Pinewood Properties LLC Permit Fact Sheet - Modification

General Information

Permit Number:	WI-0030911-11-01
Permittee Name:	Pinewood Properties LLC, 100 North Barranca Street, Suite 900 Office M, West Covina, CA 91791
Discharge Location:	Brookview Mobile Home Court LLC, W4300 Hwy 14 and 61, Rt. 3, La Crosse, WI SW1/4 SE1/4, Section 20, T15N R06W, Town of Greenfield, La Crosse County
Receiving Water:	Mormon Creek in the Coon Creek Watershed of the Bad Axe-La Crosse River Basin in La Crosse County
StreamFlow ($Q_{7,10}$):	6.40 cfs
Stream Classification:	Coldwater (Category 5) community, non-public water supply
Design Flow(s)	0.18 MGD Peak Daily
Significant Industrial Loading?	No
Operator at Proper Grade?	Yes. OIC holds Biological Treatment: Suspended Growth Processes-Basic WWTP A1, Solids Separation-Basic WWTP B, Biological Solids/Sludge Handling, Processing & Reuse-OIT WWTP C, Disinfection-Basic WWTP D
Approved Pretreatment Program?	N/A

Facility Description

Pinewood Properties LLC Wastewater Treatment Facility treats domestic wastewater from Brookview Mobile Home Park and Golden Valley Mobile Home Park The facility is an activated sludge plant with an annual average design flow of 0.02 million gallons per day (MGD) and had an actual annual average effluent flow of 0.022 MGD in 2023. Effluent from the plant is disinfected seasonally via chlorination prior to discharge to Mormon Creek. Sludge from the facility is hauled licensed hauler. Significant effluent monitoring and/or limit changes in this permit term were as follows: 1) seasonal fecal coliform limits replaced with seasonal *Escherichia coli* (*E. coli*), 2) the addition of annual monitoring for total nitrogen, nitrite + nitrate nitrogen and total Kjeldahl nitrogen, 3) copper limits removed (monitoring remains) and 4) the acute WET testing frequency reduced. Clarification language was added notifying the permittee they must monitor sludge for List 1 metals & List 2 nutrients, and meet the requirements of List 3 (Pathogen Control) and List 4 (Vector Attraction Reduction) prior to landspreading, if they ever discontinue having their sludge hauled and spread by a licensed hauler.

Reason for Permit Modification: This permit modification replaces two compliance schedules (Air Lift Compliance Schedule and HVAC Upgrade of Chemical Storage Room Compliance Schedule) with one compliance schedule that requires the permittee submit a Facility Plan for Department review and a complete comprehensive upgrade to the wastewater treatment facility.

Note: significant changes per this modification are shaded in grey in this fact sheet.

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Substantial Compliance Determination

Enforcement During Last Permit: Notice of Noncompliance (NON) was issued for a TFO on March 14, 2019 and limit exceedance. NONs were issued for fecal coliform and BOD_5 during 2019. Under reporting was discussed with the operator during the inspection as there has been confusion with the lab; a NON was issued on 01/10/202. Pinewood Properties has replaced the diffusers in the plant, the tank was cleaned during this process and was reseeded to ensure that BOD_5 limits were met.

After a desk top review of discharge monitoring reports, CMARs, land application reports, compliance schedule items and a site visit on 10/27/2022, this facility has been found to be in substantial compliance with their current permit.

Sample Point Designation		
Sample Point Number	**Discharge Flow, Units, and Averaging Period**	**Sample Point Location, WasteType/sample Contents and Treatment Description (as applicable)**
701	**Influent**: Flow monitoring is not required	Representative influent samples shall be collected at the influent pipe to the aeration tanks.
001	**Effluent**: 0.022 MGD (2023)	Representative composite effluent samples shall be collected after the secondary clarifier effluent weir prior to the chlorine contact manhole. Chlorine and fecal coliform grab samples shall be taken AFTER the chlorination and dechlorination feed lines, prior to discharge to Mormon Coulee Creek.
002	**Sludge**: 145,800 gallons (2023)	As long as sludge is hauled by a facility that has a WPDES permit allowing for disposal of sludge produced at Pinewood Properties, no monitoring by Pinewood Properties is required. In the event that Pinewood Properties terminates contracting another facility for storage and disposal of its sludge, Pinewood Properties shall monitor the sludge for Lists 1 & 2 and meet the requirements of Lists 3 & 4 annually. In the years that Pinewood has their sludge hauled by a contracted & licensed hauler, Pinewood shall submit form 3400-49 annual and indicate they did not land apply. Pinewood shall also complete and submit the "Other Methods of Disposal or Distribution Report Form 3400-52" and "Land Application Report Form 3400-55"as specified in the Standard Requirements. The facility shall keep an accurate log of the amount of sludge hauled from the facility.

