

Village of Wyeville Public Noticed Permit Fact Sheet

General Information

Permit Number	WI-0036617-08-0
Permittee	Village of Wyeville, Excelsior Drive, Wyeville, WI 54660
Permitted Facility	Wyeville Sewer System, Excelsior Drive, Wyeville, WI
Permit Term	October 01, 2026 to September 30, 2031
Discharge Location	E ½ of the NE ¼ of Section 21, T18N, R1E, Town of Byron.
Receiving Water	groundwaters of the Beaver Cr/Juneau Watershed in Little Lemonweir River Watershed of Lower Wisconsin River Basin in Monroe County
Annual Average Design Flow (MGD)	17, 500 gpd
Industrial or Commercial Contributors	None
Plant Classification	U - Unique Treatment Systems; SS - Sanitary Sewage Collection System
Approved Pretreatment Program?	N/A

Facility Description

The Village of Wyeville treats domestic wastewater via a septic tank and soil absorption mound system (aka, subsurface absorption system) that discharges treated domestic wastewater to groundwater. The annual average design flow for this system is 17,500 gallons per day (gpd) and had an actual annual average flow of 9,069 gpd in 2025. A groundwater monitoring system exists onsite to assess impacts from the mound system. The licensed septage hauler is responsible for the monitoring requirements prior to land applying the septage on their own approved sites in compliance with NR 113 Wis. Adm. Code. Schedules are included in the permit that require Wyeville submit a facility plan to update their treatment system, submit a Capacity, Management, Operation and Maintenance (CMOM) plan and also a Land Treatment Management Plan.

Substantial Compliance Determination

Enforcement During Last Permit: No enforcement actions were taken during the last permit term.

After a desktop review of all discharge monitoring reports, and a site visit on 9/12/2025, this facility has been found to be in substantial compliance with their current permit. Compliance Schedules for submitting a CMOM and Facility Plan are included in the next issuance of the permit.

Compliance determination made by Mike Chang on 04/28/2026.

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)
001	9,069 gpd (2025)	Representative effluent samples shall be collected from the dosing chamber prior to discharge to the mounds.
901	N/A	Solids from the septic tank

Sample Point Designation For Groundwater Monitoring Systems			
System	Sample Pt Number	Well Name	Comments
Mound System Monitoring Wells	801	801 - Upgradient	Background
	806	806 - Down/side-gradient	Non-Point of Standard
	808	808 - Down-gradient	Non-Point of Standard
	809	809 - Down-gradient	Non-Point of Standard
	811	811- Down-gradient	Point of Standard
	812	812- Down-gradient	Point of Standard
	815	815- Down-gradient	Point of Standard
	816	816- Down-gradient	Point of Standard

Permit Requirements

1 Land Treatment – Monitoring and Limitations

1.1 Sample Point Number: 001- EFFLUENT from DOSING CHAMBER

Monitoring Requirements and Limitations					
Parameter	Limit Type	Limit and Units	Sample Frequency	Sample Type	Notes
Flow Rate		gpd	Daily	Total Daily	
BOD5, Total		mg/L	1/ 6 Months	Grab	
Chloride		mg/L	1/ 6 Months	Grab	
Nitrogen, Ammonia (NH3-N) Total		mg/L	1/ 6 Months	Grab	
Nitrogen, Total Kjeldahl		mg/L	1/ 6 Months	Grab	
Nitrogen, Nitrite + Nitrate Total		mg/L	1/ 6 Months	Grab	

Monitoring Requirements and Limitations					
Parameter	Limit Type	Limit and Units	Sample Frequency	Sample Type	Notes
Nitrogen, Total		mg/L	1/ 6 Months	Calculated	
Nitrogen, Organic Total		mg/L	1/ 6 Months	Calculated	

Changes from Previous Permit:

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

Explanation of Limits and Monitoring Requirements

All requirements for land treatment of municipal wastewater are determined in accordance with ch. NR 206, Wis. Adm. Code. More information on the limitations can be found in the May 6, 2026 memo to file from Woody Myers titled “Groundwater Evaluation for the Village of Wyeville, WI-0036617”.

