

# Valley Ridge Draft Permit Fact Sheet

## General Information

Permit Number	WI-0036854-07-0
Permittee Name and Address	Valley Ridge Clean Water Commission 22439 STATE HIGHWAY 35, Lynxville, WI 54626
Permitted Facility Name and Address	Valley Ridge Clean Water Commission WWTF 22439 State HWY 35, LYNXVILLE, WISCONSIN
Permit Term	July 01, 2025 to June 30, 2030
Discharge Location	the East bank of the Mississippi River 1/10 of a mile south of CTH F and STH 35 intersection.
Receiving Water	Mississippi River in Rush Creek of Bad Axe River & Coon Creek in Crawford County
Stream Flow (Q <sub>7,10</sub> )	7320 cfs
Stream Classification	Warm Water Sport Fish Community, Non-public water supply
Discharge Type	Continuous, existing
Annual Average Design Flow (MGD)	0.064 MGD
Industrial or Commercial Contributors	N/A
Plant Classification	A1 - Suspended Growth Processes; B - Solids Separation; C - Biological Solids/Sludges; P - Total Phosphorus; SS - Sanitary Sewage Collection System
Approved Pretreatment Program?	N/A

## Facility Description

The Valley Ridge Clean Water Commission operates an oxidation ditch type activated sludge wastewater treatment plant with discharge to the Mississippi River. The annual average design flow of the facility is 0.064 million gallons per day (MGD), with an actual average flow of 0.032 MGD in 2024. Treatment begins with an automatic fine screen in the headworks with a back-up bar screen and a pre-aeration tank. The raw wastewater is then treated biologically via a 2-cell oxidation ditch with 2 mechanical disc aerators, chemical addition, a final clarifier, a RAS centrifugal pump, a RAS/WAS splitter box, 2 submersible centrifugal sludge transfer pumps, and a metering effluent manhole. The sludge that is generated is aerobically digested in a sludge storage tank before land applied on department approved sites. Significant operational changes since the last permit term include adding chemical addition to control phosphorus using ferric chloride, as well as the construction of a structure to house the chemical feed for the ferric chloride and an emergency eyewash/shower station. Significant changes proposed for this issuance include 1) lower effluent phosphorus interim limits associated with an approved multi-discharger variance for phosphorus (MDV) and compliance schedules to comply with s. 283.16, Wis. Stats. requirements for phosphorus, and 2) PFAS sludge sampling has been included in the 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:** The facility was issued one NON in 2023 for 3 SSO events that occurred in 2022. These SSO events were reported to the department accurately and no follow up actions were required. Other very minor

violations occurred in the previous permit term, but the facility consistently meets all their limits. The facility has completed all previously required actions as part of the enforcement process.

After a desk top review of all discharge monitoring reports, CMARs, land app reports, compliance schedule items, and a site visit on August 7, 2024, this facility has been found to be in substantial compliance with their current permit.

Compliance determination entered by Katie Jo Jerzak, PE, Wastewater Engineer on December 18, 2024.

## 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	No influent flow monitoring	Representative influent samples shall be collected from the headworks before the automatic fine screen or the mechanical bar screen.
001	0.032 MGD (2024)	Representative effluent samples shall be collected from the effluent flow monitoring manhole prior to discharge to the Mississippi River.
002	5 tons	Representative liquid sludge composite samples shall be collected from the sludge storage tank and monitored for PFAS, Lists 1, 2, 3, & 4 annually, and PCBs once.

## Permit Requirements

### 1 Influent – Monitoring Requirements

#### 1.1 Sample Point Number: 701- PRIOR TO BAR SCREEN

Monitoring Requirements and Limitations					
Parameter	Limit Type	Limit and Units	Sample Frequency	Sample Type	Notes
Suspended Solids, Total		mg/L	2/Week	24-Hr Flow Prop Comp	
BOD5, Total		mg/L	2/Week	24-Hr Flow Prop Comp	

##### 1.1.1 Changes from Previous Permit:

None.

##### 1.1.2 Explanation of Limits and Monitoring Requirements

Monitoring of 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- PRIOR TO DISCHARGE