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1 Influent - Monitoring

Sample Point Number: 701- INFLUENT

Monitoring Requirements and Limitations					
Parameter	**Limit Type**	**Limit and Units**	**Sample Frequency**	**Sample Type**	**Notes**
BOD5, Total		mg/L	Weekly	Grab	
Suspended Solids, Total		mg/L	Weekly	Grab	

Changes from Previous Permit:

No changes

Explanation of Limits and Monitoring Requirements

Influent monitoring is needed to assess loading to facility and treatment plant performance. Influent monitoring requirements are in accordance with NR 206.09(2).

2 Surface Water - Monitoring and Limitations

Sample Point Number: 001- TO MORMON COULEE CREEK

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	Weekly	24-Hr Flow Prop Comp	
BOD5, Total	Monthly Avg	30 mg/L	Weekly	24-Hr Flow Prop Comp	
Suspended Solids, Total	Weekly Avg	45 mg/L	Weekly	24-Hr Flow Prop Comp	
Suspended Solids, Total	Monthly Avg	30 mg/L	Weekly	24-Hr Flow Prop Comp	
pH Field	Daily Min	6.0 su	Daily	Grab	
pH Field	Daily Max	9.0 su	Daily	Grab	
E. coli	Geometric Mean - Monthly	126 #/100 ml	Weekly	Grab	Limit & monitoring apply May - Sept

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Monitoring Requirements and Limitations					
Parameter	**Limit Type**	**Limit and Units**	**Sample Frequency**	**Sample Type**	**Notes**
E. coli	% Exceedance	10 Percent	Monthly	Calculated	Limit & monitoring apply May - Sept. See the E. coli section in the permit.
Chlorine, Total Residual	Daily Max	38 ug/L	Daily	Grab	Limit & monitoring apply May - Sept
Chlorine, Total Residual	Weekly Avg	38 ug/L	Daily	Grab	Limit & monitoring apply May - Sept
Chlorine, Total Residual	Monthly Avg	38 ug/L	Daily	Grab	Limit & monitoring apply May - Sept
Copper, Total Recoverable		ug/L	Monthly	24-Hr Flow Prop Comp	
Phosphorus, Total		mg/L	Quarterly	24-Hr Flow Prop Comp	
Nitrogen, Total Kjeldahl		mg/L	See Listed Qtr(s)	24-Hr Flow Prop Comp	Monitoring required annually in specific quarters. See Nitrogen Series Monitoring section below for more info.
Nitrogen, Nitrite + Nitrate Total		mg/L	See Listed Qtr(s)	24-Hr Flow Prop Comp	
Nitrogen, Total		mg/L	See Listed Qtr(s)	Calculated	
Acute WET		TUa	See Listed Qtr(s)	24-Hr Flow Prop Comp	See WET testing section below for more info.

Changes from Previous Permit

1) seasonal fecal coliform limits have been replaced with seasonal *Escherichia coli* (*E. coli*), 2) the addition of annual monitoring for total nitrogen, nitrite + nitrate nitrogen and total Kjeldahl nitrogen, 3) copper limits have been removed (monitoring remains) and 4) the acute WET testing frequency has been reduced.

Explanation of Limits and Monitoring Requirements

Limits were determined for the Pinewood Properties LLC's existing discharge to Mormon Creek using chs. NR 102, 104, 105, 106, 207, 210, 212 and 217 of the Wisconsin Administrative Code (where applicable). For more information see the January 24, 2023 memo from Benjamin Hartenbower to Holly Heldstab titled "Water Quality-Based Effluent Limitations for Pinewood Properties LLC WPDES Permit No. WI-0030911".

The effluent monitoring frequency for all parameters were considered. Monitoring frequencies are based on the size and type of the facility and are established to best characterize effluent quality and variability, to detect events of noncompliance, and to ensure fairness and consistency in permits issued across the state. Requirements in administrative code (NR 108, 205, 210 and 214 Wis. Adm. Code) and Section 283.55, Wis. Stats. were considered, where applicable,

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when determining the appropriate monitoring frequencies for pollutants that have final effluent limits in effect during this permit term. For more information see the March 22, 2021 version of the Bureau of Water Quality Program Guidance Document "Monitoring Frequencies for Individual Wastewater Permits". The department has determined at this time that no changes in monitoring frequency are warranted.

