

Wilton Modified Permit #2 Fact Sheet

General Information

Permit Number:	WI-0022462-10-02	
Permittee Name:	Village of Wilton	
Address:	400 East St, Suite 103	
City/State/Zip:	Wilton WI 54670	
Discharge Location:	NE ¼ of NE ¼ of Section 6, T15N, R1W – Lat: 43.81062° N / Lon: 90.53553°W. The discharge is to the east bank of the Kickapoo River approximately 800 linear feet south of State Highway 71 and approximately 1000 linear feet west of State Highway 131.	
Receiving Water:	The Kickapoo River in the Upper Kickapoo River Watershed of the Lower Wisconsin River Basin in Monroe County	
Stream Flow (Q _{7,10}):	4.9 cfs	
Stream Classification:	Warm Water Sport Fish, Non-public Water Supply	
Design Flow	Annual Average	0.057 MGD
Significant Industrial Loading?	No industries.	
Operator at Proper Grade?	Yes. This is a Basic facility with required subclasses: A4 – Ponds, Lagoons and Natural Systems; D – disinfection; and SS – Sanitary Sewage Collection System. OIC fully certified.	
Approved Pretreatment Program?	N/A	

Facility Description

The Wilton Wastewater Treatment Facility treats domestic wastewater from the Village of Wilton. The annual average design flow is 0.057 MGD and the actual annual average effluent flow Jan 2023 – May 2024 was 0.029 MGD. Treatment consists of an aerated lagoon system with vertical screening device, two lagoon cells (2 aerated), and chlorination/dechlorination for disinfection. Discharge occurs on a seasonally intermittent fill-and-draw basis.

The permit was first modified 05/01/2022 to correct the sample frequency & type for the *E. coli* “Geometric mean-monthly” parameter at Outfall 001. The sample frequency was corrected from monthly to weekly and the sample type was corrected from “calculated” to “grab”. Note that the permit was originally reissued 12/27/2021 with the wrong sample type and frequency for the *E. coli* parameter with the limit of “% Exceedance”. Phillip Spranger corrected this error with a typographical error letter on 03/29/2022 (also corrected in that letter was the effective date of the permit.) However, at that time, he changed the “Geometric mean-monthly” *E. coli* parameter so that it had the wrong sample type and frequency.

Reason for permit modification #2: This permit modification adds the monitoring requirements necessary for the permittee to desludge the lagoons and land apply the sludge on Department approved fields. This includes the addition of List 1, 2, 3 and 4 monitoring requirements needed prior to land application, as well as PFAS sludge monitoring. PFAS sludge sampling has been included in the permit to quantitate the risk pursuant to ss. NR 214.18(5)(b) and NR 204.06(2)(b)9., Wis. Adm. Code. A schedule has also been included that requires the permittee submit a land application management plan prior to land application. Any standard language updates since the 2020 reissuance have also been incorporated into the Standard Requirements Section 5 of the permit.

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	0.033 MGD 01/01/2023 – 5/31/2024	Representative influent samples shall be collected at the headworks of the lagoon system at the control building.
001	0.029 MGD 01/01/2023 – 5/31/2024	Representative effluent samples shall be collected prior to discharge to the Kickapoo River. Samples for fecal coliform and residual chlorine shall be collected at the dechlorination manhole.
002	Sludge from lagoon cells 1 and 2 was last removed May 15, 2002. Sludge from cell 3 was removed in 2023 and landspread using a department approved contractor. The permittee intends to desludge in fall of 2024 and would like the option to land apply if needed.	Representative composite sludge samples shall be monitored for the parameters as listed in the table below. If the permittee plans to remove sludge, they shall monitor sludge for Lists 1, 2, 3 & 4 and PFAS prior to land application. The Department shall be notified at least 30 days in advance of sludge removal so that appropriate monitoring forms can be provided. Approval of landspreading sites must be completed prior to sludge removal.

