

NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION

DEPARTMENT OF
WATER ENVIRONMENT
PROTECTION

Division of Environmental Permits

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2017 JUN 16 AM 2:23

RECEIVED
ONONDAGA COUNTY

May 13, 2017

Onondaga County Water Environment Protection
Attn: Thomas Rhoads
650 Hiawatha Blvd West
Syracuse, NY 13204-1194

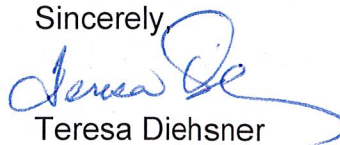
Re: Metropolitan Syracuse Wastewater Treatment Plant
DEC#7-3115-00113/00001 SPDES#: NY0027081

Dear Mr. Rhoads:

Enclosed is a final renewed and modified State Pollutant Discharge Elimination System (SPDES) permit for the above referenced facility. This permit has been renewed and modified under the Environmental Benefit Permit Strategy. Comments on this modification were received from you, and Ms. Alyssa Arcaya, USEPA Region 2, and are discussed in the enclosed responsiveness summary.

Should you have questions on the administration of this modification, please feel free to contact me at the address or phone number listed above. Should you have technical questions on permit content, please contact Dare Adelugba, Permit Engineer, at (518) 402-8119, or Tim DiGiulio, Regional Water Engineer, at (315) 426-7471.

Sincerely,



Teresa Diehsner
Division of Environmental Permits

Enclosures

c: D. Bimber, RPA
T. DiGiulio, RWE
D. Adelugba, Permit Engineer
C. Jamison, CO-BWP Permit Coordinator
USEPA Reg 2
NYSEFC
NYSDOH District Office
Mayor, City of Syracuse



Department of
Environmental
Conservation

RESPONSIVENESS SUMMARY

METROPOLITAN SYRACUSE WWTP

SPDES PERMIT # NY0027081

DEC ID# 7-3115-00113/00001

Prepared by: Dare Adelugba

Date: 5/31/17

Background: The above referenced draft SPDES permit was developed as a Department initiated modification pursuant to 6NYCRR Part 750-1.18, New York State's Environmental Benefit Permit Strategy (EBPS). The draft permit was public noticed on 3/29/2017 in the Environmental Notice Bulletin, and on 3/28/2017 in The Post-Standard. Comments dated 4/18/2017 were received from Mr. Tom Rhoads, Onondaga County Department of Water Environment Protection, and Ms. Alyssa Arcaya, USEPA Region 2. A redrafted permit was provided to USEPA on 6/5/2017. All comments are addressed below

Comments dated April 18, 2017, received from Tom Rhoads, Onondaga County Department of Water Environment Protection.

1. *Page 1: Please add an expiration date for the permit. A five-year period is recommended.*

Response: The issued permit will show the five-year term. This date is added at the time of issuance by the Division of Environmental Permits.

2. *Page 1: Please add City of Syracuse, Mayor's office to the permit distribution list as has been done in previous years. The City of Syracuse is a major collection system user and potential joint SPDES permit stakeholder.*

Response: The requested change has been made to the revised permit.

3. *Page 4: On March 6, 2017, the County received a responsiveness summary to previous comments on the permit from Brian Baker (NYSDEC Central Office). It was understood that Outfall 022 would be deleted from the permit.*

Response: The outfall has been removed from the final permit.

4. *Page 9: Chloroform monitoring action level – Similar to comment #3, the responsiveness summary received indicated that the chloroform action level (AL) would be changed to 4.12 lbs/day in the new permit. The permit still lists the action level as 0.91 lbs/day.*

Response: The final permit will have an AL of 4.12 lbs/day.

5. *Page 11: Footnote #1 requests a library search for compounds based on the chromatogram to determine phenolic compounds not identified from the EPA 625 scan. This will generate estimated values for these compounds. It is proposed in lieu of the library search that the laboratory also use the EPA 8270D method to identify additional compounds not determined by method EPA 625. The advantage would be that the results from this procedure would not be estimates.*

Response: The current permit language has been retained. EPA Method 8270 is a solid waste sampling method, is not listed under 40 CFR Part 136, and the spectrum of phenols is unknown. Method 625 with the enhancement of the Tentatively Identified Compounds (TICs) lends itself to characterization of a broader suite of analytes and provides consistency with the Clean Water Act requirement to use 40 CFR Part 136 methods.

6. *Page 12: The tables for outfalls 01A and 01B list a value of 7602 lbs/d in the units column. This is a monitor only parameter; the units column should not have a value.*

Response: This typographical error has been corrected.

7. *Page 13: Footnote #1 -Please add a period (.) after outfall 002 and begin a new sentence with All.*

Response: The requested change has been made to the revised permit.

8. *Page 13: Footnote #8 should be clarified. Sentence 2 references that loadings from 01A shall summed into aggregate loadings from 001. This should be revised to say summed into the outfall aggregate as defined in footnote #3, page 10.*

Response: The requested change has been made to the revised permit.

9. *Page 14: Similar to comment #6, the table for outfall 002 also lists a value in the units column.*

Response: This was also a typographical error. Values for the Rolling Average and Monthly Average were switched. The error has been corrected which is now consistent with the existing permit.

10. *Page 14: Footnote #8 should refer to the 002 bypass, not 01A or 01B. The definition is as follows, "A bypass event starts at the moment wastewater overflows the bypass tank and continues until the overflow from the bypass tank stops."*

Response: The typographical error has been corrected.

11. *Appendix A-1: Please fix formatting for footnote # 1. Appendix A-12: Special.*

Response: The requested change has been made to the revised permit.

12. *Appendix A-12: Special Conditions – Should a Special Condition #7 be included for consistency with Lower Harbor Brook, Appendix A-14?*

Response: Change made.

Comments dated April 25, 2017, from Alyssa Arcaya, USEPA Region 2.

1. NYSDEC's Mercury Multiple Discharger Variance (TOGS 1.3.10) requires that high priority facilities that have been monitoring mercury and have enough data to calculate the projected effluent quality (10 or more data points) shall have a permit limit expressed as a 12-month rolling average using the 95th percentile of the existing effluent (pg. 10-11). Based on facility data from the Integrated Compliance Information System for the period of January 1, 2014 through December 31, 2016, the Metro Syracuse WWTP has 36 data points for mercury and the 95th percentile effluent concentration is 2.38 ng/l. As the Metro Syracuse WWTP discharges within the Great Lakes watershed, it is imperative that NYSDEC establish a mercury effluent limitation based on the 95th percentile of the existing effluent quality as required by TOGS 1.3.10.

Response: A 12-month rolling average limit of 2.38 ng/l has been added to the permit.

2. The Notice of Intent to Modify states that NYSDEC is proposing a Department Initiated Modification and the modification will serve to renew the SPDES permit. The current SPDES permit expired on 3/31/17. The fact sheet states this action is a permit modification. Please note that there are no federal regulations allowing the modification of an expired permit. This permit action must be a renewal.

Response: This permit review is a renewal that also includes modifications proposed by the Department and modifications requested by the applicant. The permittee's renewal application was received in a timely and sufficient manner, and under the State Administrative Procedures Act (SAPA) the permit continues in effect after the expiration date until a renewal permit is issued. The Department conducted a full technical review and the public notice properly noted the modifications and the renewal of the permit for a new term. The Department will not be modifying the expired permit, but will incorporate modifications into a renewed permit.



Department of Environmental Conservation

State Pollutant Discharge Elimination System (SPDES) DISCHARGE PERMIT

Industrial Code:	4952	SPDES Number:	NY0027081
Discharge Class (CL):	05	DEC Number:	7-3115-00113/00001
Toxic Class (TX):	T	Effective Date (EDP):	07/01/2017
Major Drainage Basin:	07	Expiration Date (ExDP):	06/30/2022
Sub Drainage Basin:	02	Modification Dates: (EDPM)	
Water Index Number:	P154		
Compact Area:	IJC	Attachment(s):	Appendix A

This SPDES permit is issued in compliance with Title 8 of Article 17 of the Environmental Conservation Law of New York State and in compliance with the Clean Water Act, as amended, (33 U.S.C. §1251 et.seq.)(hereinafter referred to as "the Act").

PERMITTEE NAME AND ADDRESS			
Name:	Onondaga County	Attention:	Commissioner, Onondaga Co Dept of Water Environment Protection
Street:	650 Hiawatha Boulevard West	State:	NY
City:	Syracuse	Zip Code:	13204-1194

is authorized to discharge from the facility described below:

FACILITY NAME AND ADDRESS			
Name:	Metropolitan Syracuse Wastewater Treatment Plant		
Location (C,T,V):	Syracuse	County:	Onondaga
Facility Address:	650 Hiawatha Boulevard West		
City:	Syracuse	State:	NY
		Zip Code:	13204-1194
From Outfall No.:	001	at Latitude:	43 ° 04 ' 04 " & Longitude: 76 ° 11 ' 07 "
into receiving waters known as:	Onondaga Lake	Class:	C

and (list other Outfalls, Receiving Waters & Water Classifications): See outfalls listing on pages 3 and 4 of this permit.

in accordance with: effluent limitations; monitoring and reporting requirements; other provisions and conditions set forth in this permit; and 6 NYCRR Part 750-1 and 750-2.

DISCHARGE MONITORING REPORT (DMR) MAILING ADDRESS			
Mailing Name:	Onondaga County Department of Water Environment Protection - Syracuse Metro		
Street:	650 Hiawatha Boulevard West		
City:	Syracuse	State:	NY
		Zip Code:	13204-1194
Responsible Official or Agent:	WWTP Superintendent	Phone:	315-435-2260, ext. 309

This permit and the authorization to discharge shall expire on midnight of the expiration date shown above and the permittee shall not discharge after the expiration date unless this permit has been renewed, or extended pursuant to law. To be authorized to discharge beyond the expiration date, the permittee shall apply for permit renewal not less than 180 days prior to the expiration date shown above.

DISTRIBUTION:

CO BWP - Permit Coordinator
RWE
RPA
USEPA Region 2
NYSEFC
NYSDOH District Office
Mayor, City of Syracuse

Deputy Chief Permit Administrator: Stuart M. Fox	
Address: Division of Environmental Permits 625 Broadway, 4 th Floor Albany, NY 12233-1750	
Signature: <i>Stuart M. Fox</i>	Date: 6/13/17

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I. ADDITIONAL OUTFALLS

Table I.1: Plant Bypass

Outfall No.	Description	Latitude/Longitude	Receiving Water
002	Secondary Treatment Bypass	43° 03' 54" N/76° 10' 51" W	Onondaga Lake
01A	Tertiary System Bypass/Secondary Effluent Pump Station (SEPS) Bypass		Onondaga Lake via Outfall 001
01B	Headworks Bypass		Onondaga Lake via Outfall 001

Table I.2: Combined Sewer Outfalls (See additional requirements in Sections VII & VIII)

Outfall No.	Description	Latitude/Longitude	Receiving Water	Class
003	Hiawatha Boulevard (North of State Fair Blvd.)	43° 03' 20" N/76° 11' 07" W	Harbor Brook	C
004	State Fair Blvd.	43° 03' 13" N/76° 10' 54" W	Harbor Brook	C
04A	Lower Harbor Brook Storage Facility	43° 03' 14.5" N/76° 10' 58" W	Harbor Brook	C
005	West Genesee and Sackett Street	43° 03' 11" N/76° 10' 38" W	Harbor Brook	C
006	Park Avenue and Sackett St. Overflow (West of Harbor Brook)	43° 03' 07" N/76° 10' 35" W	Harbor Brook	C
06A	Park Avenue and Sackett St. Overflow (East of Harbor Brook)	43° 03' 07" N/76° 10' 35" W	Harbor Brook	C
007	Richmond Avenue and Liberty Street	43° 03' 00" N/76° 10' 26" W	Harbor Brook	C
009	West Fayette Street (West of Harbor Brook)	43° 02' 47" N/76° 10' 33" W	Harbor Brook	C
010	West Fayette Street (East of Harbor Brook)	43° 02' 45" N/76° 10' 21" W	Harbor Brook	C
011	Gifford Street (East of Harbor Brook)	43° 02' 34" N/76° 10' 23" W	Harbor Brook	B
014	Delaware Street	43° 02' 24" N/76° 10' 29" W	Harbor Brook	B
015	Herriman Street and Grand Avenue	43° 02' 20" N/76° 10' 38" W	Harbor Brook	B
017	Hoeffler Street	43° 02' 12" N/76° 10' 47" W	Harbor Brook	B
018	Constructed Wetland Outfall	43° 02' 10" N/76° 10' 58" W	Harbor Brook	B
18A	Constructed Wetland Emergency Bypass	43° 02' 10" N/76° 10' 58" W	Harbor Brook	B
020	Butternut Floatables Control Facility Route 690	43° 03' 17" N/76° 09' 26" W	Onondaga Creek	C
021	Burnet Floatables Control Facility Route 690 and Burnet	43° 03' 16" N/76° 09' 25" W	Onondaga Creek	C
027	W. Fayette Street (Eastside of Onondaga Creek)	43° 02' 55" N/76° 09' 28" W	Onondaga Creek	C
028	Walton Street (Westside of Onondaga Creek)	43° 02' 53" N/76° 09' 27" W	Onondaga Creek	C
029	Walton Street (Eastside of Onondaga Creek)	43° 02' 53" N/76° 09' 27" W	Onondaga Creek	C
030	W. Jefferson Street (Eastside of Onondaga Creek)	43° 02' 50" N/76° 09' 27" W	Onondaga Creek	C
031	W. Jefferson Street (Westside of Onondaga Creek)	43° 02' 49" N/76° 09' 28" W	Onondaga Creek	C
032	Tully Street	43° 02' 45" N/76° 09' 28" W	Onondaga Creek	C
033	Dickerson Street	43° 02' 40" N/76° 09' 19" W	Onondaga Creek	C
33A	Clinton Storage Facility	43° 02' 47" N/76° 09' 25" W	Onondaga Creek	C
034	Clinton & West Onondaga Street	43° 02' 37" N/76° 09' 17" W	Onondaga Creek	C
035	Gifford Street	43° 02' 37" N/76° 09' 17" W	Onondaga Creek	C
036	West Onondaga Street	43° 02' 33" N/76° 09' 18" W	Onondaga Creek	C
037	Adams & Oneida Street	43° 02' 32" N/76° 09' 18" W	Onondaga Creek	C
039	Tallman Street (East of Onondaga Creek)	43° 02' 12" N/76° 09' 19" W	Onondaga Creek	C
042	Midland Street (Westside of Onondaga Creek)	43° 01' 59" N/76° 09' 29" W	Onondaga Creek	C
044	West Castle Street and South Avenue	43° 01' 50" N/76° 09' 34" W	Onondaga Creek	C
052	Hunt Street & Elmhurst Avenue	43° 01' 15" N/76° 09' 21" W	Onondaga Creek	C
060/077	West Castle Street and Kirk Place Drive	43° 01' 25" N/76° 09' 17" W	Onondaga Creek	C
061	Crehange Street & Onondaga Creek Overflow	43° 02' 32" N/76° 09' 18" W	Onondaga Creek	C

Outfall No.	Description	Latitude/Longitude	Receiving Water	Class
063	Emerson & Milton Avenue	43° 03' 35" N/76° 11' 33" W	Harbor Brook	C
065	Plum and Evans Streets	43° 03' 20" N/76° 09' 37" W	Onondaga Creek	C
066	Maltbie and Evans Street - Maltbie Floatables Control Facility	43° 03' 20" N/76° 09' 41" W	Onondaga Creek	C
067	Newell Street	43° 00' 58" N/76° 09' 28" W	Onondaga Creek	C
071	Spencer Street Bypass	43° 03' 26" N/76° 09' 41" W	Onondaga Creek	C
073	Teall Floatables Control Facility	43° 04' 42" N/76° 07' 25" W	Teall Brook	C
074	Spring Street & Hiawatha Blvd. (Hiawatha RTF)	43° 04' 36" N/76° 10' 19" W	Ley Creek	C
075	Route 81 & Hiawatha Blvd. (Associated with Kirk Patrick PS)	43° 03' 54" N/76° 10' 25" W	Onondaga Creek	C
076	Midland Avenue and Brighton Avenue	43° 01' 09" N/76° 09' 18" W	Onondaga Creek	C
078	Bellevue Avenue & Velasko Road	43° 02' 08" N/76° 11' 19" W	Harbor Brook	B
080	Erie Blvd Storage System (EBSS) & Onondaga Creek	43° 03' 03" N/76° 09' 30" W	Onondaga Creek	C
80A	James Street Relief Sewer	EBSS		
80B	Fayette Street & Irving Avenue	EBSS		
80C	S. Crouse Avenue & Washington	EBSS		
80D	Burnet Ave & Elm Street	EBSS		
80E	E. Washington & Pine Street	EBSS		
80F	S. Beech & Canal	EBSS		
80G	Burnet & Sherwood	EBSS		
80H	Burnet & Teall	EBSS		
80I	Genesee & Westcott Street	EBSS		
M01	Main CSO Outfall at Midland RTF	43° 02' 00" N/76° 09' 30" W	Onondaga Creek	C
M02	Emergency CSO Outfall at Midland RTF	43° 02' 01" N/76° 09' 30" W	Onondaga Creek	C

Table I.3: The following list of CSO outfalls are scheduled for sewer separation in projects required by the Amended Consent Judgment (ACJ). The ACJ is a federal court-ordered judgment signed by Onondaga County, Atlantic States Legal Foundation, and NYSDEC in January 1998 and modified in May 1998, December 2006, April 2008 and November 2009. Permittee must inform the Department annually of any changes to the outfalls listed below and must also report annually results of all inspections and results. Upon inspection and confirmation by NYSDEC that these outfalls have been permanently sealed or eliminated, this table will be deleted from the permit.

Beginning from the date of separation, permittee shall monitor outfalls for a period of no less than 3 years, minimum 4 samples per location per year, during storm events to confirm the effectiveness of the sewer separation. If evidence of sewage is discovered, the County must report to the NYSDEC Regional Water Engineer within two days after first noticing the overflow or discharge. The report must include a schedule for corrective actions. In lieu of sampling, the Department will consider an alternate method of determining sewer separation effectiveness provided the County has provided a complete written request and justification and the Department has provided written approval. Until the Department approval has been received by the County, sampling must be completed as required in this permit.

Outfall No.	Description	Latitude/Longitude	Receiving Water
061	Crehange Street & Onondaga Creek Overflow	43° 01' 19" N/76° 09' 18" W	Onondaga Creek

Table I.4 The following outfall is designated for use in reporting the calculated sum of effluent discharges from Outfalls 001, 01A, 01B, and 002 for Total Phosphorus.

Outfall No.	Description	Latitude/Longitude	Receiving Water
AGG	Calculated sum of Outfalls 001, 01A, 01B, and 002	N/A	Onondaga Lake

II. PERMIT LIMITS, LEVELS AND MONITORING DEFINITIONS

OUTFALL	WASTEWATER TYPE	RECEIVING WATER	EFFECTIVE	EXPIRING
	This cell describes the type of wastewater authorized for discharge. Examples include process or sanitary wastewater, storm water, non-contact cooling water.	This cell lists classified waters of the state to which the listed outfall discharges.	The date this page starts in effect. (e.g. EDP or EDPM)	The date this page is no longer in effect. (e.g. ExDP)

PARAMETER	MINIMUM	MAXIMUM	UNITS	SAMPLE FREQ.	SAMPLE TYPE
e.g. pH, TRC, Temperature, D.O.	The minimum level that must be maintained at all instants in time.	The maximum level that may not be exceeded at any instant in time.	SU, °F, mg/l, etc.	See below	See below

PARAMETER	EFFLUENT LIMIT or CALCULATED LEVEL	COMPLIANCE LEVEL / MINIMUM LEVEL (ML)	ACTION LEVEL	UNITS	SAMPLE FREQUENCY	SAMPLE TYPE
	Limit types are defined below in Note 1. The effluent limit is developed based on the more stringent of technology-based limits, required under the Clean Water Act, or New York State water quality standards. The limit has been derived based on existing assumptions and rules. These assumptions include receiving water hardness, pH and temperature; rates of this and other discharges to the receiving stream; etc. If assumptions or rules change the limit may, after due process and modification of this permit, change.	For the purposes of compliance assessment, the permittee shall use the approved EPA analytical method with the lowest possible detection limit as promulgated under 40CFR Part 136 for the determination of the concentrations of parameters present in the sample unless otherwise specified. If a sample result is below the detection limit of the most sensitive method, compliance with the permit limit for that parameter was achieved. Monitoring results that are lower than this level must be reported, but shall not be used to determine compliance with the calculated limit. This Minimum Level (ML) can be neither lowered nor raised without a modification of this permit.	Action Levels are monitoring requirements, as defined below in Note 2, which trigger additional monitoring and permit review when exceeded.	This can include units of flow, pH, mass, temperature, or concentration. Examples include µg/l, lbs/d, etc.	Examples include Daily, 3/week, weekly, 2/month, monthly, quarterly, 2/yr and yearly. All monitoring periods (quarterly, semiannual, annual, etc.) are based upon the calendar year unless otherwise specified in this Permit.	Examples include grab, 24 hour composite and 3 grab samples collected over a 6 hour period.

Notes:

1. EFFLUENT LIMIT TYPES:

- DAILY DISCHARGE:** The discharge of a pollutant measured during a calendar day or any 24-hour period that reasonably represents the calendar day for the purposes of sampling. For pollutants expressed in units of mass, the 'daily discharge' is calculated as the total mass of the pollutant discharged over the day. For pollutants with limitations expressed in other units of measurement, the 'daily discharge' is calculated as the average measurement of the pollutant over the day.
- DAILY MAX:** The highest allowable daily discharge.
- DAILY MIN:** The lowest allowable daily discharge.
- MONTHLY AVG:** The highest allowable average of daily discharges over a calendar month, calculated as the sum of each of the daily discharges measured during a calendar month divided by the number of daily discharges measured during that month.
- 7 DAY ARITHMETIC MEAN (7 day average):** The highest allowable average of daily discharges over a calendar week.
- 30 DAY GEOMETRIC MEAN:** The highest allowable geometric mean of daily discharges over a calendar month, calculated as the antilog of: the sum of the log of each of the daily discharges measured during a calendar month divided by the number of daily discharges measured during that month.
- 7 DAY GEOMETRIC MEAN:** The highest allowable geometric mean of daily discharges over a calendar week.
- 12 MONTH ROLLING AVERAGE:** The current monthly value of a parameter, plus the sum of the monthly values over the previous 11 months for that parameter, divided by 12.
- RANGE:** The minimum and maximum instantaneous measurements for the reporting period must remain between the two values shown.

- ACTION LEVELS:** Routine Action Level monitoring results, if not provided for on the Discharge Monitoring Report (DMR) form, shall be appended to the DMR for the period during which the sampling was conducted. If the additional monitoring requirement is triggered as noted below, the permittee shall undertake a short-term, high-intensity monitoring program for the parameter(s). Samples identical to those required for routine monitoring purposes shall be taken on each of at least three consecutive operating and discharging days and analyzed. Results shall be expressed in terms of both concentration and mass, and shall be submitted no later than the end of the third month following the month when the additional monitoring requirement was triggered. Results may be appended to the DMR or transmitted under separate cover to the same address. If levels higher than the Action Levels are confirmed, the permit may be reopened by the Department for consideration of revised Action Levels or effluent limits. The permittee is not authorized to discharge any of the listed parameters at levels which may cause or contribute to a violation of water quality standards.

III. PERMIT LIMITS, LEVELS AND MONITORING

OUTFALL	LIMITATIONS APPLY:	RECEIVING WATER				EFFECTIVE		EXPIRING		
001	All Year unless otherwise noted	Onondaga Lake				07/01/2017		06/30/2022		
PARAMETER	EFFLUENT LIMIT					MONITORING REQUIREMENTS				FN
	Type	Limit	Units	Limit	Units	Sample Frequency	Sample Type	Location Inf. Eff.		
Flow	12-Monthly Rolling Average	84.2	MGD	-	-	Continuou s	Recorder	X	X	2,3,8
CBOD ₅	Monthly Average	21	mg/l	14747	lbs/d	1/day	24-hr. Comp.	X	X	1
CBOD ₅	7-Day Average	31.5	mg/l	22120	lbs/d	1/day	24-hr. Comp.	X	X	
Solids, Suspended	Monthly Average	30	mg/l	21067	lbs/d	1/day	24-hr. Comp.	X	X	1
Solids, Suspended	7-Day Average	45	mg/l	31600	lbs/d	1/day	24-hr. Comp.	X	X	
Solids, Settleable	Daily Maximum	0.3	ml/l	-	-	6/day	Grab	X	X	
pH	Range	6.0-9.0	SU	-	-	6/day	Grab	X	X	
Ammonia (as NH ₃) - June 1 to October 31	Monthly Average	1.2	mg/l	-	-	1/day	24-hr. Comp.	X	X	
Ammonia (as NH ₃) - November 1 to May 31 st	Monthly Average	2.4	mg/l	-	-	1/day	24-hr. Comp.	X	X	
Nitrate (as N)	Monthly Average	Monitor	mg/l	-	-	1/week	24-hr. Comp.		X	
Nitrite (as N)	Monthly Average	Monitor	mg/l	-	-	1/week	24-hr. Comp.		X	
Total Kjeldahl Nitrogen, TKN (as N)	Monthly Average	Monitor	mg/l	-	-	1/week	24-hr. Comp.	X	X	
Nitrogen, Total (as N)	Monthly Average	Calculated	mg/l	-	-	1/week	24-hr. Comp.		X	9
Temperature	Daily Maximum	Monitor	°C	-	-	6/day	Grab		X	
Phosphorus, Total (as P)	Monthly Average	Monitor	mg/l	Monitor	lbs/d	1/day	24-hr. Comp.	X	X	
Phosphorus, Total (as P)	12-Month Rolling Average	0.10	mg/l	-	-	1/month	Calculated		X	2,4,7
Phosphorus (as P)	12-Month Rolling Sum	-	-	21511	lbs/yr	1/month	Calculated		X	4,7
Mercury, Total Recoverable	12-Month Rolling Average	2.38	ng/l	-	-	1/month	24-hr. Comp.		X	5,6
Mercury, Total Recoverable	Daily Maximum	50	ng/l	-	-	1/month	24-hr. Comp.		X	5
Cyanide, Total	Daily Maximum	-	-	7.3	lbs/d	1/month	Grab		X	
Total Dissolved Solids	Daily Average	Monitor	mg/l	-	-	1/month	24-hr. Comp.		X	
Effluent Disinfection required		[] All Year		[X] Seasonal from April 1 to October 15						3
Coliform, Fecal	30-Day Geometric Mean	200	No./100 ml			1/day	Grab		X	
Coliform, Fecal	7 Day Geometric Mean	400	No./100 ml			1/day	Grab		X	
Whole Effluent Toxicity (WET) Testing				Limit	Units	Sample Frequency	Sample Type	Inf.	Eff.	FN
WET - Acute Invertebrate	See footnote			Monitor	TUa	Quarterly	See footnote		X	10
WET - Acute Vertebrate	See footnote			Monitor	TUa	Quarterly	See footnote		X	10
WET - Chronic Invertebrate	See footnote			2.0	TUc	Quarterly	See footnote		X	10
WET - Chronic Vertebrate	See footnote			2.0	TUc	Quarterly	See footnote		X	10

FOOTNOTES (FN):

1. Effluent shall not exceed 15 % and 15 % of influent values for CBOD₅ & TSS, respectively. Percent removal requirements do not apply when influent flows are > 126.3 MGD.
2. The 12-month rolling average shall be the average of the monthly average of the current month plus the monthly averages of the eleven previous months, in accordance with page 11 of the NYSDEC "DMR Manual for Completing the Discharge Monitoring Report for the State Pollutant Discharge Elimination System, (2002).
3. Only effluent flows up to 126.3 MGD shall be disinfected using UV and shall be used in the calculation for the monthly average flow for **outfall 001**. Flows from 126.3 up to 240 MGD shall receive primary treatment and chlorination/dechlorination disinfection treatment, and be discharging via **outfall 002**. Flow in excess of the secondary effluent pump station (SEPS) capacity (126.3 MGD) and routed to the old Tertiary Pump Station overflow are discharged to **outfall 01A**. All influent flows greater than 240 MGD shall be disinfected prior to being discharged via **outfall 01B**. Disinfection will be performed on all flows between April 1 and October 15.
4. The effluent limits for Phosphorus, Total are as follows:

EFFECTIVE DATES	PHOSPHORUS ^(4a)
July 1, 2012 through December 31, 2018	Final limit = 0.10 mg/l 12-month rolling average pursuant to the TMDL approved by USEPA Final loading limit Outfall 001– 21,511 lbs/yr
January 1, 2019	Final limit = 0.10 mg/l 12-month rolling average pursuant to the TMDL approved by USEPA Final loading limit – 27,212 lbs/yr

The 12-month rolling average shall be calculated using the current and previous 11 month's values in accordance with page 11 of the NYSDEC "DMR Manual for Completing the Discharge Monitoring Report for the State Pollutant Discharge Elimination System, (2002). This is the final limit determination based on lake/watershed models and subsequent TMDL analysis and allocation process, approved by the U.S. Environmental Protection Agency, June 29, 2012.