For more information on these changes see the limits memo referenced above and additional info. provided below in the individual sections for various parameter.

MUNICIPAL EFFLUENT LIMITS – In accordance with the federal regulation 40 CFR 122.45(d), limits in this permit are to be expressed as weekly average and monthly average limits whenever practicable.

BOD, DO, and pH: Monitoring and limits for these pollutants correspond to the requirements of the current permit since the facility has not increased the capacity of the wastewater treatment system since the last permit issuance, nor are increases expected during the term of the proposed permit.

Disinfection/*E. Coli*: Fecal coliform monitoring and limits have been replaced with *Escherichia coli* (*E. coli*) monitoring and limits. The permittee disinfects via chlorination, therefore seasonal chlorine limits apply. 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.

Ammonia: Water quality-based effluent limitations are evaluated for Ammonia Nitrogen based upon water quality criteria in ch. NR 105 (as revised in March, 2004), including acute toxicity criteria (ATC) and chronic toxicity criteria (CTC). Effluent limitations for ammonia are calculated using the procedures in s. NR 106.32, Wis. Adm. Code and are explained in the WQBEL dated January 24, 2023.

Phosphorus: Phosphorus requirements are based on the Phosphorus Rules that became effective 12/1/2010 as detailed in NR 102 Water Quality Standards and NR 217 Effluent Standards and Limitations for Phosphorus. Chapter NR 217 of the Wis. Adm. Code addresses point source dischargers of phosphorus to surface waters. The code categorically limits municipal dischargers of more than 150 pounds of phosphorus per month to 1.0 mg/L unless an alternative limit is approved. NR 217 also specifies WQBELs (water quality based effluent limits) for discharges of phosphorus to surface waters of the state from publicly and privately owned wastewater facilities. 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. Effluent data collected during the last permit term indicates the discharge does not have reasonable potential to cause or contribute to an exceedance of the water quality criterion because the 30-day P99 of reported effluent total phosphorus data is less than the calculated WQBEL. Therefore, a WQBEL is not required. Quarterly phosphorus monitoring will continue.

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Total Nitrogen Monitoring (NO2+NO3, TKN and Total N): Based on the "Guidance for Total Nitrogen Monitoring in WPDES Permits" dated October 2012, quarterly effluent monitoring for Total Nitrogen is required for muni majors discharging to the Mississippi River Basin. Also, quarterly effluent monitoring for Total Nitrogen is required for muni facilities discharging to the Mississippi River Basin whose permit applications show > 40 mg/L Total Nitrogen due to industrial contribution. Monitoring is required in the following quarters:

- 3rd quarter (July – Sept) 2023
- 2nd quarter (April – June) 2024
- 1st quarter (Jan – March) 2025
- 4th quarter (Oct – Dec) 2026
- 2nd quarter (April – June) 2027

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). Monitoring is required in the following quarters:

- 1st quarter (Jan – March) 2025
- 2nd quarter (April – June) 2027

Thermal: Requirements for Temperature are included in NR 102 Subchapter II Water Quality Standards for Temperature and NR 106 Subchapter V Effluent Limitations for Temperature. Thermal discharges must meet the Public Health criterion of 120 degrees F and the Fish & Aquatic Life criteria which are established to protect aquatic communities from lethal and sub-lethal thermal effects. Based on the available effluent data, no effluent temperature limits or monitoring are required.

PFOS and PFOA-NR 106 Subchapter VIII – Permit Requirements for PFOS and PFOA Dischargers became effective on August 1, 2022. Pursuant to s. NR 106.98(3)(b), Wis. Adm. Code, the department evaluated the need for PFOS and PFOA monitoring taking into consideration the presence of potential PFOS or PFOA industrial wastes, remediation sites and other potential sources of PFOS or PFOA. Based on information available at the time the proposed permit was drafted, the department has determined the permittee does not need to sample for PFOS or PFOA as part of this permit reissuance. The department may re-evaluate the need for sampling at the next permit reissuance if new information becomes available that suggests PFOS or PFOA may be present in the discharge.

Copper: Effluent copper data submitted during the last permit term indicate that concentrations are below the calculated WQBEL for copper, therefore the copper limits have been removed. The current limits may be removed in accordance with s. NR 207.12(3)(a), Wis. Adm. Code. A copper monitoring requirement remains to ensure enough data is available during the next permit reissuance.