SUBSTANTIAL COMPLIANCE DETERMINATION – OVERALL

	Compliance	Comments
Discharge Limits	Yes	
Sampling/testing requirements	Yes	
Groundwater standards	N/A	
Reporting requirements	Yes	
Compliance schedules	Yes	
Other:	N/A	
Enforcement considerations	N/A	
In substantial compliance? Yes	Name: Peter Pfefferkorn	Date: March 23, 2021

SUBSTANTIAL COMPLIANCE DETERMINATION – LAND APPLICATION

	Compliance	Comments
Discharge Limits	N/A	No discharge
Sampling/testing requirements	Yes	
Groundwater standards	N/A	
Reporting requirements	Yes	
Compliance schedules	N/A	
Other:	N/A	
Enforcement considerations	None	
In substantial compliance? Yes	Name: Leanne Hinke	Date: March 18, 2021

1 Influent - Monitoring

Sample Point Number: 701- INFLUENT TO PLANT

Monitoring Requirements and Limitations					
Parameter	Limit Type	Limit and Units	Sample Frequency	Sample Type	Notes
Flow Rate		MGD	Continuous	Continuous	
CBOD ₅		mg/L	Weekly	24-Hr Flow Prop Comp	
BOD ₅ , Total		mg/L	Monthly	24-Hr Flow Prop Comp	
Suspended Solids, Total		mg/L	Weekly	24-Hr Flow Prop Comp	

Changes from Previous Permit:

CBOD₅ influent monitoring required. BOD₅ monitoring frequency reduced from weekly to monthly.

Explanation of Limits and Monitoring Requirements

Pursuant to s. NR 210.04(2), Wis. Adm. Code, influent wastewater strengths and volumes shall be characterized by monitoring for flow, BOD₅ and total suspended solids (TSS). Pursuant to s. NR 210.07(4), the permittee has requested that CBOD₅ effluent limitations be substituted for BOD₅ effluent limitations. Therefore, CBOD₅ influent monitoring is required to demonstrate the CBOD₅ percent removal requirement in s. NR 210.05(1)(d)3. Influent BOD₅ monitoring is also required because it is an important operational parameter and is required for the permittee to complete Compliance Maintenance Annual Reports (CMARs).

2 Surface Water - Monitoring and Limitations

Sample Point Number: 001- EFFLUENT TO KICKAPOO RIVER

Monitoring Requirements and Limitations					
Parameter	Limit Type	Limit and Units	Sample Frequency	Sample Type	Notes
Flow Rate		MGD	Daily	Total Daily	
CBOD ₅	Weekly Avg	40 mg/L	2/Week	24-Hr Flow Prop Comp	
CBOD ₅	Monthly Avg	25 mg/L	2/Week	24-Hr Flow Prop Comp	
Suspended Solids, Total	Monthly Avg	60 mg/L	2/Week	24-Hr Flow Prop Comp	
pH Field	Daily Min	6.0 su	Daily	Grab	
pH Field	Daily Max	9.0 su	Daily	Grab	
Chlorine, Total Residual	Daily Max	38 ug/L	Daily	Grab	Limit and monitoring apply May 1 through September 30 annually.
Chlorine, Total Residual	Weekly Avg	38 ug/L	Daily	Grab	Limit and monitoring apply May 1 through September 30 annually.
Chlorine, Total Residual	Monthly Avg	38 ug/L	Daily	Grab	Limit and monitoring apply May 1 through September 30 annually.
Fecal Coliform	Geometric Mean - Monthly	400 #/100 ml	Weekly	Grab	Interim limit effective May through September annually until the final E. coli limit goes into effect per the Effluent Limitations for E. coli Schedule.
E. coli		#/100 ml	Weekly	Grab	Monitoring only May through September annually until the final limit goes into effect per the Effluent Limitations for E. coli Schedule.
E. coli	Geometric Mean - Monthly	126 #/100 ml	Weekly	Grab	Limit Effective May through September annually per the Effluent Limitations for E. coli Schedule.

