# Permit Fact Sheet

## General Information

| | |
|---|---|
| Permit Number | WI-0021393-10-0 |
| Permittee Name and Address | Village of Stockbridge<br>PO Box 203, Stockbridge, WI 53088 |
| Permitted Facility Name and Address | Stockbridge Wastewater Treatment Facility<br>625 W Lake St, Stockbridge, WI 53088 |
| Permit Term | January 01, 2027 to December 31, 2031 |
| Discharge Location | The tributary to Mud Creek on the Lake Winnebago East Watershed of the upper Fox River Basin in Calumet County; N 44° 04.212' W 088° 18.511' |
| Receiving Water | Mud Creek in Lake Winnebago - East Watershed of Upper Fox River Basin in Calumet County |
| Stream Flow ($Q_{7,10}$) | 0 cfs |
| Stream Classification | Limited Aquatic Life (LAL) |
| Discharge Type | Existing, Continuous |
| Annual Average Design Flow (MGD) | 0.072 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

A conventional gravity sewer system with five remote lift stations collects wastewater from throughout the Village of Stockbridge. At the treatment plant site, raw wastewater first flows through a wet well with a new mechanical fine screening It is then pumped to two fine bubble aeration tanks and piping allows either of these tanks to be bypassed. Alum is added to the second aeration basin. Mixed liquor is then sent to a circular final clarifier for solids separation and phosphorus removal. Clarified effluent flows to a former chlorine contact tank. Effluent is then sent to the Mud Creek tributary via a 12-inch diameter outfall pipe. A portion of the sludge from the clarifier is returned to the aeration tanks, and the remainder is sent to the sludge digester and new storage tank for land application.

## Substantial Compliance Determination

After a desk top review of all discharge monitoring reports, compliance maintenance annual reports, land application reports, compliance schedule items, and a site visit on August 8, 2023, this facility has been found to be in substantial compliance with their current permit.

**Compliance determination made by Trevor Moen, Compliance Engineer on August 11, 2023.**

# 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 | 0.06 MGD (2025) | INFLUENT: Representative 24-hour flow proportional composite samples shall be collected from the influent wet well trough after the fine screen. Flow shall be measured with a magnetic flow meter after the influent pumps. |
| 001 | 0.05 MGD (2025) | EFFLUENT: Representative 24-hour flow proportional composite samples shall be taken from the outfall to the clarifier, grab samples shall be taken after disinfection (once installed) and the V-notch weir. Flow shall be measured with the ultrasonic level transmitter prior to the pipe that flows to the outfall. |
| 004 | 2 metric tons (2025) | LAND APPLICATION: Class B liquid sludge from the treatment of waste activated sludge that is aerobically digested. The permittee shall collect representative grab and/or composite samples of the liquid sludge from sludge storage tank after complete mixing and be monitored annually for metals (List 1) and PFAS regardless if the liquid sludge will be land applied or not each year . If the permittee intends to land apply the liquid sludge to department approved sites in any given year, the permittee shall also monitor the liquid sludge annually for Lists 2, 3, 4 and Radium-226 prior to being land applied on department approved sites via Outfall 004. |

# 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 no changes were required in this permit section.

### 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 | |
| BOD5, Total | Weekly Avg | 30 mg/L | 3/Week | 24-Hr Flow Prop Comp | |
| BOD5, 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 | 22.8 lbs/day | 3/Week | Calculated | |
| Suspended Solids, Total | Monthly Avg | 16.2 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 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 section. |
| pH Field | Daily Max | 9.0 su | Daily | Grab | |
| pH Field | Daily Min | 6.0 su | Daily | Grab | |

| Monitoring Requirements and Limitations | | | | | |
|---|---|---|---|---|---|
| **Parameter** | **Limit Type** | **Limit and Units** | **Sample Frequency** | **Sample Type** | **Notes** |
| Dissolved Oxygen | Daily Min | 4.0 mg/L | Daily | Grab | |
| E. coli | Geometric Mean - Monthly | 126 #/100 ml | Weekly | Grab | Monitoring and limit effective May through September annually per the Effluent Limitations for E. coli Schedule. |
| E. coli | % Exceedance | 410 Percent | Monthly | Calculated | Monitoring and limit effective May through September annually per the Effluent Limitations for E. coli Schedule. See the E. coli Percent Limit section below. Enter the result in the DMR on the last day of the month. |
| Chloride | | mg/L | Monthly | 24-Hr Flow Prop Comp | Monitoring in 2028. |
| Nitrogen, Ammonia Variable Limit | | mg/L | 3/Week | See Table | |
| Nitrogen, Ammonia (NH3-N) Total | Daily Max - Variable | mg/L | 3/Week | 24-Hr Flow Prop Comp | |
| Nitrogen, Ammonia (NH3-N) Total | Weekly Avg | 30 mg/L | 3/Week | 24-Hr Flow Prop Comp | November - March. |
| Nitrogen, Ammonia (NH3-N) Total | Weekly Avg | 6.8 mg/L | 3/Week | 24-Hr Flow Prop Comp | April. |
| Nitrogen, Ammonia (NH3-N) Total | Weekly Avg | 18 mg/L | 3/Week | 24-Hr Flow Prop Comp | May - October. |
| Nitrogen, Ammonia (NH3-N) Total | Monthly Avg | 12 mg/L | 3/Week | 24-Hr Flow Prop Comp | November - March. |
| Nitrogen, Ammonia (NH3-N) Total | Monthly Avg | 2.7 mg/L | 3/Week | 24-Hr Flow Prop Comp | April. |
| Nitrogen, Ammonia (NH3-N) Total | Monthly Avg | 7.2 mg/L | 3/Week | 24-Hr Flow Prop Comp | May - October. |
| Phosphorus, Total | | mg/L | Weekly | 24-Hr Flow Prop Comp | |
| Phosphorus, Total | Monthly Avg | 0.606 lbs/day | Weekly | Calculated | |
| Phosphorus, Total | 6-Month Avg | 0.202 lbs/day | Weekly | Calculated | |
| Phosphorus, Total | | lbs/month | Monthly | Calculated | Calculate the Total Monthly Discharge of |

