

PUBLIC NOTICE

Date: February 4, 2019
Permit No.: MI0022977
Designated Site Name: Genesee Co-Ragnone WWTP

The Department of Environmental Quality (DEQ), Water Resources Division (WRD), proposes to reissue a permit to the Genesee County Drain Commissioner for the Anthony Ragnone Wastewater Treatment Plant located at 9290 Farrand Road, Montrose, Genesee County, Michigan 48457. The applicant collects wastewater from multiple municipalities in Genesee County. The applicant discharges treated municipal wastewater to the Flint River.

The draft permit includes the following modifications to the previously-issued permit: The following new conditions have been added to the draft permit: Pollutant Minimization and Source Evaluation Program for Perfluorooctane sulfonate (PFOS) and/or Perfluorooctanoic acid (PFOA), Wet Weather Collection System and WWTP Upgrade Program, and Discharge Monitoring Report – Quality Assurance Study Program. Daily reporting is now specified for Carbonaceous Biochemical Oxygen Demand (CBOD5), Total Suspended Solids (TSS), Fecal Coliform Bacteria, Total Residual Chlorine, CBOD5 Minimum % Removal, and TSS Minimum % Removal at Monitoring Point 001A. The final effluent limitation for Dissolved Oxygen has been revised at Monitoring Point 001A. Required daily reporting is now specified for Total Phosphorus (as P) at Monitoring Point 001B. The monitoring frequencies for Fecal Coliform Bacteria, Total Residual Chlorine, pH, and Dissolved Oxygen have been reduced to 5x Weekly at Monitoring Point 001A. The final effluent limitations for CBOD5, TSS, Ammonia Nitrogen (as N), Total Phosphorus (as P), and Total Mercury have been revised at Monitoring Point 001B. Monitoring for Available Cyanide, Acute Toxicity, Perfluorooctane sulfonate (PFOS), and Perfluorooctanoic acid (PFOA) is now required at Monitoring Point 001B. A final effluent limitation for Chronic Toxicity has been added at Monitoring Point 001B. Required Total Mercury-related quality assurance reporting is now specified at Monitoring Point 001B.

Copies of the permit application, public notice, fact sheet, basis for decision memo, and draft permit may be obtained via the Internet at <https://miwaters.deq.state.mi.us> (select 'Public Notice Search,' enter the permit number or site name in the search field, and then click 'Search'), or at the WRD's Lansing District Office located at 525 West Allegan Street, 1st Floor, South Tower, Lansing, MI 48933, telephone: 517-284-6651.

Persons wishing to submit comments or request a public hearing should go to <https://miwaters.deq.state.mi.us>, select 'Public Notice Search,' search for this public notice, click 'View,' click 'Add Comment,' enter information into the fields, and then click 'Submit.' Inquiries should be directed to Daniel Schwanik, Permits Section, WRD, DEQ, P.O. Box 30458, Lansing, Michigan 48909-7958; telephone: 517-284-5587; or e-mail: schwanikd1@michigan.gov.

Comments or objections to the draft permit received by March 6, 2019, will be considered in the final decision to issue the permit.

The discharge-specific level currently achievable for total mercury was developed in accordance with the WRD's approved MDV. A copy of the MDV may be obtained via the Internet at <http://www.michigan.gov/deqnpdes> (select Applicable Rules and Regulations), or at the WRD's Lansing District Office.

BASIS FOR DECISION MEMO

Processor: Daniel Schwanik
 Date: January 24, 2019
 Permit No. MI0022977
 Facility's Designated Name: Genesee Co-Ragnone WWTP

Monitoring Point 001A: Authorization to discharge treated municipal wastewater from Monitoring Point 001A through Outfall 001. Outfall 001 discharges to the Flint River.