Monitoring Requirements and Limitations					
Parameter	Limit Type	Limit and Units	Sample Frequency	Sample Type	Notes
E. coli	% Exceedance	10 Percent	Monthly	Calculated	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.
Nitrogen, Ammonia Variable Limit		mg/L	2/Week	See Table	Using the daily effluent pH result, look up the daily maximum variable ammonia limit from the pH dependent table at section 2.2.1.3. Report the variable limit in the Nitrogen, Ammonia Variable Limit column of the eDMR.
Nitrogen, Ammonia (NH3-N) Total	Daily Max - Variable	mg/L	2/Week	24-Hr Flow Prop Comp	Daily maximum ammonia limits go into effect April 1, 2024. Report the daily Ammonia result in the Nitrogen, Ammonia (NH3-N) Total column of the eDMR. Compare to daily maximum variable ammonia limit to determine compliance.
Nitrogen, Ammonia (NH3-N) Total	Weekly Avg	108 mg/L	2/Week	24-Hr Flow Prop Comp	
Nitrogen, Ammonia (NH3-N) Total	Monthly Avg	62 mg/L	2/Week	24-Hr Flow Prop Comp	Limit in effect May 1 through September 30 annually.
Nitrogen, Ammonia (NH3-N) Total	Monthly Avg	78 mg/L	2/Week	24-Hr Flow Prop Comp	Limit in effect January 1 through April 30 and October 1 through December 31 annually.
Phosphorus, Total	Monthly Avg	8.8 mg/L	2/Week	24-Hr Flow Prop Comp	This is an interim limit in effect throughout the permit term. See section 2.2.1.4 for Phosphorus Variance

Monitoring Requirements and Limitations					
Parameter	Limit Type	Limit and Units	Sample Frequency	Sample Type	Notes
					information and 4.2 for the Phosphorus Schedule.
Phosphorus, Total		lbs/day	2/Week	Calculated	Calculate the daily mass discharge of phosphorus on the same days phosphorus sampling occurs. Mass (lbs/day) = Concentration (mg/L) x Flow (MGD) x 8.34.
Acute WET		TUa	See Listed Qtr(s)	Grab	See section 2.2.1.5 for Whole Effluent Toxicity (WET) testing dates and WET requirements.
Nitrogen, Total Kjeldahl		mg/L	See Listed Qtr(s)	24-Hr Flow Prop Comp	Annual in rotating quarters. See section 2.2.1.5 for Nitrogen Series Monitoring requirements and test schedule.
Nitrogen, Nitrite + Nitrate Total		mg/L	See Listed Qtr(s)	24-Hr Flow Prop Comp	Annual in rotating quarters. See section 2.2.1.5 for Nitrogen Series Monitoring requirements and test schedule.
Nitrogen, Total		mg/L	See Listed Qtr(s)	Calculated	Annual in rotating quarters. See section 2.2.1.5 for Nitrogen Series Monitoring requirements and test schedule. Total Nitrogen shall be calculated as the sum of reported values for Total Kjeldahl Nitrogen and Total Nitrite + Nitrate Nitrogen.

Changes from Previous Permit

The sample type for CBOD₅, TSS, Ammonia Nitrogen, Total Phosphorus, Total Kjeldahl Nitrogen and Total Nitrite + Nitrate Nitrogen has been changed from “Grab” to “24-Hr Flow Prop Comp”. Weekly and monthly average total residual chloring limits of 38 ug/L have been added and apply during the required disinfection season from May 1 through September 30 annually. Fecal coliform monitoring and limits have been replaced with *Escherichia coli* (*E. coli*) monitoring and limits. *E. coli* monitoring is required at the permit effective date. An interim fecal coliform limit of 400 #/100 ml as a monthly geometric mean applies from the permit effective date through the end of a compliance schedule. At the end of the compliance schedule, *E. coli* limits of 126 #/100 ml as a monthly geometric mean 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. The table of Variable Daily Maximum Ammonia Limits based on effluent pH has been expanded to cover daily maximum ammonia limits across the full range of allowable pH values (6.0 s.u. to 9.0 s.u.). An ammonia compliance schedule has been included to provide time for the permittee to upgrade its treatment facility and meet the more stringent daily maximum ammonia limits by April 1, 2024. The following ammonia limits have been added to the permit: 108 mg/L as a weekly average year-round; 62 mg/L as a monthly average for May through September; and 78 mg/L as a monthly average January through April and October through December annually. The permittee has applied for a variance from the water quality standard for phosphorus pursuant to s. 283.15, Wis. Stats. The interim phosphorus limit of 14 mg/L in the current permit has been replaced with a variance interim limit of 8.8 mg/L. This variance request was approved by EPA on 10/04/2021. Annual monitoring in rotating quarters is required for the total nitrogen parameters Total Kjeldahl Nitrogen, Nitrite + Nitrate Nitrogen and Total Nitrogen.