5. The composite shall be of 3 grab samples taken at eight (8)-hour intervals.
6. The effluent limit is consistent with DEC TOGS 1.3.10 under the Multiple Discharge Variance, Section 3, stating that the permit limit shall be expressed as a 12-month rolling average (12-MRA) using the 95%ile of the existing effluent. This limit shall become effective **07/01/2018**. All samples shall be analyzed using EPA method 1631.
7. Section 7.2.1 of the Phosphorus TMDL establishes individual outfall and total facility Waste Load Allocations (WLAs) for METRO. These are the final Water Quality Based Effluent Limits based on the WLAs developed pursuant to the TMDL approved by USEPA, June 29, 2012.
8. Notification of initiation of an anticipated bypass or treatment reduction necessitated by construction, reconstruction, or scheduled maintenance of sewage treatment works, must be performed in accordance with 6 NYCRR Part 750-2.7(a) and (f), and reported in accordance with 6 NYCRR Part 750-2.7 (c) through (e) inclusively. Discharge shall be sampled in accordance with 6 NYCRR Part 750-2.7(g). Notification and reporting must be made to the Regional Water Engineer.
9. Total Nitrogen, as N = [Total Kjeldahl Nitrogen (TKN), as N] + [Nitrite (NO₂), as N] + [Nitrate (NO₃), as N].
10. Whole Effluent Toxicity (WET) Testing Requirements - WET testing shall consist of Chronic testing. WET testing shall be performed in accordance with 40 CFR Part 136 and TOGS 1.3.2 unless prior written approval has been obtained from the Department. The test species shall be Ceriodaphnia dubia (water flea - invertebrate) and Pimephales promelas (fathead minnow - vertebrate). Receiving water collected upstream from the discharge should be used for dilution. All tests conducted should be static-renewal (two 24-hr composite samples with one renewal for Acute tests, and three 24-hr composite samples with two renewals for Chronic tests). The appropriate dilution series bracketing the IWC and including one exposure group of 100% effluent should be used to generate a definitive test endpoint, otherwise an immediate rerun of the test is required. WET testing shall be coordinated with the monitoring of chemical and physical parameters limited by this permit so that the resulting analyses are also representative of the sample used for WET testing. The ratio of critical receiving water flow to discharge flow (i.e. dilution ratio) is 0.5:1 for acute, and 1:1 for chronic. Discharges which are disinfected using chlorine should be dechlorinated prior to WET testing or samples shall be taken immediately prior to the chlorination system.

FOOTNOTES (FN):

Monitoring Period - WET testing shall be performed at the specified sample frequency **during calendar years ending in 2 and 7.**

WET Testing Requirements continued.

Reporting - Toxicity Units shall be calculated and reported on the DMR as follows: $TU_a = (100)/(48\text{-hr LC50})$ or $(100)/(48\text{-hr EC50})$ (note that Acute data is generated by both Acute and Chronic testing) and $TU_c = (100)/(NOEC)$ when Chronic testing has been performed or $TU_c = (TU_a) \times (10)$ when only Acute testing has been performed and is used to predict Chronic test results, where the 48-hr LC50 or 48-hr EC50 and NOEC are expressed in % effluent. This must be done for both species and using the Most Sensitive Endpoint (MSE) or the lowest NOEC and corresponding highest TU_c . Report a TU_a of 0.3 if there is no statistically significant toxicity in 100% effluent as compared to control.

The complete test report including all corresponding results, statistical analyses, reference toxicity data, daily average flow at the time of sampling and other appropriate supporting documentation, shall be submitted within 60 days following the end of each test period to the Toxicity Testing Unit. A summary page of the test results for the invertebrate and vertebrate species indicating TU_a , 48-hr LC50 or 48-hr EC50 for Acute tests and/or TU_c , NOEC, IC25, and most sensitive endpoints for Chronic tests, should also be included at the beginning of the test report.

WET Testing Action Level Exceedances - If an action level is exceeded then the Department may require the permittee to conduct additional WET testing including Acute and/or Chronic tests. Additionally, the permittee may be required to perform a Toxicity Reduction Evaluation (TRE) in accordance with Department guidance. If such additional testing or performance of a TRE is necessary, the permittee shall be notified in writing by the Regional Water Engineer. The written notification shall include the reason(s) why such testing or a TRE is required.

A. PERMIT LIMITS, LEVELS AND MONITORING (METALS)

OUTFALL No. 001	LIMITATIONS APPLY:	RECEIVING WATER	EFFECTIVE	EXPIRING
	All Year unless otherwise noted	Onondaga Lake	07/01/2017	06/30/2022

PARAMETER	MONITORING ACTION LEVEL	UNITS	SAMPLE FREQUENCY	SAMPLE TYPE	FN
Cadmium, Total Recoverable	3.1	lbs/day	1/month	24-hr composite	
Chromium, Total Recoverable	16	lbs/day	1/month	24-hr composite	
Copper, Total Recoverable	17.6	lbs/day	1/month	24-hr composite	
Iron, Total Recoverable	5260	lbs/day	1/month	24-hr composite	
Lead, Total Recoverable	3	lbs/day	1/month	24-hr composite	
Nickel, Total Recoverable	28	lbs/day	4/year	24-hr composite	
Zinc, Total Recoverable	33	lbs/day	1/month	24-hr composite	
Butyl Benzyl Phthalate	3	lbs/day	4/year	24-hr composite	2
Chloroform	4.12	lbs/day	4/year	24-hr composite	2
Methylene Chloride	0.86	lbs/day	4/year	Grab	1
Tetrachloroethene	1.1	lbs/day	1/month	Grab	1

FOOTNOTES (FN):

1. Sampling shall be implemented when plant flows represent typical industrial loadings.
2. The composite shall be of 3 grab samples taken at eight (8)-hour intervals.

PERMIT LIMITS, LEVELS AND MONITORING

OUTFALL No.	LIMITATIONS APPLY:				RECEIVING WATER		EFFECTIVE		EXPIRING	
AGG	All Year unless otherwise noted				Onondaga Lake		07/01/2017		06/30/2022	
PARAMETER	EFFLUENT LIMIT					MONITORING REQUIREMENTS				FN
	Type	Limit	Units	Limit	Units	Sample Frequency	Sample Type	Location		
								Inf	Eff	
Phosphorus, Total, as P	Monthly average			Monitor	lbs/d	1/month	Calculated		X	1,2,3
Phosphorus, Total, as P	12-month rolling average			Monitor	lbs/d	1/month	Calculated		X	1,2,3
Phosphorus, Total, as P	12-month rolling sum			27,212	lbs/yr	1/month	Calculated		X	1,2,3

FOOTNOTES (FN):

- The effluent limits for Phosphorus, Total are as follows:

EFFECTIVE DATES	PHOSPHORUS ^(1a)
July 1, 2012 through December 31, 2018	Final limit = 0.10 mg/l 12-month rolling average pursuant to the TMDL approved by USEPA Final loading limit Outfall 001– 21,511 lbs/yr
January 1, 2019	Final limit = 0.10 mg/l 12-month rolling average pursuant to the TMDL approved by USEPA Final loading limit – 27, 212 lbs/yr

- 1a. The 12-month rolling average shall be calculated using the current and previous 11 month’s values in accordance with page 11 of the NYSDEC “DMR Manual for Completing the Discharge Monitoring Report for the State Pollutant Discharge Elimination System, (2002). This is the final limit determination based on lake/watershed models and subsequent TMDL analysis and allocation process, approved by the U.S. Environmental Protection Agency, June 29, 2012.
- Section 7.2.1 of the Phosphorus TMDL establishes individual outfall and total facility Waste Load Allocations (WLAs) for METRO. These are the final Water Quality Based Effluent Limits based on the WLAs developed pursuant to the TMDL approved by USEPA, June 29, 2012.
- Aggregate is defined as the sum of effluent discharges from outfall 001, outfall 01A, outfall 01B, and outfall 002. The individual 12 month rolling sum (12-MRS) is defined as the current monthly load summed with the eleven previous months load for each outfall. The individual 12-MRSs are then summed to calculate the Aggregate 12-MRS. The 12-MRS is enforced as a 30 day limit, therefore any reported exceedance of the 12-MRS will be considered 30 days of violation. The Aggregate 12-MRS shall be implemented beginning January 1, 2019.

B. ADDITIONAL MONITORING REQUIREMENTS – OUTFALL 001

The following pollutants have been reported by previous sampling to be present in the permittee's influent or have been requested by the permittee to be included in these monitoring requirements. Due to the potentially harmful impact on the treatment facility operation and receiving water quality, the permittee shall comply with the monitoring requirements listed below.

Monitoring results, if not provided for on the Discharge Monitoring Report (DMR) form, shall be appended to the DMR for the period during which the sampling was conducted. The permittee is not authorized to discharge any of the listed parameters at levels which may cause or contribute to a violation of water quality standards. During the permit term, the discharges from the permittee shall be monitored as follows:

PARAMETER	COMPLIANCE LIMIT	UNITS	SAMPLE FREQUENCY	SAMPLE TYPE	FN
All 601 and 602 group substances	Monitor	lbs/day	2/year	Grab	3
Xylenes, Total (O+M+P)	Monitor	lbs/day	2/year	Grab	1,3
Bis(2-ethylhexyl)phthalate	Monitor	lbs/day	2/year	Composite	2,3
Dibutylphthalate	Monitor	lbs/day	2/year	Composite	2,3
Silver, Total Recoverable	Monitor	lbs/day	2/year	24-hr composite	3
Arsenic, Total Recoverable	Monitor	lbs/day	2/year	24-hr composite	3

FOOTNOTES (FN):

1. Sum of Ortho-, Meta-, and Para- isomers
2. The composite shall be of 3 grab samples taken at eight (8)-hour intervals.
3. Sampling shall be implemented when plant flows represent typical industrial loadings.

PARAMETER	USEPA METHOD	COMPLIANCE LIMIT	UNITS	SAMPLE FREQUENCY	SAMPLE TYPE	FN
Phenolic Compounds (Total Phenols)	420.1 (4AAP)	Monitor	lbs/day	2/year	Composite	1,2
Phenols, total chlorinated	625 (GC/MS)	Monitor	lbs/day	2/year	Composite	1,2
Phenols, total unchlorinated	625 (GC/MS)	Monitor	lbs/day	2/year	Composite	1,2

FOOTNOTES (FN):

1. Samples shall be collected on the same date and analyzed using the listed methods. Composite samples shall consist of individual grab samples composited at the laboratory. A library search shall be executed for all peaks in the chromatogram that are greater than 10% of the nearest internal standards, quantified using an assumed relative response factor of 1. The NIST (2002 release or later) or equivalent mass spectral library, shall be used as the reference library.
2. For compliance reporting, the numerical summation of all positive results for phenolic compounds shall be reported on the DMR.

IV. PERMIT LIMITS, LEVELS AND MONITORING

OUTFALL	LIMITATIONS APPLY:		RECEIVING WATER			EFFECTIVE		EXPIRING
01A	All Year unless otherwise noted		Onondaga Lake			07/01/2017		06/30/2022
PARAMETER	EFFLUENT LIMIT		MONITORING REQUIREMENTS					FN
	Type	Limit	Units	Sample Frequency	Sample Type	Location		
						Inf.	Eff.	
Flow	Monthly Total	Monitor	MG	Continuous	Recorder/Totalizer	-	X	1, 2, 9
BOD5	Monthly Average	Monitor	mg/l	1/ 4 hrs	Composite	-	X	5
Solids, Suspended	Monthly Average	Monitor	mg/l	1/ 4 hrs	Composite	-	X	5
Solids, Settleable	Daily Maximum	0.8	ml/l	1/ 4 hrs	Grab	-	X	3
Phosphorus, Total (as P)	Monthly Average	Monitor	mg/l	1/ 4 hrs	Composite	-	X	5, 8
Phosphorus, Total (as P)	Monthly Average	Monitor	lb/month	Monthly	Calculated	-	X	8, 10
Ammonia, as NH3	Monthly Average	Monitor	mg/l	1/ 4 hrs	Composite	-	X	5
Ammonia, as NH3	Monthly Average	Monitor	lbs/day	Monthly	Calculated	-	X	10
Chlorine, Total Residual	Daily Maximum	0.1	mg/l	1/ 4hrs	Grab	-	X	1, 3, 4
Coliform, Fecal	30-day Geometric Mean	200	#/100ml	1/ 4hrs	Grab	-	X	4
Oil & Grease	Daily Maximum	Monitor	mg/l	1/ 4 hrs	Grab	-	X	3
Floatable Material	Daily	Substantial Removal	Visual Observation	1/ 4 hrs	Visual Observation	-	X	6, 7

OUTFALL	LIMITATIONS APPLY:		RECEIVING WATER			EFFECTIVE		EXPIRING
01B	All Year unless otherwise noted		Onondaga Lake			07/01/2017		06/30/2022
PARAMETER	EFFLUENT LIMIT		MONITORING REQUIREMENTS					FN
	Type	Limit	Units	Sample Frequency	Sample Type	Location		
						Inf.	Eff.	
Flow	Monthly Total	Monitor	MG	Continuous	Recorder/Totalizer	-	X	1, 2, 9
BOD5	Monthly Average	Monitor	mg/l	1/ 4 hrs	Composite	-	X	5
Solids, Suspended	Monthly Average	Monitor	mg/l	1/ 4 hrs	Composite	-	X	5
Phosphorus, Total (as P)	Monthly Average	Monitor	mg/l	1/ 4 hrs	Composite	-	X	5, 8
Phosphorus, Total (as P)	Monthly Average	Monitor	lb/month	Monthly	Calculated	-	X	8, 10
Ammonia, as NH3	Monthly Average	Monitor	mg/l	1/ 4 hrs	Composite	-	X	5
Ammonia, as NH3	Monthly Average	Monitor	lbs/day	Monthly	Calculated	-	X	10
Chlorine, Total Residual	Daily Maximum	Monitor	mg/l	1/ 4hrs	Grab	-	X	1, 3, 4
Coliform, Fecal	30-day Geometric Mean	Monitor	#/100ml	1/ 4hrs	Grab	-	X	4
Oil & Grease	Daily Maximum	Monitor	mg/l	1/ 4 hrs	Grab	-	X	3
Floatable Material	Daily	Substantial Removal	Visual Observation	1/ 4 hrs	Visual Observation	-	X	6, 7

FOOTNOTES and ADDITIONAL CONDITIONS for Outfalls 01A and 01B: See Page 13 of this Permit

FOOTNOTES and ADDITIONAL CONDITIONS for Outfalls 01A and 01B:

1. Flows from 126.3 up to 240 MGD shall receive primary treatment and chlorination/dechlorination disinfection treatment, discharging via outfall 002. All influent flows greater than 240 MGD shall be disinfected prior to being discharged via outfall 001. Disinfection will be performed on all flows between April 1 and October 15.
2. Flows shall be continuously recorded and totalized. Flows reported on the monthly operating report shall be the total flow discharge for the calendar month reporting period.
3. Daily Maximum shall be calculated based on the arithmetic mean of samples taken during any event.
4. Effluent Disinfection required: seasonal from April 1 to October 15. Monitoring of these parameters is only required during the period when disinfection is required.
5. Sample type shall be composite of grab samples, one taken every four hours during each event.
6. Visual observation required every four hours during each event.
7. The permittee shall institute procedures to ensure substantial removal of floatable materials for the duration of the bypass events as indicated by visual observations during the events.
8. Section 7.2.1 of the Phosphorus TMDL establishes individual outfall and total facility Waste Load Allocations (WLAs) for METRO. Loadings from 01A shall be summed into the outfall aggregate as defined in footnote #3, Page 10. These are the final Water Quality Based Effluent Limits, effective January 1, 2019 pursuant to the TMDL approved by the USEPA on June 29, 2012.
9. A bypass event starts at the moment wastewater overflows the weirs of the overflow structure at 01B or when wastewater flows at the tertiary and/or SEPS exceed 126 MGD and continues until these overflows stop. Sampling during each bypass event shall occur within the first 30 minutes of the bypass and every 4 hours thereafter for the duration of continuous discharge. If the bypass does not occur for more than 30 minutes, it is not necessary to collect a sample.
10. The monthly average shall be calculated using the total flow and average concentration calculated for each event. These loads shall then be summed for the month and divided by the total number of days in the month.

V. PERMIT LIMITS, LEVELS AND MONITORING

OUTFALL	LIMITATIONS APPLY:	RECEIVING WATER	EFFECTIVE	EXPIRING
002	All Year unless otherwise noted	Onondaga Lake	07/01/2017	06/30/2022

PARAMETER	EFFLUENT LIMIT			MONITORING REQUIREMENTS				FN
	Type	Limit	Units	Sample Frequency	Sample Type	Location		
						Inf.	Eff.	
Flow	Monthly Total	Monitor	MG	Continuous	Recorder/Totalizer	-	X	1, 2, 8
BOD5	Monthly Average	Monitor	mg/l	1/ 4 hrs	Composite	-	X	5
Solids, Suspended	Monthly Average	Monitor	mg/l	1/ 4 hrs	Composite	-	X	5
Solids, Settleable	Daily Maximum	0.8	ml/l	1/ 4 hrs	Grab	-	X	3
Phosphorus, Total (as P)	Rolling Average	7602	lbs/yr	1/ 4 hrs	Composite	-	X	5
Phosphorus, Total (as P)	Monthly Average	Monitor	mg/l	Monthly	Calculated	-	X	9
Ammonia, as NH3	Monthly Average	Monitor	mg/l	1/ 4 hrs	Composite	-	X	
Ammonia, as NH3	Monthly Average	Monitor	lb/month	Monthly	Calculated	-	X	9
Chlorine, Total Residual	Daily Maximum	0.1	mg/l	1/ 4hrs	Grab	-	X	1, 3, 4
Coliform, Fecal	30-day Geometric Mean	200	#/100ml	1/ 4hrs	Grab	-	X	4
Oil & Grease	Daily Maximum	Monitor	mg/l	1/ 4 hrs	Grab	-	X	3
Floatable Material	Daily	Substantial Removal	Visual Observation	1/ 4 hrs	Visual Observation	-	X	6, 7

FOOTNOTES and ADDITIONAL CONDITIONS:

- Flows from 126.3 up to 240 MGD shall receive primary treatment and chlorination/dechlorination disinfection treatment, discharging via outfall 002 all influent flows greater than 240 MGD shall be disinfected prior to being discharged via outfall 001. Disinfection will be performed on all flows between April 1 and October 15.
- Flows shall be continuously recorded and totalized. Flows reported on the monthly operating report shall be the total flow discharge for the calendar month reporting period.
- Daily Maximum shall be calculated based on the arithmetic mean of samples taken during any event.
- Effluent Disinfection required: seasonal from April 1 to October 15. Monitoring of these parameters is only required during the period when disinfection is required.
- Sample type shall be composite of grab samples, one taken every four hours during each event.
- Visual observation required every four hours during each event.
- The permittee shall institute procedures to ensure substantial removal of floatable materials for the duration of the bypass events as indicated by visual observations during the events.
- A bypass event starts at the moment wastewater overflows the weirs of the overflow structure at 002 or when wastewater flows at the tertiary and/or SEPS exceed 126 MGD and continues until these overflows stop. Sampling during each bypass event shall occur within the first 30 minutes of the bypass and every 4 hours thereafter for the duration of the discharge. If the bypass does not occur for more than 30 minutes, it is not necessary to collect a sample.
- The monthly average shall be calculated using the total flow and average concentration calculated for each event. These loads shall then be summed for the month and divided by the total number of days in the month.

VI. PRETREATMENT PROGRAM IMPLEMENTATION REQUIREMENTS

- A. DEFINITIONS: Generally, terms used in this Section shall be defined as in the General Pretreatment Regulations (40 CFR Part 403). Specifically, the following definitions apply to terms used in this Section (PRETREATMENT PROGRAM IMPLEMENTATION REQUIREMENTS):
1. Categorical Industrial User (CIU): an industrial user of the POTW that is subject to Categorical Pretreatment Standards under 40 CFR 403.6 and 40 CFR Chapter I, Subchapter N;
 2. Local Limits: General Prohibitions, specific prohibitions and specific limits as set forth in 40 CFR 403.5.
 3. The Publicly Owned Treatment Works (the POTW): as defined by 40 CFR 403.3(q) and that discharges in accordance with this permit.
 4. Program Submission(s): requests for approval or modification of the POTW Pretreatment Program submitted in accordance with 40 CFR 403.11 or 403.18 and approved by letter dated June 11, 1984.
 5. Significant Industrial User (SIU):
 - a. CIUs;
 - b. Except as provided in 40 CFR 403.3(v)(3), any other industrial user that discharges an average of 25,000 gallons per day or more of process wastewater (excluding sanitary, non-contact cooling and boiler blowdown wastewater) to the POTW;
 - c. Except as provided in 40 CFR 403.3(v)(3), any other industrial user that contributes a process wastestream which makes up 5 percent or more of the average dry weather hydraulic or organic capacity of the POTW treatment plant;
 - d. Any other industrial user that the permittee designates as having a reasonable potential for adversely affecting the POTW's operation or for violating a pretreatment standard or requirement.
 6. Substances of Concern: Substances identified by the New York State Department of Environmental Conservation Industrial Chemical Survey as substances of concern.
- B. IMPLEMENTATION: The permittee shall implement a POTW Pretreatment Program in accordance 40 CFR Part 403 and as set forth in the permittee's approved Program Submission(s). Modifications to this program shall be made in accordance with 40 CFR 403.18. Specific program requirements are as follows:
1. Industrial Survey: To maintain an updated inventory of industrial dischargers to the POTW the permittee shall:
 - a. Identify, locate and list all industrial users who might be subject to the industrial pretreatment program from the pretreatment program submission and any other necessary, appropriate and available sources. This identification and location list will be updated, at a minimum, every five years. As part of this update the permittee shall collect a current and complete New York State Industrial Chemical Survey form (or equivalent) from each SIU.
 - b. Identify the character and volume of pollutants contributed to the POTW by each industrial user identified in B.1.a above that is classified as a SIU.
 - c. Identify, locate and list, from the pretreatment program submission and any other necessary, appropriate and available sources, all SIUs of the POTW.
 2. Control Mechanisms: To provide adequate notice to and control of industrial users of the POTW the permittee shall:
 - a. Inform by certified letter, hand delivery courier, overnight mail, or other means which will provide written acknowledgment of delivery, all industrial users identified in B.1.a. above of applicable pretreatment standards and requirements including the requirement to comply with the local sewer use law, regulation or ordinance and any applicable requirements under section 204(b) and 405 of the Federal Clean Water Act and Subtitles C and D of the Resource Conservation and Recovery Act.

PRETREATMENT PROGRAM IMPLEMENTATION REQUIREMENTS (continued)

- b. Control through permit or similar means the contribution to the POTW by each SIU to ensure compliance with applicable pretreatment standards and requirements. Permits shall contain limitations, sampling frequency and type, reporting and self-monitoring requirements as described below, requirements that limitations and conditions be complied with by established deadlines, an expiration date not later than five years from the date of permit issuance, a statement of applicable civil and criminal penalties and the requirement to comply with Local Limits and any other requirements in accordance with 40 CFR 403.8(f)(1).
 3. Monitoring and Inspection: To provide adequate, ongoing characterization of non-domestic users of the POTW, the permittee shall:
 - a. Receive and analyze self-monitoring reports and other notices. The permittee shall require all SIUs to submit self-monitoring reports at least every six months unless the permittee collects all such information required for the report, including flow data.
 - b. The permittee shall adequately inspect each SIU at a minimum frequency of once per year.
 - c. The permittee shall collect and analyze samples from each SIU for all priority pollutants that can reasonably be expected to be detectable at levels greater than the levels found in domestic sewage at a minimum frequency of once per year.
 - d. Require, through permits, each SIU to collect at least one 24 hour, flow proportioned composite (where feasible) effluent sample every six months and analyze each of those samples for all priority pollutants that can reasonably be expected to be detectable in that discharge at levels greater than the levels found in domestic sewage. The permittee may perform the aforementioned monitoring in lieu of the SIU except that the permittee must also perform the compliance monitoring described in 3.c.
 4. Enforcement: To assure adequate, equitable enforcement of the industrial pretreatment program the permittee shall:
 - a. Investigate instances of noncompliance with pretreatment standards and requirements, as indicated in self-monitoring reports and notices or indicated by analysis, inspection and surveillance activities. Sample taking and analysis and the collection of other information shall be performed with sufficient care to produce evidence admissible in enforcement proceedings or in judicial actions. Enforcement activities shall be conducted in accordance with the permittee's Enforcement Response Plan developed and approved in accordance with 40 CFR Part 403.
 - b. Enforce compliance with all national pretreatment standards and requirements in 40 CFR Parts 406 - 471.
 - c. Provide public notification of significant non-compliance as required by 40 CFR 403.8(f)(2)(viii).
 - d. Pursuant to 40 CFR 403.5(e), when either the Department or the USEPA determines any source contributes pollutants to the POTW in violation of Pretreatment Standards or Requirements the Department or the USEPA shall notify the permittee. Failure by the permittee to commence an appropriate investigation and subsequent enforcement action within 30 days of this notification may result in appropriate enforcement action against the source and permittee.
 5. Recordkeeping: The permittee shall maintain and update, as necessary, records identifying the nature, character, and volume of pollutants contributed by SIUs. Records shall be maintained in accordance with 6 NYCRR 750-2.5(c).
 6. Staffing: The permittee shall maintain minimum staffing positions committed to implementation of the Industrial Pretreatment Program in accordance with the approved pretreatment program.
- C. SLUDGE DISPOSAL PLAN. The permittee shall notify NYSDEC, and USEPA as long as USEPA remains the approval authority, 60 days prior to any major proposed change in the sludge disposal plan. NYSDEC may require additional pretreatment measures or controls to prevent or abate an interference incident relating to sludge use or disposal.

PRETREATMENT PROGRAM IMPLEMENTATION REQUIREMENTS (continued)

- D. **REPORTING:** The permittee shall provide to the offices listed on the Monitoring, Reporting and Recording page of this permit and to the Chief-Water Compliance Branch, USEPA Region II, 290 Broadway, New York, NY 10007, a periodic report that briefly describes the permittee's program activities over the previous year. This report shall be submitted to the above noted offices within 60 days of the end of the reporting period. The reporting period shall be annual, with reporting period(s) ending on December 31.

The periodic report shall include:

1. **Industrial Survey:** Updated industrial survey information in accordance with 40 CFR 403.12(i)(1) (including any NYS Industrial Chemical Survey forms updated during the reporting period).
2. **Implementation Status:** Status of Program Implementation, to include:
 - a. Any interference, upset or permit violations experienced at the POTW directly attributable to industrial users.
 - b. Listing of SIUs issued permits.
 - c. Listing of SIUs inspected and/or monitored during the previous reporting period and summary of results.
 - d. Listing of SIUs notified of promulgated pretreatment standards or applicable local standards who are on compliance schedules. The listing should include for each facility the final date of compliance.
 - e. Summary of POTW monitoring results not already submitted on Discharge Monitoring Reports and toxic loadings from SIU's organized by parameter.
 - f. A summary of additions or deletions to the list of SIUs, with a brief explanation for each deletion.
3. **Enforcement Status:** Status of enforcement activities to include:
 - a. Listing of SIUs in significant non-compliance (as defined by 40 CFR 403.8(f)(2)(viii) with federal or local pretreatment standards at end of the reporting period.
 - b. Summary of enforcement activities taken against non-complying SIUs. The permittee shall provide a copy of the public notice of significant violators as specified in 40 CFR 403.8(f)(2)(viii).

VII. BEST MANAGEMENT PRACTICES FOR COMBINED SEWER OVERFLOWS

The permittee shall implement the following Best Management Practices (BMPs). These BMPs are designed to implement operation & maintenance procedures, utilize the existing treatment facility and collection system to the maximum extent practicable, and implement sewer design, replacement and drainage planning, to maximize pollutant capture and minimize water quality impacts from combined sewer overflows. The BMPs are equivalent to the "Nine Minimum Control Measures" required under the USEPA National Combined Sewer Overflow policy.

1. CSO Maintenance/Inspection - The permittee shall inspect and maintain all CSO structures, regulators, pumping stations, and the combined sewer systems to ensure that they are in good working condition. This inspection shall include, but not be limited to, all regulators tributary to these CSO structures, and shall be conducted during periods of both dry and wet weather. This is to insure that no discharges occur during dry weather and that the maximum amount of wet weather flow is conveyed to the Metropolitan Syracuse POTW for treatment. This program shall consist of inspections with required repair, cleaning and maintenance done as needed. This program shall consist of weekly inspections.

Inspection reports shall be completed indicating visual inspection, any observed flow, incidence of rain or snowmelt, condition of equipment and work required. These reports shall be in a format approved by the NYSDEC Region 7 Office and submitted to the Region with the monthly operating report (Form 92-15-7).

2. Maximum Use of Collection System for Storage - The permittee shall optimize the collection County system by operating and maintaining it to minimize the discharge of pollutants from CSOs. It is intended that the maximum amount of in-system storage capacity be used (without causing service backups) to minimize CSOs and convey the maximum amount of combined sewage to the Metropolitan Syracuse treatment plant in accordance with Item 4 below. This shall be accomplished by an evaluation of the hydraulic capacity of the system but should also include a continuous program of flushing or cleaning to prevent deposition of solids and the adjustment of regulators and weirs to maximize storage.
3. Industrial Pretreatment - Discharge of persistent toxics upstream of CSOs will be in accordance with guidance under (NYSDEC Division of Water Technical and Operational Guidance Series (TOGS) 1.3.8 New Discharges to POTWs. For industrial operations characterized by use of batch discharge, consideration shall be given to the feasibility of a schedule of discharge during conditions of no CSO. For industrial discharges characterized by continuous discharge, consideration must be given to the collection system capacity to maximize delivery of waste to the treatment plant. Non-contact cooling water should be excluded from the combined system to the maximum extent practicable. Direct discharges of cooling water must apply for a SPDES permit.

To the maximum extent practicable, consideration shall be given to maximize the capture of industrial waste containing toxic pollutants and this wastewater should be given priority over residential/commercial service areas for capture and treatment by the POTW. For new industry, these factors shall be considered in siting with preference to service by areas not tributary to CSOs or having sufficient capacity to deliver all industrial wastewater during all conditions to the POTW.

4. Maximize Flow to POTW - Factors cited in Item 2 above shall also be considered in maximizing flow to the POTW. Maximum delivery to the POTW is particularly critical in treatment of "first-flush" flows. The Metropolitan Syracuse treatment plant shall be capable of receiving the peak design hydraulic loading rates for all process units. The Metropolitan Syracuse treatment plant shall be capable of: receiving a minimum of 168.4 MGD through the plant head works; a minimum of 168.4 MGD through the primary treatment works (and disinfection works if applicable); and a minimum of 126.3 MGD through the secondary treatment works during wet weather. The collection system and headworks must be capable of delivering these flows during wet weather. If the permittee cannot deliver maximum design flow for treatment, the permittee shall submit a plan and schedule for accomplishing this requirement to the NYSDEC Region 7 Water Engineer by 07/01/2018.
5. Wet Weather Operating Plan - The permittee shall maximize treatment during wet weather events. This shall be accomplished by having a wet weather operating plan containing procedures so as to operate unit processes to treat maximum flows while not appreciably diminishing effluent quality or destabilizing treatment upon return to dry weather operation. The wet weather operations plan shall be submitted to the Regional Water Engineer, Region 7 Office for review and approval by 07/01/2018 and whenever an upgrade to the treatment plant is implemented. The wet weather operating plan shall consider all the CSO facilities in Appendix A of this permit. The submission of a wet weather operating plan is a one time requirement that shall be done to the Department's satisfaction once. However, a revised wet weather operating plan must be submitted whenever the POTW and/or sewer collection system is replaced or modified. When this permit is administratively renewed by NYSDEC letter entitled "SPDES NOTICE/RENEWAL APPLICATION/PERMIT", the permittee is not required to repeat the submission. The above due dates are independent from the effective date of the permit stated in the letter of "SPDES NOTICE/RENEWAL APPLICATION/PERMIT".

