Wisconsin Dunes LLC Public Noticed Permit Fact Sheet

General Information

Permit Number	WI-0066605-02-0
Permittee	Wisconsin Dunes LLC, 875 N Michigan Ave, Chicago, IL 60611
Permitted Facility	Sand Valley Clubhouse & Lodges, 1697 Leopold Way, Nekoosa, WI 54457
Permit Term	July 01, 2026 to June 30, 2031
Discharge Location	NE1/4, SE1/4, Section 26 T20N R5E, Town of Rome, Adams County, WI
Annual Average Design Flow	Outfall 001: 0.035 million gallons per day (MGD) Outfall 002: 450 gallons per day (gpd)
Receiving Water	the groundwaters of the Wisconsin Rapids Watershed in the Upper Wisconsin River Basin, in Adams County, WI
Industrial or Commercial Contributors	None
Plant Classification	U - Unique Treatment Systems; SS - Sanitary Sewage Collection System
Approved Pretreatment Program?	N/A

Facility Description

Wisconsin Dunes LLC. owns and operates a private on-site wastewater treatment system (POWTS) at the Sand Valley Clubhouse and Lodges facility in Nekoosa, WI. The annual average design flow of the POWTS at Outfall 001 is 0.035 MGD and is 450 gpd at Outfall 002. The permittee estimates that the actual annual average daily discharge at Outfall 001 has been far lower than the design flow however, at approximately 0.0045 MGD. Actual flow rates will be determined in this permit term, as a flow measuring device is to be installed per the associated compliance schedule.

The wastewater treatment system consists of a 38,000 gallon settling (septic) tank to remove heavier solids, followed by a 38,000 gallon equalization tank. From the equalization tank, the wastewater is sent with restricted, timed flow and dosing into the 38,000 gallon advanced pretreatment tank, a Fixed Activated Sludge Treatment (FAST) system for biological, aerobic treatment of the wastewater. From the FAST treatment the wastewater is further treated in a 10,000 gallon polishing tank prior to entering an 18,000 gallon dosing tank, where the wastewater is dispersed out to the seven subsurface soil infiltration zones (aka, drain fields). Final treatment of the wastewater occurs via chemical and biological means as it moves through the soil column. Solids from the septic tanks are removed on a regular basis and hauled by a licensed septage hauler for disposal.

A new restroom building will be constructed near hole no. 3 on the Commons Golf Course and an additional POWTS will be added at that location to provide wastewater treatment. The new POWTS will be an in-ground, gravity type, system that utilizes an 1,100 gallon septic tank and soil absorption field with a design flow of 450 gallons per day. Solids are separated in the septic tanks The new POWTS will be located within 1,500 feet of the existing POWTS serving the Sand Valley Club House and is regulated as Outfall 002 under this permit. Solids from the septic tank will be removed on a regular basis and hauled by a licensed septage hauler for disposal.

Substantial Compliance Determination

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

After a desk top review of all discharge monitoring reports, and a site visit on 7/9/2025, this facility has been found to be in substantial compliance with their current permit.

Compliance determination made by Mike Chang on 07/16/2025.

Sample Point Descriptions

Sample Point Designation		
Sample Point Number	**Discharge Flow, Units, and Averaging Period**	**Sample Point Location, Waste Type/Sample Contents and Treatment Description (as applicable)**
701	Flow is not a required parameter at this outfall	Representative influent samples shall be collected from the settling tank or the next upstream manhole.
001	0.009 MGD2025	Representative effluent samples shall be collected from the dosing tank prior to discharge to the original subsurface soil absorption system (SSAS). Effluent flow shall be measured as the total forward flow dosed to the subsurface soil absorption system as measured by run time meters and event counters.
002	New outfall this permit term	Representative effluent samples shall be collected from the dosing tank prior to discharge to the subsurface soil absorption system (SSAS) at golf course Hole 3. Effluent flow shall be measured as the total forward flow dosed to the subsurface soil absorption system as measured by run time meters and event counters.
990	Flow is not a required parameter at this outfall	All primary solids from the septic tank shall be managed in compliance with chapter NR 113, Wisconsin Administrative Code for Servicing Septic or Holding Tanks, etc.