<u>Parameter</u>	<u>Maximum Limits for Quantity or Loading</u>				<u>Maximum Limits for Quality or Concentration</u>				<u>Frequency of Analysis</u>	<u>Sample Type</u>	<u>Basis for Limits</u>
	<u>Monthly</u>	<u>7-Day</u>	<u>Daily</u>	<u>Units</u>	<u>Monthly</u>	<u>7-Day</u>	<u>Daily</u>	<u>Units</u>			
Flow	(report)	---	(report)	MGD	---	---	---	---	Daily	Report Total Daily Flow	PWJ
CBOD ₅	---	---	---	---	25	40	(report)	mg/l	Daily	24-Hr Composite during wet weather discharge only	STS
Total Suspended Solids	---	---	---	---	30	45	(report)	mg/l	Daily	24-Hr Composite during wet weather discharge only	STS
Fecal Coliform Bacteria	---	---	---	---	200	400	(report)	cts/100 ml	Daily/5xWeekly	Grab	WQS
Total Residual Chlorine	---	---	---	---	---	---	38	µg/l	Daily/5xWeekly	Grab	WQBEL
					<u>Minimum Monthly</u>						
CBOD ₅ Minimum % Removal	---	---	---	---	85	---	(report)	%	Monthly	Calculation	STS
Total Suspended Solids Minimum % Removal	---	---	---	---	85	---	(report)	%	Monthly	Calculation	STS
					<u>Minimum Daily</u>		<u>Maximum Daily</u>				
pH	---	---	---	---	6.5	---	9.0	S.U.	Daily/5xWeekly	Grab	WQS
Dissolved Oxygen	---	---	---	---	5/6	---	---	mg/l	Daily/5xWeekly	Grab	WQBEL

Notes: Total Residual Chlorine, pH and Dissolved Oxygen are sampled at this monitoring point for the continuous discharge rather than at Monitoring Point 001B.

Designated Name: **Genesee Co-Ragnone WWTP**
 Basis for Decision Memo
 Page 2

Monitoring Point 001B: Authorization to discharge treated municipal wastewater from Monitoring Point 001B through Outfall 001 via Monitoring Point 001A. Outfall 001 discharges to the Flint River.

Parameter	Maximum Limits for Quantity or Loading				Maximum Limits for Quality or Concentration				Frequency of Analysis	Sample Type	Basis for Limits
	Monthly	7-Day	Daily	Units	Monthly	7-Day	Daily	Units			
Flow	(report)	---	(report)	MGD	---	---	---	---	Daily	Report Total Daily Flow	PWJ
Carbonaceous Biochemical Oxygen Demand (CBOD ₅)											
April	---	8006	---	lbs/day	---	---	15	mg/l	5xWeekly	24-Hr Composite	
May - November	---	4903	---	lbs/day	---	---	12	mg/l	5xWeekly	24-Hr Composite	
December - March	---	5721	---	lbs/day	---	---	14	mg/l	5xWeekly	24-Hr Composite	
May - October	---	4900	(report)	lbs/day	8	---	12	mg/l	5xWeekly	24-Hr Composite	WQBEL
November	---	12000	(report)	lbs/day	19	---	29	mg/l	5xWeekly	24-Hr Composite	WQBEL
December - March	---	13500	(report)	lbs/day	22	---	33	mg/l	5xWeekly	24-Hr Composite	WQBEL
April	---	12000	(report)	lbs/day	20	---	30	mg/l	5xWeekly	24-Hr Composite	WQBEL
Total Suspended Solids											
April	12260	18390	---	lbs/day	30	45	---	mg/l	5xWeekly	24-Hr Composite	
May - November	9808	14712	---	lbs/day	24	36	---	mg/l	5xWeekly	24-Hr Composite	
December - March	11442	17164	---	lbs/day	28	42	---	mg/l	5xWeekly	24-Hr Composite	
May - October	---	15000	(report)	lbs/day	24	36	(report)	mg/l	5xWeekly	24-Hr Composite	WQBEL
November - April	---	18400	(report)	lbs/day	30	45	(report)	mg/l	5xWeekly	24-Hr Composite	WQBEL
Ammonia Nitrogen (as N)											
April	1880	2942	---	lbs/day	4.6	---	7.2	mg/l	5xWeekly	24-Hr Composite	
May - October	776	940	---	lbs/day	1.9	---	2.3	mg/l	5xWeekly	24-Hr Composite	
November	---	1716	---	lbs/day	---	---	4.2	mg/l	5xWeekly	24-Hr Composite	
December - March	---	2043	---	lbs/day	---	---	5.0	mg/l	5xWeekly	24-Hr Composite	
May - October	---	(report)	(report)	lbs/day	3.6	---	(report)	mg/l	5xWeekly	24-Hr Composite	WQBEL
November	---	(report)	(report)	lbs/day	6.0	---	(report)	mg/l	5xWeekly	24-Hr Composite	WQBEL
December - March	---	(report)	(report)	lbs/day	6.8	---	(report)	mg/l	5xWeekly	24-Hr Composite	WQBEL
April	---	(report)	(report)	lbs/day	7.8	---	(report)	mg/l	5xWeekly	24-Hr Composite	WQBEL
Total Phosphorus (as P)	310 / 300	---	(report)	lbs/day	0.75	---	(report)	mg/l	5xWeekly	24-Hr Composite	WQBEL
✓ Available Cyanide	---	---	(report)	lbs/day	---	---	(report)	µg/l	Quarterly	Grab	WQC

