of the upgrades by the 'Complete Construction' date specified below.	09/30/2027
Treatment Plant Upgrade: Upon approval of the final construction plans and schedule by the Department and pursuant to s. 281.41, Wis. Stats., the permittee shall initiate construction of the treatment plant upgrades in accordance with the approved plans and specifications.	09/30/2028
Construction Upgrade Progress Report: The permittee shall submit a progress report on construction upgrades.	09/30/2029
Complete Construction and Achieve Compliance: The permittee shall complete construction and achieve compliance with the phosphorus interim effluent limit of 1.0 mg/L.	09/30/2030

3.3.1 Explanation of Schedule

Phosphorus Multi-Discharger Variance Interim Limit (1.0 mg/L) – Subsection 283.16(6), Wis. Stats., establishes required interim phosphorus effluent limits that must be met for multi-discharger variance (MDV) eligibility. Subsection 283.16(6)(am), Wis. Stats., allows a technology based phosphorus limit of 1.0 mg/L as the MDV interim limit if a permittee certifies that its treatment facility cannot achieve compliance with the MDV interim limit without a major facility upgrade. The permittee qualifies for a 1.0 mg/L total phosphorus MDV interim limit and the schedule above provides the permittee with four years to comply with that limit.

3.4 Phosphorus Schedule - Optimization and Compliance Planning

The permittee is required to optimize performance and undertake compliance planning to control phosphorus discharges per the following schedule.

Required Action	Due Date
<p>Optimization and Compliance Alternatives: The permittee shall implement a phosphorus discharge optimization plan to control phosphorus discharges to the greatest extent practicable. Submit a progress report that summarizes the approach to phosphorus removal at the facility, the resulting concentration and mass loading for the last 12-month period, and any changes that were or are needed to optimize removal of phosphorus by the due date.</p> <p>The permittee shall also evaluate alternative phosphorus compliance options such as water quality trading and adaptive management. The progress report submitted on the date due shall also detail any outreach activities undertaken to evaluate these options, any communications with credit generators, brokers/clearinghouse, and any potential water quality trading or adaptive management projects that may lead to compliance with phosphorus WQBELs.</p> <p>Financial alternatives evaluation: If the permittee intends to seek a renewed variance at the end of this permit term, the permittee may complete a financial evaluation to support ongoing variance eligibility. The report must evaluate financial mechanisms that have the potential to make compliance</p>	09/30/2027

with phosphorus WQBELs economically feasible. Include an assessment of the feasibility and financial outcomes of the following opportunities: variable rate structures, grants through USDA or other sources, and DNR’s Clean Water Fund Program. The assessment of the DNR’s Clean Water Fund program should take into account subsidized interest rate loans, principal forgiveness, and other options as outlined in EPA’s March 2024 Financial Capabilities Assessment Guidance, Appendix C.	
Progress Report #2: Submit a progress report per the above for the prior calendar year.	09/30/2028
Progress Report #3: Submit a progress report per the above for the prior calendar year.	09/30/2029
Progress Report #4: Submit a progress report per the above for the prior calendar year.	09/30/2030
<p>Final MDV Optimization and Compliance Alternatives Report: Submit a progress report per the above for the prior calendar year.</p> <p>If water quality trading or adaptive management will be used to comply with phosphorus limitations during the next permit term, submit a draft water quality trading plan, adaptive management plan, or executed clearinghouse credit purchase agreement.</p> <p>The financial alternatives evaluation as described above must be submitted by the date due if the facility chooses to seek renewal of the variance.</p>	03/31/2031

3.4.1 Explanation of Schedule

Phosphorus Schedule - Optimization and Compliance Planning – Per s. 283.16(6)(a), Wis. Stats., the Department may include a requirement that the permittee optimize the performance of a point source in controlling phosphorus discharges, which may be necessary to achieve compliance with applicable effluent limits. This compliance schedule requires the permittee to prepare an optimization plan with a schedule for implementation and submit it for Department approval. The schedule also includes a compliance planning element focused on economically feasible solutions to low-level phosphorus effluent limits such as water quality trading or adaptive management. The permittee shall take the steps called for in the optimization plan and submit annual progress reports on optimizing the removal of phosphorus and establishing a water quality trade or adaptive management project. Should the permittee intend to reapply for a subsequent term of variance coverage, a financial alternatives analysis will need to be completed. Report elements are listed in the schedule, and more information can be found in USEPA’s March 2024 Financial Capabilities Assessment Guidance, Appendix C.

3.5 Phosphorus Payment per Pound to County

The permittee is required to make annual payments for phosphorus reductions to the participating county or counties in accordance with s. 283.16(8), Wis. Stats, and the following schedule. The price per pound will be set at the time of permit reissuance and will apply for the duration of the permit.