Permit Requirements

1 Influent – Monitoring Requirements

1.1 Sample Point Number: 701- Influent to Treatment Plant

Monitoring Requirements and Limitations					
Parameter	**Limit Type**	**Limit and Units**	**Sample Frequency**	**Sample Type**	**Notes**
BOD5, Total		mg/L	Quarterly	Grab	
Nitrogen, Organic Total		mg/L	Quarterly	Calculated	

Monitoring Requirements and Limitations					
Parameter	**Limit Type**	**Limit and Units**	**Sample Frequency**	**Sample Type**	**Notes**
Nitrogen, Ammonia (NH3-N) Total		mg/L	Quarterly	Grab	
Nitrogen, Total		mg/L	Quarterly	Calculated	
Solids, Total Dissolved		mg/L	Quarterly	Grab	
Chloride		mg/L	Quarterly	Grab	

Changes from Previous Permit:

Influent 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

Influent monitoring is needed to assess loading to the facility and treatment performance. The required parameters and sampling frequency are appropriate for a land treatment system as outlined in ch NR 206, Wis. Adm. Code.

2 Land Treatment – Monitoring and Limitations

2.1 Sample Point Number: 001- Original Subsurface Absorption System (SSAS) - Drainfield

Monitoring Requirements and Limitations					
Parameter	**Limit Type**	**Limit and Units**	**Sample Frequency**	**Sample Type**	**Notes**
Flow Rate		MGD	Daily	Total Daily	
BOD5, Total		mg/L	Quarterly	Grab	
Nitrogen, Organic Total		mg/L	Quarterly	Calculated	
Nitrogen, Ammonia (NH3-N) Total		mg/L	Quarterly	Grab	
Nitrogen, Total		mg/L	Quarterly	Calculated	
Solids, Total Dissolved		mg/L	Quarterly	Grab	
Chloride		mg/L	Quarterly	Grab	

Changes from Previous Permit:

Effluent limitations and monitoring requirements were evaluated for this permit term and no changes were made from the previous permit:

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. For more information see the July 8, 2025 memo from Woody Myers to file titled "Wisconsin Dunes LLC, Sand Valley Clubhouse and Lodge POWTS - Groundwater Evaluation Report, WPDES Permit # WI-0066605".

2.2 Sample Point Number: 002- New Subsurface Absorption System (SSAS) - Drainfield @ Golf Course Hole 3

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	Quarterly	Grab	
Nitrogen, Organic Total		mg/L	Quarterly	Calculated	
Nitrogen, Ammonia (NH3-N) Total		mg/L	Quarterly	Grab	
Nitrogen, Total		mg/L	Quarterly	Calculated	
Solids, Total Dissolved		mg/L	Quarterly	Grab	
Chloride		mg/L	Quarterly	Grab	

Changes from Previous Permit:

This is a new outfall this permit term to track compliance at the new private onsite wastewater treatment system (POWTS) at Golf Course Hole #3.

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. Although the individual Hole 3 Restroom POWTS is less than 12,000 GPD, it is considered one large POWTS given its proximity to the existing system (see NR 200.03(5)), and therefore, sampling of this discharge is required according to the WPDES permit requirements (see NR 206.09(1)). The system was proposed to the Department via submittal of a design report and facility plan on 12/15/2025. The system was approved by the Department on 02/12/2026.

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: 990- Solids

Changes from Previous Permit:

No changes

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 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 Application Management Plan is required that documents how the permittee will manage the land application of biosolids consistent with ch. NR 204, Wis. Adm. Code.

4.2 Effluent Flow Meter Installation

Required Action	Due Date
Plan Submittal: The permittee shall submit plans for a dedicated flow measuring device. Plans for the monitoring equipment shall comply with chs. NR 108 and NR 218, Wis. Adm. Code.	01/31/2027
Submit Progress Report: The permittee shall submit a progress report on the installation of the new effluent flow measuring device.	06/30/2027
Complete Installation: The permittee shall complete the installation of the effluent flow measuring device in accordance with approved plans. Reporting of effluent flow shall commence as soon as the effluent flow metering device is operational.	10/31/2027

Explanation of Schedule: The purpose of the compliance schedule is to ensure that the permittee complies with the NR 218.05 requirement for measuring flow.