Explanation of Limits and Monitoring Requirements

Refer to the WQBEL memos for the detailed calculations, prepared by the Water Quality Bureau dated November 5, 2019 and May 1, 2020 (E. coli Addendum) used for this reissuance.

Categorical Limits

CBODs, Total Suspended Solids (TSS) and pH – Section NR 210.05(1), Wis. Adm. Code, establishes categorical effluent limitations for CBODs, TSS and pH for receiving waters classified as fish and aquatic life in s. NR 102.04(3). Pursuant to s. NR 210.07(2), Wilton has been granted a variance for TSS for aerated lagoons and stabilization ponds and a monthly average TSS limit of 60 mg/L is included in the permit.

Water Quality Based Limits and WET Requirements and Disinfection

Disinfection/Chlorine – Wilton is required to disinfect its effluent to the Kickapoo River from May 1 through September 30 annually to protect recreational uses and uses a chlorination process followed by dechlorination with sodium bisulfite. Daily monitoring for total residual chlorine is required to assure proper operation of the dechlorination process. The calculated water quality based effluent limitation for total residual chlorine is 38 ug/L as a daily maximum. In order to comply with the expression of limits requirements in ss. NR 106.07 and NR 205.065(7), weekly average and monthly average limitations are also required and are set equal to the daily maximum chlorine limit of 38 ug/L.

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. 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 establishes effluent limitations for *E. coli* enumerated 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.

E. coli monitoring is required at the permit effective date. An interim fecal coliform limit of 400 #/100 ml as a monthly geometric mean will apply from the permit effective date through the end of the “Effluent Limitations for *E. coli*” Schedule included in this permit. At the end of the compliance schedule, *E. coli* limits of 126 #/100 ml as a monthly geometric mean 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.

Ammonia – Current acute and chronic ammonia toxicity criteria for the protection of aquatic life are included in Tables 2C and 4B of ch. NR 105, Wis. Adm. Code. Subchapter IV of ch. NR 106 establishes the procedure for calculating water quality based effluent limitations (WQBELs) for ammonia. Wilton’s permit will continue to have daily maximum ammonia limits that vary with effluent pH. However, the variable daily maximum ammonia limits table has been expanded to include ammonia limits throughout the allowed pH range of 6.0 s.u. through 9.0 s.u. (corresponding to limits from 108 mg/L to 2.6 mg/L, respectively), which may be more stringent than the daily maximum ammonia limits required

in the current permit. The permit includes a compliance schedule that provides Wilton time to upgrade the lagoon treatment system to comply with the limit and requires compliance with the more stringent daily maximum ammonia limitations by April 1, 2024. Wilton's current permit does not include weekly or monthly average ammonia limits because the calculated ammonia limits were well over effluent ammonia concentrations. However, revisions to ss. NR 106.07 and NR 205.065(7), Wis. Adm. Code, regarding the expression of limits in WPDES permits require that if there is a daily maximum limit for a parameter the reissued permit shall also include weekly and monthly average limits for that parameter that are set equal to the daily maximum limit. Since the permit includes daily maximum ammonia limits that vary with effluent pH, monthly and weekly average ammonia limits are set equal to the highest recommended daily maximum limit of 108 mg/L unless more stringent limits are determined necessary. The calculated weekly average ammonia limits of 78 mg/L for the months of January through April and October through December annually and 62 mg/L for the months of May through September annually are more stringent (less) than 108 mg/L and are included in the permit. Calculated monthly average ammonia limits are less stringent (higher) than 108 mg/L so monthly average limits are set equal to 108 mg/L and will apply year-round.

Phosphorus – Phosphorus requirements are based on the Phosphorus Rules that became effective December 1, 2010 as detailed in chs. 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. 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. The calculated total phosphorus WQBELs are 0.075 mg/L (0.036 lbs/day) 6-month seasonal averages and 0.225 mg/L monthly average. However, Wilton applied for and was approved for an individual phosphorus variance in accordance with s. 283.15, Wis. Stats. Conditions for this variance include the following: 1) maintaining phosphorus effluent concentrations below the interim monthly average limit of 8.8 mg/L, 2) implement a phosphorus pollutant minimization program plan, 3) optimize control of phosphorus, and 4) calculate, report and track phosphorus mass discharge. The U.S. EPA approved this variance on 10/04/2021.