6. Prohibition of Dry Weather Overflow - Dry weather overflows from the combined sewer system are prohibited. The occurrence of any dry weather overflow shall be promptly abated and reported to the NYSDEC Region 7 Water Engineer within 24 hours from when first realized by the permittee. A written report shall also be submitted within fourteen (14) days of the time the permittee becomes aware of the occurrence. Such reports shall contain the information listed in the 6 NYCRR Part 750-2.7(c).
7. Control of Floatable and Settleable Solids - The discharge of floating solids, oil and grease, or solids of sewage origin which cause deposition in the receiving waters, is a violation of the NYS Narrative Water Quality Standards contained in Part 703. As such, the permittee shall implement, within the collection system owned and operated by the permittee, best management practices (BMPs) in order to eliminate or minimize the discharge of these substances. All of the measures cited in Items 1, 2, 4 & 5 above shall constitute approvable BMPs for mitigation of this problem. If aesthetic problems persist, the permittee should consider additional BMPs including but not limited to: street sweeping, litter control laws, installation of floatables traps in catch basins (such as hoods), booming and skimming of CSOs, and disposable netting on CSO outfalls. In cases of severe or excessive floatables generation, booming and skimming should be considered an interim measure prior to implementation of final control measures. Public education on harmful disposal practices of personal hygienic devices may also be necessary including but not limited to: public broadcast television, printed information inserts in sewer bills, or public health curricula in local schools.
8. Combined Sewer System Replacement - Replacement of combined sewers shall not be designed or constructed unless approved by NYSDEC. When replacement of a combined sewer is necessary it shall be replaced by separate sanitary and storm sewers to the greatest extent possible. These separate sanitary and storm sewers shall be designed and constructed simultaneously but without interconnections to maximum extent practicable. When combined sewers are replaced, the design should contain cross sections which provide sewage velocities which prevent deposition of organic solids during low flow conditions.
9. Combined Sewer/Extension - Combined sewer/extension, when allowed should be accomplished using separate sewers. These sanitary and storm sewer extensions shall be designed and constructed simultaneously but without interconnections. No new source of storm water shall be connected to any separate sanitary sewer in the collection system.

If separate sewers are to be extended from combined sewers, the permittee shall demonstrate the ability of the sewerage system to convey, and the treatment plant to adequately treat, the increased dry-weather flows. Upon a determination by the NYSDEC Region 7 Regional Water Engineer an assessment shall be made by the permittee of the effects of the increased flow of sanitary sewage or industrial waste on the strength of CSOs and their frequency of occurrence including the impacts upon best usage of the receiving water. This assessment should use techniques such as collection system and water quality modeling contained in the 1999 Water Environment Federation Manual of Practice FD-17 entitled, Prevention and Control of Sewer System Overflows, 2nd edition.

10. Sewer Connection and Extension Prohibitions -If, there are documented, recurrent instances of sewage backing up into house(s) or discharges of raw sewage onto the ground surface from surcharging manholes, the permittee shall, upon letter notification from DEC, prohibit further connections that would make the surcharging/back-up problems worse.
11. Septage and Hauled Waste - The discharge or release of septage or hauled waste upstream of a CSO is prohibited.
12. Control of Run-off - It is recommended that the impacts of run-off from development and re-development in areas served by combined sewers be reduced by requiring compliance with the New York Standards for Erosion and Sediment Control (<http://www.dec.ny.gov/chemical/29066.html>) and the quantity control requirements included in the New York State Stormwater Management Design Manual (<http://http://www.dec.ny.gov/chemical/29072.html/>).
13. Public Notification - The permittee shall continue to maintain identification signs at all CSO outfalls owned and operated by the permittee. The permittee shall place the signs at or near the CSO outfalls and ensure that the signs are easily readable by the public. The signs shall have **minimum** dimensions of eighteen inches by twenty-four inches (18" x 24") and shall have white letters on a green background and contain the following information:

**N.Y.S. PERMITTED DISCHARGE POINT
(wet weather discharge)**

SPDES PERMIT No.: NY _____

OUTFALL No. : _____

For information about this permitted discharge contact:

Permittee Name:

Permittee Contact:

Permittee Phone: () - ### - ####

OR:

NYSDEC Division of Water Regional Office Address:

NYSDEC Division of Water Regional Phone: () - ### - ####

The permittee shall implement a public notification program to inform citizens of the location and occurrence of CSO events. This program shall include a mechanism (public media broadcast, standing beach advisories, newspaper notice etc.) to alert potential users of the receiving waters affected by CSOs. The program shall include a system to determine the nature and duration of conditions that are potentially harmful to users of these receiving waters due to CSOs.

11. Characterization and Monitoring - The permittee shall characterize the combined sewer system, determine the frequency of overflows, and identify CSO impacts in accordance with Combined Sewer Overflows, Guidance for Nine Minimum Controls, EPA, 1995, Chapter 10. These are minimum requirements, more extensive characterization and monitoring efforts which may be required as part of the Long Term Control Plan.
12. Annual report - The permittee shall submit an annual report summarizing implementation of the above best management practices (BMPs). The report shall list existing documentation of implementation of the BMPs and shall be submitted by April 1st of each year to the Regional office listed on the Recording, Reporting and Additional Monitoring page of this permit and to the Bureau of Water Permits, 625 Broadway, Albany, NY 12233-3505. Examples of recommended documentation of the BMPs are found in Combined Sewer Overflows, Guidance for Nine Minimum Controls (NMC), EPA, 1995. The permittee may obtain an electronic copy of the NMC guidance at <http://www.epa.gov/npdes/pubs/owm0030.pdf>. For guidance on developing the annual report, a BMP checklist is available from DEC on-line at http://www.dec.ny.gov/docs/water_pdf/csobmp.pdf. The permittee must submit a completed copy of this checklist along with the annual report. The actual documentation shall be stored at a central location and be made available to DEC upon request.

A. COMBINED SEWER OVERFLOWS LONG TERM CONTROL PLAN

i. Long-Term Control Plan

NYSDEC and the permittee entered into a federal Amended Consent Judgment (ACJ), effective January 20, 1998 concerning its Combined Sewer Overflow (CSO) abatement program. This ACJ governs the obligations of the permittee regarding design and construction of facilities required under the NYSDEC-approved facility plans. After reviewing the ACJ, NYSDEC determined that the CSO abatement program required by the ACJ is consistent with the Long-term Control Plan (LTCP) required under the USEPA CSO Control Policy.

For the duration of a LTCP development, permittees are required to submit annual reports describing the progress/status on the LTCP. However, Onondaga County is currently required under the ACJ (Page 1, Exhibit A (II)) to submit both monthly and annual progress reports of progress on their CSO abatement program. The annual report is due every April 1st each year. The monthly reporting schedule will be in effect until such a time as monthly reports are no longer required by the ACJ.

ii. Water Quality Requirements for Combined Sewer Overflows

The permittee shall not discharge any pollutant at a level that causes an in-stream excursion of the applicable water quality requirements. Hence, the permittee shall continue to implement the approved Ambient Monitoring Plan (AMP) which addresses compliance with the USEPA CSO strategy requirements, the SPDES permit, the Amended Consent Judgment (ACJ), and the water quality standards. This provision does not preclude the county from seeking a variance from a WQBEL (6 NYCRR 702.17) or a WQS revision (40 CFR 131.10(g)), or preclude the county from operating CSOs in accordance with a lawfully issued variance (6 NYCRR 702.17), or in compliance with a lawfully revised water quality standard.

iii. Long-Term Control Plan Implementation Schedule

The CSO abatement implementation schedule was set forth in the 2009 Fourth Stipulation and Order Amended Consent Judgment (ACJ). The ACJ sets projects and milestone dates to complete each project. The ACJ requires the County to implement specified engineering upgrades and other measures to bring the County's effluent discharges into compliance with the State's effluent limitations and applicable water quality standards for the receiving waters. The ACJ further requires the County to implement and complete these upgrades and other measures in accordance with the stipulated milestone dates. The results of these efforts will be used to validate the SWMM model and to ascertain percent capture of stormwater and CSO flows from green and gray technologies up to the design storm.

Additionally, the permittee shall comply with the schedule on the following page:

SCHEDULE OF COMPLIANCE – Long Term Control Plan

Outfall(s)	Compliance Action for Combined Sewer Overflows	Due Date
<p>1) All CSO Outfalls</p>	<p>The permittee shall submit to the Department an annual report consistent with the Department-approved Ambient Monitoring Plan which addresses compliance with the USEPA CSO strategy requirements, the SPDES permit, the ACJ, and water quality standards. Information required for the ACJ annual report due on April 1 through the life of the ACJ as per paragraph 14H of the ACJ Fourth Stipulation and information required by this permit can be compiled in one report and submitted at the same time provided all required information is included. The intent is to consolidate information rather than duplicate information. This annual report shall also document performance and results undertaken by the permittee including pretreatment requirements. At a minimum, the annual report shall include all items listed below:</p> <ol style="list-style-type: none"> 1. Combined Sewer Overflows: <ol style="list-style-type: none"> a. List all CSOs (closed and operational) with narrative description, latitude and longitude, corresponding outfall numbers, and a map showing respective locations; b. Describe each CSO service area (acreage, land use, land types, unique characteristics, accessibility, etc.), the estimated storm intensity required to activate the CSO, and the estimated flow discharged annually and how this was determined; c. Provide documentation that shows CSO closure; and d. List all flow monitoring devices for each CSO. Larger and representative CSOs shall be measured for flow. Justify if no flow monitoring is recommended. 2. Water Quality Monitoring: <ol style="list-style-type: none"> a. Include sampling of each water body that receives a CSO. Sampling shall be consistent with the revised AMP; and b. List measures to be taken to address water quality violations if detected. This shall include follow up sampling and source track down as appropriate and discuss measures taken to comply with the Pretreatment requirements. 3. The Annual Report shall include: <ol style="list-style-type: none"> a. Analytical results and measurements from all related sampling required by the AMP and permit; b. An evaluation of compliance with applicable USEPA CSO strategy requirements, the SPDES permit, the ACJ and water quality standards. Corrective measures shall be included for any areas of non-compliance; c. If a violation of any water quality standard is found, discuss in detail what actions were taken to address this violation including demonstrating compliance with Pretreatment requirements. Include actions necessary over the next 12 months to achieve compliance; d. A detailed description of measures taken over the last year to eliminate and reduce CSO discharge within the permittee's service area; e. The percent capture within the service area and a comparison to the ACJ capture requirements of 89.5% by 12/31/2013; 91.4% by 12/31/2015; 93% by 12/31/2016; and 95% capture by 12/31/2018. If these requirements are not achieved, include a description of how compliance will be achieved; f. A brief description of measures anticipated over the next 12 months to reduce CSO volume and the estimated percent capture; g. Certification by an individual certified to practice engineering in NYS that the information provided is accurate and representative; and h. Reporting shall be consistent with the ACJ reporting requirements. 	<p>Annually on April 1st</p>

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- 2) The permittee shall submit a written notice of compliance or non-compliance with each of the above schedule dates no later than 14 days following each elapsed date, unless conditions require more immediate notice as prescribed in 6 NYCRR Part 750-1.2(a) and 750-2. All such compliance or non-compliance notification shall be sent to the locations listed under the section of this permit entitled RECORDING, REPORTING AND ADDITIONAL MONITORING REQUIREMENTS. Each notice of non-compliance shall include the following information:
- A short description of the non-compliance;
 - A description of any actions taken or proposed by the permittee to comply with the elapsed schedule requirements without further delay and to limit environmental impact associated with the non-compliance;
 - A description of any factors which tend to explain or mitigate the non-compliance; and
 - An estimate of the date the permittee will comply with the elapsed schedule requirement and an assessment of the probability.
- 3) The permittee shall submit copies of any document required by the above schedule of compliance to NYSDEC Region 7 Water Engineer at the location listed under the section of this permit entitled RECORDING, REPORTING AND ADDITIONAL MONITORING REQUIREMENTS and to the NYSDEC, Bureau of Water Permits, 625 Broadway, Albany, N.Y. 12233-3505, unless otherwise specified in this permit or in writing by the NYSDEC.

iv. Operational Plan

The wet weather operating plan that is required as part of the treatment plant's CSO Best Management Practices shall be required to be updated as a result of modifications to the CSS made during the implementation of the LTCP. The existing WWOP was approved in April 2014. The permittee shall continue to implement the approved wet weather operating plan in accordance with under CSO Best Management Practice (BMP) #5.

v. Monitoring Requirements – Post Construction Compliance Monitoring Program

Monitoring requirements must be consistent with the current DEC approved PCCM Plan and ACJ.

vi. Special Conditions

A. Sensitive Area Reassessment

The permittee shall continue to reassess the feasibility of eliminating or relocating CSO outfalls discharging to existing designated sensitive areas. The permittee shall continue to consider new or improved techniques to eliminate or relocate overflows or changed circumstances that influence economic achievability. The permittee shall prepare and submit to DEC Region 7 Offices a report that presents the results of this reassessment, including the permittee's recommendation regarding the elimination or relocation of these outfalls. The permittee shall submit such reports no later than in **years ending in 2 and 7**.

B. Reopener

This permit may be modified or revoked and reissued, as provided pursuant to 6 NYCRR 750-1.18 6 NYCRR 750-1.20, 40 CFR 122.62 and 124.5, for the following reasons:

- To include new or revised conditions developed to comply with any state or federal law or regulation that addresses CSOs that are adopted or promulgated subsequent to the effective date of this permit.
- To include new or revised conditions if new information, not available at the time of permit issuance, indicates that CSO controls imposed under the permit have failed to ensure the attainment of state water quality standards.

vii. Reporting Requirements:

Reporting shall be consistent with the ACJ reporting requirements.

VIII. BEST MANAGEMENT PRACTICES FOR SANITARY SEWER SYSTEMS WITH ACTIVE OVERFLOWS WITHIN THE SEPARATE SEWER SYSTEMS OWNED AND OPERATED BY THE COUNTY

1. Dry weather overflows of the sewer system are prohibited. The occurrence of any dry weather overflow shall be promptly abated and reported to the NYSDEC Region 7 Water Engineer within 24 hours of detection. A written compliance report shall also be provided within five days of the time the permittee becomes aware of the occurrence. Such reports shall contain the information listed in the 6 NYCRR Part 750-2.8(b)(2) and 40 CFR 122.41.
2. The permittee shall optimize the sewer system by operating and maintaining it to minimize the discharge of pollutants from overflows.
3. No new source of storm water shall be connected to any separate sanitary sewer in the collection system.
4. Sanitary sewer extensions shall be designed and constructed without storm sewer interconnections.
5. The permittee shall maximize flow up to the peak design capacity to the POTW Treatment Plant during periods of wet weather.
6. The permittee shall submit to the NYSDEC Region 7 Water Engineer a Monthly Overflow Report summarizing, for each day that an overflow occurs any overflow points, an estimate of the total volume and duration of each overflow, measurements of the total amount of rainfall, a description of the source of each overflow and visual observations of water quality at each outfall.
7. The permittee shall conduct a maintenance and inspection program of pumping stations and the overflow facilities at all outfalls on pages 3 - 5 of this permit. This program shall consist of inspections performed at least on a monthly basis, with required repair, cleaning and maintenance done as needed. This is to insure that no discharges occur during dry weather and that the maximum amount of wet weather flow is conveyed to the wastewater treatment plant for treatment. All maintenance and inspection program activities including visual observations of the condition of equipment and any repair work required shall be summarized and attached with the Monthly Overflow Report.
8. By attaching a letter to the monthly operating report, the permittee shall inform the NYSDEC Region 7 Water Engineer of all reported instances known to the permittee of sewage backing up into houses or discharge of raw sewage from surcharging manholes onto the ground surface and the conditions (wet weather, sewer blockage, etc.) which caused this to occur.
9. If there are documented, recurrent instances of sewage backing up into house(s) or discharge of raw sewage onto the ground surface from surcharging manhole(s) the permittee shall, upon letter notification from NYSDEC, prohibit further connections, except as provided below, that would make the surcharging/backup problems worse.

Connections may be allowed by the permittee prior to long-term remediation of the problem provided that the units to be connected had received building permits prior to determination of a recurrent surcharging/backup situation; or (1) 'reasonable relief measures' have been taken to reduce infiltration/inflow flow rates and maximize sewage transmission in the area effected and (2) for each home equivalent to be connected, those measures will provide more than 5 gallons per minute (GPM) additional sewage transmission capacity to the area effected by surcharging/backup problems and (3) if long-term remediation is necessary, the permittee has entered consent order negotiations or is in compliance with an enforceable (permit or consent order) schedule to eliminate the recurrent surcharging/backup problems. In the event that negotiations to enter into a consent order are unsuccessful, the NYSDEC may, by letter notification, serve notice that all further connections that would make surcharging/backup problems worse will be prohibited.

The 'reasonable relief measures' taken and the connections allowed shall be summarized in a letter attachment to the monthly operating report.

'Reasonable relief measures' may include, but are not limited to, permanent disconnections of a sump pump, roof leader or a footing drain; substantial elimination of inflow and infiltration from a manhole; repair of cracked pipe, bad joint or house lateral connection; cleaning of sewage transmission devices such as sewers, force mains, and siphons; pump rehabilitation; rehabilitation of vent risers; etc.

IX. SCHEDULE OF COMPLIANCE

A. Mercury Minimization Program

1. **General** – By 07/01/2018, the permittee shall develop, implement, and maintain a Mercury Minimization Program (MMP). The MMP is required because the 50ng/l permit limit exceeds the state-wide calculated water quality based effluent limit (WQBEL) of 0.7 ng/l for Total Mercury. The goal of the MMP will be to reduce mercury effluent levels in pursuit of the calculated WQBEL. Guidance is provided in NYSDEC TOGS 1.3.10.
2. **MMP Elements** - The MMP shall be documented in narrative form and shall include any necessary drawings or maps. Other related documents already prepared for the facility may be used as part of the MMP and may be incorporated by reference. As a minimum, the MMP shall include an on-going program consisting of: periodic monitoring designed to quantify and, over time, track the reduction of mercury; an acceptable control strategy for reducing mercury discharges via cost-effective measures, which may include more stringent control of tributary waste streams; and submission of annual status reports. All existing information and data regarding CSO and SSO monitoring shall be considered when preparing the MMP. The plan shall include sampling at CSOs and SSOs, performed on a rotating basis so as to be representative of all outfalls.
 - A. **Monitoring** – All permit-related mercury monitoring shall be performed using USEPA Methods 1631. Use of USEPA Method 1669 during sample collection is recommended. Unless otherwise specified, all samples shall be grabs. Monitoring at influent and other locations tributary to compliance points may be performed using either EPA Methods 1631 or 245.7. Monitoring of raw materials, equipment, treatment residuals, and other non-wastewater/non-stormwater substances may be performed using other methods as appropriate. Monitoring shall be coordinated so that the results can be effectively compared between internal locations and final outfalls. Minimum required monitoring is as follows:
 - i. **Sewage Treatment Plant Influent & Effluent, CSO Outfalls, Type II SSO Outfalls** – Representative samples at each of these locations must be collected in accordance with the minimum frequency specified on the mercury permit limits page.
 - ii. **Key Locations in the Collection System and Potential Significant Mercury Sources** - The minimum monitoring frequency at these locations shall be semi-annual. Monitoring of properly treated dental facility discharges is not required. See TOGS 1.3.10 for guidance on track down and definition of key locations.
 - iii. **Hauled Wastes** - Hauled wastes which may contain significant mercury levels must be periodically tested prior to acceptance to ensure compliance with pretreatment/local limits requirements.
 - iv. Additional monitoring must be completed as may be required elsewhere in this permit or upon NYSDEC request.
 - B. **Control Strategy** - An acceptable control strategy is required for reducing mercury discharges via cost-effective measures, including but not limited to more stringent control of industrial users and hauled wastes. The control strategy will become enforceable under this permit and shall contain the following minimum elements:
 - i. **Pretreatment/Local Limits** - The permittee shall evaluate and revise current requirements in pursuit of the water quality goal.
 - ii. **Periodic Inspection** - The permittee must inspect users as necessary to support the MMP. Each dental facility shall be inspected at least once every five years to verify compliance with the wastewater treatment and notification elements of 6NYCRR Part 374.4. Other mercury sources shall also be inspected once every five years. Alternatively, the permittee may develop an outreach program which informs these users of their responsibilities once every five years and is supported by a subset of site inspections. Monitoring shall be performed as required above.
 - iii. **Systems with CSO & Type II SSO Outfalls** - Priority shall be given to controlling mercury sources upstream of CSOs and Type II SSOs through mercury reduction activities and/or controlled-release discharge. Effective control is necessary to avoid the need for the NYSDEC to establish mercury permit limits at these outfalls.
 - iv. A file shall be maintained containing all MMP documentation, including the dental forms required by 6NYCRR Part 374.4, which shall be available for review by NYSDEC representatives.
 - C. **Annual Status Report** - An annual status report shall be submitted to the NYSDEC Region 7 Water Engineer and to the Bureau of Water Permits, Albany, summarizing: (a) all MMP monitoring results for the previous year; (b) a list of known and potential mercury sources; (c) all action undertaken pursuant to the strategy during the previous year, (d) actions planned for the upcoming year, and (e) progress toward the goal.
3. **MMP Modification** - The MMP shall be modified whenever: (a) changes at the facility or within the collection system increase the potential for mercury discharges; (b) actual discharges exceed 50 ng/L; (c) a letter from the NYSDEC identifies inadequacies in the MMP; or, (d) pursuant to a permit modification.

X. STORM WATER POLLUTANT PREVENTION PLAN FOR POTW_s WITH STORMWATER OUTFALLS

1. General - The Department has determined that stormwater discharges from POTW_s with design flows at or above 1 MGD shall be covered under the SPDES permit. If the permittee has already submitted a Notice of Intent to the Department for coverage under the General Storm Water permit, the permittee shall submit a Notice of Termination to the Department upon receipt of this final SPDES permit containing the requirement to develop a SWPPP.

The permittee is required to develop, maintain, and implement a Storm Water Pollutant Prevention Plan (SWPPP) to prevent releases of significant amounts of pollutants to the waters of the State through plant site runoff; spillage and leaks; sludge or waste disposal; and other stormwater discharges including, but not limited to, drainage from raw material storage.

The SWPPP shall be documented in narrative form and shall include the 13 minimum elements below and plot plans, drawings, or maps necessary to clearly delineate the direction of stormwater flow and identify the conveyance, such as ditch, swale, storm sewer or sheet flow, and receiving water body. Other documents already prepared for the facility such as a Safety Manual or a Spill Prevention, Control and Countermeasure (SPCC) plan may be used as part of the SWPPP and may be incorporated by reference. A copy of the current SWPPP shall be submitted to the Department as required in item (2.) below and a copy must be maintained at the facility and shall be available to authorized Department representatives upon request.

2. Compliance Deadlines - The initial completed SWPPP shall be submitted by **01/01/2018** to the Regional Water Engineer. The SWPPP shall be implemented within 6 months of submission, unless a different time frame is approved by the Department. The SWPPP shall be reviewed annually and shall be modified whenever: (a) changes at the facility materially increase the potential for releases of pollutants; (b) actual releases indicate the SWPPP is inadequate, or (c) a letter from the Department identifies inadequacies in the SWPPP. The permittee shall certify in writing, as an attachment to the December Discharge Monitoring Report (DMR), that the annual review has been completed. All SWPPP revisions (with the exception of minimum elements - see item (4.B.) below) must be submitted to the Region 7 Water Engineer within 30 days. Note that the permittee is not required to obtain Department approval of the SWPPP (or of any minimum elements) unless notified otherwise. Subsequent modifications to or renewal of this permit does not reset or revise these deadlines unless a new deadline is set explicitly by such permit modification or renewal.
3. Facility Review - The permittee shall review all facility components or systems (including but not limited to material storage areas; in-plant transfer, process, and material handling areas; loading and unloading operations; storm water, erosion, and sediment control measures; process emergency control systems; and sludge and waste disposal areas) where materials or pollutants are used, manufactured, stored or handled to evaluate the potential for the release of pollutants to the waters of the State. In performing such an evaluation, the permittee shall consider such factors as the probability of equipment failure or improper operation, cross-contamination of storm water by process materials, settlement of facility air emissions, the effects of natural phenomena such as freezing temperatures and precipitation, fires, and the facility's history of spills and leaks. The relative toxicity of the pollutant shall be considered in determining the significance of potential releases.

The review shall address all substances present at the facility that are identified in Tables 6-10 of SPDES application Form NY-2C (available at <http://www.dec.state.ny.us/website/dcs/permits/olpermits/form2c.pdf>) as well as those that are required to be monitored by the SPDES permit.

4. A. 13 Minimum elements - Whenever the potential for a release of pollutants to State waters is determined to be present, the permittee shall identify Best Management Practices (BMPs) that have been established to prevent or minimize such potential releases. Where BMPs are inadequate or absent, appropriate BMPs shall be established. In selecting appropriate BMPs, the permittee shall consider good industry practices and, where appropriate, structural measures such as secondary containment and erosion/sediment control devices and practices. USEPA guidance for development of minimum elements of the SWPPP and BMPs is available in *Developing Your Stormwater Pollution Prevention Plan – A Guide for Industrial Operators*, February 2009, EPA 833-B-09-002. At a minimum, the plan shall include the following elements:

X. STORM WATER POLLUTANT PREVENTION PLAN FOR POTWs WITH STORMWATER OUTFALLS

- | | | |
|-------------------------------------|--|---------------------------------|
| 1. Pollution Prevention Team | 6. Security | 10. Spill Prevention & Response |
| 2. Reporting of BMP Incidents | 7. Preventive Maintenance | 11. Erosion & Sediment Control |
| 3. Risk Identification & Assessment | 8. Good Housekeeping | 12. Management of Runoff |
| 4. Employee Training | 9. Materials/Waste Handling, Storage & Compatibility | 13. Street Sweeping |
| 5. Inspections and Records | | |

Note that for some facilities, especially those with few employees, some of the above may not be applicable. It is acceptable in these cases to indicate "Not Applicable" for the portion(s) of the SWPPP that do not apply to your facility, along with an explanation, for instance if street sweeping did not apply because no streets exist at the facility.

B. Stormwater Pollution Prevention Plans (SWPPPs) Required for Discharges of Stormwater From Construction Activity to Surface Waters - As part of the erosion and sediment control element, a SWPPP shall be developed prior to the initiation of any site disturbance of one acre or more of uncontaminated area. Uncontaminated area means soils or groundwater which are free of contamination by any toxic or non-conventional pollutants identified in Tables 6-10 of SPDES application Form NY-2C. Disturbance of any size contaminated area(s) and the resulting discharge of contaminated stormwater is not authorized by this permit unless the discharge is under State or Federal oversight as part of a remedial program or after review by the Region 7 Water Engineer; nor is such discharge authorized by any SPDES general permit for stormwater discharges. SWPPPs are not required for discharges of stormwater from construction activity to groundwaters.

The SWPPP shall conform to the New York Standards and Specifications for Erosion and Sediment Control and New York State Stormwater Management Design Manual, unless a variance has been obtained from the Region 7 Water Engineer, and to any local requirements. The permittee shall submit a copy of the SWPPP and any amendments thereto to the local governing body and any other authorized agency having jurisdiction or regulatory control over the construction activity at least 30 days prior to soil disturbance. The SWPPP shall also be submitted to the Regional Water Engineer if contamination, as defined above, is involved and the permittee must obtain a determination of any SPDES permit modifications and/or additional treatment which may be required prior to soil disturbance. Otherwise, the SWPPP shall be submitted to the Department only upon request. When a SWPPP is required, a properly completed Notice of Intent (NOI) form shall be submitted (available at www.dec.state.ny.us/website/dow/toolbox/swforms.html) prior to soil disturbance. Note that submission of a NOI is required for informational purposes; the permittee is not eligible for and will not obtain coverage under any SPDES general permit for stormwater discharges, nor are any additional permit fees incurred. SWPPPs must be developed and submitted for subsequent site disturbances in accordance with the above requirements. The permittee is responsible for ensuring that the provisions of each SWPPP are properly implemented.

Note:

If the permittee is covered under the MS4 permit, the permittee may substitute this to satisfy some of the conditions in this SWPPP.

XI. DISCHARGE NOTIFICATION REQUIREMENTS

- (a) Except as provided in (c) and (g) of these Discharge Notification Act requirements, the permittee shall install and maintain identification signs at all outfalls to surface waters listed in this permit. Such signs shall be installed before initiation of any discharge.
- (b) Subsequent modifications to or renewal of this permit does not reset or revise the deadline set forth in (a) above, unless a new deadline is set explicitly by such permit modification or renewal.
- (c) The Discharge Notification Requirements described herein do not apply to outfalls from which the discharge is composed exclusively of storm water, or discharges to ground water.
- (d) The sign(s) shall be conspicuous, legible and in as close proximity to the point of discharge as is reasonably possible while ensuring the maximum visibility from the surface water and shore. The signs shall be installed in such a manner to pose minimal hazard to navigation, bathing or other water related activities. If the public has access to the water from the land in the vicinity of the outfall, an identical sign shall be posted to be visible from the direction approaching the surface water.