Monitoring Requirements and Limitations					
Parameter	Limit Type	Limit and Units	Sample Frequency	Sample Type	Notes
Flow Rate		MGD	Daily	Continuous	
Suspended Solids, Total	Monthly Avg	30 mg/L	2/Week	24-Hr Flow Prop Comp	
Suspended Solids, Total	Weekly Avg	45 mg/L	2/Week	24-Hr Flow Prop Comp	
BOD5, Total	Monthly Avg	30 mg/L	2/Week	24-Hr Flow Prop Comp	
BOD5, Total	Weekly Avg	45 mg/L	2/Week	24-Hr Flow Prop Comp	
pH Field	Daily Max	9.0 su	5/Week	Grab	
pH Field	Daily Min	6.0 su	5/Week	Grab	
Nitrogen, Ammonia (NH3-N) Total		mg/L	Quarterly	24-Hr Flow Prop Comp	
Nitrogen, Total Kjeldahl		mg/L	Quarterly	24-Hr Flow Prop Comp	
Nitrogen, Nitrite + Nitrate Total		mg/L	Quarterly	24-Hr Flow Prop Comp	
Nitrogen, Total		mg/L	Quarterly	Calculated	
Phosphorus, Total	Monthly Avg	1.0 mg/L	2/Week	24-Hr Flow Prop Comp	This is an interim MDV limit effective through 12/31/2029. See the MDV/Phosphorus subsections and phosphorus schedules.
Phosphorus, Total	Monthly Avg	0.6 mg/L	2/Week	24-Hr Flow Prop Comp	This is an interim MDV limit effective on 01/01/2030. See the MDV/Phosphorus subsections and phosphorus schedules.
Phosphorus, Total		lbs/month	Monthly	Calculated	Report the total monthly phosphorus discharged in lbs/month on the last day of the month on the DMR. See Standard Requirements for 'Appropriate Formulas' to

Monitoring Requirements and Limitations					
Parameter	Limit Type	Limit and Units	Sample Frequency	Sample Type	Notes
					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.

### 2.1.1 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.

**Flow/BOD/TSS/pH-** The sample frequency for flow has been changed from continuous to daily for eDMR reporting purposes.

**Phosphorus-** monitoring frequency has been increased from weekly to 2/week,

**Phosphorus MDV** - The permittee has re-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 0.6 mg/L has been added that goes into effect per a compliance schedule. The permittee will continue to report the total amount of phosphorus discharged in lbs/month and lbs/year. By March 1 of each year the permittee shall make a payment(s) to participating county(s) of \$66.62 per pound of phosphorus discharged during the previous year in excess of the target value of 0.2 mg/L.

### 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 from Benjamin Hartenbower to Angela Parkhurst titled “Water Quality-Based Effluent Limitations for the Valley Ridge Clean Water Commission Wastewater Treatment Facility, WDES Permit No. WI-0036854” dated **March 31, 2025**.

**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 standard BOD/TSS frequencies are 3/week for this type of facility, however given the facility’s excellent compliance record, low effluent variability, and small size, the frequencies will be kept at 2/week and re-evaluated at the next permit issuance. However, pH will increase from 2/week to 5/week, and phosphorus from weekly to 2/week which is the standard.

**Phosphorus** – Phosphorus rules became effective December 1, 2010 per 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 0.3 mg/L monthly average, and 0.100 mg/L and 0.053 lbs/day 6 month averages and were to become effective as scheduled unless a variance was granted. For this permit term, the permittee has reapplied for the Multi-Discharger Variance (MDV) for phosphorus as provided for in s. 283.16, Wis. Stats., and approved by USEPA on

February 6, 2017 until February 5, 2027. 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 effluent limit for total phosphorus is 1.0 mg/L as an average monthly limit until January 1, 2030 when it reduces to 0.6 mg/L following the corresponding compliance schedule.

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 1 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 during the first quarter as defined by s. 283.16(8)(a)2, Wis. Stats and takes effect for reissued permits with effective dates starting April 1. 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 non-point source (agricultural and urban) phosphorus control strategies at the watershed level.

### 3 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	Liquid	Fecal Coliform	Incorporation	Land Applied	5
Does sludge management demonstrate compliance? Yes						
Is additional sludge storage required? No, they have 180 days of storage available with capacity of 140,000 gallons.						
Is Radium-226 present in the water supply at a level greater than 2 pCi/liter? No						
Is a priority pollutant scan required? No, the facility has a design flow of less than 5 MGD.						