Parameter	Maximum Limits for Quantity or Loading				Maximum Limits for Quality or Concentration				Frequency of Analysis	Sample Type	Basis for Limits	
	Monthly	7-Day	Daily	Units	Monthly	7-Day	Daily	Units				
Whole Effluent Toxicity												
Acute Toxicity	---	---	---	---	---	---	(report)	TU _A	Quarterly	24-Hr Composite	WQC	
Chronic Toxicity	---	---	---	---	1.6	---	---	TU _C	Quarterly	24-Hr Composite	WQBEL	
Total Mercury	(report)	---	---	lbs/day	(report)	---	---	ng/l	Quarterly	Grab		
Total Mercury											WQC	
-- Corrected	(report)	---	(report)	lbs/day	(report)	---	(report)	ng/l	Quarterly	Calculation		
-- Uncorrected	---	---	---	---	---	---	(report)	ng/l	Quarterly	Grab		
-- Field Duplicate	---	---	---	---	---	---	(report)	ng/l	Quarterly	Grab		
-- Field Blank	---	---	---	---	---	---	(report)	ng/l	Quarterly	Preparation		
-- Lab Method Blank	---	---	---	---	---	---	(report)	ng/l	Quarterly	Preparation		
	<u>12-Month Rolling Average</u>				<u>12-Month Rolling Average</u>							
Total Mercury	0.0021/0.002	---	---	lbs/day	5.0	---	---	ng/l	Quarterly	Calculation	WQV	
Perfluorooctane sulfonate (PFOS)	---	---	(report)	lbs/day	---	---	(report)	ng/l	Semi-Annual	Grab	WQC	
Perfluorooctanoic acid (PFOA)	---	---	(report)	lbs/day	---	---	(report)	ng/l	Semi-Annual	Grab	WQC	

Monitoring Point 001C: Authorization to discharge treated wet weather flow from Monitoring Point 001C through Outfall 001 via Monitoring Point 001A. Outfall 001 discharges to the Flint River. When the Basin is full and influent flows exceed the wastewater treatment plant's maximum capacity of: 49 MGD. The effluent shall receive the equivalent of primary treatment plus disinfection. Such discharge shall be limited and monitored by the permittee as specified below:

Parameter	Maximum Limits for Quantity or Loading				Maximum Limits for Quality or Concentration				Frequency of Analysis	Sample Type	Basis for Limits
	Monthly	7-Day	Daily	Units	Monthly	7-Day	Daily	Units			
Flow	(report)	---	(report)	MGD	---	---	---	---	Daily	Report Total Daily Flow	PWJ
CBOD ₅	---	---	---	---	(report)	---	(report)	mg/l	Daily	24-Hr Composite	WQC

Designated Name: **Genesee Co-Ragnone WWTP**
 Basis for Decision Memo
 Page 4

Total Suspended Solids	---	---	---	---	(report)	---	(report)	mg/l	Daily	24-Hr Composite	WQC
Total Phosphorus (as P)	---	---	---	---	(report)	---	(report)	mg/l	Daily	24-Hr Composite	WQC

PERMIT CONDITIONS: Additional Monitoring Requirements, Pollutant Minimization Program for Total Mercury – approved 8/20/2010, **Pollutant Minimization and Source Evaluation Program for Perfluorooctane Sulfonate (PFOS) and/or Perfluorooctanoic Acid (PFOA)**, Untreated or Partially Treated Sewage Discharge Reporting and Testing Requirements, Facility Contact, Monthly Operating Reports – **needs to be updated**, **Wet Weather Collection System and WWTP Upgrade Program, Discharge Monitoring Report – Quality Assurance Study Program**, Storm Water Pollution Prevention Program – not required, Federal Industrial Pretreatment Program - approved 3/14/88, Residual Management Program for Biosolids - approved 12/19/01