2 Groundwater – Monitoring and Limitations

2.1 Groundwater Monitoring System for Mound System Monitoring Wells

Location of Monitoring system: Near the Mound System that is located at E ½ of the NE ¼ of Section 21, T18N, R1E, Town of Byron

Groundwater Monitoring Well(s) to be Sampled: 801 - Upgradient, 806 - Down/side-gradient, 808 - Down-gradient, 809 - Down-gradient, 811- Down-gradient, 812- Down-gradient, 815- Down-gradient, 816- Down-gradient

Groundwater Monitoring Well(s) Used to Evaluate Background Groundwater Quality: 801

Groundwater Monitoring Well(s) Used for Point of Standards Application: 811, 812, 815 and 816

Parameter	Units	Preventative Action Limit	Enforcement Standard	Frequency
Depth To Groundwater	feet	N/A	N/A	1/ 6 Months
Groundwater Elevation	feet MSL	N/A	N/A	1/ 6 Months
Chloride Dissolved	mg/L	125	250	1/ 6 Months
Nitrogen, Nitrite + Nitrate (as N) Dissolved	mg/L	2.0	10	1/ 6 Months
pH Field	su	6.3	N/A	1/ 6 Months
Nitrogen, Ammonia Dissolved	mg/L	0.97	9.7	1/ 6 Months
Nitrogen, Organic Dissolved	mg/L	2.2	N/A	1/ 6 Months
Solids, Total Dissolved	mg/L	N/A	N/A	1/ 6 Months

Changes from Previous Permit:

Groundwater limitations and monitoring requirements were evaluated for this permit term and the following changes were made from the previous permit: 1) Total dissolved solid (TDS) has been added to aid the department in evaluating impacts to the groundwater aquifer. 2) The March 20, 2007 Conditional Exemption to NR 140 Enforcement Standard for Chloride letter is hereby rescinded.

Explanation of Limits and Monitoring Requirements

Groundwater limits and requirements are determined in accordance with ch. NR 140, Wis. Adm. Code. Indicator parameter Preventive Action Limit (PAL) values are established per s. NR 140.20, Wis. Adm. Code. For more information, please refer to the May 6, 2026 memo to file from Woody Myers titled "Groundwater Evaluation for the Village of Wyeville, WI-0036617".

3 Septage Management - Monitoring and Limitations

Septage management is required in accordance ch. NR 113, Wisconsin Administrative Code. Records must be kept and made available to the Department on request. Required record keeping includes volumes of septage pumped, dates when the septage was removed, land application site DNR number and method used to satisfy pathogen and vector control, and/or the treatment plant where septage is disposed. Annual reporting is required when the permittee land applies the septage. Annual reporting is also required when the permittee disposes of septage at a designated treatment facility.

3.1 Sample Point Number: 901- Septic Tank

Changes from Previous Permit:

None

Explanation of Limits and Monitoring Requirements

Requirements for septage management are determined in accordance with ch. NR 113, Wis. Adm. Code.

4 Schedules

4.1 Facility Upgrade

Required Action	Due Date
Submit Facility Plans: The permittee shall submit a Facility Plan to meet the requirements listed in s. NR 110.09, Wis. Adm. Code. to address the need for treatment plant upgrades.	09/30/2027
Final Plans and Specifications: The permittee shall submit final construction plans to the Department for approval pursuant to ch. NR 108, Wis. Adm. Code, and a schedule for completing construction of the upgrades by the complete construction date specified below.	09/30/2028
Initiate Construction: The permittee shall begin construction of the approved construction plans.	03/31/2029
Complete Treatment Facility Upgrade: The permittee shall initiate bidding, procurement, and/or construction of the project. The permittee shall also obtain approval of the final construction plans and schedule from the Department pursuant to s. 281.41, Stats., prior to initiating activities defined as construction under ch. NR 108, Wis. Adm. Code. Upon approval of the final construction plans and	03/31/2030

schedule by the Department pursuant to s. 281.41, Stats., the permittee shall construct the treatment plant upgrades in accordance with the approved plans and specifications.	
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Explanation of Schedule: The Wyeville Wastewater Treatment Plant is aged, has had multiple instances of operational problems (seepage/leaking), and is likely not providing adequate treatment to comply with chs. NR 110, NR 140, and NR 206 Wis. Adm. Code. The groundwater monitoring results consistently exceed groundwater quality standards for chloride. Therefore, a Facility Plan is being required to comply with chs. NR 110, NR 140, and NR 206 Wis. Adm. Code.

4.2 Land Treatment Management Plan

A management plan is required for the land treatment system.