The signs shall have **minimum** dimensions of eighteen inches by twenty four inches (18" x 24") and shall have white letters on a green background and contain the following information:

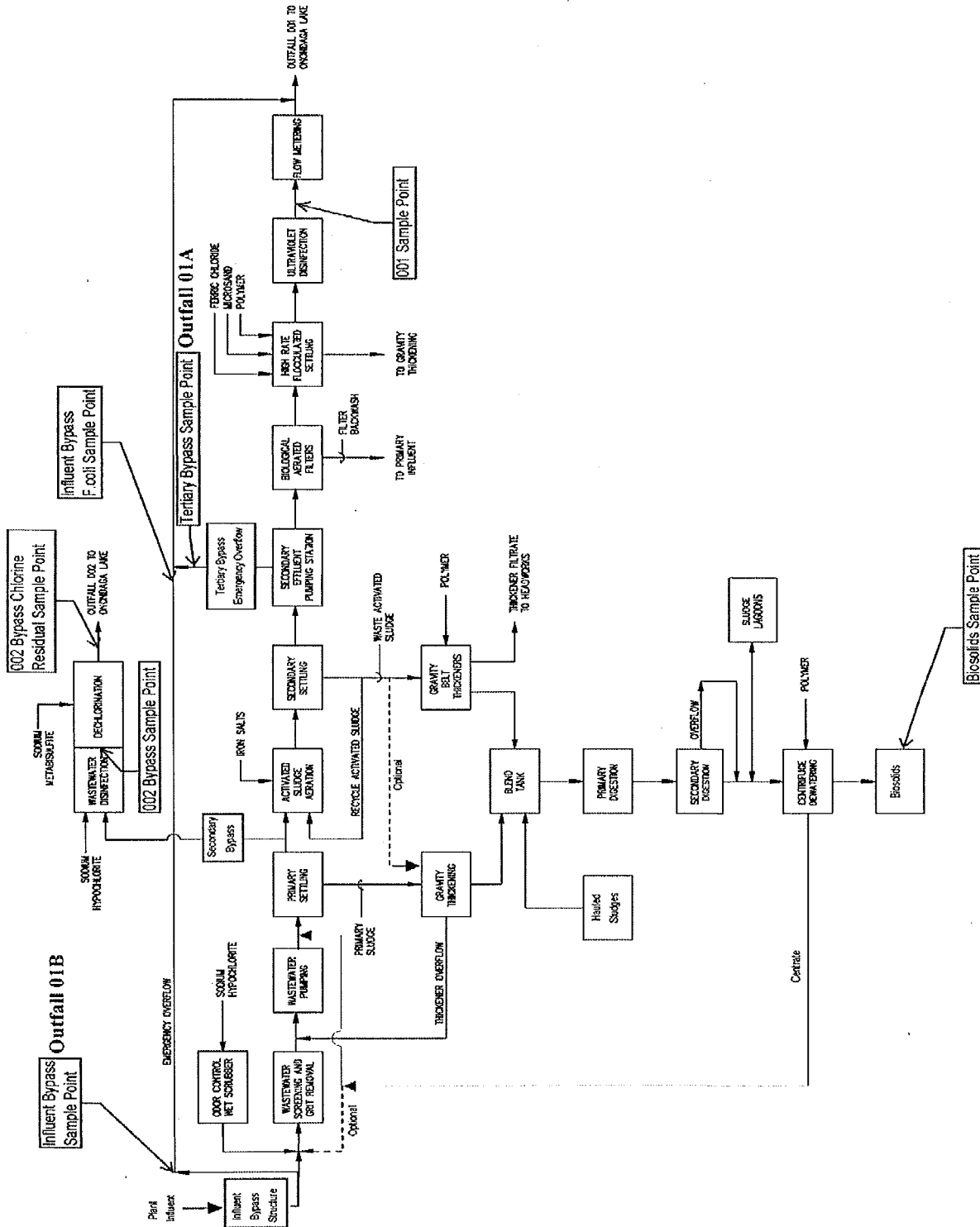
<p>N.Y.S. PERMITTED DISCHARGE POINT</p> <p>SPDES PERMIT No.: NY _____</p> <p>OUTFALL No. : _____</p> <p>For information about this permitted discharge contact:</p> <p>Permittee Name: _____</p> <p>Permittee Contact: _____</p> <p>Permittee Phone: () - ### - #####</p> <p>OR:</p> <p>NYSDEC Division of Water Regional Office Address:</p> <p>NYSDEC Division of Water Regional Phone: () - ### - #####</p>

- (e) For each discharge required to have a sign in accordance with a), the permittee shall, concurrent with the installation of the sign, provide a repository of copies of the Discharge Monitoring Reports (DMRs), as required by the **RECORDING, REPORTING AND ADDITIONAL MONITORING REQUIREMENTS** page of this permit. This repository shall be open to the public, at a minimum, during normal daytime business hours. The repository may be at the business office repository of the permittee or at an off-premises location of its choice (such location shall be the village, town, city or county clerk's office, the local library or other location as approved by the Department). In accordance with the **RECORDING, REPORTING AND ADDITIONAL MONITORING REQUIREMENTS** page of your permit, each DMR shall be maintained on record for a period of five years
- (f) The permittee shall periodically inspect the outfall identification sign(s) in order to ensure they are maintained, are still visible, and contain information that is current and factually correct. Signs that are damaged or incorrect shall be replaced within 3 months of inspection.

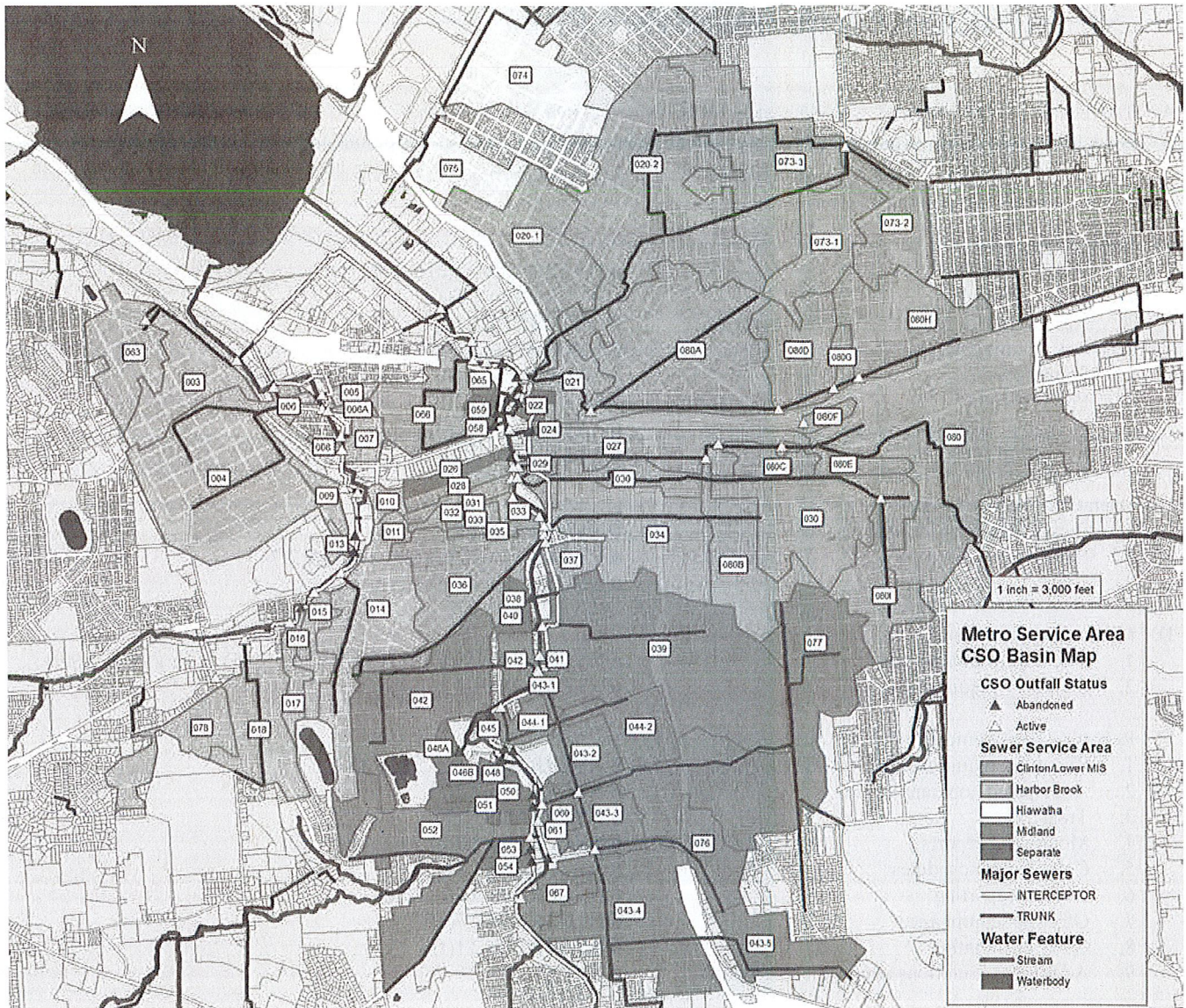
- (g) All requirements of the Discharge Notification Act, including public repository requirements, are waived for any outfall meeting any of the following circumstances, provided Department notification is made in accordance with (h) below:
- (i) such sign would be inconsistent with any other state or federal statute;
 - (ii) the Discharge Notification Requirements contained herein would require that such sign could only be located in an area that is damaged by ice or flooding due to a one-year storm or storms of less severity;
 - (iii) instances in which the outfall to the receiving water is located on private or government property which is restricted to the public through fencing, patrolling, or other control mechanisms. Property which is posted only, without additional control mechanisms, does not qualify for this provision;
 - (iv) instances where the outfall pipe or channel discharges to another outfall pipe or channel, before discharge to a receiving water; or
 - (v) instances in which the discharge from the outfall is located in the receiving water, two-hundred or more feet from the shoreline of the receiving water.
- (h) If the permittee believes that any outfall which discharges wastewater from the permitted facility meets any of the waiver criteria listed in (g) above, notification (form enclosed) must be made to the Department's Bureau of Water Permits, 625 Broadway, Albany, N.Y. 12233-3505, of such fact, and, provided there is no objection by the Department, a sign and DMR repository for the involved outfall(s) are not required. This notification must include the facility's name, address, telephone number, contact, permit number, outfall number(s), and reason why such outfall(s) is waived from the requirements of discharge notification. The Department may evaluate the applicability of a waiver at any time, and take appropriate measures to assure that the ECL and associated regulations are complied with.

XII. MONITORING LOCATIONS

The permittee shall take samples and measurements, to comply with the monitoring requirements specified in this permit, at the locations(s) specified below:



CSO OUTFALLS LOCATIONS



XIII. GENERAL REQUIREMENTS

A. The regulations in 6 NYCRR Part 750 are hereby incorporated by reference and the conditions are enforceable requirements under this permit. The permittee shall comply with all requirements set forth in this permit and with all the applicable requirements of 6 NYCRR Part 750 incorporated into this permit by reference, including but not limited to the regulations in paragraphs B through I as follows:

B. General Conditions

- | | |
|--|---|
| 1. Duty to comply | 6 NYCRR 750-2.1(e) & 2.4 |
| 2. Duty to reapply | 6 NYCRR 750-1.16(a) |
| 3. Need to halt or reduce activity not a defense | 6 NYCRR 750-2.1(g) |
| 4. Duty to mitigate | 6 NYCRR 750-2.7(f) |
| 5. Permit actions | 6 NYCRR 750-1.1(c), 1.18, 1.20 & 2.1(h) |
| 6. Property rights | 6 NYCRR 750-2.2(b) |
| 7. Duty to provide information | 6 NYCRR 750-2.1(i) |
| 8. Inspection and entry | 6 NYCRR 750-2.1(a) & 2.3 |

C. Operation and Maintenance

- | | |
|-----------------------------------|--------------------------------------|
| 1. Proper Operation & Maintenance | 6 NYCRR 750-2.8 |
| 2. Bypass | 6 NYCRR 750-1.2(a)(17), 2.8(b) & 2.7 |
| 3. Upset | 6 NYCRR 750-1.2(a)(94) & 2.8(c) |

D. Monitoring and Records

- | | |
|---------------------------|--|
| 1. Monitoring and records | 6 NYCRR 750-2.5(a)(2), 2.5(a)(6), 2.5(c)(1), 2.5(c)(2), & 2.5(d) |
| 2. Signatory requirements | 6 NYCRR 750-1.8 & 2.5(b) |

E. Reporting Requirements

- | | |
|---|-----------------------------|
| 1. Reporting requirements for POTWs | 6 NYCRR 750-2.5, 2.7 & 1.17 |
| 2. Anticipated noncompliance | 6 NYCRR 750-2.7(a) |
| 3. Transfers | 6 NYCRR 750-1.17 |
| 4. Monitoring reports | 6 NYCRR 750-2.5(e) |
| 5. Compliance schedules | 6 NYCRR 750-1.14(d) |
| 6. 24-hour reporting | 6 NYCRR 750-2.7(c) & (d) |
| 7. Other noncompliance | 6 NYCRR 750-2.7(e) |
| 8. Other information | 6 NYCRR 750-2.1(f) |
| 9. Additional conditions applicable to a POTW | 6 NYCRR 750-2.9 |

F. Planned Changes

1. The permittee shall give notice to the Department as soon as possible of any planned physical alterations or additions to the permitted facility. Notice is required only when:
 - a. The alteration or addition to the permitted facility may meet of the criteria for determining whether facility is a new source in 40 CFR §122.29(b); or
 - b. The alteration or addition could significantly change the nature or increase the quantity of pollutants discharged. This notification applies to pollutants which are subject neither to effluent limitations in the permit, or to notification requirements under 40 CFR §122.42(a)(1); or
 - c. The alteration or addition results in a significant change in the permittee's sludge use or disposal practices, and such alteration, addition, or change may justify the application of permit conditions that are different from or absent in the existing permit, including notification of additional use or disposal sites not reported during the permit application process or not reported pursuant to an approved land application plan.

In addition to the Department, the permittee shall submit a copy of this notice to the United States Environmental Protection Agency at the following address: U.S. EPA Region 2, Clean Water Regulatory Branch, 290 Broadway, 24th Floor, New York, NY 10007-1866.

GENERAL REQUIREMENTS continued

G. Notification Requirement for POTWs

1. All POTWs shall provide adequate notice to the Department and the USEPA of the following:
 - a. Any new introduction of pollutants into the POTW from an indirect discharger which would be subject to section 301 or 306 of CWA if it were directly discharging those pollutants; or
 - b. Any substantial change in the volume or character of pollutants being introduced into that POTW by a source introducing pollutants into the POTW at the time of issuance of the permit.
 - c. For the purposes of this paragraph, adequate notice shall include information on:
 - i. the quality and quantity of effluent introduced into the POTW, and
 - ii. any anticipated impact of the change on the quantity or quality of effluent to be discharged from the POTW.

POTWs shall submit a copy of this notice to the United States Environmental Protection Agency, at the following address:
U.S. EPA Region 2, Clean Water Regulatory Branch, 290 Broadway, 24th Floor, New York, NY 10007-1866
Sludge Management

The permittee shall comply with all applicable requirements of 6 NYCRR Part 360.

H. Sludge Management

The permittee shall comply with all applicable requirements of 6 NYCRR Part 360.

I. SPDES Permit Program Fee

The permittee shall pay to the Department an annual SPDES permit program fee within 30 days of the date of the first invoice, unless otherwise directed by the Department, and shall comply with all applicable requirements of ECL 72-0602 and 6 NYCRR Parts 480, 481 and 485. Note that if there is inconsistency between the fees specified in ECL 72-0602 and 6 NYCRR Part 485, the ECL 72-0602 fees govern.

J. Water Treatment Chemicals (WTCs)

New or increased use and discharge of a WTC requires prior Department review and authorization. At a minimum, the permittee must notify the Department in writing of its intent to change WTC use by submitting a completed *WTC Notification Form* for each proposed WTC. The Department will review that submittal and determine if a SPDES permit modification is necessary or whether WTC review and authorization may proceed outside of the formal permit administrative process. The majority of WTC authorizations do not require SPDES permit modification. In any event, use and discharge of a WTC shall not proceed without prior authorization from the Department. Examples of WTCs include biocides, coagulants, conditioners, corrosion inhibitors, defoamers, deposit control agents, flocculants, scale inhibitors, sequestrants, and settling aids.

1. WTC use shall not exceed the rate explicitly authorized by this permit or otherwise authorized in writing by the Department.
2. The permittee shall maintain a logbook of all WTC use, noting for each WTC the date, time, exact location, and amount of each dosage, and, the name of the individual applying or measuring the chemical. The logbook must also document that adequate process controls are in place to ensure that excessive levels of WTCs are not used.
3. The permittee shall submit a completed WTC Annual Report Form each year that they use and discharge WTCs. This form shall be attached to either the December DMR or the annual monitoring report required below.

The *WTC Notification Form* and *WTC Annual Report Form* are available from the Department's website at:

<http://www.dec.ny.gov/permits/93245.html>

XIV. RECORDING, REPORTING AND ADDITIONAL MONITORING REQUIREMENTS

- A. The monitoring information required by this permit shall be summarized, signed and retained for a period of at least five years from the date of the sampling for subsequent inspection by the Department or its designated agent. **Also, monitoring information required by this permit shall be summarized and reported by submitting;**

(if box is checked) completed and signed Discharge Monitoring Report (DMR) forms for each 1 month reporting period to the locations specified below. Blank forms are available at the Department's Albany office listed below. The first reporting period begins on the effective date of this permit and the reports will be due no later than the 28th day of the month following the end of each reporting period.

(if box is checked) an annual report to the Regional Water Engineer at the address specified below. The annual report is due by February 1 each year and must summarize information for January to December of the previous year in a format acceptable to the Department.

(if box is checked) a monthly "Wastewater Facility Operation Report..." (form 92-15-7) to the:

Regional Water Engineer and/or County Health Department or Environmental Control Agency specified below

Send the **original** (top sheet) of each DMR page to:
Department of Environmental Conservation
Division of Water, Bureau of Water Compliance
625 Broadway
Albany, New York 12233-3506

Phone: (518) 402-8177

Send an **additional copy** of each DMR page to:

Send the **first copy** (second sheet) of each DMR page to:
Department of Environmental Conservation
Regional Water Engineer, Region 7
615 Erie Boulevard West
Syracuse, New York 13204-2400

Phone: (315) 426-7500

- B. Monitoring and analysis shall be conducted according to test procedures approved under 40 CFR Part 136, unless other test procedures have been specified in this permit.
- C. More frequent monitoring of the discharge(s), monitoring point(s), or waters of the State than required by the permit, where analysis is performed by a certified laboratory or where such analysis is not required to be performed by a certified laboratory, shall be included in the calculations and recording of the data on the corresponding DMRs.
- D. Calculations which require averaging of measurements shall utilize an arithmetic mean unless otherwise specified in this permit.
- E. Unless otherwise specified, all information recorded on the DMRs shall be based upon measurements and sampling carried out during the most recently completed reporting period.
- F. Any laboratory test or sample analysis required by this permit for which the State Commissioner of Health issues certificates of approval pursuant to section 502 of the Public Health Law shall be conducted by a laboratory which has been issued a certificate of approval. Inquiries regarding laboratory certification should be directed to the New York State Department of Health, Environmental Laboratory Accreditation Program.

XV. MONITORING REQUIREMENTS FOR CSO TREATMENT FACILITIES

FACILITY	OUTFALL NUMBER	PAGE
Hiawatha Regional CSO Treatment Facility ⁷	074	A-1
Midland Regional Treatment Facility	Main RTF Outfall M01 Emergency Bypass Outfall M02	A-3
Teall Floatables Control Facility	073	A-5
Butternut Floatables Control Facility	020	A-6
Burnet Floatables Control Facility	021	A-7
Maltbie Floatables Control Facility	066	A-8
Harbor Brook Floatables Control Facility #1 (In-Stream Facility)	N/A	A-9
Erie Boulevard Storage System	080	A-10
Clinton Storage Facility	33A	A11
Lower Harbor Brook Storage Facility	04A	A13
Harbor Brook CSO 018 Pilot Constructed Wetlands Treatment Facility	Main Outfall 018 Emergency Bypass Outfall 18A	A-15
Newell Street Vortex Regulator	067	A-18

FACILITY: Hiawatha Regional CSO Treatment Facility

Outfall No: 074

The permittee shall monitor the following effluent overflow parameters and report the sampling results on the quarterly operating report. In addition to the data supplied on the quarterly operating report, the permittee shall provide a summary of the required monitoring to be submitted annually as part of the CSO BMP report required in CSO BMP 15 of this permit. The report shall tabulate sampling results, summarize the number of overflow events, the volume of overflow during each event, and provide an evaluation of the performance of the facility. An overflow event starts once overflow out of the CSO regional facility begins, and ends once the overflow stops. Sampling during each discharge and/or bypass event shall occur within the first 60 minutes of the bypass per the table below. If the bypass does not occur for more than 30 minutes, it is not necessary to collect a sample. If another storm occurs before stored water is completely discharged back to Metro, sampling shall occur within 30 minutes of commencing bypass and monitoring shall resume as per the table below. After review of the data, the Department may reopen the permit to add permit limits for these parameters at the Regional CSO Treatment Facility.

OVERFLOW PARAMETER	LIMITS, Per Event		UNITS	SAMPLE FREQUENCY	SAMPLE TYPE	FN
	Type	Limit				
Overflow Volume	Total	Monitor	MG	Each event	Calculated	1
Retained Volume	Total	Monitor	MG	Each event	Recorded, Totalized	4
BOD, 5-day	Average	Monitor	mg/l	1/4 hours	Composite	2
Total Suspended Solids	Average	Monitor	mg/l	1/4 hours	Composite	2
Settleable Solids	Average	Monitor	ml/l	1/4 hours	Grab	2
Oil & Grease	Average	Monitor	mg/l	1/4 hours	Grab	2
Floatable Material	Total	Monitor	days	Every 4 hours	Visual Observation	3
Screenings	Monthly Total	Monitor	Cu. yds.	After each event	Measured	
Chlorine, Total Residual	Average	0.2	mg/l	1/4 hours	Grab	2, 5, 6
Fecal Coliform	Geometric mean	200	No./100 ml	1/4 hours	Grab	2, 6
Ammonia	Average	Monitor	mg/l	1/4 hours	Composite	2
TKN	Average	Monitor	mg/l	1/4 hours	Composite	2
Total Phosphorous	Average	Monitor	mg/l	1/4 hours	Composite	2
Precipitation	Total	Measure	inches	Hourly	Auto, Recording Gauge within drainage area	7

FOOTNOTES:

1. No discharge except as caused by excess flows associated with the design storm for the regional CSO treatment facility.
2. Samples shall be taken consistent with the Sampling Plan requirement in Special Condition #7 on Page A2.
3. Visual observation required during each sampling event. Report and list the number of days during the quarter where at least one visual observation indicates the presence of floatable materials.
4. The permittee shall measure and report each quarter the total volume of flow retained and returned to the Metropolitan Syracuse Wastewater Treatment Plant each event.
5. The permittee shall use Method Chlorine by DPD Colorimetric Method (4500-Cl G) for Total Chlorine Residual and also for the following four additional analytes: Monochloramine, Chloramines, Total Dichloramine, and Chlorine.
6. Effluent Disinfection required: seasonal from April 1 to October 15. Monitoring of these parameters is only required during the period when disinfection is required.
7. Precipitation shall be monitored hourly for each day of the precipitation event.

SPECIAL CONDITIONS FOR OPERATION OF HIAWATHA REGIONAL TREATMENT FACILITY

1. The facility shall be operated in conjunction with the tributary sewer system, pump stations and the Metropolitan Syracuse Wastewater Treatment Plant to maximize CSO capture as well as pollutant removal. All flow measuring devices shall be calibrated in accordance with the Manufacturer's guidelines and specifications.
2. The permittee shall not divert to the regional CSO treatment facility unless the collection system and treatment plant flows are maximized according to the CSO BMP #4 in this permit.
3. The permittee shall not discharge from the regional CSO treatment facility unless the tank volume is full and the treatment process cannot accept additional wastewater.
4. The contents of the regional CSO treatment facility, (i.e. captured wastewater) shall not be delivered to the Metropolitan Syracuse Wastewater Treatment Plant at a rate which would exceed the peak daily or peak hourly design flow or loading. The regional treatment facility shall be emptied within the period provided for in the WWOP.
5. Flow shall not be delivered to the Metropolitan Syracuse Wastewater Treatment Plant at a rate that will cause an upset as defined by 6 NYCRR Part 750-2.8(c).
6. Unless the Department requests and the permittee submits a revised WWOP, the permittee shall continue to operate the facility in accordance with the 2014 approved WWOP.
7. By **10/01/2017**, the permittee shall submit an approvable sampling plan for RTF Outfall. The plan shall include, but not limited to, protocols for collecting grab and composite sampling consistent with the requirements on the above table for the RTF Outfall.

FACILITY: Midland Regional Treatment Facility

**Outfalls No: Main RTF outfall M01
Emergency Bypass outfall M02**

The permittee shall monitor the following effluent overflow parameters and report the sampling results in the quarterly operating report. In addition to the data supplied on the quarterly operating report, the permittee shall provide a summary of the required monitoring to be submitted annually as part of the CSO BMP report required in CSO BMP #15 of this permit. The report shall tabulate sampling results, summarize the number of overflow events, the volume of overflow during each event, and provide an evaluation of the performance of the facility. An event starts once overflow out of the regional CSO facility begins, and ends once the overflow stops. Sampling during each discharge and/or bypass event shall occur within the first 60 minutes of the bypass per the table below. If the bypass does not occur for more than 30 minutes, it is not necessary to collect a sample. If another storm occurs before stored water is completely discharged back to Metro, sampling shall occur within 30 minutes of commencing bypass and monitoring shall resume as per the table below.

After review of the data, the Department may reopen the permit to add permit limits for these parameters at the CSO RTF.

OVERFLOW PARAMETER	LIMITS, Per Event		UNITS	SAMPLE FREQUENCY	SAMPLE TYPE	FN
	Type	Limit				
Overflow Volume	Total	Monitor	MG	Each event	Calculated	1
Retained Volume	Total	Monitor	MG	Each event	Recorded, Totalized	4
BOD, 5-day	Average	Monitor	mg/l	1/4 hours	Composite	2
Total Suspended Solids	Average	Monitor	mg/l	1/4 hours	Composite	2
Settleable Solids	Average	Monitor	ml/l	1/4 hours	Grab	2
Oil & Grease	Average	Monitor	mg/l	1/4 hours	Grab	2
Floatable Material	Total	Monitor	days	Every 4 hours	Visual Observation	3
Screenings	Monthly Total	Monitor	Cu. yds.	After each event	Measured	
Chlorine, Total Residual	Average	0.2	mg/l	1/4 hours	Grab	2, 5, 6
Fecal Coliform	Geometric mean	200	No./100 ml	1/4 hours	Grab	2, 6
Ammonia	Average	Monitor	mg/l	1/4 hours	Composite	2
TKN	Average	Monitor	mg/l	1/4 hours	Composite	2
Total Phosphorous	Average	Monitor	mg/l	1/4 hours	Composite	2
Precipitation	Total	Measure	inches	Hourly	Auto, Recording Gauge within drainage area	7

FOOTNOTES:

1. No discharge except as caused by excess flows associated with the design storm for the regional CSO treatment facility.
2. Samples shall be taken consistent with the Sampling Plan requirement in Special Condition #7 on Page A4.
3. Visual observation required during each sampling event. Report and list the number of days during the quarter where at least one visual observation indicates the presence of floatable materials.
4. The permittee shall measure and report each quarter the total volume of flow retained and returned to the Metropolitan Syracuse Wastewater Treatment Plant each event.
5. The permittee shall use Method Chlorine by DPD Colorimetric Method (4500-Cl G) for Total Chlorine Residual and also for the following four additional analytes: Monochloramine, Chloramines, Total Dichloramine, and Chlorine.
6. Effluent Disinfection required: seasonal from April 1 to October 15. Monitoring of these parameters is only required during the period when disinfection is required. Limits do not apply to Outfall M02 discharge; monitoring is required at M02.
7. Precipitation shall be monitored hourly for each day of the precipitation event.

SPECIAL CONDITIONS FOR OPERATION OF MIDLAND REGIONAL TREATMENT FACILITY

1. The facility shall be operated in conjunction with the tributary sewer system, pump stations and the Metropolitan Syracuse Wastewater Treatment Plant to maximize CSO capture as well as pollutant removal. All flow measuring devices shall be calibrated in accordance with the Manufacturer's guidelines and specifications.
2. The permittee shall not divert to the regional CSO treatment facility unless the collection system and treatment plant flows are maximized according to the CSO BMP #4 in this permit.
3. The permittee shall not discharge from the regional CSO treatment facility unless the tank volume is full and the treatment process cannot accept additional wastewater.
4. The contents of the regional CSO treatment facility, (i.e. captured wastewater) shall not be delivered to the Metropolitan Syracuse Wastewater Treatment Plant at a rate which would exceed the peak daily or peak hourly design flow or loading. The regional treatment facility shall be emptied within the period provided for in the WWOP.
5. Flow shall not be delivered to the Metropolitan Syracuse Wastewater Treatment Plant at a rate that will cause an upset as defined by 6 NYCRR Part 750-2.8(c).
6. Unless the Department requests and the permittee submits a revised WWOP, the permittee shall continue to operate the facility in accordance with the 2014 approved WWOP.
7. By **10/01/2017**, the permittee shall submit an approvable sampling plan for RTF Outfall. The plan shall include, but not limited to, protocols for collecting grab and composite sampling consistence with the requirements on the above table for the RTF Outfall.

FACILITY: Teall Floatables Control Facility

Outfall No: 073

The permittee shall monitor the following effluent overflow parameters and report the sampling results on the quarterly operating report³. After review of the data, the Department may reopen the permit to add permit limits for these parameters at the Floatables Control Facility.

OVERFLOW PARAMETER	REPORT	UNITS	SAMPLE FREQUENCY	SAMPLE TYPE	FN
Flow	total, per event	MGD	Each event	Continuous	1, 2
Precipitation	total, per event	Inches	Hourly/Each day of event	Auto, Recording Gauge within drainage area	
Floatable Material	total, per event	days	Each event	Visual Observation	4
Floatables Captured	total, per month	pounds	Each event	Measure	

FOOTNOTES:

1. No discharge except as caused by excess flows associated with the design storm for the floatable control facility. All flow measuring devices shall be calibrated in accordance with the manufacturer's guidelines and specifications.
2. An event starts once overflow out of the CSO floatables control facility begins, and ends once the overflow stops.
3. In addition to the data supplied on the quarterly operating report, the permittee shall provide a summary of the required monitoring to be submitted annually as part of the CSO BMP report required in CSO BMP # 15 of this permit. The report shall tabulate sampling results, summarize the number of overflow events, the volume of overflow during each event, and provide an evaluation of the performance of the facility.
4. Visual observation required after each overflow event at the point of discharge. Report and list the number of days during the quarter where at least one visual observation indicates the presence of floatables material in the discharge at the outfall.