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 October 2019. (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>). Two acute WET tests are required during the permit term during the following calendar quarters: 3rd quarter (July – Sep) 2023 and 4th quarter (Oct – Dec) 2025.

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 s. 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. Annual effluent monitoring for Total Nitrogen in rotating quarters to collect seasonal information about this discharge is included in the permit because of the potential for higher nitrogen loading resulting from higher flows (major facilities), higher concentrations, or both. 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. Nitrogen series monitoring is required in the following calendar quarters: 2nd quarter (April – June) 2022; 3rd quarter (July – Sep) 2023; 4th quarter (Oct – Dec) 2024; 3rd quarter (July – Sep) 2025; and 1st quarter (Jan – March) 2026.

Chloride – Acute and chronic chloride toxicity criteria for the protection of aquatic life are included in Tables 1 and 5 of ch. NR 105, Wis. Adm. Code. Subchapter VII of ch. NR 106 establishes the procedure for calculating water quality based effluent limitations (WQBELs) for chloride. The mean effluent concentration of four chloride samples submitted with the permit application is 175 mg/L, which is less than 1/5 of the calculated acute and chronic chloride limits, so no chloride limits are recommended for the reissued permit.

Mercury – Requirements for mercury are included in s. NR 106.145, Wis. Adm. Code. Wilton is a minor municipal discharger and has not had two or more exceedances of the high quality sludge mercury concentration of 17 mg/kg in the last five years so mercury monitoring and limits are not required.

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° F and the Fish and Aquatic Life criteria which are established to protect aquatic communities from lethal and sub-lethal thermal effects. Wilton has not collected effluent temperature data; however, temperature data from two other publicly owned treatment works within a 100-mile radius that utilize similar wastewater treatment technology and have a similar ratio of domestic to industrial waste stream composition is available. These data indicate that it is unlikely that effluent temperatures from Wilton’s treatment facility would exceed the most stringent (lowest) weekly average temperature limitation of 83° F. Also, there is no reasonable potential for the discharge from an aerated lagoons treatment system such as Wilton’s to exceed the daily maximum temperature limitation of 120°F.

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 Application	Sludge from lagoon cells 1 and 2 was last removed May 15, 2002. Sludge from cell 3 was removed in 2023 and landspread using a department approved contractor. The permittee intends to desludge in fall of 2024 and would like the option to land apply if needed.
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. Design flow is less than 5 MGD and there are no industrial contributors.						

Sample Point Number: 002- LAGOON SLUDGE

Monitoring Requirements and Limitations					
Parameter	Limit Type	Limit and Units	Sample Frequency	Sample Type	Notes
Solids, Total		Percent	Per Application	Composite	
Arsenic Dry Wt	Ceiling	75 mg/kg	Per Application	Composite	
Arsenic Dry Wt	High Quality	41 mg/kg	Per Application	Composite	
Cadmium Dry Wt	Ceiling	85 mg/kg	Per Application	Composite	

Monitoring Requirements and Limitations					
Parameter	Limit Type	Limit and Units	Sample Frequency	Sample Type	Notes
Cadmium Dry Wt	High Quality	39 mg/kg	Per Application	Composite	
Copper Dry Wt	Ceiling	4,300 mg/kg	Per Application	Composite	
Copper Dry Wt	High Quality	1,500 mg/kg	Per Application	Composite	
Lead Dry Wt	Ceiling	840 mg/kg	Per Application	Composite	
Lead Dry Wt	High Quality	300 mg/kg	Per Application	Composite	
Mercury Dry Wt	Ceiling	57 mg/kg	Per Application	Composite	
Mercury Dry Wt	High Quality	17 mg/kg	Per Application	Composite	
Molybdenum Dry Wt	Ceiling	75 mg/kg	Per Application	Composite	
Nickel Dry Wt	Ceiling	420 mg/kg	Per Application	Composite	
Nickel Dry Wt	High Quality	420 mg/kg	Per Application	Composite	
Selenium Dry Wt	Ceiling	100 mg/kg	Per Application	Composite	
Selenium Dry Wt	High Quality	100 mg/kg	Per Application	Composite	
Zinc Dry Wt	Ceiling	7,500 mg/kg	Per Application	Composite	
Zinc Dry Wt	High Quality	2,800 mg/kg	Per Application	Composite	
PCB Total Dry Wt	High Quality	10 mg/kg	Per Application	Composite	Once in 2023
PCB Total Dry Wt	Ceiling	50 mg/kg	Per Application	Composite	Once in 2023
Nitrogen, Total Kjeldahl		Percent	Per Application	Composite	
Nitrogen, Ammonium (NH4-N) Total		Percent	Per Application	Composite	
Phosphorus, Total		Percent	Per Application	Composite	
Phosphorus, Water Extractable		% of Tot P	Per Application	Composite	
Potassium, Total Recoverable		Percent	Per Application	Composite	
PFOA + PFOS		ug/kg	Once	Calculated	Once in 2024. Perfluoroalkyl and Polyfluoroalkyl Substances based on updated DNR PFAS List. See PFAS Permit Sections for more information.
PFAS Dry Wt			Once	Grab	