| Monitoring Requirements and Limitations | | | | | |
|---|---|---|---|---|---|
| **Parameter** | **Limit Type** | **Limit and Units** | **Sample Frequency** | **Sample Type** | **Notes** |
| | | | | | phosphorus and report on the last day of the month on the DMR. See TMDL Calculations section. |
| Phosphorus, Total | | lbs/yr | Monthly | Calculated | Calculate the 12-month rolling sum of total monthly mass of phosphorus discharged and report on the last day of the month on the DMR. See TMDL Calculations section. |
| Nitrogen, Total Kjeldahl | | mg/L | See Listed Qtr(s) | 24-Hr Flow Prop Comp | Annual in rotating quarters. See Nitrogen Series Monitoring section. |
| Nitrogen, Nitrite + Nitrate Total | | mg/L | See Listed Qtr(s) | 24-Hr Flow Prop Comp | Annual in rotating quarters. See Nitrogen Series Monitoring section. |
| Nitrogen, Total | | mg/L | See Listed Qtr(s) | Calculated | Annual in rotating quarters. See Nitrogen Series Monitoring section. Total Nitrogen shall be calculated as the sum of reported values for Total Kjeldahl Nitrogen and Total Nitrite + Nitrate Nitrogen. |
| Chronic WET | Monthly Avg | 1.0 TUc | See Listed Qtr(s) | 24-Hr Flow Prop Comp | |

### 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.

- **Dissolved Oxygen –** Sample frequency changed from "3/Week" to "Daily".
- **Chloride –** Monthly monitoring added in 2028.
- **E. coli-** At the end of the compliance schedule, 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. Monitoring is not required until the limit becomes effective at the end of the compliance schedule.
- **Total Nitrogen Monitoring (TKN, N02+N03 and Total N)**- Annual monitoring is required in specific quarters as outlined in the permit.
- **Chronic WET** – Annual chronic WET testing has been added to the permit.

### 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 dated September 21, 2026.

**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 frequency for dissolved oxygen was updated due to the size of the treatment plant and sample frequency recommendations.

**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 and monthly average limits whenever practicable.

**Chloride –** Monthly monitoring in 2028 added in order to ensure that sufficient sample results are available at the next permit issuance to meet the data requirements of s. NR 106.85, Wis. Adm. Code.

**Disinfection & 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 following months May – September. See WQBEL for further explanation.

**Total Residual Chlorine –** If the wastewater treatment facility decides to use chlorination for disinfection, effluent limitations would be recommended to ensure proper operation of the dechlorination system and would become effective April 30, 2031 with the E. coli limitations. See the WQBEL for limits and more information.

**Total Nitrogen Monitoring (NO2+NO3, TKN and Total N):** The Department has included effluent monitoring for Total Nitrogen in the permit through the authority under §§ 283.55(1)(e), Wis. Stats., which allows the department to require the permittee to submit information necessary to identify the type and quantity of any pollutants discharged from the point source, and through s. NR 200.065(1)(h), Wis. Adm. Code, which allows for this monitoring to be collected during the permit term. More information on the justification to include total nitrogen monitoring in wastewater permits can be found in the "Guidance for Total Nitrogen Monitoring in Wastewater Permits" dated October 1, 2019. Annual tests are scheduled in the following rotating quarters: July – September 2027; October – December 2028; January – March 2029; April – June 2030; July – September 2031.

**Chronic WET –** After consideration of the guidance provided in the Department's WET Program Guidance Document (2022) and other information described above, annual chronic WET tests are recommended in the reissued permit. Sampling WET concurrently with any chemical-specific toxic substances is recommended. Tests should be done in rotating quarters, to collect seasonal information about this discharge. Testing should continue after the permit expiration date (until the permit is reissued).