SPECIAL CONDITIONS FOR OPERATION OF TEALL FLOATABLES CONTROL FACILITY:

1. The facility shall be operated in conjunction with the tributary sewer system, pump stations and the Metropolitan Syracuse Wastewater Treatment Plant to maximize floatables removal.
2. The permittee shall perform an inspection of the combing screen system once per week.

FACILITY: Butternut Floatables Control Facility**Outfall No: 020**

The permittee shall monitor the following effluent overflow parameters and report the sampling results on the quarterly operating report³. After review of the data, the Department may reopen the permit to add permit limits for these parameters at the Floatables Control Facility.

OVERFLOW PARAMETER	REPORT	UNITS	SAMPLE FREQUENCY	SAMPLE TYPE	FN
Flow	total, per event	MGD	Each event	Continuous	1, 4
Floatable Material	total, per event	days	Each event	Visual Observation	2
Screenings	total, per month	pounds	Each event	Calculated	5
Precipitation	total, per event	inches	Hourly/Each day of event	Auto, Recording Gauge within drainage area	

FOOTNOTES:

1. No discharge except as caused by excess flows associated with the design storm for the floatable control facility. All flow measuring devices shall be calibrated in accordance with the manufacturer's guidelines and specifications.
2. Visual observation required after each overflow event at the point of discharge. Report and list the number of days during the quarter where at least one visual observation indicates the presence of floatables material in the discharge at the outfall.
3. In addition to the data supplied on the quarterly operating report, the permittee shall provide a summary of the required monitoring to be submitted annually as part of the CSO BMP report required in CSO BMP # 15 of this permit. The report shall tabulate sampling results, summarize the number of overflow events, volume of overflow during each event, and provide an evaluation of the performance of the facility.
4. An event starts when flow passes through the net bags and ends when flow returns to the normal sewer channel.
5. Net bags shall be replaced when the net bags reach 35% design capacity or when bag function is inhibited. Weight per bag change shall also be recorded, and reported in pounds in the Discharge Monitoring Report.

SPECIAL CONDITIONS FOR OPERATION OF BUTTERNUT FLOATABLES CONTROL FACILITY:

1. The facility shall be operated in conjunction with the tributary sewer system, pump stations and the Metropolitan Syracuse Wastewater Treatment Plant to maximize floatables removal.
2. The permittee shall perform the inspection of the in-line netting system daily.

FACILITY: Burnet Floatables Control Facility

Outfall No: 021

The permittee shall monitor the following effluent overflow parameters and report the sampling results on the quarterly operating report³. After review of the data, the Department may reopen the permit to add permit limits for these parameters at the Floatables Control Facility.

OVERFLOW PARAMETER	REPORT	UNITS	SAMPLE FREQUENCY	SAMPLE TYPE	FN
Flow	total, per event	MGD	Each event	Continuous	1, 4
Floatable Material	total, per event	days	Each event	Visual Observation	2
Screenings	total, per month	pounds	Each event	Calculated	5
Precipitation	total, per event	inches	Hourly/Each day of event	Auto, Recording Gauge within drainage area	

FOOTNOTES:

1. No discharge except as caused by excess flows associated with the design storm for the floatable control facility. All flow measuring devices installed to record overflows shall be calibrated in accordance with the manufacturer's guidelines and specifications.
2. Visual observation required after each overflow event at the point of discharge. Report and list the number of days during the quarter where at least one visual observation indicates the presence of floatables material in the discharge at the outfall.
3. In addition to the data supplied on the quarterly operating report, the permittee shall provide a summary of the required monitoring to be submitted annually as part of the CSO BMP report required in CSO BMP # 15 of this permit. The report shall tabulate sampling results, summarize the number of overflow events, the volume of overflow during each event, and provide an evaluation of the performance of the facility.
4. An event starts when flow passes through the net bags and ends when flow returns to the normal sewer channel.
5. Net bags shall be replaced when the net bags reach 35% design capacity or when the flow-through capacity is inhibited. Weight per bag change shall also be recorded, and reported in pounds in the Discharge Monitoring Report.

SPECIAL CONDITIONS FOR OPERATION OF BURNET FLOATABLES CONTROL FACILITY

1. The facility shall be operated in conjunction with the tributary sewer system, pump stations and the Metropolitan Syracuse Wastewater Treatment Plant to maximize floatables removal.
2. The permittee shall perform the inspection of the in line netting system daily.

FACILITY: Maltbie Floatables Control Facility

Outfall No: 066

The permittee shall monitor the following effluent overflow parameters and report the sampling results on the quarterly operating report². After review of the data, the Department may reopen the permit to add permit limits for these parameters at the Floatables Control Facility.

OVERFLOW PARAMETER	REPORT	UNITS	SAMPLE FREQUENCY	SAMPLE TYPE	FN
Flow	total, per event	MG	Each event	Continuous	1, 3
Floatable Material	total, per event	days	Each event	Visual Observation	4
Screenings	total, per month	pounds	Each event	Calculated	5
Precipitation	total, per event	inches	Hourly/Each day of event	Auto, Recording Gauge within drainage area	

FOOTNOTES:

1. No discharge except as caused by excess flows associated with the design storm for the floatables control facility. All flow measuring devices installed to record overflows shall be calibrated in accordance with the manufacturer's guidelines and specifications.
2. In addition to the data supplied on the quarterly operating report, the permittee shall provide a summary of the required monitoring to be submitted annually as part of the CSO BMP report required in CSO BMP # 15 of this permit. The report shall tabulate sampling results, summarize the number of overflow events, the volume of overflow during each event, and provide an evaluation of the performance of the facility.
3. An event starts once overflow out of the floatables control facility begins, and ends once the overflow stops.
4. Visual observation required after each overflow event at the point of discharge. Report and list the number of days during the quarter where at least one visual observation indicates the presence of floatables material in the discharge at the outfall.
5. Net bags shall be replaced when the net bags reach 35% design capacity or when the flow-through capacity is inhibited. Weight per bag change shall also be recorded, and reported in pounds in the Discharge Monitoring Report.

SPECIAL CONDITIONS FOR OPERATION OF MALTBIE FLOATABLES CONTROL FACILITY

1. The facility shall be operated in conjunction with the tributary sewer system, pump stations and the Metropolitan Syracuse Wastewater Treatment Plant to maximize floatables removal.
2. The permittee shall perform the inspection of the inline netting system daily.

FACILITY: Harbor Brook Floatables Control Facility #1 (In-Stream Facility) Outfall No: N/A

The permittee shall monitor the following effluent overflow parameters and report the sampling results on the quarterly operating report². After review of the data, the Department may reopen the permit to add permit limits for these parameters at the Floatables Control Facility.

OVERFLOW PARAMETER	REPORT	UNITS	SAMPLE FREQUENCY	SAMPLE TYPE	FN
Screenings	total, per bag change	pounds	Each change out	N/A	1
Floatable Material	total, per event	days	Each event	Visual Observation	3
Precipitation	total, per event	inches	Hourly/Each day of event	Auto, Recording Gauge within drainage area	

FOOTNOTES

1. Net bags shall be replaced when the net bags reach 35% design capacity or when the flow-through capacity is inhibited. Weight per bag change shall also be recorded, and reported in pounds in the Discharge Monitoring Report.
2. In addition to the data supplied on the quarterly operating report, the permittee shall provide a summary of the required monitoring to be submitted annually as part of the CSO BMP report required in CSO BMP # 15 of this permit. The report shall tabulate sampling results, summarize the number of overflow events, the volume of overflow during each event, and provide an evaluation of the performance of the facility.
3. Visual observation required after each overflow event at the point of discharge. Report and list the number of days during the quarter where at least one visual observation indicates the presence of floatables material in the discharge at the outfall.

SPECIAL CONDITION FOR OPERATION OF HARBOR BROOK FLOATABLES CONTROL FACILITY #1

1. Onondaga County Department of Water Environment Protection shall modify the WWOP in CSO BMP# 5 to reflect the changes required for the facility including inspections.

FACILITY: Erie Boulevard Storage System

Outfall No: 080

The permittee shall monitor the following effluent overflow parameters and report the sampling results on the quarterly operating report.²

OVERFLOW PARAMETER	REPORT	UNITS	SAMPLE FREQUENCY	SAMPLE TYPE	FN
Overflow Volume	total, per event	MG	Each event	Calculated	1, 3, 5
Retained Volume	total, per event	MG	Each event	Recorded, Totalized	3, 4
Precipitation	total, per event	inches	Hourly/Each day of event	Auto, Recording Gauge within drainage area	

FOOTNOTES:

1. No discharge except as caused by excess flows associated with the design storm for the Erie Boulevard Storage System.
2. In addition to the data supplied on the quarterly operating report, the permittee shall provide a summary of the required monitoring to be submitted annually as part of the CSO BMP report required in CSO BMP # 15 of this permit. The report shall tabulate sampling results, summarize the number of overflow events, the volume of overflow during each event, and provide an evaluation of the performance of the facility.
3. An event starts once overflow out of the Erie Boulevard Storage System begins, and ends once the overflow stops.
4. The permittee shall measure and record the total volume of flow retained and returned to the Metropolitan Syracuse Wastewater Treatment Plant each month.
5. Flow shall continuously be recorded and totaled.

SPECIAL CONDITIONS FOR OPERATION OF ERIE BOULEVARD STORAGE SYSTEM

1. The facility shall be operated in conjunction with the tributary sewer system, pump stations and the Metropolitan Syracuse Wastewater Treatment Plant to maximize CSO capture. All flow measuring devices installed to record overflows shall be calibrated in accordance with the Manufacture's guidelines and recommendations.
2. The permittee shall not divert to the Erie Boulevard Storage System unless the collection system and treatment plant flows are maximized according to the CSO BMP #4 in this permit.
3. The contents of the Erie Boulevard Storage System, (i.e. captured wastewater) shall not be delivered to the Metropolitan Syracuse Wastewater Treatment Plant at a rate which would exceed the peak daily or peak hourly design flow or loading. The Erie Boulevard Storage System shall be emptied within the period provided for in the WWOP.
4. Flow shall not be delivered to the Metropolitan Syracuse Wastewater Treatment Plant at a rate that will cause an upset as defined by 6NYCRR Part 750-2.8 (c).
5. The permittee is required by CSO BMP # 5 in this permit to submit a Wet Weather Operating Plan for the Metropolitan Syracuse Wastewater Treatment Plant and this facility. Upon DEC approval of the WWOP, the permittee shall operate the facility in accordance with the WWOP.
6. Permittee shall perform routine inspection of gates to ensure proper operation.

FACILITY: Clinton CSO Storage Facility

Outfall No: 33A

The permittee shall monitor the following effluent overflow parameters and report the sampling results on the quarterly operating report. In addition to the data supplied on the quarterly operating report, the permittee shall provide a summary of the required monitoring to be submitted annually as part of the CSO BMP report required in CSO BMP 15 of this permit. The report shall tabulate sampling results, summarize the number of overflow events, the volume of overflow during each event, and provide an evaluation of the performance of the facility. An overflow event starts once overflow out of the CSO regional facility begins, and ends once the overflow stops. Sampling during each discharge and/or bypass event shall occur within the first 60 minutes of the bypass per the table below. If the bypass does not occur for more than 30 minutes, it is not necessary to collect a sample. If another storm occurs before stored water is completely discharged back to Metro, sampling shall occur within 30 minutes of commencing bypass and monitoring shall resume as per the table below.

After review of the data, the Department may reopen the permit to add permit limits for these parameters at the Regional CSO Storage Facility.

OVERFLOW PARAMETER	LIMITS, Per Event		UNITS	SAMPLE FREQUENCY	SAMPLE TYPE	FN
	Type	Limit				
Overflow Volume	Total	Monitor	MG	Each event	Calculated	1
Retained Volume	Total	Monitor	MG	Each event	Recorded, Totalized	4
Fecal Coliform	Geometric mean	Monitor	No./100 ml	1/4 hours	Grab	2, 5
Floatable Material	Total	Monitor	days	Every 4 hours	Visual Observation	3
Screenings	Monthly Total	Monitor	Cu. yds.	After each event	Measured	
Precipitation	Total	Measure	inches	Hourly	Auto, Recording Gauge within drainage area	

FOOTNOTES:

1. No discharge except as caused by excess flows associated with the design storm for the regional CSO storage facility.
2. Samples shall be taken consistent with the Sampling Plan requirement in Special Condition #7 on Page A12.
3. Visual observation required during each sampling event. Report and list the number of days during the quarter where at least one visual observation indicates the presence of floatable materials.
4. The permittee shall measure and report each quarter the total volume of flow retained and returned to the Metropolitan Syracuse Wastewater Treatment Plant each event.
5. Monitoring of this parameter is only required from April 1 to October 15.

SPECIAL CONDITIONS FOR OPERATION OF CLINTON REGIONAL STORAGE FACILITY

1. The facility shall be operated in conjunction with the tributary sewer system, pump stations and the Metropolitan Syracuse Wastewater Treatment Plant to maximize CSO capture as well as pollutant removal. All flow measuring devices shall be calibrated in accordance with the Manufacturer's guidelines and specifications.
2. The permittee shall not divert to the regional CSO storage facility unless the collection system and treatment plant flows are maximized according to the CSO BMP #4 in this permit.
3. The permittee shall not discharge from the regional CSO storage facility unless the tank volume is full and the treatment process cannot accept additional wastewater.
4. The contents of the regional CSO storage facility, (i.e. captured wastewater) shall not be delivered to the Metropolitan Syracuse Wastewater Treatment Plant at a rate which would exceed the peak daily or peak hourly design flow or loading. The regional storage facility shall be emptied within the period provided for in the WWOP.
5. Flow shall not be delivered to the Metropolitan Syracuse Wastewater Treatment Plant at a rate that will cause an upset as defined by 6 NYCRR Part 750-2.8(c).
6. Unless the Department requests and the permittee submits a revised WWOP, the permittee shall continue to operate the facility in accordance with the 2014 approved WWOP.
7. By **10/01/2017**, the permittee shall submit an approvable sampling plan for this CSO Storage Facility Outfall. The plan shall include, but not limited to, protocols for collecting grab and composite sampling consistence with the requirements on the above table for the CSO Storage Facility Outfall.

FACILITY: Lower Harbor Brook (LHB) CSO Storage Facility

The permittee shall monitor the following effluent overflow parameters and report the sampling results on the quarterly operating report. In addition to the data supplied on the quarterly operating report, the permittee shall provide a summary of the required monitoring to be submitted annually as part of the CSO BMP report required in CSO BMP 15 of this permit. The report shall tabulate sampling results, summarize the number of overflow events, the volume of overflow during each event, and provide an evaluation of the performance of the facility. An overflow event starts once overflow out of the CSO regional facility begins, and ends once the overflow stops. Sampling during each discharge and/or bypass event shall occur within the first 60 minutes of the bypass per the table below. If the bypass does not occur for more than 30 minutes, it is not necessary to collect a sample. If another storm occurs before stored water is completely discharged back to Metro, sampling shall occur within 30 minutes of commencing bypass and monitoring shall resume as per the table below.

After review of the data, the Department may reopen the permit to add permit limits for these parameters at the Regional CSO Treatment Facility.

OVERFLOW PARAMETER	LIMITS, Per Event		UNITS	SAMPLE FREQUENCY	SAMPLE TYPE	FN
	Type	Limit				
Overflow Volume	Total	Monitor	MG	Each event	Calculated	1
Retained Volume	Total	Monitor	MG	Each event	Recorded, Totalized	4
Fecal Coliform	Geometric mean	Monitor	No./100 ml	1/4 hours	Grab	2, 5
Floatable Material	Total	Monitor	days	Every 4 hours	Visual Observation	3
Screenings	Monthly Total	Monitor	Cu. yds.	After each event	Measured	
Precipitation	Total	Measure	inches	Hourly	Auto, Recording Gauge within drainage area	

FOOTNOTES:

1. No discharge except as caused by excess flows associated with the design storm for the regional CSO treatment facility.
2. Samples shall be taken consistent with the Sampling Plan requirement in Special Condition #7 on Page A14.
3. Visual observation required during each sampling event. Report and list the number of days during the quarter where at least one visual observation indicates the presence of floatable materials.
4. The permittee shall measure and report each quarter the total volume of flow retained and returned to the Metropolitan Syracuse Wastewater Treatment Plant each event.
5. Monitoring of this parameter is only required from April 1 to October 15.

SPECIAL CONDITIONS FOR OPERATION OF LHB REGIONAL STORAGE FACILITY

1. The facility shall be operated in conjunction with the tributary sewer system, pump stations and the Metropolitan Syracuse Wastewater Treatment Plant to maximize CSO capture as well as pollutant removal. All flow measuring devices shall be calibrated in accordance with the Manufacturer's guidelines and specifications.
2. The permittee shall not divert to the regional CSO storage facility unless the collection system and treatment plant flows are maximized according to the CSO BMP #4 in this permit.
3. The permittee shall not discharge from the regional CSO storage facility unless the tank volume is full and the treatment process cannot accept additional wastewater.
4. The contents of the regional CSO storage facility, (i.e. captured wastewater) shall not be delivered to the Metropolitan Syracuse Wastewater Treatment Plant at a rate which would exceed the peak daily or peak hourly design flow or loading. The regional storage facility shall be emptied within the period provided for in the WWOP.
5. Flow shall not be delivered to the Metropolitan Syracuse Wastewater Treatment Plant at a rate that will cause an upset as defined by 6 NYCRR Part 750-2.8(c).
6. Unless the Department requests and the permittee submits a revised WWOP, the permittee shall continue to operate the facility in accordance with the 2014 approved WWOP.
7. By **10/01/2017**, the permittee shall submit an approvable sampling plan for this CSO Storage Facility Outfall. The plan shall include, but not limited to, protocols for collecting grab and composite sampling consistence with the requirements on the above table for the CSO Storage Facility Outfall.

Harbor Brook CSO 018 Pilot Constructed Wetlands Treatment Facility

Outfall No: Main Outfall 018,
Emergency Bypass 18A

Upon the completion of construction, acceptance of facility by the DEC, and discharge from the outfall commencing, the permittee shall monitor the following influent and effluent overflow parameters and report the sampling results in the quarterly operating report. In addition to the data supplied on the quarterly operating report, the permittee shall provide a summary of the required monitoring to be submitted annually as part of the CSO BMP report required in CSO BMP #15 of this permit. The report shall tabulate sampling results, summarize the number of overflow events, the volume of overflow during each event, and provide an evaluation of the performance of the facility.

After review of the data, the Department may modify the Metro permit to include additional limits for the parameters at the CSO 018 Pilot Constructed Wetlands Treatment Facility.

OVERFLOW PARAMETER	LIMITS, Per Event		UNITS	SAMPLE FREQUENCY	SAMPLE TYPE	Location		FN
	Type	Limit				Inf.	Eff.	
Wetlands Discharge Volume	Total	Monitor	MG	Each event	Recorded	X	X	1, 6, 8, 10
Overflow Volume	Total	Monitor	MG	Each event	Recorded		X	4, 10
BOD, 5-day	Average	Monitor	mg/l	1/4 hrs	Composite	X	X	2, 8
Total Suspended Solids	Average	Monitor	mg/l	1/4 hrs	Composite	X	X	2, 8
Settleable Solids	Average	Monitor	ml/l	1/4 hrs	Grab	X	X	2, 8
Oil & Grease	Average	Monitor	mg/l	1/4 hrs	Grab		X	2
Floatable Material	Total	Monitor	days	1/4 hrs	Visual Observation		X	3
Screenings	Monthly Total	Monitor	cu. yds.	After each event	Calculated	X		10
Chlorine, Total Residual	Average	0.2	mg/l	1/4 hrs	Grab		X	2, 5, 6
Fecal Coliform	Geometric mean	200	No./100 ml	1/4 hrs	Grab	X	X	2, 6, 8, 9
Ammonia	Average	Monitor	mg/l	1/4 hrs	Composite	X	X	2, 8
TKN, mg/l	Average	Monitor	mg/l	1/4 hrs	Composite		X	2
Total Phosphorous	Average	Monitor	mg/l	1/4 hrs	Composite	X	X	2, 8
Dissolved Oxygen	Minimum	Monitor	mg/l	1/4 hrs	Grab		X	2
Precipitation	Total per event	Measure	inches	Hourly	Record			7, 8

Footnotes & Special Conditions: See Next 3 Pages.

FOOTNOTES FOR CSO 018 PILOT CONSTRUCTED WETLANDS TREATMENT FACILITY:

1. No discharge from Outfall 018 except for treated effluent associated with the design storm for the CSO 018 Pilot Constructed Wetlands (CW) treatment facility. No discharge from Emergency Bypass Outfall 018A except for flows in excess of the design storm for the CW treatment facility and the hydraulic capacity of the Harbor Brook Interceptor Sewer.
2. Samples shall be taken consistent with the Sampling Plan requirement in Special Condition #5 below.
3. Visual observation required during each sampling event. Report and list the number of days during the quarter where at least one visual observation indicates the presence of floatables material.
4. The permittee shall measure and report each quarter the total volume of flow discharged from CSO 018A during each event. No discharge except that exceeding the design storm for CSO 018.
5. If chlorination is the method of disinfection, the permittee shall use Method Chlorine by DPD Colorimetric Method (4500-Cl G) for Total Chlorine Residual and also for the following four additional analytes: Monochloramine, Chloramines, Total Dichloramine, and Chlorine.
6. Effluent disinfection required: seasonal from April 1 to October 15 effective April 1, 2018 unless the permittee demonstrates to the Department's satisfaction that disinfection is not required. Monitoring of these parameters is only required during the period when disinfection is required.
7. Install automatic rainfall recording gauge within drainage area. Correlate precipitation records with sampling results.
8. Correlate sampling results with upstream and downstream values derived from the concurrent Ambient Monitoring Program and the Microbial Trackdown study.
9. During the establishment of the CSO 018 Pilot Constructed Wetlands (CW) treatment facility, the interim effluent limit for fecal coliform shall be "Monitor" until April 1, 2018.
10. A bypass event starts at the moment wastewater overflows the bypass weir and discharges through CSO 018 and/or CSO 018A and continues until the overflow from the outfall(s) stops. Sampling during each bypass event shall occur within the first 30 minutes of the bypass and every 4 hours thereafter. If the bypass does not occur for more than 30 minutes, it is not necessary to collect a sample.

**SPECIAL CONDITIONS FOR OPERATION OF CSO 018 PILOT CONSTRUCTED WETLANDS
TREATMENT FACILITY:**

1. The facility shall be operated in conjunction with the tributary sewer system, pump stations and the Metropolitan Syracuse Wastewater Treatment Plant to maximize CSO capture as well as pollutant removal. All flow measuring devices shall be calibrated in accordance with the manufacturer's guidelines and specifications.
2. The permittee is required by CSO BMP #4 in this permit to submit a Wet Weather Operating Plan for the Metropolitan Syracuse Wastewater Treatment Plant and this facility. Upon DEC approval of the WWOP, the permittee shall operate the facility in accordance with the WWOP.
3. An approvable plan for the removal and disposal of harvested vegetation and sludge shall be submitted to DEC by **10/01/2017**.
4. By **10/01/2017**, the permittee shall submit an approvable sampling plan for the CW Outfalls. The plan shall include, but not limited to, protocols for collecting grab and composite sampling consistent with the requirements on the above table for the CW Outfalls.
5. By **01/01/2018**, a contingency plan for closure/decommissioning of the CW treatment facility shall be submitted for DEC approval. This is required in the event the Pilot Constructed Wetlands treatment system does not meet its objectives or should other negative impacts occur during the course of operation.
6. By **10/01/2017**, a groundwater monitoring work plan that incorporates the requirements in Special Condition No. 8 shall be submitted for DEC approval.
7. Prior to construction of the Pilot Constructed Wetland, any existing monitoring wells proposed to be closed, shall be closed in accordance with DEC Groundwater Monitoring Well Decommissioning Policy (CP-43). This document is available on the Department's website at: http://www.dec.ny.gov/docs/remediation_hudson_pdf/cp43mwdecomm.pdf. Documentation of these closure(s) shall be provided in the required Report described in Special Condition 8D, below.
 - A. The permittee shall perform a groundwater monitoring program in the vicinity of the Pilot Constructed Wetlands for the purpose of determining compliance with 6 NYCRR Part 703. The monitoring program shall address the groundwater parameters and employ the monitoring schedule set forth below unless the DEC approves an alternative program which will produce adequate information concerning the potential for, or existence of, groundwater contamination resulting from the Pilot Constructed Wetlands.
 - B. Following is a proposed list of monitoring wells to be sampled (for review and approval in the required groundwater monitoring work plan): **MW-E, MW-F, MW-C, MW-D**

If MW-E does not meet groundwater standards, one additional groundwater monitoring well shall be placed into service further upgradient. If after 3 months of measuring groundwater contours, it is ascertained that the most downgradient location is not adequately monitored by wells MW-F, MW-C, and MW-D then additional wells shall be installed to sufficiently monitor downgradient conditions in order to assess any impact this pilot CW treatment facility may have upon the environment. The Department reserves its right to require installation of additional wells to fully accomplish this task.
 - C. Quarterly monitoring shall be conducted at the above monitoring wells for total dissolved solids, sulfate, pH, hardness (as CaCO₃), specific conductivity, turbidity, ammonia and ammonium (NH₃ + NH₄⁺ as N), chloride, nitrite, nitrate, and fecal and total coliforms. Additionally, the total forms of each the following metals shall be monitored initially to establish baseline conditions and quarterly if required by the Department: aluminum, chromium, arsenic, cadmium, copper, iron, lead, manganese, mercury (EPA Method 1631), nickel, selenium, and zinc. All parameters shall be tested in the same form according to 6 NYCRR Part 703 – NYS Groundwater Standards. When the groundwater standard for a parameter is based on the Total form, the permittee shall analyze for and report the results in Total. However, the permittee may elect to include the Dissolved form in addition to the Total form.

Water levels in all monitoring wells shall be monitored monthly, contoured and reported in the semi-annual report.

- D. The permittee shall submit a semi-annual report to the offices listed on page 29 of this permit. The report shall include: (a) a site map with locations of the wetland cells and the location of the monitoring wells; (b) sampling results; (c) analysis and evaluation of these sampling results with previous studies conducted at the Pilot Constructed Wetlands treatment facility and comparing with 6 NYCRR Part 703 – NYS Groundwater Standards and the Division of Water Technical and Operational Guidance Series (1.1.1) for Ambient Water Quality Standards and Guidance Values and Groundwater Effluent limitations; (d) assessment of the impact of the Pilot Constructed Wetlands to the groundwater quality and discussion of the comprehensive hydrogeological study at the site; (e) analysis of any trends in concentrations of the tested groundwater parameters; (f) boring logs, well construction logs, and field notes; and (g) suggestions to alleviate any impact to the groundwater.

Based on the results of the groundwater monitoring program, this permit may be modified to include additional effluent limitations and/or require that additional monitoring be performed.

8. This facility must be operated to minimize vector attraction and propagation; unacceptable odor generation and migration; dust formation and migration; and/or other general nuisance conditions. Should a nuisance condition be generated by this facility, control measures must be implemented immediately. Should vector(s) or other nuisance(s) cause an unacceptable public disturbance, the facility must cease operation and remove all materials from the site until an acceptable solution is implemented.

FACILITY: Newell Street Vortex Regulator

The permittee shall monitor the following effluent overflow parameters and report the sampling results on the quarterly operating report³. After review of the data, the Department may reopen the permit to add permit limits for these parameters at the Vortex Regulator.

OVERFLOW PARAMETER	REPORT	UNITS	SAMPLE FREQUENCY	SAMPLE TYPE	FN
Flow	total, per event	MGD	Each event	Continuous	1, 2
Precipitation	total, per event	Inches	Hourly/Each day of event	Auto, Recording Gauge within drainage area	
Floatable Material	total, per event	days	Each event	Visual Observation	4
Floating Captured	total, per month	pounds	Each event	Measure	

FOOTNOTES:

1. No discharge except as caused by excess flows associated with the design storm for the floatable control facility. All flow measuring devices shall be calibrated in accordance with the manufacturer's guidelines and specifications.
2. An event starts once overflow out of the Vortex Regulator begins, and ends once the overflow stops.
3. Every quarterly period, the permittee shall submit a summary of the required monitoring along with the WWTP operating report in that period. The annual report shall be appended to the CSO BMP report required in CSO BMP # 15 of this permit. The report shall tabulate sampling results, summarize the number of overflow events, the volume of overflow during each event, and provide an evaluation of the performance of the facility.
4. Visual observation required after each overflow event at the point of discharge. Report and list the number of days during the quarter where at least one visual observation indicates the presence of floatables material in the discharge at the outfall.

SPECIAL CONDITIONS FOR OPERATION OF NEWELL STREET VORTEX REGULATOR

1. The facility shall be operated in conjunction with the tributary sewer system, pump stations and the Metropolitan Syracuse Wastewater Treatment Plant to maximize floatables removal.
2. The permittee shall perform the inspection of the regulator daily.

Municipal SPDES Permit Fact Sheet

A. **SUMMARY OF PROPOSED PERMIT CHANGES**

A State Pollutant Discharge Elimination System (SPDES) permit EBPS renewal is proposed. Following is the highlight of the proposed changes in the draft permit as compared to the currently effective permit, the details of these changes are specified below and in the draft permit:

1. Page 3 - 4: Includes new outfalls which the permittee submitted along with the Form NY-2A application.
2. Page 11: Monitoring requirements for Total Phenols was removed and replaced by comparative monitoring requirements for Phenolics (chlorinated and unchlorinated), as well as Total Phenols, due to lab method interference.
3. Page 11: Xylene monitoring requirements were changed to include the three substituents of Xylene (Ortho, Meta, and Para) isomers;
4. Page 21: The CSO LTCP page was revised;
5. The Compliance monitoring page for Phenol and Iron was removed because the permittee has completed the requirements;
6. A revised Monitoring Locations map from the permittee was included.
7. The permit includes a CSO outfalls location map;
8. The appendices pages now include Clinton CSO Storage (CCS) and Lower Harbor Brook (LHB) Facilities;
9. Numbering for several outfalls was revised to 3-digit numbers for DMR coding purposes;
10. Monitoring requirements for the Vortex Street Regulator have been included. This facility was listed in the Form NY-2A application;
11. Removal of SSO outfalls from the permit. Discharges from these SSOs shall be reported in accordance with the Sewage Pollution Right to Know Act (SPRTK).
12. Several minor clarifications were made to outfall descriptions or permit language.