Changes in Permit Modification #2:

Prior to land application the permittee must monitor for List 1 (metals) and List 2 (nutrients) and meet pathogen & vector control (Lists 3 & 4). List 2 results will assist in the determination of the acres needed for land application of sludge should it be necessary. The number of acres needed is also required for the Sludge Management Schedule (see schedules for more information). Monitoring for PFAS is required once during the permit term pursuant s. NR 204.06(2)(b)9., Wis. Adm. Code.

Change in form submittal – In prior permit reissuances when it has been noted in the application that sludge would not be removed during the permit term, the department required sampling during the second year of the permit term and the sludge characteristic report (3400-049) would be generated only during that year. Due to moving to electronic submittal of forms via Switchboard, forms 3400-049 (“Characteristics Report”), 3400-052 (“Other Methods of Disposal”) and 3400-055 (“Annual Land Application”) will now be generated by the department and the permittee will be required to submit all three reports each year of the permit term. This change was adopted to provide the permittee flexibility because many lagoon desludging projects can be unexpected, are delayed or staggered over multiple years. Additionally, it is used to officially report that no land application of sludge has occurred, and annual submittal of the forms is required per the standard requirements section.

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. Limitations for PCBs are addressed in s. NR 204.07(3)(k).

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 and expects to release this risk assessment by the end of 2024. In the interim, the department has developed the “Interim Strategy for Land Application of Biosolids and Industrial Sludges Containing PFAS”.

4 Compliance Schedules

4.1 Effluent Limitations for *E. coli*

The permittee shall comply with surface water limitations for *E. coli* as specified. No later than 14 days following each compliance date, the permittee shall notify the Department in writing of its compliance or noncompliance. If a submittal is required, a timely submittal fulfills the notification.

Required Action	Due Date
Status Update: The permittee shall submit information within the discharge monitoring report (DMR) comment section documenting the steps taken in preparation for properly monitoring and testing for <i>E. coli</i> including, but not limited to, selected test method and location of sampling.	02/21/2022
Operational Evaluation Report: The permittee shall prepare and submit an Operational Evaluation Report to the Department for review and approval. The report shall include an evaluation of collected effluent data and proposed operational improvements that will optimize efficacy of disinfection at the treatment plant during the period prior to complying with final <i>E. coli</i> limitations and, to the extent possible, enable compliance with the final <i>E. coli</i> limitations. The report shall include a plan and schedule for implementation of the operational improvements. These improvements shall occur as soon as possible, but not later than April 30, 2023. The report shall state whether the operational improvements are expected to result in compliance with the final <i>E. coli</i> limitations.	11/30/2022