NOTES: This is one of the last authorized blending permits in the state. The permit contains a requirement to expand or upgrade wastewater treatment and address excessive sanitary flows to 62 million gallons per day (MGD), which is rate calculated using the excessive inflow and infiltration definition for the population served by this facility. This facility's treatment plant includes a wet weather treatment system which blends partially treated wastewater with fully treated wastewater during wet weather events when the wet weather basins (equalization basin and wet weather basin) are full and flows exceed the wastewater treatment plant's current maximum capacity of 49 MGD. During dry weather, all flows receive full biological treatment and comply with current permit limits. Dry weather flows are discharged through MP001B via MP 001A and Outfall 001. During wet weather conditions, flows exceeding 49 MGD are routed to the equalization basin for storage. Once influent flows are reduced and the wet weather period ends, the stored wastewater may be returned the headworks for full biological treatment. If the equalization basin capacity is exceeded, excess flows are chlorinated and routed to the wet weather basin. If the basins are full and the plant is at capacity, the discharge from the wet weather basin is dechlorinated, passing through MP 001C, blends with flows from MP 001B, and is discharged through Outfall 001 via MP 001A. The permit condition, Part I.A.10., Wet Weather Collection System and WWTP Upgrade Program (Program), was added for the permittee to conduct an evaluation of the operational conditions during periods of wet weather bypass of the biological treatment processes. As part of the Program, the permittee shall determine how to upgrade the treatment plant up to 62 MGD and reduce excess sanitary flows in the collection system. The DEQ will also re-evaluate water quality in the Flint River. Once the Program is completed, the effluent limitations for Outfall 001A will include the water quality-based limits. The expected final effluent limitations, based on current conditions, are specified in Part I.A.10. of the draft permit. The concentrations and loadings will be revised as needed based on the completion of the Program.

The DEQ has committed to apply the Collection System General Permit (currently under development) to contributing municipalities in order to aid the permittee in reducing flows to the collection system; thereby reducing the need to bypass full biological treatment.

At Monitoring Point 001B, the November, December-March, and April season CBOD₅, and Ammonia Nitrogen effluent limits in the draft permit are less restrictive than those in the current permit. A 2015 survey of the Flint River found that NH₃-N concentrations downstream of this facility were relatively constant, suggesting minimal nitrification in that river reach. The May through October CBOD₅ and ammonia nitrogen effluent limits are based in part on recommendations made during the last permit reissuance (see 11/5/2009 WQBEL Memo Conventional.doc under permit tab MI0022977.5.0). The model was reviewed for this period and the conventional pollutant recommendations noted that there was not a significant difference between 12 and 10 mg/l CBOD₅, so 12 mg/l was used as the basis for limits in the permit. In addition, as an interim approach, the monthly load limits were removed until the permittee determines the annual average design flow and the department performs another water quality study in the Flint River. The 7-day load limitations are based on a peak wet weather flow rate of 49 MGD. This interim approach will allow the permittee to maximize the volume of wastewater receiving biological treatment during wet weather conditions. Following implementation of the Collection System and WWTP Upgrade Program and a joint water quality study of the Flint River, the 7-day and monthly load limitations will be established to protect the water quality in the Flint River.

The WQBEL – Toxics memo included a recommendation that the following parameters: vinyl chloride, pentachlorophenol, 3,3-dichlorobenzidine, benzidine, fluoranthene, Bis(2-chloroethyl)ether, hexachlorobenzene, hexachlorobutadiene, and phenanthrene be monitored quarterly because the scans submitted with the application did not use sufficiently sensitive quantification levels to show “no reasonable potential” to exceed water quality standards. Rather than the recommended quarterly monitoring, the parameters will remain on the list in the Additional Monitoring Requirements, which now includes a list of quantification levels.

Based upon information supplied by the permittee, the requirements in the condition for Asset Management were revised and incorporated into Part II.C.14., Operations and Maintenance Manual.

Monitoring and reporting requirements for PFOS and PFOA, along with the Pollutant Minimization and Source Evaluation Program for PFOS and/or PFOA have been added in accordance with the MDEQ Municipal NPDES Permitting Strategy for PFOS and PFOA (January 18, 2019).

Limit Change Key

Normal Type = existing requirement – carried over from previous version

Bold Type = new requirement – not in previous version

Italic = deleted requirement – not carried over from previous version

Basis for Limits Key

WQBEL - Water Quality Based Effluent Limit

STS – Secondary Treatment Standards

WQC - Water Quality Concerns

WQS - Water Quality Standards

WQV – Water Quality Variance

PWJ - Permit Writer's Judgment