Changes to the permit since the February 17th, 2017 draft:

1. Page 7: Addition of a 12 month rolling average (12-MRA) limit for Mercury, consistent with DEC TOGS 1.3.10, Section 3. The existing monitoring limit will continue at a daily maximum of 50 ng/l.
2. Other changes were made in accordance with the attached Responsiveness Summary to Comments

Please note that when the Department updates a permit this typically includes updated forms incorporating the latest general conditions.

B. **BACKGROUND INFORMATION**

As noted throughout this document, SPDES permits are based on both federal and state requirements including laws, regulations, policies, and guidance. These references can generally be found on the internet. Current locations include: Clean Water Act (CWA) www.epa.gov/lawsregs/laws/index.html#env; Environmental Conservation Law (ECL) www.Decny.gov/regulations/40195.html; federal regulations www.gpo.gov/fdsys/browse/collectionCfr.action?collectionCode=CFR; state environmental regulations www.Decny.gov/regulations/regulations.html; and, NYSDEC water policy, often referred to as Technical and Operational Guidance Series memos (TOGS), www.Decny.gov/regulations/2654.html.

B.1. **Administrative History**

The current SPDES permit for the facility became effective on March 21, 2012, was modified in June 2014, and has an expiration date of March 20, 2017. The Department initiated a full technical review of the facility's SPDES permit, pursuant to 6 NYCRR Part 750-1.18 & 750-1.19, the priority ranking system, known as New York State's Environmental Benefit Permit Strategy (EBPS). The facility currently has an EBPS score of 155 and a ranking of 45 of 851. In response to the Department's September 15, 2014 Request for Information, the permittee provided a SPDES NY-2A permit application form and sampling data on December 19, 2014.

B.2. Outfall and Receiving Water Information

The facility discharges treated sewage through Outfall 001. The sewage collection system consists of both separate and combined sewers. The treatment plant was constructed in 1924 to provide primary treatment for a design flow of 50 MGD. The treatment plant has since been upgraded and expanded to a design flow of 84.2 MGD in 2005 as detailed in Appendix B. The facility discharges, or proposes to discharge, wastewater and/or stormwater to waters of the state via the following outfalls:

- B.2.1.** Outfall 001: This is the main outfall that discharges treated wastewater from the facility. The detailed list of current treatment units including sludge handling is included as Appendix D at the end of this document.
- B.2.2.** Outfall 01A: This outfall is for effluent bypasses after aeration and secondary settling. The receiving water is Onondaga Lake, Class C.
- B.2.3.** Outfall 01B: Discharge from this outfall is allowed only when all influent flows greater than 240 MGD. Additionally, the discharge must be disinfected prior to being discharged via outfall 01B. The receiving water is Onondaga Lake, Class C.
- B.2.4.** Outfall 002: Effluent bypasses occur after primary settling and seasonal disinfection. The receiving water is Onondaga Lake, Class C.
- B.2.5.** Combined Sewer Overflows Outfalls: The permittee discharges combined sewage through Outfall(s) listed on Pages 4 through 7 of the draft permit. Treatment systems for each CSO outfall discharges are provided for in accordance with the Appendix A of the SPDES permit. Additional information on CSO treatment facilities are listed in Appendix C of this factsheet.
- B.2.6.** Sanitary Sewer Overflows Outfalls: This fact sheet details known and possible Type I Sanitary Sewer Overflows (SSOs) within the collection system. Type I SSOs are classified as permanent *emergency* overflow structures which are designed, approved, constructed and intended only for emergency discharges. Type I SSOs are typically located at or immediately upstream of a pump station or at plant headworks. Bypass from these outfalls is prohibited.

Outfall No.	Description	Latitude/Longitude	Receiving Water
068	Westside Pump Station	43° 04' 10" N/76° 04' 10" W	Onondaga Lake
069	Hillcrest Pump Station	43° 02' 11" N/76° 11' 38" W	Harbor Brook
070	Brookside Pump Station	43° 02' 10" N/76° 11' 38" W	Harbor Brook
084	Ley Creek Pump Station	43° 05' 21" N/76° 09' 37" W	Ley Creek

085	Liverpool Pump Station	43° 05' 52" N/76° 12' 04" W	Bloody Brook
088	OCDWEP- Westside Trunk Sewer manhole @ Bronson Road	N 42° 02.80/W 076° 13.11'	Geddes Brook
089	OCDWEP – Westside Trunk Sewer/Crucible	N 43° 04.30/W 076° 12.28'	Tributary 5A
091	OCDWEP - Ley Creek Pump Station	N 43° 05.27/W 076° 09.74'	Ley Creek

No treatment is provided for these outfalls. Each discharge event is evaluated against emergency discharge criteria and must be reported in accordance with the Sewage Pollutant Right to Know Act (see Part 750-2.7).

B.2.7. Receiving Water Information

The location of the outfall(s), and the name, classification, and index numbers of the receiving waters are indicated in the *Outfall & Receiving Water Location Table* at the end of this fact sheet. The classifications of individual surface waters are specified in 6 NYCRR Parts 800 – 941. The best uses and other requirements applicable to the specific water classes are specified in 6 NYCRR Part 701.

The 7Q10 flow was obtained from historical record on file. The 30Q10 flow was obtained from the same source. Mixing zone analyses were conducted in accordance with the Appendix below titled *Determinations of Mixing Zone*. Other critical receiving water data for temperature, pH, hardness and/or salinity were based on historical record on file. The flow information is listed in the *Pollutant Summary Table* at the end of this fact sheet together with applicable ambient water quality criteria, ambient background data (if available), and outfall pollutant data.

According to NYSDEC Water Inventory and Priority Waterbody List (WI/PWL), Onondaga Lake is a dimictic lake which stratifies and consists of two deep basins, identified as the North basin and South basin, respectively, with a total surface area of 2,988 acres. The Lake is 4.7 miles in length along a northwest-southeast axis and approximately 1.2 miles wide at its widest point and is oriented longitudinally to the prevailing wind. The Lake has an average depth of 35 feet and a maximum depth of 63 feet. The Lake flushes approximately 4 times per year and as a result responds rapidly to changes in external loading.

The official water body classifications are contained in Title 6 of the New York Codes, Rules and Regulations. The Onondaga Lake watershed is covered in Part 895; Onondaga Lake’s Waters Index Number is P154 and is identified as having both a “B” and “C” classification (NYSDEC, 1996).

The 1998 ACJ obligates the County to monitor water quality and report annually on the progress towards achieving compliance with State and Federal standards in Onondaga Lake. As a result, the County established the Ambient Monitoring Program (AMP) to monitor the water quality response associated with improvements to wastewater infrastructure and treatment. Water quality is monitored at various stations in Onondaga Lake and its tributaries as well as in the Seneca River.

B.2.8. Impaired Waterbody Information

The Clean Water Act (CWA) requires states to identify impaired waters, where designated uses are not fully supported. For these impaired waters/pollutants, states must consider the development of a Total Maximum Daily Load (TMDL) or other strategy to reduce the input of the specific pollutant(s) restricting waterbody uses. The Tables below show waterbody impairment and pollutant sources and where TMDLs may be needed to address these impairments.

Water Quality Assessment Status for Reporting Year 2012¹
The overall status of this waterbody is Impaired

Designated Use	Designated Use Group	Status
Aquatic Life	Fish, Shellfish, And Wildlife Protection And Propagation	Impaired
Enjoyment	Recreation	Good
Fishing	Aquatic Life Harvesting	Impaired
Habitat/Hydrology	Fish, Shellfish, And Wildlife Protection And Propagation	Not Assessed
Secondary Contact Recreation	Recreation	Impaired

Causes of Impairment

Cause of Impairment	Cause of Impairment Group	TMDL Development Status
Debris/Floatables/Trash	Trash	TMDL needed
Dioxin (Including 2,3,7,8-TCDD)	Dioxins	TMDL needed
Dissolved Oxygen	Organic Enrichment/Oxygen Depletion	TMDL needed
Excess Algal Growth	Algal Growth	Non-pollutant impairment
Mercury	Mercury	TMDL needed
Phosphorus, Total	Nutrients	TMDL needed
Polychlorinated Biphenyls (PCBs)	Polychlorinated Biphenyls (PCBs)	TMDL needed
Salinity	Salinity/Total Dissolved Solids/Chlorides/Sulfates	TMDL needed
Sedimentation/Siltation	Sediment	TMDL needed
Total Coliform	Pathogens	TMDL needed

Probable Sources Contributing to Impairment

Probable Source	Probable Source Group
Combined Sewer Overflows	Municipal Discharges/Sewage
Contaminated Sediments	Legacy/Historical Pollutants
Industrial Point Source Discharge	Industrial
Landfills	Land Application/Waste Sites/Tanks
Municipal Point Source Discharges	Municipal Discharges/Sewage
Urban Runoff/Storm Sewers	Urban-Related Runoff/Stormwater

305(b) Assessed Waterbody History Report for Onondaga Lake²

Cycle	Waterbody Name	Water Type(s)	Causes of Impairment
2012	Onondaga Lake, southern end	Freshwater Lake	Debris/Floatables/Trash, Dioxin (Including 2,3,7,8-TCDD), Dissolved Oxygen, Excess Algal Growth, Mercury, Phosphorus, Total Polychlorinated Biphenyls (PCBs), Salinity, Sedimentation/Siltation, Total Coliform
2010	Onondaga Lake, southern end	Freshwater Lake	Other Cause, Phosphorus, Total, Total Coliform
2008	Onondaga Lake, southern end	Freshwater Lake	Ammonia, Un-ionized, Dioxin (Including 2,3,7,8-TCDD), Mercury, Phosphorus, Total Polychlorinated Biphenyls (PCBs), Total Coliform
2006	Onondaga Lake, southern end	Freshwater Lake	Dioxin (Including 2,3,7,8-TCDD), Mercury, Polychlorinated Biphenyls (PCBs)

B.3. Discharge Composition

The *Pollutant Summary Table* at the end of this fact sheet presents the existing effluent quality of the facility. Concentration and mass data are presented, based on Discharge Monitoring Report (DMR), permit application, and possibly other data submitted by the permittee for the period September 2011 to December 2014. The statistical methods utilized to calculate 95th and 99th percentiles are in accordance with TOGS 1.2.1 and the USEPA, Office of Water, Technical Support Document For Water Quality-based Toxics Control, March 1991, Appendix E. Statistical calculations were not performed for parameters with insufficient data. Generally, ten or more data points are needed to calculate percentiles (See TOGS 1.2.1 Appendix D). Non-detects were excluded from the statistical calculations.

B.4. Compliance History

A review of the facility's DMRs and other published compliance information from January 2013 to October 2016 indicates that the facility had the following violations:

Date	Parameter	Outfall	Violation Type/Value	Permit Limit	Unit
Jan. 2013	Phenols	001	<30	9.7	lb/d
Apr. 2013	Phenols	001	<10	9.7	lb/d
May 2013	Phenols	001	29	9.7	lb/d
Sept. 2013	Bypass	001	8.99	unpermitted	MG
Sept. 2013	Phenols	001	14	9.7	lb/d
Oct. 2013	Bypass	001	3.2	unpermitted	MG
Nov. 2013	Cyanide	001	sampling error	7.3	lb/d
Dec. 2013	Cyanide	001	sampling error	7.3	lb/d
Jan. 2014	Phenols	001	<44	9.7	lb/d
Feb. 2014	Phenols	001	<10	9.7	lb/d
Mar. 2014	Bypass	001	25.67	unpermitted	MG
Mar. 2014	Phenols	001	<10	9.7	lb/d
Apr. 2014	Bypass	001	1.51	unpermitted	MG
Apr. 2014	Phenols	001	<10	9.7	lb/d
May 2014	Bypass	001	4.44	unpermitted	MG
June 2014	Bypass	001	0.13	unpermitted	MG
June 2014	Cyanide	001	sampling error	7.3	lb/d
July 2014	Bypass	001	1.13	unpermitted	MG
Aug. 2014	Bypass	001	0.18	unpermitted	MG
Aug. 2014	Cyanide	001	sampling error	7.3	lb/d
Aug. 2014	Phenols	001	15	9.7	lb/d
Sept. 2014	Bypass	001	0.03	unpermitted	MG
Sept. 2014	Cyanide	001	sampling error	7.3	lb/d
Sept. 2014	Phenols	001	15	9.7	lb/d
Nov. 2014	Cyanide	001	sampling error	7.3	lb/d
Dec. 2014	Cyanide	001	sampling error	7.3	lb/d
Jan. 2015	Phenols	001	40	9.7	lb/d
Feb. 2015	CBOD	001	sampling error	85	%
Feb. 2015	TSS	001	sampling error	85	%

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April 2015	Phenols	001	<10	9.7	lb/d
July 2015	Phenols	001	20	9.7	lb/d
Sept. 2015	Cyanide	001	sampling error	7.3	lb/d
Oct. 2015	N-NH3	001	2.4	1.2	mg/L
Oct. 2015	Phenols	001	11	9.7	lb/d
Oct. 2015	TSS	001	sampling error	85	%
Oct. 2015	CBOD	001	sampling error	85	%
Nov. 2015	Phenols	001	<10	9.7	lb/d
Dec. 2015	Phenols	001	<30	9.7	lb/d
Jan. 2016	Phenols	001	<30	9.7	lb/d
Feb. 2016	Phenols	001	15	9.7	lb/d
Mar. 2016	Phenols	001	> 11	9.7	lb/d
May 2016	Phenols	001	13	9.7	lb/d
June 2016	Phenols	001	20	9.7	lb/d
Aug. 2016	Phenols	001	22	9.7	lb/d
Sept. 2016	Phenols	001	25	9.7	lb/d
Oct. 2016	Phenols	001	35	9.7	lb/d
Apr. 2013	Settleable Solids	002	2	0.8	ml/L
May 2013	Settleable Solids	002	1	0.8	ml/L
June 2013	TRC	002	1.8	1	mg/L
Sept. 2013	Settleable Solids	002	1	0.8	ml/L
May 2014	Settleable Solids	002	sampling error	0.8	ml/L
Dec. 2014	Phosphorus	002	sampling error	monitor	lb/d
April 2015	F. Coliform	002	sampling error	monitor	#100/ML
June 2015	Oil & Grease	002	sampling error	monitor	mg/L
Sept. 2015	Phosphorus	002	sampling error	monitor	lb/d
June 2015	Oil & Grease	01A	sampling error	15	mg/L
July 2015	Bypass	01A	19.11	unchlorinated	MG
Sept. 2015	Phosphorus	01A	sampling error	monitor	lb/d
Sept. 2015	N-NH3	01A	sampling error	monitor	mg/L
Sept. 2015	Bypass	01A	6.77	unchlorinated	MG
Feb. 2016	Settleable Solids	01A	1	0.8	ml/L
June 2016	Settleable Solids	01A	1.2	0.8	ml/L
Oct. 2016	Settleable Solids	01A	10	0.8	ml/L
Jan. 2016	Bypass	01A	0.32	unchlorinated	MG
Feb. 2016	Bypass	01A	14.46	unchlorinated	MG
May 2016	Bypass	01A	4.77	unchlorinated	MG
June 2016	Bypass	01A	1.75	unchlorinated	MG
July 2016	Bypass	01A	0.35	unchlorinated	MG
Aug. 2016	Bypass	01A	0.59	unchlorinated	MG
Sept. 2016	Bypass	01A	5.02	unchlorinated	MG
Oct. 2016	Bypass	01A	89.99	unchlorinated	MG
Nov. 2016	Bypass	01A	33.17	unchlorinated	MG

Dec. 2016	Bypass	01A	12.96	unchlorinated	MG
Jan. 2017	Bypass	01A	0.59	unchlorinated	MG
May 2015	Bypass	01B	0.65	unpermitted	MG
March 2016	Bypass	01B	45.16	unpermitted	MG
April 2016	Bypass	01B	0.78	unpermitted	MG
May 2016	Bypass	01B	15.8	unpermitted	MG
Aug. 2016	Bypass	01B	4.88	unpermitted	MG
Nov. 2016	Bypass	01B	4.37	unpermitted	MG
Dec. 2016	Bypass	01B	2.13	unpermitted	MG
Jan. 2017	Bypass	01B	92.82	unpermitted	MG

C. **PROPOSED PERMIT REQUIREMENTS**

Sections 101, 301(b), 304, 308, 401, 402, and 405 of the CWA and Titles 5, 7, and 8 of Article 17 ECL provide the basis for the effluent limitations and other conditions in the draft permit. The NYSDEC evaluates discharges with respect to these sections of the CWA, ECL, and the relevant federal/state regulations, policy, and guidance to determine which conditions to include in the draft permit.

For existing permittees, the previous permit typically forms the basis for the next permit. Permit revisions are implemented where justified due to changed conditions at the facility and/or in response to updated regulatory requirements.

C.1. **Effluent Limitations**

If applicable, the existing permit limits are evaluated to determine if these should be continued, revised, or deleted. Generally, existing limits are continued unless there is justification to do otherwise. Other pollutant monitoring data are also reviewed to determine the presence of additional contaminants that should be included in the permit.

The permit writer determines the **technology-based effluent limits (TBELs)** that must be incorporated into the permit. A TBEL requires a minimum level of treatment for industrial point sources based on currently available treatment technologies and/or Best Management Practices (BMPs). The Department then evaluates the water quality expected to result from technology controls to determine if any exceedances of water quality criteria in the receiving water might result. If there is a reasonable potential for exceedances to occur, **water quality-based effluent limits (WQBELs)** must be included in the permit. A WQBEL is designed to ensure that the water quality standards of receiving waters are being met. In general, the CWA requires that the effluent limits for a particular pollutant are the more stringent of either the TBEL or WQBEL.

C.1.1. **TBELs & Anti-Backsliding:**

CWA sections 301(b)(1)(B) and 304(d)(1), ECL section 17-0509, and 6 NYCRR Part 750-1.11 require technology-based controls, known as secondary treatment, on Publicly Owned Treatment Works (POTW) effluents. The applicable regulations are specified in 40 CFR Part 133.102 and 6 NYCRR Part 750-1.11. These and other requirements are summarized in TOGS 1.3.3.

Anti-backsliding requirements are specified in the CWA, sections 402(o) and 303(d)(4), ECL 17-0809 and regulations at 40 CFR 122.44(l) and 6 NYCRR Part 750-1.10. These requirements are summarized in TOGS 1.2.1. Generally, the regulations prohibit the relaxation of effluent limits in reissued permits unless one of the specified exceptions applies. In practice, limits in reissued permits will generally be no less stringent than

previous permit limits to ensure compliance with anti-backsliding requirements. Otherwise, the specific exceptions that allow backsliding will be cited on a case-by-case basis.

Following is the TBEL & Anti-backsliding assessment for each pollutant present in the discharge(s). A summary of this analysis is provided in the *Pollutant Summary Table* at the end of this fact sheet.

C.1.2. Pollutant-Specific TBEL & Anti-Backsliding Analysis:

In addition to the concentration limits noted below, 40 CFR 122.45(f) requires that SPDES permits contain mass-based limits for most pollutants. Mass-based limits in lbs/day are derived by multiplying the design flow in MGD by the concentration limit in mg/L by a conversion factor of 8.34. Limits are typically expressed using two significant figures.

Outfall 001	
Parameter	Basis
Flow	Consistent with TOGS 1.3.3, a 12 month rolling average flow limit of 84.2 MGD is rolled over from the existing permit. This is equal to the average daily design capacity of the treatment plant.
pH range	40 CFR 133.102 requires that the effluent pH be within the range of 6.0 to 9.0 standard units (SU).
Temperature	Monitoring is required for process control and informational purposes.
5-day Carbonaceous Biochemical Oxygen Demand (CBOD₅)	Permitting record shows that the original 30-day BOD ₅ limit was 10,100 lbs/day (14 mg/l at 86.5 MGD plant flow) based on loading allocation in the 1973 Environmental Impact Statement and a 401 Certification in 1975. Subsequent to January 30, 1986 DEC request for "the necessary water quality-based justification," the County requested for and received the existing 30-day BOD ₅ limit of 21 mg/l. Therefore, the existing 30-day (monthly) average 21 mg/L, the 7-day (weekly) average of 31.5 mg/l are being continued in this draft permit; and a minimum monthly average percent removal of 85%.
Total Suspended Solids (TSS)	The 30-day (monthly) average be limited to 30 mg/L, the 7-day (weekly) average be limited to 45 mg/L, and the minimum monthly average percent removal be 85%. The WQBELs from the previous permit are being rolled over in accordance with anti-backsliding requirements.
Total Dissolved Solids (TDS)	This parameter has been identified as contributing to impairment in the Lake. Monitoring only is required.
Settleable Solids	In accordance with TOGS 1.3.3 a limit of 0.3 is specified. Effluent limitation is rolled over from the existing permit and is deemed to be protective of the receiving WQS.
Total Kjeldahl Nitrogen / Total Nitrogen	See WQBEL section below.

Outfall 001																			
Parameter	Basis																		
Total Ammonia (as NH₃)	See QBEL section below.																		
Nitrate/Nitrite	See QBEL section below.																		
Phosphorus	See QBEL section below.																		
Pathogens	See QBEL section below.																		
Total Residual Chlorine (TRC)	Not required because facility uses UV disinfection.																		
Mercury	See QBEL section below.																		
Phenols, Total	See QBEL section below																		
Metals	<p>Metals are present in the effluent at levels listed in the Pollutant Summary Table below. The dissolved water quality standard was calculated using the hardness-based formula in TOGS 1.1.1 and the hardness value representative of the water basin. This hardness value is cited below also in the Pollutant Summary Table. The dissolved standard was then converted to a "total" standard using a translator listed on the table below:</p> <table border="1" data-bbox="636 1157 1263 1371"> <thead> <tr> <th>Pollutant</th> <th>Aquatic*</th> <th>Chronic*</th> </tr> </thead> <tbody> <tr> <td>Chromium</td> <td>3.165</td> <td>1.163</td> </tr> <tr> <td>Copper</td> <td>1.042</td> <td>1.042</td> </tr> <tr> <td>Lead</td> <td>1.355</td> <td>1.355</td> </tr> <tr> <td>Nickel</td> <td>1.002</td> <td>1.003</td> </tr> <tr> <td>Zinc</td> <td>1.022</td> <td>1.014</td> </tr> </tbody> </table> <p style="text-align: center;">*- EPA 823-B-96-007, the Metal Translator</p> <p>The translators were developed from an analysis of EPA National STORET database/developed from an analysis of drainage basin data in accordance with EPA guidance (see EPA 823-B-96-007, June 1986)/developed from an analysis of site-specific receiving water data in accordance with EPA guidance (see EPA 823-B-96-007, June 1986).</p>	Pollutant	Aquatic*	Chronic*	Chromium	3.165	1.163	Copper	1.042	1.042	Lead	1.355	1.355	Nickel	1.002	1.003	Zinc	1.022	1.014
Pollutant	Aquatic*	Chronic*																	
Chromium	3.165	1.163																	
Copper	1.042	1.042																	
Lead	1.355	1.355																	
Nickel	1.002	1.003																	
Zinc	1.022	1.014																	

C.1.3. Outfalls 01A & 01B

As stated above, discharge from outfall 01B is allowed only when all influent flows are greater than 240 MGD and the flows must be disinfected between April 1 and October 15. "Monitor" only for TRC and Fecal Coliform are included for Outfall 01B to allow the Department to assess the technical efficacy of chlorination and resulting TRC concentrations.

Disinfection and monitoring requirements for SS and fecal coliform bacteria will continue to be required. This is consistent with the EPA CSO Control Policy (II.C.4.a) requiring a minimum level of treatment for CSO bypassed as follows:

- *Primary clarification; removal of floatable and settleable solids may be achieved by any combination of treatment technologies or methods that are shown to be equivalent to primary clarification;*
- *Solids and floatables disposal; and*
- *Disinfection of effluent, if necessary, to meet WQS, protect designated uses and protect human health, including removal of harmful disinfection chemical residuals, where necessary.*

C.2. WQBELs & Anti-Degradation:

In addition to the TBELs previously discussed, the NYSDEC evaluated the discharge to determine compliance with CWA sections 101 and 301(b)(1)(C), 40 CFR 122.44(d)(1), and 6 NYCRR Parts 700-704 and 750-1.11. These require that permits include limits for all pollutants or parameters which are or may be discharged at a level which will cause, or contribute to an excursion above any State water quality standard, including State narrative criteria for water quality. The limits must be stringent enough to ensure that water quality standards are met and must be consistent with any available wasteload allocation (WLA). These and other requirements are summarized in TOGS 1.1.1, 1.3.1, 1.3.2, 1.3.5 and 1.3.6.

The procedure for developing WQBELs includes knowing the pollutants present in the discharge(s), identifying water quality criteria applicable to these pollutants, determining if WQBELs are necessary (reasonable potential), and calculating the WQBELs. Factors also considered in this analysis include available dilution of effluent in the receiving water, receiving water chemistry, and other pollutant sources. If the expected concentration of the pollutant of concern in the receiving water may exceed the ambient water quality standard or guidance value then there is reasonable potential that the discharge may cause or contribute to a violation of the water quality, and a WQBEL or WLA for the pollutant is required.

C.2.1. Antidegradation Policy

New York State implements the antidegradation portion of the CWA based upon two documents: (1) Organization and Delegation Memorandum #85-40, entitled “Water Quality Antidegradation Policy,” signed by the Commissioner of NYSDEC, dated September 9, 1985; and, (2) TOGS 1.3.9, entitled “Implementation of the NYSDEC Antidegradation Policy – Great Lakes Basin (Supplement to Antidegradation Policy dated September 9, 1985).” A SPDES permit cannot be issued that would result in the water quality criteria being violated. The permit for the facility contains effluent limits which ensure that the existing beneficial uses of the receiving waters will be maintained.

Following is the WQBEL analysis for each pollutant present in the discharge(s). Anti-degradation analysis which justifies applying water quality standards of a higher classification is noted below, if applicable. Refer to section II.B. above for information on discharge location, receiving water information (class, dilution, chemistry), and the existence of any TMDLs. A summary of this analysis is provided in the *Pollutant Summary Table* at the end of this fact sheet.

C.2.2. Pollutant-Specific WQBEL & Anti-Degradation Analysis:

Outfall 001	
Parameter	Basis
Flow	See TBEL section above.