<p>The permittee shall implement the operational improvements in accordance with the approved plan and schedule specified in the Operational Evaluation Report and in no case later than April 30, 2023.</p> <p>If the Operational Evaluation Report concludes that the operational improvements are expected to result in compliance with the final <i>E. coli</i> limitations, the permittee shall comply with the final <i>E. coli</i> limitations by April 30, 2023 and the permittee is not required to comply with subsequent milestones identified below in this compliance schedule ('Submit Facility Plan', 'Final Plans and Specifications', 'Treatment Plant Upgrade to Meet Limitations', 'Construction Upgrade Progress Report', 'Complete Construction', 'Achieve Compliance').</p> <p>FACILITY PLAN - If the Operational Evaluation Report concludes that operational improvements alone are not expected to result in compliance with the final <i>E. coli</i> limitations, the permittee shall initiate development of a facility plan for meeting final <i>E. coli</i> limitations and comply with the remaining required actions in this schedule of compliance.</p> <p>If the Department disagrees with the conclusion of the report, and determines that the permittee can achieve final <i>E. coli</i> limitations using the existing treatment system with only operational improvements, the Department may reopen and modify the permit to include an implementation schedule for achieving the final <i>E. coli</i> limitations sooner than May 1, 2026.</p>	
<p>Submit Facility Plan: If the Operational Evaluation Report concluded that the permittee cannot achieve final <i>E. coli</i> limitations with operational improvements alone, the permittee shall submit a Facility Plan per s. NR 110.09, Wis. Adm. Code. The permittee may submit an abbreviated facility plan if the Department determines that the modifications are minor.</p>	04/30/2023
<p>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 achieve compliance with final <i>E. coli</i> limitations and a schedule for completing construction of the upgrades by the complete construction date specified below.</p>	03/31/2024
<p>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.</p>	09/30/2024
<p>Construction Upgrade Progress Report: The permittee shall submit a progress report on construction upgrades.</p>	09/30/2025
<p>Complete Construction: The permittee shall complete construction of wastewater treatment system upgrades.</p>	03/31/2026
<p>Achieve Compliance: The permittee shall achieve compliance with final <i>E. coli</i> limitations.</p>	05/01/2026

Explanation for Effluent Limitations for *E. coli* Schedule: A compliance schedule is included in the permit to provide time for the permittee to investigate options for meeting new *E. coli* water quality-based effluent limits while coming into compliance with the limits as soon as reasonably possible.

4.2 Phosphorus Pollutant Minimization Program

As a condition of the variance to the water quality based effluent limitation for phosphorus granted in accordance with s. 283.15, Wis. Stats., the permittee shall perform the following actions.

Required Action	Due Date
<p>Annual Phosphorus Progress Report: Submit an annual progress report that shall discuss which phosphorus pollutant minimization measures have been implemented during the period from October 1, 2021 to December 31, 2021. The report shall include an analysis of trends in weekly average, monthly average and annual total influent and effluent phosphorus concentrations and mass discharge of phosphorus based on phosphorus sampling and flow data.</p> <p>The report shall provide an update on the permittee's: (1) progress in implementing pollutant minimization measures, operational improvements, and minor facility modifications to optimize reductions in phosphorus discharges and, (2) status of evaluating feasible alternatives for meeting phosphorus WQBELs.</p> <p>Note that the monthly average interim limitation of 8.8 mg/L remains enforceable until new enforceable limits are established in the next permit reissuance. The first annual phosphorus progress report is to be submitted by the Date Due.</p>	01/31/2023
<p>Annual Phosphorus Progress Report #2: Submit an annual Phosphorus Progress Report as defined above.</p>	01/31/2024
<p>Annual Phosphorus Progress Report #3: Submit an annual Phosphorus Progress Report as defined above.</p>	01/31/2025
<p>Annual Phosphorus Progress Report #4: Submit an annual Phosphorus Progress Report as defined above.</p>	01/31/2026
<p>Final Phosphorus Report: Submit a final report documenting the success in reducing phosphorus concentrations in the effluent, as well as the anticipated future reduction in phosphorus sources and phosphorus effluent concentrations. The report shall summarize phosphorus pollutant minimization activities that have been implemented during the current permit term and state which, if any, pollutant minimization activities from the approved pollutant minimization plan were not pursued and why. The report shall include an analysis of trends in monthly and annual total influent and effluent phosphorus concentrations based on phosphorus sampling during the current permit term.</p> <p>The permittee shall also re-evaluate all available compliance options for meeting the final phosphorus WQBELs. If the report concludes Adaptive Management will be implemented, the submittal shall include a completed Watershed Adaptive Management Request Form 3200-139 and an adaptive management plan. If the report concludes water quality trading will be used, the submittal shall include a Water Quality Trading Plan.</p> <p>Additionally, if the permittee intends to seek to re-apply for a phosphorus variance per s. 283.15, Wis. Stats., for the reissued permit, a detailed pollutant minimization plan outlining the pollutant minimization activities proposed for the upcoming permit term should be submitted along with the final report.</p>	07/01/2026
<p>Annual Phosphorus Reports After Permit Expiration: In the event that this permit is not reissued on time, the permittee shall continue to submit annual phosphorus progress reports each year covering pollutant minimization activities implemented and phosphorus concentration trends. The report is due no later than January 31 for the previous year's activities.</p>	