# 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) |
|---|---|---|---|---|---|---|
| 004 | B | Liquid | Fecal Coliform | Injection and incorporation | Land applied or hauled | 2 metric 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? **Yes.**<br><br>If yes, special monitoring and recycling conditions will be included in the permit to track any potential problems in landapplying sludge from this facility | | | | | | |
| Is a priority pollutant scan required? **No.** | | | | | | |

## 3.1 Sample Point Number: 004- LAND APPLICATION

| 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 | |
| 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 | |

| Monitoring Requirements and Limitations | | | | | |
|---|---|---|---|---|---|
| **Parameter** | **Limit Type** | **Limit and Units** | **Sample Frequency** | **Sample Type** | **Notes** |
| Zinc Dry Wt | High Quality | 2,800 mg/kg | Annual | Composite | |
| Radium 226 Dry Wt | | pCi/g | Annual | Composite | |
| Nitrogen, Total Kjeldahl | | Percent | Annual | Composite | |
| Nitrogen, Ammonium (NH4-N) Total | | Percent | Annual | Composite | |
| Phosphorus, Water Extractable | | % of Tot P | Annual | Composite | |
| Phosphorus, Total | | Percent | Annual | Composite | |
| Potassium, Total Recoverable | | Percent | Annual | Composite | |
| 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), Wis. Adm. Code for vector attraction requirements. Limitations for PCBs are addressed in s. NR 204.07(3)(k), Wis. Adm. Code. Radium requirements are addressed in s. NR 204.07(3)(n), Wis. Adm. Code.

**PFAS-** The presence and fate of PFAS in municipal and industrial sludges is an emerging public health concern. EPA has developed a draft risk assessment to determine future land application rates and released this risk assessment in January of 2025. The department is evaluating this new information. Until a decision is made, the "Interim Strategy for Land Application of Biosolids and Industrial Sludges Containing PFAS" should be followed

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 Disinfection and Effluent Limitations for E. coli

| Required Action | Due Date |
|---|---|
| **Progress Report:** The permittee shall submit a progress report on development and submittal of a facility plan for upgrades to meet disinfection requirements and E. coli limits. | 09/30/2027 |
| **Submit Facility Plan:** The permittee shall submit a Facility Plan per s. NR 110.09, Wis. Adm. Code for meeting disinfection requirements and complying with E. coli surface water limitations. The permittee may submit an abbreviated facility plan if the Department determines that the modifications are minor. | 04/30/2028 |
| **Final Plans and Specifications:** The permittee shall submit final construction plans to the Department for approval pursuant to ch. NR 108, Wis. Adm. Code, specifying treatment plant upgrades that must be constructed to meet disinfection requirements per s. NR 210.06(1), Wis. Adm Code, achieve compliance with final E. coli limitations, and a schedule for completing construction of the upgrades by the complete construction date specified below. | 03/31/2029 |
| **Treatment Plant Upgrade to Meet Limitations:** The permittee shall initiate bidding, procurement, and/or construction of the project. The permittee shall 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 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. | 09/30/2029 |
| **Construction Upgrade Progress Report:** The permittee shall submit a progress report on construction upgrades. | 09/30/2030 |
| **Complete Construction:** The permittee shall complete construction of wastewater treatment system upgrades. | 03/31/2031 |
| **Achieve Compliance:** The permittee shall achieve compliance with final E. coli limitations. | 04/30/2031 |

### 4.1.1 Explanation of Schedule

A compliance schedule is included in the permit to provide time for the permittee to submit plans and specs and install disinfection treatment for meeting effluent E. coli water quality-based effluent limits and disinfection requirements pursuant s. NR 210.06, Wis. Adm. Code.

## 4.2 Land Application Management Plan

A management plan is required for the land application system.

| Required Action | Due Date |
|---|---|
| **Land Application Management Plan Submittal:** Submit an update to the management plan to optimize the land application system performance and demonstrate compliance with ch. NR 204, | 01/01/2028 |

| | |
|---|---|
| Wis. Adm. Code, by the Due Date. This management plan shall 1) specify information on pretreatment processes (if any); 2) identify land application sites; 3) describe site limitations; 4) address vegetative cover management and removal; 5) specify availability of storage; 6) describe the type of transporting and spreading vehicle(s); 7) specify monitoring procedures; 8) track site loading; 9) address contingency plans for adverse weather and odor/nuisance abatement; and 10) include any other pertinent information. Once approved, all landspreading activities shall be conducted in accordance with the plan. Any changes to the plan must be approved by the Department prior to implementing the changes. | |

### 4.2.1 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.

# Attachments

Water Quality Based Effluent Limitations for Stockbridge Wastewater Treatment Facility WPDES Permit No. WI-0021393-10

# Justification Of Any Waivers From Permit Application Requirements

No waivers requested or granted as part of this permit reissuance

**Prepared By:** Ashley Clark, Wastewater Specialist

**Date:** October 15, 2026