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 withs. 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: The purpose of this compliance schedule is to ensure that the permittee complies with the s. NR 210.23 requirement.

Other Comments

This facility is exempt from operator certification under NR 114.52(22)(a). However, because the facility is an activated sludge system it is recommended the operator be certified.

Attachments

NR 140 Groundwater Evaluation Report: the July 8, 2025 memo from Woody Myers to file titled “Wisconsin Dunes LLC, Sand Valley Clubhouse and Lodge POWTS - Groundwater Evaluation Report, WPDES Permit # WI-0066605”.

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:** 05/13/2026

CORRESPONDENCE/MEMORANDUM

State of Wisconsin

DATE: July 8, 2025

TO: File

FROM: Woody Myers - WCR

SUBJECT: Wisconsin Dunes LLC, Sand Valley Clubhouse and Lodge POWTS - Groundwater Evaluation Report, WPDES Permit # WI-0066605

Site Information

The Wisconsin Dunes LLC Sand Valley Clubhouse and Lodge private onsite water treatment system (POWTS) is located at 1697 Leopold Way, Nekoosa, Adams County. This is a private business that discharges domestic wastewater to a POWTS. Wastewater is currently discharged to groundwater via infiltration by a sub-surface land treatment system located in the NE ¼ of the SE ¼ of Section 26, T20N, R5E, Town of Rome.

Land Disposal Effluent & Groundwater Evaluation Summary

Table 1 Land Treatment Effluent Parameters and Limits
Outfall 001 Subsurface System

	Current Permit WI-0066605-02		Proposed Permit WI-0066605-02	
Parameter	Limits and Units	Limit Type	Limits and Units	Limit Type
Flow Rate	- MGD		- MGD	
BOD_5	- mg/l		- mg/l	
Nitrogen, Organic	- mg/l		- mg/l	
Nitrogen, Ammonia	- mg/l		- mg/l	
Nitrogen, Total	- mg/l		- mg/l	
Total Dissolved Solids	- mg/l		- mg/l	
Chloride	- mg/l		- mg/l	

No Proposed permit changes

Geology

The bedrock under this facility is the undivided Trempealeau, Tunnel City and Elk Mound Groups. The Trempealeau Group includes the Jordan and St. Lawrence Formations, the Tunnel City Group includes the Lone Rock Formation, and the Elk Mound Group includes the Wonewoc, Eau Claire and Mount Simon Formations. These groups are comprised of sandstone with minor occurrences of dolomite (*Bedrock Geologic Map of Wisconsin*, Wisconsin Geological and Natural History Survey (WGNHS), 1982). Bedrock is anticipated to be near or greater than 100 feet below ground surface (bgs)(*Depth to Bedrock in Wisconsin,* WGNHS, 1973). Surface soil primarily consists of the Plainfield sand (USDA NRCS Web Soil Survey).

Hydrogeology

Region groundwater is predominantly to the west northwest in this area of Adams County (*Water Table Elevation, Irrigable Lands Inventory*, Map WGNHS, 1981). The site is a little over two miles east of Petenwell Lake. There are 3 wells (municipal, other than municipal, private and high-capacity) within a

1,500-foot range of this facility's groundwater discharge. There are multiple wells used for drinking water directly adjacent to this facility.

Land Treatment Loading Rates

The following table is the average total nitrogen, BOD_5 and chloride loading summations for the Land Treatment System.

Averages			
Year	**Nitrogen (mg/l)**	**BOD_5 (mg/l)**	**Chloride (mg/l)**
2025#	15.2	16.0	38
2024	23.7	41.7	37
2023	23.8	19.3	44
2022	46.2	85.3	90

# Indicates partial year

Proposed Groundwater Monitoring Requirements

Groundwater Monitoring systems are required for municipal and industrial wastewater discharges if the daily volume is equal to or greater to 15,000 gallons per day. It is uncertain if the facility exceeded the 15,000 gallons per day threshold.

Conclusions

The facility is aware and taking action to get consistent flow measurements into the subsurface (land treatment) system. It is anticipated that the flow has been over calculated, and the actual flow is less. Until a more accurate flow can be calculated with confidence, the department is not going to require a groundwater monitoring system at this time.