Required Action	Due Date
Land Treatment Management Plan Submittal: Submit an update to the management plan to optimize the land treatment system performance and demonstrate compliance with ch. NR 206, Wis. Adm. Code. The land treatment system shall be operated in accordance with the approved management plan.	12/31/2026

Explanation of Schedule: An up-to-date Land Treatment Management Plan is required that documents how the permittee will manage the land application of treatment system consistent with ch. NR 206, Wis. Adm. Code.

4.3 CMOM Plan

Required Action	Due Date
CMOM Plan Development & Implementation: The permittee shall develop and submit a Capacity, Management, Operation and Maintenance (CMOM) plan that addresses all CMOM program components in accordance with s. NR 210.23(4), Wis. Adm. Code. The permittee shall implement a CMOM program in accordance with s. NR 210.23, Wis. Adm. Code.	06/30/2027

Explanation of Schedule: Wyeville could not locate the file that contained their CMOM. Therefore, a new CMOM must be submitted per s. NR 210.23 Wis. Adm. Code.

Other Comments

None

Attachments

NR 140 Groundwater Evaluation Report: May 6, 2026 memo to file from Woody Myers titled "Groundwater Evaluation for the Village of Wyeville, WI-0036617".

Justification Of Any Waivers From Permit Application Requirements

No waivers requested or granted as part of this permit reissuance

Prepared By: Holly Heldstab, Wastewater Specialist

Date: 07/01/2026

CORRESPONDENCE/MEMORANDUM

State of Wisconsin

DATE: May 6, 2026

TO: File

FROM: Woody Myers - WCR



SUBJECT: Groundwater Evaluation for the Village of Wyeville, WI-0036617

Site Information

The Wyeville Sewer System facility is located on Excelsior Drive, Wyeville, Monroe County. This is a Municipal Wastewater Treatment System. Wastewater is currently dosed to and discharged to groundwater, via infiltration, through a sub-surface land disposal system and is located the E ½ of the NE ¼ of Section 21, T18N, R1E, Town of Byron.

Land Disposal Effluent & Groundwater Evaluation Summary

**Table 1 Land Disposal Outfall Sampling Point Parameters and Limits
Outfall 001 Subsurface Absorption (Drain Fields)**

Parameter	Current Permit WI-0036617-07		Proposed Permit WI-0036617-08	
	Limits and Units	Limit Type	Limits and Units	Limit Type
Flow Rate	- gpd		- gpd	
BOD ₅	- mg/l		- mg/l	
Chloride	- mg/l		- mg/l	
Nitrogen, Ammonia	- mg/l		- mg/l	
Nitrogen, Total Kjeldahl	- mg/l		- mg/l	
Nitrogen, Nitrite + Nitrate	- mg/l		- mg/l	
Nitrogen, Total	- mg/l		- mg/l	
Nitrogen, Organic	- mg/l		- mg/l	

No proposed permit changes

Table 2 Monitoring Wells

Well	Current Permit WI-0036617-07		Proposed Permit WI-0036617-08	
	Well Location	Well Designation	Well Location	Well Designation
801	Up-gradient	Background	Up-gradient	Background
806	Down-gradient	Non-Point of Standard	Down-gradient	Non-Point of Standard
808	Down-gradient	Non-Point of Standard	Down-gradient	Non-Point of Standard
809	Down-gradient	Non-Point of Standard	Down-gradient	Non-Point of Standard
811	Down-gradient	Point of Standard	Down-gradient	Point of Standard
812	Down-gradient	Point of Standard	Down-gradient	Point of Standard
815	Down-gradient	Point of Standard	Down-gradient	Point of Standard
816	Down-gradient	Point of Standard	Down-gradient	Point of Standard

No proposed permit changes

Table 3 Groundwater Quality Standards

Parameter	Current Permit WI-0036617-07		Proposed WI-0036617-08	
	PAL	ES	PAL	ES
Depth to Groundwater	N/A	N/A	N/A	N/A
Groundwater Elevation	N/A	N/A	N/A	N/A
Chloride	Exempt	Exempt	*125 mg/l	*250 mg/l
Nitrogen, Nitrite + Nitrate	2.5 mg/l (ACL)	10.0 mg/l	*2.0 mg/l	10 mg/l
pH, Field	4.3-6.3 su	N/A	4.3-6.3 su	N/A
Nitrogen, Ammonia	0.97 mg/l	9.7 mg/l	0.97 mg/l	9.7 mg/l
Nitrogen, Organic	2.3 mg/l	N/A	2.3 mg/l	N/A
*Total Dissolved Solids	Not required		N/A	N/A