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Outfall 001	
pH range	See TBEL section above.
Temperature	See TBEL section above.
5-day Carbonaceous Biochemical Oxygen Demand (CBOD₅)	See TBEL section above.
Total Suspended Solids (TSS)	See TBEL section above.
Settleable Solids	See TBEL section above.
Pathogens	In accordance with TOGS 1.3.3, effluent disinfection is required because the ultimate discharge is to the class B portion of the lake and it is necessary to protect public health. Fecal Coliform geometric mean limits of 200/100 ml monthly average and 400/100 ml weekly average are specified. Compliance with water quality standards for Total Coliform is indicated by the Fecal Coliform limits. Additional limits for Total Coliform are unnecessary, consistent with TOGS 1.3.3.
Total Residual Chlorine (TRC)	Not applicable. See also TBEL section above.
Mercury	Mercury was detected in the effluent at a maximum level of 3.6 ng/L, which exceeds the water quality standard of 0.7 ng/L. New York State's mercury multiple discharge variance (MDV) in TOGS 1.3.10 is being applied. Consequently, the permit includes a 50 ng/L effluent limit; a mercury minimization program requirement; and routine monitoring using EPA Method 1631. In addition, a 12 month rolling average of 2.38 ng/l has been included in accordance with TOGS 1.3.10 Multiple Discharge Variance, Section C which states that for high priority facilities that have been monitoring mercury and have enough data to calculate the projected effluent quality ("PEQ") (10 or more data points), the permit limit shall be expressed as a 12-month rolling average (12 MRA) using the 95 th percentile. Refer to TOGS 1.3.10 for further detail.
Phenols, Total Phenolics, Total	<p><i>TOGS 1.3.1E recommendation for Class B, C, D (aquatic life):</i></p> <p><u>Chlorinated</u></p> <ol style="list-style-type: none"> Limit individually, if standards/criteria exist, and if the individual limit is more stringent than the "total chlorinated phenols" limit of 1 µg/l, describe in (b). Analysis by GC. Limit sum of all species present, listing individual species that are identified. Analysis by GC. Ambient standard of 1.0 µg/l. <p><u>Unchlorinated</u></p> <p>Limit all as "total phenolics" by 4 AAP. Ambient standard is 5.0 µg/l.</p> <p>The Department has reviewed data submitted on April 29, 2015 by the permittee in compliance with the required study, which showed no detections for any of the phenolic compounds (chlorinated or unchlorinated) during the past 3 years using EPA Method 625 (GC). In addition, the permittee also sampled for Total Phenols using Method 4AAP, and identified potential interferences using this method. As a result, it was not possible to determine whether the exceedances of the existing limit were due to phenols, or due to interferences. The permit has therefore been revised to include semiannual coincident sampling of the effluent using Methods 420.1 and 625, along with a requirement that samples shall be collected on the same date and analyzed using the listed methods. Composite</p>

Outfall 001													
	<p>samples shall consist of individual grab samples composited at the laboratory. A library search shall be executed for all peaks in the chromatogram that are greater than 10% of the nearest internal standards, quantified using an assumed relative response factor of 1. The NIST (2002 release or later) or equivalent mass spectral library, shall be used as the reference library. For compliance reporting, the numerical summation of all positive results for phenolic compounds shall be reported on the DMR. Effluent limits for total phenols will be reassessed following the collection of sufficient accurate data.</p>												
Temperature	See TBEL section above.												
Dissolved Oxygen & Ultimate Oxygen Demand (UOD)	See TBEL section above.												
Total Kjeldahl Nitrogen/ Nitrate/Nitrite/ Total Nitrogen	The existing monitoring requirements are being rolled over for these parameters.												
Total Ammonia (as NH₃)	<p>The site-specific pH and temperature data for the receiving waterbody is not available; therefore the following default values for pH and temperature have been used in developing the applicable water quality standards for warm and cold weather seasons.</p> <table border="1"> <thead> <tr> <th>Season</th> <th>pH</th> <th>Temp.-°C</th> <th>W.Q. Standard, mg/l</th> </tr> </thead> <tbody> <tr> <td>Warm - (1 May - 31 Oct)</td> <td>7.5</td> <td>25</td> <td>1.49</td> </tr> <tr> <td>Cold - (1 Nov – 30 Apr)</td> <td>7.5</td> <td>10</td> <td>2.25</td> </tr> </tbody> </table> <p><i>The water quality based effluent limits for summer and winter seasons listed above and in table on pages 16 through 20 have been developed by multiplying the seasonal water quality standard and a dilution factor of 10.1. These limits may be revised upon the availability of site-specific data for pH and temperature in future.</i></p> <p>The current calculated WQBELs are 1.75 mg/L for May 1 through October 31 and 2.6 mg/L for November 1 through April 30. As the existing limits of 1.2 mg/l and 2.4 mg/l, respectively for summer and winter are more stringent, the existing limits will continue.</p>	Season	pH	Temp.-°C	W.Q. Standard, mg/l	Warm - (1 May - 31 Oct)	7.5	25	1.49	Cold - (1 Nov – 30 Apr)	7.5	10	2.25
Season	pH	Temp.-°C	W.Q. Standard, mg/l										
Warm - (1 May - 31 Oct)	7.5	25	1.49										
Cold - (1 Nov – 30 Apr)	7.5	10	2.25										
Nitrate/Nitrite	The existing monitoring requirements are being rolled over for these parameters.												
Phosphorus	<p>The Phosphorus limit in the permit is controlled by the Amended Consent Judgment based on the following schedule:</p> <table border="1"> <tbody> <tr> <td>May 1, 2004 to March 31, 2006</td> <td>Interim limit = 400 lbs/day 12-month rolling average</td> </tr> <tr> <td>April 1, 2006 to November 15, 2010</td> <td>Interim limit = 0.12 mg/l 12-month rolling average</td> </tr> <tr> <td>November 16, 2010 to June 30, 2012</td> <td>Interim limit = 0.10 mg/l 12-month rolling average</td> </tr> <tr> <td>After June 30, 2012</td> <td>Final limit = 0.10 mg/l 12-month rolling average pursuant to the TMDL approved by USEPA Final loading limit Outfall 001– 21,511 lbs/yr</td> </tr> <tr> <td>After December 31, 2018</td> <td>Final limit = 0.10 mg/l. 12-month rolling average pursuant to the TMDL approved by USEPA Final loading limit – 27, 212 lbs/yr</td> </tr> </tbody> </table>	May 1, 2004 to March 31, 2006	Interim limit = 400 lbs/day 12-month rolling average	April 1, 2006 to November 15, 2010	Interim limit = 0.12 mg/l 12-month rolling average	November 16, 2010 to June 30, 2012	Interim limit = 0.10 mg/l 12-month rolling average	After June 30, 2012	Final limit = 0.10 mg/l 12-month rolling average pursuant to the TMDL approved by USEPA Final loading limit Outfall 001– 21,511 lbs/yr	After December 31, 2018	Final limit = 0.10 mg/l. 12-month rolling average pursuant to the TMDL approved by USEPA Final loading limit – 27, 212 lbs/yr		
May 1, 2004 to March 31, 2006	Interim limit = 400 lbs/day 12-month rolling average												
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After December 31, 2018	Final limit = 0.10 mg/l. 12-month rolling average pursuant to the TMDL approved by USEPA Final loading limit – 27, 212 lbs/yr												

C.2.3. Metal with hardness-based standards

Metals are present in the effluent and have been detected in the effluent at level listed on the Pollutant Summary Table below. All metals limits have been carried over from the previous permit.

C.2.3.1. Other Toxic Parameters

Pollutants	UNIT	Existing Permit Limits	TBEL		WQBEL		Proposed Limits			Basis
			Daily Ave	Action Level	Daily Ave	Daily Max	Daily Ave	Daily Max	Action Level	
Chloroform	lbs/day	-	-	4.12	9.85	-	-	-	4.12	Existing AL
Methylene Chloride	lbs/day	0.86	-	0.86	281.4	-	-	-	0.86	Technology
Phenols, Total	lbs/day	9.7	9.7	-	1.41	-	Monitor	-	-	Technology ¹
Phenols, Total Unchlorinated	lbs/day	-	-	-	1.41	-	Monitor	-	-	Technology ¹
Phenolics, Total Unchlorinated	lbs/day	-	-	-	7.03	-	Monitor	-	-	Technology ¹
Cyanide	lbs/day	7.3	7.3	-	7.3	-	7.3	-	-	WQBEL
Butyl Benzyl Phthalate ³	lbs/day	3	-	ND ⁴	70.3	-	-	-	3	Technology
Tetrachloroethene	lbs/day	1.1	1.1	-	1.41	-	-	-	1.1	Technology
						-				

1. See discussion regarding phenolic compounds on page 11 above.

C.2.3.2. Whole Effluent Toxicity (WET) Testing

WET tests use small vertebrate and invertebrate species to measure the aggregate toxicity of an effluent. There are two different durations of toxicity tests: acute and chronic. Acute toxicity tests measure survival over a 96-hour test exposure period. Chronic toxicity tests measure reductions in survival, growth, and reproduction over a 7-day exposure. Per TOGS 1.3.2, WET testing may be required when any one of the following seven criteria are applicable:

1. There is the presence of substances in the effluent for which ambient water quality criteria do not exist.
2. There are uncertainties in the development of TMDLs, WLAs, and WQBELs, caused by inadequate ambient and/or discharge data, high natural background concentrations of pollutants, available treatment technology, and other such factors.
3. There is the presence of substances for which WQBELs are below analytical detectability.
4. There is the possibility of complex synergistic or additive effects of chemicals, typically when the number of metals or organic compounds discharged by the permittee equals or exceeds five.
5. There are observed detrimental effects on the receiving water biota.
6. Previous WET testing indicated a problem.
7. Treatment plants which exceed a discharge of 1 MGD. Facilities of less than 1 MGD may be required to test, e.g., POTWs < 1 MGD which are managing industrial pretreatment programs.

The following table shows multiple acute and chronic toxicity test failures at Metropolitan Syracuse WWTP. Targeted Toxicity Identification/Reduction Evaluation (TI/RE) procedures were required at Outfall 001, in addition to monthly chronic testing for a period of one year. The testing was conducted by the facility's contracted laboratory AquaTOX Research, Inc., using the previously determined Most Sensitive Species (MSS) freshwater invertebrate water flea (*Ceriodaphnia dubia*), between September 2013 and August 2014. The results are summarized in the table below.

Test Date	¹ MSS 48H LC50 (%Effluent)	² MSS TUa	³ TUa Action Level	⁴ MSS Survival 100% Effluent	⁵ Acute Test Result	⁶ MSS RPD TUa	⁷ Acute WET Limit Required	⁸ MSS 7D NOEC/IC25 (%Effluent)	⁹ MSS NOEC/IC25 TUc	¹⁰ TUc Action Level	¹¹ Chronic Test Result NOEC/IC25	¹² MSS RPD IC25 TUc	¹³ Chronic WET Limit Required
09/13	>100% (I)	<0.3 (I)	0.3	100% (I)	Pass	<0.3	**No	50.0% (I)/63.3% (I)	2.0 (I)/1.6 (I)	2.0	Pass/Pass	2.1	Yes
10/13	>100% (I)	<0.3 (I)	0.3	100% (I)	Pass	<0.3	**No	>100% (I)/>100% (I)	<1.0 (I)/<1.0 (I)	2.0	Pass/Pass	<1.3	No
11/13	93.3% (I)	1.1 (I)	0.3	40% (I)	Fail	1.2	Yes	50.0% (I)/62.9% (I)	2.0 (I)/1.6 (I)	2.0	Pass /Pass	2.1	Yes
12/13	>100% (I)	<0.3 (I)	0.3	100% (I)	Pass	<0.3	**No	>100% (I)/77.7% (I)	<1.0 (I)/1.3 (I)	2.0	Pass/Pass	1.7	No
01/14	>100% (I)	<0.3 (I)	0.3	100% (I)	Pass	<0.3	**No	>100% (I)/>100% (I)	<1.0 (I)/<1.0 (I)	2.0	Pass/Pass	<1.3	No
02/14	>100% (I)	<0.3 (I)	0.3	100% (I)	Pass	<0.3	**No	>100% (I)/49.2% (I)	<1.0 (I)/2.0 (I)	2.0	Pass/Fail	2.6	Yes
03/14	>100% (I)	<0.3 (I)	0.3	100% (I)	Pass	<0.3	**No	>100% (I)/>100% (I)	<1.0 (I)/<1.0 (I)	2.0	Pass/Pass	<1.3	No
04/14	>100% (I)	<0.3 (I)	0.3	100% (I)	Pass	<0.3	**No	50.0% (I)/66.2% (I)	2.0 (I)/1.5 (I)	2.0	Pass /Pass	2.0	No
05/14	>100% (I)	<0.3 (I)	0.3	100% (I)	Pass	<0.3	**No	>100% (I)/70.7% (I)	<1.0 (I)/1.4 (I)	2.0	Pass/Pass	1.8	No
06/14	>100% (I)	<0.3 (I)	0.3	100% (I)	Pass	<0.3	**No	>100% (I)/>100% (I)	<1.0 (I)/<1.0 (I)	2.0	Pass/Pass	<1.3	No
07/14	>100% (I)	<0.3 (I)	0.3	100% (I)	Pass	<0.3	**No	>100% (I)/>100% (I)	<1.0 (I)/<1.0 (I)	2.0	Pass/Pass	<1.3	No
08/14	>100% (I)	<0.3 (I)	0.3	100% (I)	Pass	<0.3	**No	>100% (I)/>100% (I)	<1.0 (I)/<1.0 (I)	2.0	Pass/Pass	<1.3	No

FOOTNOTES:

- ¹Most Sensitive Species 48-hour Lethal Concentration: (F=Fish; I=Invertebrate) is the concentration or percentage of effluent that is lethal to 50% of the exposed organisms over a 48-hour period, and often indicates one species is more sensitive than the other during effluent testing.
- ²Most Sensitive Species Toxic Units Acute: is calculated as $(100 / \text{MSS 48H LC50})$. However, because ≤ 0.3 TUa is defined as the acceptable amount of acute toxicity at the edge of the acute mixing zone, and mathematically $100 / 100 = 1.0$ (i.e. a "failing result"), non-toxic acute test results are indicated as < 0.3 .
- ³Toxic Unit Acute Action Level: is calculated as $[(\text{Acute Dilution Factor}+1) \times 0.3 \text{ TUa}]$ representing the maximum allowable effluent TUa at the edge of the acute mixing zone after mixing with the receiving water and using the seven-day once-in-ten year low flow (7Q10), to assure acute protection of the receiving water. When the Acute Dilution Factor is < 3.3 , the default Acute Action Level of 0.3 TUa is used representing the maximum allowable effluent TUa at the end of pipe to assure acute protection of the receiving water.
- ⁴Most Sensitive Species Survival in 100% Effluent: is the lowest percentage of surviving organisms in 100% effluent, providing additional evidence of unacceptable acute toxicity when the necessary 50% or greater mortality required to generate an LC50 has not been attained. *Denotes statistically significant mortality in 100% effluent as compared to the control.
- ⁵Acute Test Result: MSS TUa \leq TUa Action Level for passing effluent test result and MSS TUa $>$ TUa Action Level for a failing effluent test result. If unacceptable mortality (i.e. statistically significant as compared to the control) is noted in 100% effluent, this may also be considered a failing test result.
- ⁶Most Sensitive Species Reasonable Potential Determination Toxic Units Acute: is calculated as $(\text{MSS TUa} \times 1.1)$, the Reasonable Potential Multiplier when twelve monthly tests have been completed, taking into account the statistical potential for effluent variability to occur causing an exceedance of the toxicity based action level.
- ⁷Acute Whole Effluent Toxicity Limit Required: MSS RPD TUa \leq TUa Action Level, then no toxicity based limit is required and the action level remains in place. If MSS RPD TUa $>$ TUa Action Level, then a toxicity based limit is required and the action level becomes the limit. **In low dilution situations, the application of the RPD to the acute results often mathematically suggests the need for acute WET limits even when there is no toxicity evident in 100% effluent (a non-detect). Therefore, this data cannot be used to implement a WET limit.
- ⁸Most Sensitive Species 7-day No Observed Effect Concentration or 25% Inhibition Concentration: is the highest concentration or percentage of effluent tested that causes no statistically significant effect to the exposed test organisms as compared to the control over a 7-day period, or the concentration or percentage of effluent that causes a 25% reduction in reproduction or growth for the test population.
- ⁹Most Sensitive Species Toxic Units Chronic: is calculated as $(100 / \text{MSS 7D NOEC})$ or $(100 / \text{MSS 7D IC25})$.
- ¹⁰Toxic Unit Chronic Action Level: is calculated as $[(\text{Chronic Dilution Factor}+1) \times 1.0 \text{ TUc}]$ representing the maximum allowable effluent TUc at the edge of the chronic mixing zone after mixing with the receiving water and using the seven-day once-in-ten year low flow (7Q10), to assure chronic protection of the receiving water.
- ¹¹Chronic Test Result: MSS NOEC/IC25 TUc \leq TUc Action Level for passing effluent test result and MSS NOEC/IC25 TUc $>$ TUc Action Level for a failing effluent test result.
- ¹²Most Sensitive Species Reasonable Potential Determination Toxic Units Chronic: is calculated as $(\text{MSS IC25 TUc} \times 1.3)$, the Reasonable Potential Multiplier when twelve monthly tests have been completed, taking into account the statistical potential for effluent variability to occur causing an exceedance of the toxicity based action level.
- ¹³Chronic Whole Effluent Toxicity Limit Required: MSS RPD IC25 TUc \leq TUc Action Level, then no toxicity based limit is required and the action level remains in place. If MSS RPD IC25 TUc $>$ TUc Action Level, then a toxicity based limit is required and the action level becomes the limit.

Since the initiation of the TI/RE in September 2013, acute and chronic toxicity has decreased overall, largely due to reductions in TDS, specifically chloride. Average conductivity in 100% effluent ranged from 1,883-2,673 μS , versus the 1,876-6,734 μS (max of 7,370 μS in the 08/08/12 composite sample) observed during previous testing. As is typical following the completion of a TI/RE, enforceable acute and chronic toxicity based limits are now required to ensure continued compliance. Therefore, the permit is being modified to include the acute and chronic action levels of monitor only for TUa and 2.0 for TUc as enforceable limits.

D. Effluent Requirements for Combined Sewer Overflows Facilities⁵

The following tables, at each facility, compare the effluent limits from the previous permit to this draft permit. Changes in limits are due to either revised dilution factors or incorporation of technology/guidance-based limits.

D.1. Hiawatha Regional CSO Treatment Facility - Outfall No: 074

CSOs are conveyed to the facility via a 54-inch influent pipeline, to the influent diversion structure, through a coarse-screen bar rack and into the swirl concentrator. Once the flow reaches the swirl concentrator, settleable solids are conveyed to the underflow pumps and discharged to the Ley Creek Force Main. As the wastewater rises in the swirl concentrator and over the overflow weir, the flow passes into the routing structure to the storage tank. As the flow rises in the storage tank and reaches its capacity, the flow is routed into the disinfection tank. The chemical feed system is manually activated. As the flow subsides, the chemical feed is manually de-activated. After the event, the sluice gates in the flow routing structure are manually opened and the captured CSO within the swirl concentrator, storage tank, and disinfection tank are pumped back to the Metropolitan Syracuse Wastewater Treatment Plant (Metro).

OVERFLOW PARAMETER	Units	Existing		Proposed		Basis
		Limit	Types	Limit	Types	
Overflow Volume	MG	Monitor	Total	Monitor	Total	Technology
Retained Volume	MG	Monitor	Total	Monitor	Total	Technology
BOD, 5-day	mg/l	Monitor	Average	Monitor	Average	Technology
Total Suspended Solids	mg/l	Monitor	Average	Monitor	Average	Technology
Settleable Solids	ml/l	Monitor	Average	Monitor	Average	Technology
Oil & Grease	mg/l	Monitor	Average	Monitor	Average	Technology
Floatable Material	days	Monitor	Total	Monitor	Total	Technology
Screenings	Cu. yds.	Monitor	Monthly Total	Monitor	Monthly Total	Technology
Chlorine, Total Residual	mg/l	0.2	Average	0.2	Average	Technology
Fecal Coliform	MPN/100ml	200	Geometric mean	200	Geometric mean	Technology
Ammonia	mg/l	Monitor	Average	Monitor	Average	Technology
TKN	mg/l	Monitor	Average	Monitor	Average	Technology
Total Phosphorus	mg/l	Monitor	Average	Monitor	Average	Technology
Precipitation	Inches/hr	Measure	Total	Measure	Total	Technology

D.2. Midland Regional Treatment Facility - Outfall No: Main RTF outfall M01, Emergency Bypass outfall M02

CSOs are conveyed to the facility by the 144-inch diameter pipeline from the Midland Avenue upstream CSOs, the 86-inch diameter pipeline from the Tallman Street CSO, and/or the 66-inch diameter pipeline from the Bellevue Avenue CSO. The flow is directed into the 2.5 MG storage tank. At a set level, the PLC program logic calls for the influent pumps to run. The influent pumps lift the wastewater to the influent wet well, where two (2) sluice gates distribute flow to the two (2) vortex separators. As the flow rises and overflows the vortex separator weirs, the flow moves into the disinfection tank. The PLC logic calls for the chemical disinfection system to operate. As the flow fills the 1 MG disinfection tank, eventually overflowing the weir, and discharges to Onondaga Creek. The storage capacity of the facility and ancillary pipe is approximately 5 MG.

OVERFLOW PARAMETER	Units	Existing		Proposed		Basis
		Limit	Types	Limit	Types	
Overflow Volume	MG	Monitor	Total	Monitor	Total	Technology
Retained Volume	MG	Monitor	Total	Monitor	Total	Technology
BOD, 5-day	mg/l	Monitor	Average	Monitor	Average	Technology
Total Suspended Solids	mg/l	Monitor	Average	Monitor	Average	Technology
Settleable Solids	ml/l	Monitor	Average	Monitor	Average	Technology
Oil & Grease	mg/l	Monitor	Average	Monitor	Average	Technology
Floatable Material	days	Monitor	Total	Monitor	Total	Technology
Screenings	cu. yds.	Monitor	Monthly Total	Monitor	Monthly Total	Technology
Chlorine, Total Residual	mg/l	0.2	Average	0.2	Average	Technology
Fecal Coliform	No./100 ml	200	Geometric mean	200	Geometric mean	Technology
Ammonia	mg/l	Monitor	Average	Monitor	Average	Technology
TKN	mg/l	Monitor	Average	Monitor	Average	Technology
Total Phosphorus	mg/l	Monitor	Average	Monitor	Average	Technology
Precipitation	inches	Measure	Total	Measure	Total	Technology

D.3. Teall Floatables Control Facility - Outfall No: 073

The facility utilizes a Copa bar screen, which is fully automatic and remains idle during dry weather. An ultrasonic level detector, mounted within the sewer, monitors the water level as it rises to the storm weir level and initiates the raking mechanism. The start level is set at 2 inches below the underside of the bar screens. Once the water overtops the storm weir, flow passes through the bar screens, which are continuously kept clean by the raking mechanism. Debris is retained on the sewer side of the bar screens. The stop level is set at 2.5 inches below the underside of the bar screens. As the water levels subsides, and then drops below the storm weir and below the underside of the bar screens, the raking mechanism shuts down.

OVERFLOW PARAMETER	Units	Existing Limit	Proposed Limit	Basis
Flow	MGD	total, per event	total, per event	Technology
Precipitation	Inches	total, per event	total, per event	Technology
Floatable Material	days	total, per event	total, per event	Technology
Floatables Captured	pounds	total, per month	total, per month	Technology

D.4. Butternut Floatables Control Facility - Outfall No: 020

This in-line facility is designed to catch floatable debris including rags, paper, leaves, sticks, plastics, and sanitary material. Flow from the 72-inch trunk sewer enters the upstream vault; when the level within the upstream vault reaches 2.2 feet, PLC program logic calls for the sluice gate to close. Once the sluice gate is closed, flow is forced through a row of eight (8) net bags. The net bags are retained with stainless steel sleds anchored into the vault structure. The net bags trap the floatable debris, allowing screened flow to pass through the bags into the downstream vault and re-enter the 72-inch trunk sewer. An overflow weir is located downstream of the net bags. When flow within the 72-inch trunk exceeds 1.6 feet, it overtops the weir and is discharged to Onondaga Creek via a 72-inch overflow. During a wet-weather event, the sluice gate remains closed until the flow level within the upstream vault remains at or below 1.1 ft for a period of 45 minutes. Once satisfied the PLC initiates the gate opening sequence which opens the gate in five step increments over a period of 120 minutes.

OVERFLOW PARAMETER	Units	Existing Limit	Proposed Limit	Basis
Flow	MGD	total, per event	total, per event	Technology
Floatable Material	days	total, per event	total, per event	Technology
Screenings	pounds	total, per month	total, per month	Technology
Precipitation	inches	total, per event	total, per event	Technology

D.5. Burnet Floatables Control Facility - Outfall No: 021

This in-line facility is designed to catch floatable debris including rags, paper, leaves, sticks, plastics, and sanitary material. Flow from the 72-inch trunk sewer enters the upstream vault; when the level within the upstream vault reaches 2.2 feet, PLC program logic calls for the sluice gate to close. Once the sluice gate is closed, flow is forced through a row of six (6) net bags. The net bags are retained with stainless steel sleds anchored into the vault structure. The net bags trap the floatable debris, allowing screened flow to pass through the bags into the downstream vault and re-enter the 72-inch trunk sewer. An overflow weir is located downstream of the net bags. When flow within the 72-inch trunk exceeds 1.6 feet, it overtops the weir and is discharged to Onondaga Creek via a 72-inch overflow. During a wet-weather event, the sluice gate remains closed until the flow level within the upstream vault remains at or below 1.1 feet for a period of 45 minutes. Once satisfied the PLC initiates the gate opening sequence which opens the gate in five (5) step increments over a period of 120 minutes.

OVERFLOW PARAMETER	Units	Existing Limit	Proposed Limit	Basis
Flow	MGD	total, per event	total, per event	Technology
Floatable Material	days	total, per event	total, per event	Technology
Screenings	pounds	total, per month	total, per month	Technology
Precipitation	inches	total, per event	total, per event	Technology

D.6. Maltbie Floatables Control Facility - Outfall No: 066

This end-of-pipe facility is designed to catch floatable debris including rags, paper, leaves, sticks, plastics and sanitary material. Flow from the 30-inch outfall enters an influent chamber and is pushed through a row of three (3) net bags allowing screened flow to pass through an effluent vault that discharges directly to Onondaga Creek. The net bags are retained by stainless steel frames with stainless steel hooks. Since this facility is installed at the outfall pipe, all the flow is conveyed to Onondaga Creek.

OVERFLOW PARAMETER	Units	Existing Limit	Proposed Limit	Basis
Flow	MGD	total, per event	total, per event	Technology
Floatable Material	days	total, per event	total, per event	Technology
Screenings	pounds	total, per month	total, per month	Technology
Precipitation	inches	total, per event	total, per event	Technology

D.7. Harbor Brook Floatables Control Facility #1 (In-Stream Facility) Outfall No: N/A

This in-stream facility is designed to catch floatable debris including rags, paper, leaves, sticks, plastics and sanitary material from Harbor Brook. The pontoon structure is set in a fixed position within Harbor Brook and is equipped with a coarse bar rack and three (3) net bags.

OVERFLOW PARAMETER	Units	Existing Limit	Proposed Limit	Basis
Flow	MGD	total, per event	total, per event	Technology
Floatable Material	days	total, per event	total, per event	Technology

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Screenings	pounds	total, per month	total, per month	Technology
Precipitation	inches	total, per event	total, per event	Technology

D.8. Erie Boulevard Storage System - Outfall No: 080

The storage system is equipped with a series of automated sluice gates to store discharge from nine (9) separate CSO diversion manholes. The system temporarily stores wet weather flows until there is sufficient capacity at Metro; the system is drained to Metro via the Main Intercepting Sewer (MIS) once wet-weather flows have subsided. The storage system capacity is approximately 5 million gallons. The EBSS consists of three (3) storage units separated by gates (1, 3 and 4). The system control logic is designed to modulate the aforementioned gates to release flows once the storage capacity within the EBSS is reached. In the event that the maximum capacity of the EBSS and MIS are reached, further incoming CSO flows are discharged to Onondaga Creek to prevent flooding.

The EBSS system initiates gate closure once flow is observed at any one of the nine (9) CSO locations. The gates remain closed until flow has subsided at all nine (9) CSO entry points for a period of thirty minutes. The EBSS then enters into a two-hour drain-down sequence, discharging flow to Metro, before returning to normal operating mode.

OVERFLOW PARAMETER	Units	Existing Limit	Proposed Limit	Basis
Overflow Volume	MG	total, per event	total, per event	Technology
Retained Volume	MG	total, per event	total, per event	Technology
Precipitation	inches	total, per event	total, per event	Technology

D.9. Lower Harbor Brook CSO Storage Facility - Outfall No: 04A

Combined sewer overflow (CSO) is conveyed to the facility via a 60-inch diameter pipeline from CSOs 003 and 063 (anticipated in 2015), and a 54-inch diameter pipeline from CSO 004. Flows from these pipelines are combined in the facility junction chamber and enter the storage tank through an 84-inch diameter pipeline. Once the storage volume of 4.9 MG is reached, additional flow will be discharged to Harbor Brook. Following the event, the storage facility will be dewatered by operating the dewatering pumps to the Harbor Brook Intercepting Sewer for treatment at the Metropolitan Syracuse Treatment Plant.

OVERFLOW PARAMETER	Units	Existing		Proposed		Basis
		Limit	Types	Limit	Types	
Overflow Volume	MG	Monitor	Total	Monitor	Total	Technology
Retained Volume	MG	Monitor	Total	Monitor	Total	Technology
Fecal Coliform	No./100 ml	200	Geometric Mean	200	Geometric mean	Technology
Floatable Material	days	Monitor	Total	Monitor	Total	Technology
Screenings	cu. yds.	Monitor	Monthly Total	Monitor	Monthly Total	Technology
Precipitation	inches	Measure	Total	Measure	Total	Technology

D.10. Clinton CSO Storage Facility - Outfall No: 33A

CSOs are conveyed to the facility via the 96-inch diameter West Onondaga Street CSO Transmission pipeline, the 84-inch diameter West Jefferson Street CSO Transmission pipeline, and the 36-inch diameter West Street CSO Transmission pipeline. The flow enters the east and west influent channels. The flow is screened in the west influent chamber by the trash racks and then passes through into the tunnels sequentially so that during a low flow event, only a portion of the storage volume needs to be cleaned. If the storage volume exceeds 6.5 MG, the effluent pumps will activate through the PLC program logic and discharge the excess to Onondaga

Creek. Following the event, the storage tunnels will be dewatered by operating the dewatering pumping station to the Main Interceptor Sewer for treatment at the Metropolitan Syracuse Treatment Plant.

OVERFLOW PARAMETER	Units	Existing		Proposed		Basis
		Limit	Types	Limit	Types	
Overflow Volume	MG	Monitor	Total	Monitor	Total	Technology
Retained Volume	MG	Monitor	Total	Monitor	Total	Technology
Fecal Coliform	No./100 ml	200	Geometric Mean	200	Geometric mean	Technology
Floatable Material	days	Monitor	Total	Monitor	Total	Technology
Screenings	cu. yds.	Monitor	Monthly Total	Monitor	Monthly Total	Technology
Precipitation	inches	Measure	Total	Measure	Total	Technology

D.11. Harbor Brook CSO 018 Pilot Constructed Wetlands Treatment Facility
Outfall No: Main Outfall 018, Emergency Bypass 018A⁶

The Harbor Brook CSO 018 Constructed Wetlands Pilot Treatment System will serve the dual purposes of treating overflows from CSO018, currently discharged into Harbor Brook, while also acting as a demonstration project to test the effectiveness of three types of constructed wetland treatment systems.

The Harbor Brook Constructed Wetlands Pilot Treatment System Project includes construction of a wetland-based natural treatment process to remove pollutants from combined sewer overflows released into Harbor Brook during heavy rains.

During and after significant rain storms, the volume of stormwater runoff often exceeds the area's combined sewer system's capacity resulting in overflows of mixed runoff and sewage. The resulting overflows are sometimes discharged directly into nearby surface waters such as Harbor Brook and eventually Onondaga Lake. This discharge is called a combined sewer overflow, or CSO. The Constructed Wetlands Pilot Treatment System Project will be located along Harbor Brook on County-owned property just south of Burnet Park on the west side of Syracuse, near the Skunk City neighborhood.

This project is considered a "pilot" project because it includes a monitoring and research component that will help determine the performance of three types of wetlands to be constructed. The project will assess the potential for their use at other CSO locations in the City of Syracuse. Based on the knowledge gained as a result of this pilot project, these wetland systems may be integrated as part of a larger constructed wetland treatment system along Harbor Brook with additional water quality, natural habitat, recreational, educational, and other community benefits. The project will be located within the approximately 34 contiguous acres of Onondaga County owned land known as the Velasko Road Detention Basin.

This constructed wetland pilot project will capture and treat approximately 13.6 million gallons of combined sewage each year and substantially improve the quality of the stormwater discharge into Harbor Brook.