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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	N/A	Liquid	N/A	N/A	Hauled	39.6 Dry US tons
Does sludge management demonstrate compliance? Yes						
Is additional sludge storage required? No						
Is Radium-226 present in the water supply at a level greater than 2 pCi/liter? No						
Is a priority pollutant scan required? No						

Sample Point Number: 002- HAULED SLUDGE

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

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Monitoring Requirements and Limitations					
Parameter	**Limit Type**	**Limit and Units**	**Sample Frequency**	**Sample Type**	**Notes**
Nitrogen, Total Kjeldahl		Percent	See Permit Note	Composite	
Nitrogen, Ammonium (NH4-N) Total		Percent	See Permit Note	Composite	
Phosphorus, Total		Percent	See Permit Note	Composite	
Phosphorus, Water Extractable		% of Tot P	See Permit Note	Composite	
Potassium, Total Recoverable		Percent	See Permit Note	Composite	

Changes from Previous Permit:

Clarification language has been added notifying the permittee they must monitor sludge for List 1 metals & List 2 nutrients, and meet the requirements of List 3 (Pathogen Control) and List 4 (Vector Attraction Reduction) prior to landspreading, if they ever discontinue having their sludge hauled and spread by a licensed hauler.

Explanation of Limits and Monitoring Requirements

Requirements for 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.

Note that the addition of sludge monitoring was considered prior to permit reissuance. Because the permittee does not have any industrial contributors and the influent is only from two mobile home parks, it was decided that monitoring was still not necessary prior to the sludge hauled by a contract hauler. Pinewood Properties (formerly Brookview MHP) has their sludge hauled by A-1 Advanced Pumping, who monitors and landspreads it on their fields under their own permit (Influent sample point 711 in permit # WI-0058891-05-01). Pinewood Properties does not ever plan to haul or landspread their own sludge, and the influent is strictly domestic wastewater from the mobile homes, therefore no regular sludge monitoring is required. Language has been included however that requires the permittee monitor the sludge in the rare chance they do decide to landspread their own sludge. This approach is consistent with the nearby Bostwick MHP.

4 Schedules

4.1 Facility Upgrade

Required Action	Due Date
Submit Comprehensive Facility Plan: The permittee shall submit a Comprehensive Facility Plan to the Department for approval in compliance with ch. NR 110 Wis. Adm. Code that addresses all areas of the Wastewater Treatment Facility (WWTF).	03/31/2025
Complete Chemical Feed Upgrade: The permittee shall complete the approved Chemical Feed Upgrades submitted to the Department in July 2024. These upgrades shall be constructed in	04/30/2025

compliance with NR 110 Wis. Adm. Code and include best management practices for chemical storage, ventilation, and operator safety.	
Submit Plan and Specifications for Air Lift Replacement/Other Improvements: The permittee shall submit final construction plans and specifications for approval that address the needed improvements identified in the Comprehensive Facility Plan. These plans and specifications, at minimum, must include replacement of the existing air lift.	03/31/2026
Submit a Construction Upgrade Progress Report: The permittee shall submit a progress report on construction upgrades.	03/31/2027
Complete Construction: The permittee shall complete construction of the Department-approved WWTF upgrades.	09/30/2027

Explanation of Schedule: The leaking Air Lift needs replacement because it affects the process of wasting the activated sludge, thereby leading to poor plant performance. The permittee wishes to replace this process instead of repairing the leaking air lift. The HVAC system in the chemical room does not meet current code requirements per ch. NR 110, Wis. Adm. Code. The permittee has elected to provide additional chemical improvements and these improvements now require a Facility Plan submittal. In the original permit reissuance, there were two separate compliance schedules to address these issues, however they did not provide enough time for submittal of a facility plan to the Department for approval.

Special Reporting Requirements: None

Other Comments:

Publishing Newspaper: La Crosse Tribune, 401 N. Third St., La Crosse, WI 54601-3281

Attachments: Water Quality Based Effluent Limits: January 24, 2023 memo from Benjamin Hartenbower to Holly Heldstab titled "Water Quality-Based Effluent Limitations for Pinewood Properties LLC WPDES Permit No. WI-0030911".

Proposed Expiration Date: March 31, 2028

Justification Of Any Waivers From Permit Application Requirements

N/A

Originally Prepared By: Holly Heldstab, Wastewater Specialist, March 16, 2023

Modified By: Holly Heldstab, Wastewater Specialist, September 10, 2024

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