* Proposed permit changes

Geology

The bedrock under this facility is the Wonewoc Formation. The Wonewoc Formation is comprised of the Ironton and Galesville members. Both the Ironton and Galesville members are sandstone (*Bedrock Geology of Wisconsin, Regional Map Series West-Central Sheet*, Wisconsin Geological and Natural History Survey (WGNHS), 1988). Bedrock was not encountered during installation of the groundwater monitoring wells but is not anticipated to be greater than 50 feet below ground surface (bgs) (*Depth to Bedrock in Wisconsin*, WGNHS, 1973). The regolith consists of materials ranging from fine to medium grained sand. Surface soil primarily consists of the Newlang muck, the Tint sand and the Wyeville loamy sand (USDA NRCS Web Soil Survey).

Hydrogeology

Calculated groundwater elevation ranges between 907 and 913 feet above mean sea level (msl). Depth to groundwater was reported to be between 2 and 11 feet bgs. Groundwater flow direction was calculated to be predominantly to the north. Region groundwater is to the east-southeast in this area of Monroe County (*Water Table Elevation*, Map, WGNHS, 1981). The site is approximately 1,800 feet west of the South Fork Lemonweir River. There are no wells (municipal, other than municipal, private and high-capacity) within a 1,500-foot range of this facility's groundwater discharge.

Land Disposal Effluent Quality and Loading Rates

The following table is the average flow (hydraulic loading), nitrite + nitrate, ammonia, chloride and BOD₅ loading summations for the land disposal system.

Table 4 Land Treatment Disposal Loading Averages

Year	Flow (gpd)	Nitrite + Nitrate (mg/l)	Ammonia (mg/l)	Chloride (mg/l)	BOD ₅ (mg/l)
2025	9069	0.21	46.0	399	204
2024	7634	33.2	54.9	384	229
2023	9591	0.21	43.1	414	146
2022	7488	0.21	47.6	316	194
2021	8190	0.21	49.6	324	180

Groundwater Monitoring System and Sampling Frequency

All parameters are analyzed for the dissolved phase in groundwater. Established groundwater quality standards are found in Table 1 Public Health Groundwater Quality Standards s. NR 140.10 Wis. Adm. Code, and Table 2 Public Welfare Groundwater Standards s. NR 140.12 Wis. Adm. Code. The thresholds of these standards are the Enforcement Standard (ES) and the Preventative Action Limit (PAL).

Table 5 Groundwater Monitoring Well Data

Sample Point	Well Name	Elevation (feet above msl)				Length (feet)		Well Type
		Casing Top	Ground Surface	Screen Top	Screen Bottom	Screen Length	Well Depth	
801	801	919.09		906.9	897.93	9'	21.2	WT
806	806	920.48		906.2	901.15	5'	19.3	WT
808	808	918.58		912.0	907.00	5'	11.6	WT
809	809	918.80		900.3	895.30	5'	23.5	WT
811	811	911.39		909.9	904.89	5'	6.5	WT
812	812	911.87		910.1	905.07	5'	6.8	WT
815	815	No data found						
816	816							

All measurements in feet

WT-Water table Observation P-Piezometer O-Other

Groundwater sampling results from this facility have been analyzed for each well to evaluate trends of the regulated compounds in groundwater and to calculate PALs for s. NR 140.22 Wis. Adm. Code Indicator Parameters and to evaluate potential exemptions under s. NR 140.28 Wis. Adm. Code. The groundwater was evaluated by looking at the groundwater data from May 6, 2021 – December 15, 2025.

Background Groundwater Quality

There were no PAL or ES exceedances observed in the background groundwater quality and the trends for the results were stable.

Down-Gradient Groundwater Quality

There are a significant number of exceedances of the groundwater quality standards for chloride, ammonia and nitrite + nitrate in the non-point of standards wells closet to the system and frequent exceedances in the further down-gradient point of standards wells. The overall trends with regard to magnitude of the results are stable.

Land Disposal System Impact to Groundwater Quality

Concentrations and trends in the groundwater monitoring data were compared to the loading data for the land disposal system. There is a clear correlation between the effluent loading levels and the groundwater monitoring results.