#### 3.1 Sample Point Number: 002- LIQUID SLUDGE

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

Monitoring Requirements and Limitations					
Parameter	Limit Type	Limit and Units	Sample Frequency	Sample Type	Notes
Lead Dry Wt	High Quality	300 mg/kg	Annual	Composite	
Mercury Dry Wt	Ceiling	57 mg/kg	Annual	Composite	
Mercury Dry Wt	High Quality	17 mg/kg	Annual	Composite	
Molybdenum Dry Wt	Ceiling	75 mg/kg	Annual	Composite	
Nickel Dry Wt	Ceiling	420 mg/kg	Annual	Composite	
Nickel Dry Wt	High Quality	420 mg/kg	Annual	Composite	
Selenium Dry Wt	Ceiling	100 mg/kg	Annual	Composite	
Selenium Dry Wt	High Quality	100 mg/kg	Annual	Composite	
Zinc Dry Wt	Ceiling	7,500 mg/kg	Annual	Composite	
Zinc Dry Wt	High Quality	2,800 mg/kg	Annual	Composite	
Nitrogen, Total Kjeldahl		Percent	Annual	Composite	
Nitrogen, Ammonium (NH <sub>4</sub> -N) Total		Percent	Annual	Composite	
Phosphorus, Total		Percent	Annual	Composite	
Phosphorus, Water Extractable		% of Tot P	Annual	Composite	
Potassium, Total Recoverable		Percent	Annual	Composite	
PCB Total Dry Wt	Ceiling	50 mg/kg	Once	Composite	Sample once in 2026. See PCB Permit Section for more information.
PCB Total Dry Wt	High Quality	10 mg/kg	Once	Composite	Sample once in 2026. See PCB Permit Section for more information.
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.

### 3.1.1 Changes from Previous Permit:

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

**PFAS** –Monitoring is required annually pursuant to s. NR 204.06(2)(b)9., Wis. Adm. Code.

### 3.1.2 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 is currently developing a risk assessment to determine future land application rates. In the interim, the department has developed the “Interim Strategy for Land Application of Biosolids and Industrial Sludges Containing PFAS.”

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

## 4 Schedules

### 4.1 Phosphorus Schedule - Continued Optimization

The permittee is required to optimize performance to control phosphorus discharges per the following schedule.

Required Action	Due Date
Optimization: The permittee shall continue to implement the optimization plan as previously approved to optimize performance to control phosphorus discharges. Submit a progress report on optimizing removal of phosphorus by the Due Date.	06/30/2026
Progress Report #2: Submit a progress report on optimizing removal of phosphorus.	06/30/2027
Progress Report #3: Submit a progress report on optimizing removal of phosphorus.	06/30/2028
Progress Report #4: Submit a progress report on optimizing removal of phosphorus.	06/30/2029
Progress Report #5: Submit a progress report on optimizing removal of phosphorus.	06/30/2030

#### 4.1.1 Explanation of Schedule

##### Continued Optimization

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 multi-discharger variance interim limits. This compliance schedule requires the permittee to continue to implement the optimization plan that was approved during the previous permit term.

## 4.2 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
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 (\$66.62 per pound)] or \$640,000, whichever is less. See the payment calculation steps in the Surface Water section.  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.  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.	03/01/2026
Annual Verification of Payment #2: Submit Form 3200-151 to the Department indicating total amount remitted to the participating counties.	03/01/2027
Annual Verification of Payment #3: Submit Form 3200-151 to the Department indicating total amount remitted to the participating counties.	03/01/2028
Annual Verification of Payment #4: Submit Form 3200-151 to the Department indicating total amount remitted to the participating counties.	03/01/2029
Annual Verification of Payment #5: Submit Form 3200-151 to the Department indicating total amount remitted to the participating counties.	03/01/2030
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.	

### 4.2.1 Explanation of Schedule

#### County Payment

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 non-point 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 less the amount of phosphorus that would have been discharged had the permittee discharged phosphorus at a target value concentration 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 \$52.02 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).



### 4.3 Phosphorus Multi-Discharger Variance Interim Limit (0.6 mg/L)

This compliance schedule requires the permittee to achieve compliance with the specified MDV interim effluent limit in accordance with s. 283.16(6), Wis. Stats., by the due date.

Required Action	Due Date
Report on Effluent Discharges: Submit a report on effluent discharges of phosphorus with conclusions regarding compliance.	06/30/2026
Action Plan: Submit an action plan for complying with the specified interim effluent limit. If construction is required, include plans and specifications with the submittal.	06/30/2027
Initiate Actions: Initiate actions identified in the plan.	06/30/2028
Progress Update: Provide an update on plan implementation.	06/30/2029
Complete Actions: Complete actions identified in the plan and achieve compliance with the specified interim effluent limit.	01/01/2030

#### 4.3.1 Explanation of Schedule

##### 0.6 mg/L Interim Limit

Subsection 283.16(6), Wis. Stats., establishes required interim phosphorus effluent limits that must be met for multi-discharger variance (MDV) eligibility. The schedule above provides the permittee with 4.5 years to comply with that limit.

#### Other Comments

TBD

#### Attachments

Water Quality Based Effluent Limits – From Benjamin Hartenbower to Angela Parkhurst titled “Water Quality-Based Effluent Limitations for the Valley Ridge Clean Water Commission Wastewater Treatment Facility, WDES Permit No. WI-0036854”, dated March 31, 2025.

Public Notice- Courier Press, PO Box 149, Prairie Du Chien, WI 53821

#### 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 30, 2025**