Explanation of Phosphorus Pollutant Minimization Program (PMP) Schedule: This schedule requires Wilton to reduce sources of phosphorus in influent to the treatment facility and submit annual phosphorus progress reports on the

success of these efforts. Annual reports shall include an analysis of phosphorus discharges. A final phosphorus report is required that summarizes the success of phosphorus pollutant minimization measures implemented throughout the permit term, an analysis of phosphorus discharges and a re-evaluation of all available phosphorus compliance options.

4.3 Ammonia Effluent Limits & Facility Modifications

This compliance schedule requires the permittee to achieve compliance with Daily Maximum ammonia nitrogen ammonia limits by the specified date.

Required Action	Due Date
Report on Effluent Discharges: Submit a report on effluent discharges of total ammonia nitrogen with conclusions regarding compliance.	03/31/2022
Action Plan or Facility Plan Amendment: Submit an action plan or facility plan amendment for treatment facility modifications for complying with the daily maximum effluent limitation(s) as needed.	12/31/2022
Plans and Specifications: Submit plans and specifications for treatment facility modifications as needed.	03/31/2023
Initiate Actions: Initiate actions identified in the action plan or facility plan amendment.	08/01/2023
Complete Actions and Comply with Daily Maximum Ammonia limits: Complete actions necessary to achieve compliance with the daily maximum effluent limitation(s) for ammonia nitrogen by the Due Date.	04/01/2024

Explanation of Ammonia Effluent Limits & Facility Modifications Schedule: This schedule requires Wilton to come into compliance with more stringent daily maximum ammonia effluent limits by April 1, 2024. A treatment system upgrade will be required to meet ammonia limits and the schedule above provides Wilton time to plan, initiate and complete actions necessary to meet current and future ammonia limitations.

4.4 Sludge Management Plan

Required Action	Due Date
<p>Submit a Sludge Management Plan: The permittee shall submit a management plan for approval if removal of sludge will occur during this permit term. The plan shall demonstrate compliance with ch. NR 204, Wis. Adm. Code and at minimum address 1) How and where is sludge sampled; 2) Available sludge storage details and location(s); 3) How will the sludge be removed with details on volume, characterization and how will the treatment plant continue to function during the drawdown; 4) Describe the type of transportation and spreading vehicles and loading and unloading practices; 5) Identify approved land application sites, apply for needed sites, site limitations, total acres needed and vegetative cover management; 6) Specify record keeping procedures including site loading; 7) Address contingency plans for adverse weather and odor/nuisance abatement; and 8) Include any other pertinent information such as other disposal options that may be used or specifications of any pretreatment processes</p> <p>Once approved, all sludge management 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. No desludging may occur unless approval from the Department is obtained. Daily logs shall be kept that record where the sludge has been disposed.</p>	11/30/2024

The plan is due at least 30 days prior to desludging.	
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Explanation of Sludge Management Plan Schedule: If the lagoons are to be de-sludged during this permit term, a management plan is needed to show compliance with ch NR 204, Wis. Adm. Code that clearly explains how the sludge will be safely removed, what contingencies are in place, the type of equipment that will be used and how the sludge will be land applied to ensure the proper precautions are in place to prevent any negative impacts to surface water or groundwater.

Special Reporting Requirements

None

Other Comments:

Publishing Newspaper: Monroe County Herald, 1302 River Road, PO Box 252, Sparta, WI , 54656-0252

Attachments (in original reissuance):

Water Quality Based Effluent Limits:

WQBEL – November 5, 2019

E. coli WQBEL Addendum – May 1, 2020

Wilton Phosphorus Variance EPA Data Sheet

Expiration Date:

December 31, 2026

Justification of Any Waivers from Permit Application Requirements

None Granted.

Prepared By: Phillip Spranger, August 9, 2021

Modified By: Holly Heldstab, April 22, 2022

Modified by: Holly Heldstab, July 22, 2024