Proposed Groundwater Monitoring Requirements

**Table 6 Groundwater Quality Sampling Frequency and Limits Permit WI-0036617-08
Outfall 001**

Sample Point	Well Name	Sample Frequency	Well Designation
801	801	1/6	Background
806	806	1/6	Non-Point of Standard
808	808	1/6	Non-Point of Standard
809	809	1/6	Non-Point of Standard
811	811	1/6	Point of Standard
812	812	1/6	Point of Standard
815	815	1/6	Point of Standard
816	816	1/6	Point of Standard
Parameter	PAL	ES	Source
Depth to Groundwater	N/A	N/A	Measured
Groundwater Elevation	N/A	N/A	Measured
Chloride	*125 mg/l	*250 mg/l	NR 140 Table 2
Nitrogen, Nitrite + Nitrate	*2.0 mg/l	10.0 mg/l	NR 140 Table 1
pH, Field	4.3-6.3 su	N/A	Calculated
Nitrogen, Ammonia	0.97 mg/l	9.7 mg/l	NR 140 Table 1
Nitrogen, Organic	2.3 mg/l	N/A	Calculated
*Total Dissolved Solids	N/A	N/A	Measured

* Proposed permit changes

Indicator Parameter PALs

Indicator Parameter PALs are developed following the procedures described in s. NR 140.20(2), Wis. Adm. Code. Indicator parameters do not have Enforcement Standards. The PAL for an indicator parameter is a benchmark for evaluating site specific trends. When significant increases in the trends are observed, the facility and the department's response action under s. NR 140.24 Wis. Adm. Code should be to investigate the source of the compound. The following equations were used to calculate the indicator parameter PALs:

$$\sum [\text{Mean of the background groundwater quality} + \text{Minimum Increase (NR 140.20 Table 3)}] = \text{PAL}$$

And for pH:

$$\sum [\text{Mean of the background groundwater quality} \pm 1 \text{ su}] = \text{upper and lower PAL}$$

Alternative Concentration Limits

Alternative concentration Limits (ACLs) can be developed and provided for a groundwater monitoring system utilizing the procedures described in s. NR 140.28, Wis. Adm. Code. ACLs were calculated using the following equation:

$$\sum [\text{Mean of the background groundwater quality} + (2) \times \text{Standard Deviation of Results}] = \text{ACL}$$

Conclusions

Total dissolved solid (TDS) has been added to the parameters required for analysis for the groundwater samples. A PAL cannot be calculated until next permit reissuance. This data will aid the department in evaluating impacts to the groundwater aquifer.

The March 20, 2007, Conditional Exemption to NR 140 Enforcement Standard for Chloride letter is hereby rescinded. The s. NR140.12, Wis. Adm. Code PAL and ES will go into effect with the next permit reissuance.

The existing land disposal system is not compliant with the current ch. NR110, Wis. Adm. Code. Specifically, it does not conform to the s. NR 110.25 (3), Wis. Adm. Code requirements for treatment prior to wastewater disposal.

The groundwater sampling results indicate magnitudes close to the effluent concentrations at the near, non-point of standards wells and the concentrations decrease with greater distance from the land disposal system. This is a clear indication of two factors; one is the lack of treatment being provided to the raw wastewater and the second is dilution and dispersion in the aquifer. This clear pattern indicates the majority of the pollutant mass remains in the aquifer and its fate is not the Lemonweir River.

The groundwater quality standards from s. NR 140.12, Wis. Adm. Code will be implemented for chloride due to the exemption letter being rescinded.

The ACL for nitrite + nitrate has been removed. Based on background groundwater quality data samples, a calculated ACL would be less than the s. NR 140.10, Wis. Adm. Code PAL, so the Code PAL will be used.

Based on the PAL and ES exceedances in groundwater down-gradient of this facility a ss. NR 140.24, Wis. Adm. Code response action will be required by the department. The required response action is to perform a facility plan to be submitted to the department's Wastewater Plan Review Section.

Compliance Schedule Recommendations

The s. NR 206.07 (2)(h) 1. Wis. Adm. Code requires a land disposal management plan for facilities with land disposal systems. The facility should review their plan within 90 days of permit reissuance, and any revisions should be submitted to the department for approval.

A Facility Plan must be submitted to the Compliance staff and the Wastewater Plan Review Section within 120 days of the permit reissuance. The plan should address the failures in the current system by modification, redesign or other methods such as regionalization with another wastewater treatment facility.