Required Action	Due Date
<p>Annual Verification of Phosphorus Payment to County: The permittee shall make a total payment to the participating county or counties approved by the Department by March 1 of each calendar year. The amount due is equal to the following: [(lbs of phosphorus discharged minus the permittee’s target value) times (\$68.40 per pound)] or \$640,000, whichever is less. See the payment calculation steps in the Surface Water section.</p> <p>The permittee shall submit Form 3200-151 to the Department by March 1 of each calendar year indicating total amount remitted to the participating counties to verify that the correct payment was made. The first payment verification form is due by the specified Due Date.</p> <p>Note: The applicable Target Value is 0.2 mg/L as defined by s. 283.16(1)(h), Wis. Stats. The "per pound" value is \$50.00 adjusted for CPI.</p>	03/01/2027

Annual Verification of Payment #2: Submit Form 3200-151 to the Department indicating total amount remitted to the participating counties.	03/01/2028
Annual Verification of Payment #3: Submit Form 3200-151 to the Department indicating total amount remitted to the participating counties.	03/01/2029
Annual Verification of Payment #4: Submit Form 3200-151 to the Department indicating total amount remitted to the participating counties.	03/01/2030
Annual Verification of Payment #5: Submit Form 3200-151 to the Department indicating total amount remitted to the participating counties.	03/01/2031
Continued Coverage: If the permittee intends to seek a renewed variance, an application for the MDV (Multi Discharger Variance) shall be submitted as part of the application for permit reissuance in accordance with s. 283.16(4)(b), Wis. Stats.	
Annual Verification of Payment After Permit Expiration: In the event that this permit is not reissued prior to the expiration date, the permittee shall continue to submit Form 3200-151 to the Department indicating total amount remitted to the participating counties by March 1 each year.	

3.5.1 Explanation of Schedule

Phosphorus Payment per Pound to County – Subsection 283.16(6)(b), Wis. Stats., requires permittees that have received approval for the multi-discharger variance (MDV) to implement a watershed project that is designed to reduce nonpoint sources of phosphorus within the HUC 8 watershed in which the permittee is located. The permittee has selected the “Payment to Counties” watershed option described in s. 283.16(8), Wis. Stats. Under this option the permittee shall make annual payment(s) to participating county(s) that are calculated based on the amount of phosphorus actually discharged during a calendar year in pounds per year in excess of the amount of phosphorus that would have been discharged had the permittee discharged phosphorus at a target value of 0.2 mg/L. The pounds of phosphorus discharged in excess of the target value is multiplied by a per pound phosphorus charge that will equal \$68.40 per pound. This schedule requires the permittee to submit Form 3200-151 to the Department indicating the total amount remitted to the participating county(s).

3.6 Operator Certification

This compliance schedule requires the permittee to have an operator-in-charge with the required subclass certifications by the specified date.

Required Action	Due Date
Operator Certification - A2 Subclass: Per s. NR 114.53, Wis. Adm. Code, the permittee shall have an operator-in-charge certified in the A2 Subclass (Attached Growth Processes) by the due date. Within 30 days of receiving certification, the permittee shall notify the Department in writing of the certified operator's name and certification number with the A2 Subclass certification.	09/30/2027
Operator Certification - D Subclass: Per s. NR 114.53, Wis. Adm. Code, the permittee shall have an operator-in-charge certified in the D Subclass (Disinfection) by the due date. Within 30 days of receiving certification, the permittee shall notify the Department in writing of the certified operator's name and certification number with the D Subclass certification.	09/30/2027
Operator Certification - P Subclass: Per s. NR 114.53, Wis. Adm. Code, the permittee shall have an operator-in-charge certified in the P Subclass (Phosphorus) by the due date. Within 30 days of receiving certification, the permittee shall notify the Department in writing of the certified operator's name and certification number with the P Subclass certification.	09/30/2027

3.6.1 Explanation of Schedule

Operator Certification – Per 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. The treatment plant has been upgraded and three new subclasses have been added: A2 (Attached Growth Processes), D (Disinfection), and P (Phosphorus). Per s. NR 114.53(4), Wis. Adm. Code, upon a change in a wastewater treatment plant’s classifications caused by the addition of a new subclass listed in s. NR 114.56(4), Wis. Adm. Code, the operator-in-charge shall have 12 months to pass the necessary subclass examinations and to gain the one year of subclass specific experience. Therefore, the compliance schedule requires the permittee to have an operator-in-charge with the required subclass certifications by September 30, 2027.

Attachments

WQBEL Memo: Water Quality-Based Effluent Limitations for the Larsen Winchester Sanitary District WPDES Permit No. WI-0031925, by Nicole Krueger, Water Resources Engineer, dated 05/29/2024

Larsen Winchester Sanitary District Chloride Source Reduction Plan – February 2026

Chloride Variance EPA Data Sheet

Phosphorus MDV Application for Municipal Facilities, dated 3/31/2022

MDV Application Evaluation Checklist, dated 5/16/2022

MDV Conditional Approval letter, dated 5/16/2022

Justification Of Any Waivers From Permit Application Requirements

No waivers from permit application requirements were requested or granted.

Prepared By: Sarah Donoughe, Wastewater Specialist-Adv

Date: April 27, 2026