OVERFLOW PARAMETER	Units	Existing		Proposed		Location	
		Limit	Types	Limit	Types	Inf	Eff
Wetlands Discharge Volume	MG	Monitor	Recorded	Monitor	Recorded	X	X
Overflow Volume	MG	Monitor	Recorded	Monitor	Recorded		X
BOD, 5-day	mg/l	Monitor	Composite	Monitor	Composite	X	X

Total Suspended Solids	mg/l	Monitor	Composite	Monitor	Composite	X	X
Settleable Solids	ml/l	Monitor	Grab	Monitor	Grab	X	X
Oil & Grease	mg/l	Monitor	Grab	Monitor	Grab		X
Floatable Material	days	Monitor	Visual Observation	Monitor	Visual Observation		X
Screenings	cu. yds.	Monitor	Calculated	Monitor	Calculated	X	
Chlorine, Total Residual	mg/l	0.2	Grab	0.2	Grab		X
Fecal Coliform	No./100 ml	200	Grab	200	Grab	X	X
Ammonia	mg/l	Monitor	Composite	Monitor	Composite	X	X
TKN, mg/l	mg/l	Monitor	Composite	Monitor	Composite		X
Total Phosphorus	mg/l	Monitor	Composite	Monitor	Composite	X	X
Dissolved Oxygen	mg/l	Monitor	Grab	Monitor	Grab		X
Precipitation	inches	Measure	Record	Measure	Record		

D.12. Newell Street (Vortex Regulator)

Operational Description

The Newell Street facility is a vortex separator serving CSO 067. During dry weather, sewage is directed into the swirl concentrator, routed into a wet well and pumped into a 6-inch force main across Newell Street. During wet weather, the flow directed into the swirl concentrator rises, eventually overflows the weir, into the sump and is discharged through a 24-inch diameter outfall pipe to Onondaga Creek.

OVERFLOW PARAMETER	Units	Existing Limit	Proposed Limit	Basis
Flow	MGD	total, per event	total, per event	Technology
Floatable Material	days	total, per event	total, per event	Technology
Floatables Captured	pounds	total, per month	total, per month	Technology
Precipitation	inches	total, per event	total, per event	Technology

E. Monitoring & Reporting Requirements

CWA section 308, 40 CFR 122.44(i), and 6 NYCRR Part 750-1.13 require that monitoring be included in permits to determine compliance with effluent limitations. Additional effluent monitoring may also be required to gather data to determine if effluent limitations may be required. The permittee is responsible for conducting the monitoring and for reporting results on DMRs. The permit contains the monitoring requirements for the facility. Monitoring frequency is based on the minimum sampling necessary to adequately monitor the facility's performance. For municipal facilities, sampling frequency is based on guidance provided in TOGS 1.3.3.

F. Other Conditions Specific to This Permit

F.1. Best Management Practices (BMPs) for Combined Sewer Overflows (CSOs): The permittee shall implement BMPs for CSOs as described in the permit. These BMPs are designed to implement operation and maintenance procedures, use the existing treatment facility and collection system to the maximum extent practicable, effect sewer design replacement and drainage planning, maximize pollutant capture and minimize water quality impacts from combined sewer overflows. The BMPs are equivalent to the "Nine Minimum Control Measures" required under the USEPA National CSO policy. This requirement is being continued from the previous permit. Appendix A of the draft permit includes monitoring requirements for the approved CSO control structures which include facilities for CSO storage and floatables controls.

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- F.2. **Industrial Pretreatment Program:** The permittee is required to implement a Pretreatment Program in accordance with 40 CFR 403. The program specifies development of an industrial user compliance program, submission of user information, modification of local sewer use law (if necessary), and periodic reporting. This requirement is based on 40 CFR 403 and TOGS 1.3.3 and is being continued from the previous permit.
- F.3. **Discharge Notification Act:** In accordance with Discharge Notification Act (ECL 17-0815-a), the permittee is required to post a sign at each point of wastewater discharge to surface waters. The permittee is also required to provide a public repository for DMRs as required by the SPDES permit. This requirement is being continued from the previous permit.
- F.4. **Stormwater Pollution Prevention Plan:** The permittee is required to develop a stormwater pollution prevention plan to minimize contamination of stormwater run-off from the facility. This requirement is being continued from the previous permit.
- F.5. **Special Conditions:** The permit includes various special conditions for CSO storage and floatable control facilities.

G. General Conditions Applicable To All Permits

The permit contains standard regulatory language that is required to be in all SPDES permits. These permit provisions, based largely upon 40 CFR 122 subpart C and 6 NYCRR Part 750, include requirements pertaining to monitoring, recording, reporting, and compliance responsibilities. These “general conditions” of permits are typically specified, summarized, or referenced on the first and last pages of the permit.

H. OUTFALL & RECEIVING WATER LOCATION TABLE

Outfall Number	Latitude	Longitude	Receiving Water Name	Water Class	Water Index Number	Major/Sub Basin	Dilution	pH, SU	Temp, °C	Hardness, mg/l
001	43° 04' 04"	76° 11' 07"	Onondaga Lake	C	P154	07/02	1:1	8.0		350
01A	43° 04' 04"	76° 11' 07"	Onondaga Lake	C	P154	07/02	1:1	8.0		350
01B	43° 04' 04"	76° 11' 07"	Onondaga Lake	C	P154	07/02	1:1	8.0		350
002	43° 03' 54"	76° 10' 51"	Onondaga Lake	C	P154	07/02	1:1	8.0		350

I. POLLUTANT SUMMARY TABLE(S)

Outfall #	001
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Effluent Parameter (concentration in ug/l and mass in lbs/day unless otherwise specified)	Existing Effluent Quality			TBELs			Water Quality Data & WQBELs				Permit Basis (T or WQ or NA)
	Concentration		Mass, lbs/d	Concentration, mg/l	Mass, lbs/d	PQL	Ambient Criteria	Ambient Background	WQBEL	Permit Basis	
	Avg/Max	95%/99%	Avg/Max								
Flow Rate, units = MGD	Average	62.11	Maximum	70.3	84.2	NA	7Q10 = NA	30Q10 = NA	Dilution/Mixing = 1:1	T	
pH (SU)	Minimum	6.0	Maximum	7.6	6.0 - 9.0	Range			Apply Technology	T	
Temperature (°C)	17.0/24	-			Monitor					T	
CBOD ₅ , 30-day	2.24/2.54	-	1129.7/1391.9	-	21	14747	MA			T	
CBOD ₅ , 7-day	-	-	-	-	31.5	22120	DA			T	
COD	7	-	-	-							
UOD		-	-	-							
Solids, Suspended, 7-Day	6.22/10	-	3513.5/9000	-	30	21067	DA			T	
Solids, Suspended, 30-day	5.16/7	-	2783.78/5000	-	45	31600	MA			T	

Effluent Parameter (concentration in ug/l and mass in lbs/day unless otherwise specified)	Existing Effluent Quality			TBELs			Water Quality Data & WQBELs				Permit Basis (T or WQ or NA)	
	Concentration		Mass, lbs/d	Concentration, mg/l	Mass, lbs/d	PQL	Ambient Criteria	Ambient Background	WQBEL			
	Avg/Max	95%/99%							Avg/Max	95%/99%		Conc.
Solids, Settleable	0.12/0.3	-	-	0.3	-	-	-	-	-	-	-	T
Nitrogen, Ammonia (as NH ₃)-Summer	0.44/1.5	-	-	1.2 (TMDL)	-	MA	0.93	NA	1.75	-	MA	T
Nitrogen, Ammonia (as NH ₃)-Winter	-	-	-	2.4 (TMDL)	-	MA	1.37	NA	2.6	-	MA	T
Nitrate	12.95/16	-	-	Monitor	-	MA	NA	NA	NA	-	MA	T
Nitrite	0.0367/0.12	-	-	Monitor	-	MA	NA	NA	NA	-	MA	T
TKN	1.442/2.057	-	-	Calculated	-	MA	-	Apply Technology	-	-	MA	T
Temperature, °C	17.1/24	-	-	Monitor	-	DA	-	Apply Technology	-	-	DM	T
Toxicity, Ceriodaphnia Chronic	3.0/4.0	5.69/6.69	-	2.0	-	MA	-	NA	2.0	-	MA	WQ
Toxicity, Pimephales Chronic	1.0/1.0	1.0/1.0	-	2.0	-	MA	-	NA	2.0	-	MA	WQ
Phosphorus, Total (as P)	0.075/0.14	-	45/77	0.10 (TMDL)	-	12-MRA ⁷	0.02	NA	-	26.41	MA	T
Phosphorus, Total (as P)	0.08/0.096	-	1345/2300	Monitor	21.511 ⁸	12-MRS ⁹	0.02	NA	-	26.41	MA	T
Mercury, Total Recoverable, ng/l	1.04/3.6	2.38 (95%)	-	50	-	MA	0.07	NA	1.45	-	12MRA	TOGS 1.3.10
Phenolic Compounds (Total Phenols)	-	-	9.83/44	Monitor	Monitor	MA	0.08	NA	0.08	9.7	MA	T
Phenolics, Total Chlorinated	-	-	ND	Monitor	Monitor	MA	0.001	NA	0.001	1.41	MA	T
Phenolics, Total Unchlorinated	-	-	ND	Monitor	Monitor	MA	0.005	NA	0.005	7.03	MA	T
Cyanide, Total	-	-	1.61/3.0	0.011	7.3	DA	0.0052	NA	0.0052	7.32	MA	T
Chromium, Total Recoverable	-	-	5.26/7.9	0.023	16	AL	0.21	NA	0.28	395	DM	T
Nickel, Total Recoverable	-	-	9.15/9.4	0.040	28	AL	0.15	NA	0.177	248.6	DM	T

Effluent Parameter (concentration in ug/l and mass in lbs/day unless otherwise specified)	Existing Effluent Quality			TBELs			Water Quality Data & WQBELs				Permit Basis (T or WQ or NA)			
	Concentration		Mass, lbs/d	Concentration, mg/l	Mass, lbs/d	PQL	Ambient Criteria	Ambient Background	WQBEL					
	Avg/Max	95%/99%							Avg/Max	95%/99%		Conc.	Mass	Conc.
Copper, Total Recoverable	-	-	6.41/9.9	9.19/10.73	17.6	0.025	AL	-	0.026	NA	0.051	35.93	DM	T
Zinc, Total Recoverable	-	-	12.78/20	18.58/21.89	33	0.048	AL	-	0.24	NA	0.203	286.05	DM	T
Tetrachloroethene	-	-	1.25/21	2.86/4.42	1.1	0.002	AL	-	0.001	NA	0.001	1.41	MA	T
Iron, Total Recoverable ¹⁰	-	-	1060/3170	2350/3077	5260	4.435	AL	-	0.3	NA	1.00	1406.9	DA	T
Lead, Total Recoverable	-	-	ND	ND	3.0	0.004	AL	-	0.014	NA	0.03	42.21	DM	T
Cadmium	-	-	0.6/2.1	1.03/1.26	3.1	0.004	AL	-	0.0056	NA	0.0065	9.19	DM	T
Chloroform	-	-	2.28/21	5.90/10.38	4.12	0.013	AL	-	-	NA	0.007	9.85	DA	T
Methylene Chloride	-	-	0.77/1	1.40/1.73	0.86	NA	-	-	0.2	NA	0.20	281.4	DA	T
Butyl Benzyl Phthalate	-	-	ND	ND	3	NA	-	-	-	NA	0.005	70.34	DA	T
Effluent Disinfection: [] All Year [X] Seasonal from April 1 to October 15														
Fecal Coliform(7 day), #/100 mL	72.67/320	-	-	-	-	200	6NYCRR 703.4	200	200	200	-	-	GM	T
Fecal Coliform, monthly median, #/100 mL	31.39/76	-	-	-	-	400	TOGS 1.3.3	2400/5000	-	-	-	-	GM	T
Total Coliform, #/100 ml ¹⁶	567	-	-	-	-	Not Required	TOGS 1.3.3	0.005	-	-	-	-	DM	T
Chlorine, Total Residual, mg/l	0.0	-	-	-	-	Not required. UV disinfection technology is being used		0.005	-	-	0.007	-	DM	T

Outfall #	001
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Effluent Parameter (concentration in ug/l and mass in lbs/day unless otherwise specified)	Existing Effluent Quality			TBELs			Water Quality Data & WQBELs				Permit Basis (T or WQ or NA)	
	concentration		mass	Concentration, mg/l	Mass, lbs/d	PQL	Ambient Criteria	Ambient Background	WQBEL			Type
	Avg/Max	95%/99%							Avg/Max	95%/99%		
Flow Rate, units = MGD ¹¹	Average	62.11	Maximum	70.3	NA	7Q10 =	30Q10 =	Dilution/Mixing =				
Xylene, Total	-	-		ND	0.038	Special ¹²	-	NA	0.65	91.45	DA	T
Bis(2-ethylhexyl)phthalate	-	-		ND	0.004	Special	-	0.00006	NA	0.0006	DA	T
Di(n)butylphthalate	-	-		ND	NA	Special	-	-	NA	0.005	DA	T
Silver, Total Recoverable	-	-		ND	0.013	Special	-	0.0001	NA	0.0001	DM	T
Arsenic, Total Recoverable	-	-		ND	0.021	Special	-	0.050	NA	0.05	DA	T
Arsenic, Total Recoverable	-	-		ND	0.021	Special	-	0.15	NA	0.15	DM	T
All 601 and 602 Group Substances					-	Special	-	-	-	-	-	T

Outfall # 01A

Effluent Parameter (concentration in ug/l and mass in lbs/day unless otherwise specified)	Existing Effluent Quality			TBELs			Water Quality Data & WQBELs				Permit Basis (T or WQ or NA)	
	concentration		mass	Concentration, mg/l	Mass, lbs/d	PQL	Ambient Criteria	Ambient Background	WQBEL			Permit Basis
	Avg/Max	95%/99%							Avg/Max	95%/99%		
Flow Rate, units = MGD ¹³	Average	62.11	Maximum	70.3		NA	7Q10 =	30Q10 =	Dilution/Mixing =		T	
BOD ₅ , mg/l	-	-	-	-	Monitor	MA	-	-	-	-	DA	T
Solids, Suspended, mg/l	-	-	-	-	Monitor	MA	-	-	-	-	DA	T
Solids, Settleable	-	-	-	-	0.8	DM	-	-	-	-	DA	T
Phosphorus, Total(as P), mg/l					Monitor	MA	-	-	-	-	DA	T
Phosphorus, Total(as P)					Calculated	MA	-	-	-	-	DA	T
Ammonia (as NH ₃), mg/l	-	-	-	-	Monitor	MA	-	-	-	-	DM	T
Chlorine, Total Residual, mg/l	-	-	-	-	0.1	DM	-	-	-	-	DM	T
Oil & Grease, mg/l	-	-	-	-	Monitor	DM	-	-	-	-	DM	T
Floatable Materials	-	-	-	-	Monitor/Visual	Daily	-	-	-	-	Daily	T
Coliform, Fecal					200(01A)/ Monitor(01B)	30GM					30GM	T

Outfall #	01B
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Effluent Parameter (concentration in ug/l and mass in lbs/day unless otherwise specified)	Existing Effluent Quality			TBELs			Water Quality Data & WQBELs				Permit Basis (T or WQ or NA)	
	concentration		mass	Concentration, mg/l	Mass, lbs/d	PQL	Ambient Criteria	Ambient Background	WQBEL			
	Avg/Max	95%/99%	Avg/Max						95%/99%	conc.		mass
Flow Rate, units = MGD ¹⁴	Average	8.7	Maximum	45		MA	7Q10 =	30Q10 =	, Dilution/Mixing =		T	
BOD ₅ , mg/l	-	-	-	-	Monitor	MA	-	-	-	-	DA	T
Solids, Suspended, mg/l	-	-	-	-	Monitor	MA	-	-	-	-	DA	T
Solids, Settleable	-	-	-	-	Monitor	DM	-	-	-	-	DA	T
Phosphorus, Total(as P), mg/l					Monitor	MA	-	-	-	-	DA	T
Phosphorus, Total(as P)				7602	Calculated	MA	-	-	-	-	DA	T
Ammonia (as NH ₃), mg/l	-	-	-	-	Monitor	MA	-	-	-	-	DM	T
Chlorine, Total Residual, mg/l	-	-	-	-	Monitor	DM	-	-	-	-	DM	T
Oil & Grease, mg/l	-	-	-	-	Monitor	DM	-	-	-	-	DM	T
Floatable Materials	-	-	-	-	Monitor/Visual	Daily	-	-	-	-	Daily	T
Coliform, Fecal					Monitor	30GM					30GM	T

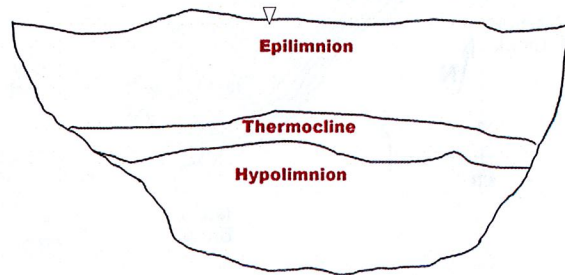
Outfall #	002
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Effluent Parameter (concentration in ug/l and mass in lbs/day unless otherwise specified)	Existing Effluent Quality				TBELs				Water Quality Data & WQBELs				Permit Basis (T or WQ or NA)
	concentration		mass		mass	Type	PQL	Ambient Criteria	Ambient Background	WQBEL		Type	
	Avg/Max	95%/99%	Avg/Max	95%/99%						conc.	conc.		
Flow Rate, units = MGD	Avg	33.42	Maximum	120		DM	-			7Q10 =	30Q10 =	Dilution/Mixing =	T
BOD5		88.5/190	-	-	Monitor	MA	-			-	-	-	T
Solids, Suspended		70.91/140	-	-	Monitor	MA	-			-	-	-	T
Solids, Settleable		0.53/2	-	-	0.8	DM	-			-	-	-	T
Phosphorus, Total (as P) - Compositd		1.545/2.2	-	-	Monitor	MA	-			-	-	-	T
Phosphorus, Total (as P) - Calculated, lbs/d		-	-	213.5/290	Monitor	DM	7602 ¹⁵			-	-	-	T
Ammonia, as N		11.64/50	-	-	Monitor	MA	-			-	-	-	T
Ammonia, as NH ₃		12.98/18	-	55.25/86	Monitor	MA	-			-	-	-	T
Oil & Grease		10.29/20	-	-	Monitor	DM	-			-	-	-	T
Floatable Material, #/discharge		1/1	-	-	Monitor	DM	-			-	-	-	T
Effluent Disinfection: All Year Seasonal from:													
Fecal Coliform(30 day), #/100 ml		9/9	-	-	200	GM	-			NA	-	GM	6 NYCRR 703.4, T
Total Coliform, #/100 ml ¹⁶		22,000	-	-	Monitor	GM	-			-	-	-	
Chlorine, Total Residual, mg/l		0.10/1.8	-	-	0.1	DM	-			0.005	NA	-	WQ, TOGS 1.3.3

APPENDIX A: DETERMINATION OF DILUTION RATIO

The 7Q10 flow was obtained from historical record on file. The record concluded that a dilution ratio of 1:1 is appropriated and this conclusion was based on two assumptions:

Assumption 1 (July 1991):



Lake volume: $4.82 \times 10^9 \text{ ft}^3$

Mean Depth: 39 ft.

Metro Design Flow: 84.2 MGD or 130 cfs (Original calculation was based on 80 MGD or 124 cfs)

Low Flows as of 1986 based on inputs from tributaries, cfs	
30-day	~ 84
60-day	~ 97
90-day	~ 106
120-day	~ 115

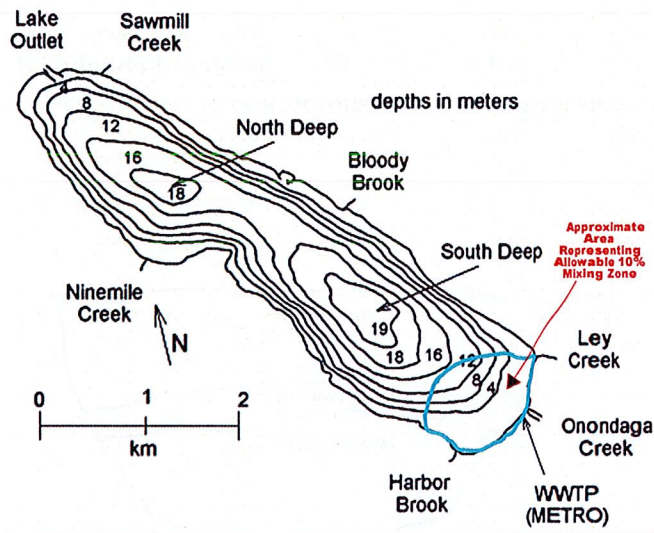
- There was no mixing with the hypolimnion and that the epilimnion represents half of the lake volume;
- Where the total lake volume is estimated to be 4.82×10^9 so that one-half is 2.41×10^9 ;
- And it takes an approximately 103 days for a complete mixing with the epilimnion:

Calculations:

Using 90-day low flow plus the plant flow: $106 + 130 = 236 \text{ cfs} = 20.39 \times 10^6 \text{ cu. ft/day}$

Therefore, $\frac{2.41 \times 10^9 \text{ ft}^3}{20.39 \times 10^6 \text{ ft}^3/\text{day}} = 118 \text{ days}$, which represents the 115-day low flow period. Also, since the low flow condition is close to the plant flow, it was assumed a ratio of 1:1 was assumed. This rates compares favorably to achieve full mixing in the epilimnion of the lake for the shoreline outfall. (Original calculations using 80 MGD was 106 days which represents a 90-day low flow condition).

Assumption 2 (November 2008):



As noted above, total lake volume is estimated to be $4.82 \times 10^9 \text{ ft}^3$ so that one-half is 2.41×10^9 ; Mean Depth is 39 ft. Therefore, surface area (SA) is about $1.2359 \times 10^8 \text{ ft}^2$;

On the advice of the Fisheries Section under the Division of Fish, Wildlife & Marine Resources, 10% of the lake should be applied for mixing. Hence, the available mixing zone area is $0.1(1.2359 \times 10^8 \text{ ft}^2) = 1.2359 \times 10^7 \text{ ft}^2$

Assuming a shallow shoreline discharge depth of about 1 ft, the daily mixing volume is $1.2359 \times 10^7 \text{ ft}^3$.

The plant flow rate of 84.2 MGD = 11.256 cu. ft/day;

Hence,
$$\frac{1.2359 \times 10^7 \text{ ft}^3}{11.256 \times 10^6 \text{ ft}^3/\text{day}} \sim 1.1:1$$

Therefore, the dilution ratio is assumed to be 1:1.

APPENDIX B: THE METROPOLITAN SYRACUSE WASTEWATER TREATMENT PLANT OVERVIEW¹⁶

The Metropolitan Syracuse Wastewater Treatment Plant (Metro) provides treatment for 270,000 people and many industrial and commercial customers in the City of Syracuse and surrounding suburbs of Onondaga County. Metro is designed to treat an average of 84.2 million gallons per day (MGD). Full secondary and tertiary treatment can be provided for up to 126.3 MGD. Metro has a total hydraulic capacity of 240 MGD during wet-weather events. The following are the service areas that contribute waste streams to Metro. Some of municipalities contribute to the waste stream in the form of solid waste only:

Municipalities	Population
Camillus	24,167
Cicero	31,632
Clay	58,206
Dewitt	25,838
Geddes	17,118
Lysander	21,759
Manlius	32,370
Onondaga	23,101
Pompey	7,080
Salina	33,710
Syracuse	145,170
Van Buren	13,185
Village of Camillus	1,213
Village of East Syracuse (Dewitt)	3,084
Village of Fayetteville (Manlius)	4,373
Village of Liverpool (Salina)	2,347
Village of Manlius (Manlius)	4,704
Village of Solvay (Geddes)	6,584

WASTEWATER TREATED BY METRO

Wastewater reaches Metro from a number of sources. The largest is the 90-inch in diameter Main Interceptor Sewer (MIS) that runs north- south through nearly the center of Syracuse. The Harbor Brook Pump Station contributes up to 30 MGD to Metro. In addition, the Ley Creek, Westside, and Liverpool pump stations convey wastewater to Metro. This influent enters a diversion structure that can channel wastewater to either of the two grit- removal facilities at Metro. An overflow structure prevents any flooding at the treatment plant in case of an emergency.

PRELIMINARY TREATMENT

The first step in treating the wastewater at Metro is the removal of sizable objects. The wastewater flows through mechanical bar screens spaced such that debris cannot fit through the spaces and is caught on the bar screens. This material is removed and then disposed of at a landfill. The wastewater next enters the grit chambers. Sand, stones, and other small bits of solid waste are removed there.

INFLUENT PUMPING

Following grit removal, the flow enters a wet well for pumping to the remainder of the plant. Pumping wastewater to the next process allows the wastewater to flow by gravity through the various treatment

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processes. The low-lift pump station raises the incoming wastewater to such a level. The station has five centrifugal pumps rated for 600 horsepower. The pumps' speeds vary depending on the amount of wastewater entering the plant. Each pump has the capacity to handle 60 MGD—for a total of 240 MGD for the low lift pump station. The wastewater is conveyed from the lift station to the primary clarifiers via a 90-inch diameter force main that is 820 feet long. At an average rate of 84 MGD, the flow is 2.2 ft/sec.

THE THREE STAGES OF TREATMENT

The wastewater is treated in three stages before it is disinfected and discharged to Onondaga Lake. The treatment stages are named primary, secondary, and tertiary.

Stage 1: Primary Treatment

In the first stage of the treatment process, flow from the low lift pumping station is conveyed to the primary treatment complex, where solid particles are removed by settling and oils and grease by skimming. The complex includes flow distribution structures and eight primary clarifiers. In the primary clarifiers, the solids are removed by slowing down the wastewater's velocity so that gravity separates the settleable solids. The settled solids are mechanically brought to the center of the tank and are then pumped to the thickeners. The processed wastewater leaves the primary clarifiers through 48 inch diameter lines and flows to the secondary treatment complex.

Primary Clarifiers

Treatment starts in the 8 primary clarifiers. They are 135 ft. in diameter, have a 10-ft. side wall depth, and can hold 1.07 million gallons.

Bypass Flows

After primary treatment, any flow greater than 63 MGD/side (126 MGD total) is sent to the by-pass chlorine contact tanks for disinfection using sodium hypochlorite and dechlorination using sodium bisulfite. This facility consists of two rectangular tanks (31 ft. by 100 ft. by 20 ft. deep). If flow is 126 MGD, the contact time is 13 minutes.

Stage 2: Secondary Treatment

The next stage of wastewater treatment, the decomposition of remaining organics by bacterial action, is achieved in the secondary complex. The complex includes aeration tanks and the secondary clarifiers. Aeration tanks mix the water and provide sufficient contact time for the bacteria to decompose the organic material and allow it to coalesce for later removal from the water. Metro has eight aeration tanks, 100 ft. by 130 ft. by 14.2 ft. deep. Each holds 1.4 million gallons. After aeration, the wastewater passes to the secondary clarifiers. Secondary clarifiers hold the water to permit the solids to settle. In this process, the biosolids are moved to the center of the tank where a portion is returned to the aeration tanks and the excess is pumped to the thickeners. Each of the four secondary clarifiers are 170 ft. square by 11 ft. deep. They each hold 1.83 million gallons.

Stage 3: Tertiary Treatment

In January 2004, Onondaga County put into service a new pump station that will pump secondary-treated wastewater to the advanced treatment process. The station has four vertical turbine variable speed pumps rated for 500 horsepower. Known as the SEPS (Secondary Effluent Pump Station), it pumps a peak flow of 126 MGD to a new tertiary treatment process for year-round treatment of ammonia.

Ammonia Removal

Ammonia in high concentrations can be lethal to juvenile fish and other aquatic animals. After January 2004, the concentration of ammonia discharged from Metro was reduced significantly. Ammonia is removed from the

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wastewater using a process developed by I. Krüger, Inc. that uses a biological aerated filter (BAF) called Biostyr®. At Metro, the BAF process consists of eight centrifugal blowers and eighteen individual cells, each with a capacity of about 273,000 gal. The cells are filled with billions of polystyrene beads that are 0.14 inch in diameter. These beads provide a huge surface area on which nitrifying bacteria is grown, and these bacteria convert ammonia to nitrate and nitrite. The BAF process lowers ammonia below 1 mg/l

Phosphorus Removal

Phosphorus is a nutrient that aids algae growth. In limited quantities, algae is beneficial, but in high concentrations it can cause many problems. An over-abundance of algae is unsightly, leads to odors, and, most importantly, when it dies it sinks to the bottom of the lake and decomposes using precious dissolved oxygen in the process. The oxygen is critical to fish and other aquatic life. Thus, more phosphorus leads to more algae—which leads to less oxygen. As with ammonia, the concentration of phosphorus in Metro's discharge has been declining over the past several years because of Onondaga County's operating changes and pretreatment efforts. Phosphorus concentrations are decreased in the wastewater using a process developed by I. Krüger, Inc. that uses high rate flocculated settling (HRFS) called Actiflo®.

Effluent from the BAF flows by gravity to the HRFS units. In the first tank, coagulants are injected into the effluent. The coagulant adheres to phosphorus molecules causing them to form larger flocs or clumps of particles. The effluent then flows through a second tank where micro-sand is added. In the third tank the floc is gently mixed to further increase the floc size. A concentrated sludge is formed in the fourth tank by the micro-sand adhering to and weighing-down the floc, where it is siphoned off. The sand is separated from the phosphorus-rich sludge and recycled; and the phosphorus sludge is pumped to the solids handling facilities at the Plant. HRFS technology allows the County to meet the current Phosphorus limit of 0.10 mg/l (measured as a 12- month rolling average).

DISINFECTION OF THE DISCHARGE WATER

Following the HRFS process, the treated water passes through an ultraviolet light disinfection system, which alter pathogens using high energy lights submerged in the effluent before discharge to the lake. UV light provides a chemical-free way to disinfect wastewater by destroying the genetic material in bacteria, viruses, and other micro-organisms so that they no longer can reproduce. The UV system consists of 308 high-intensity germicidal lamps that are submerged in an open channel. As the wastewater flows past the lamps, the micro-organisms are exposed to a lethal dose of UV energy. The intensity of the UV lamps can be varied to deliver between 840 and 2400 watts.

BIOSOLIDS TREATMENT & DISPOSAL FACILITIES

The solids removed in the various wastewater treatment processes will be conveyed to the biosolids treatment and disposal facilities. Biosolids handling facilities include three tank thickeners, three (3) primary digesters, one (1) gas holder/secondary digester, three (3) gravity belt thickeners, three (3) centrifuges, and two (2) blend tanks.

Biosolids Thickening

The biosolids and associated liquid—products separated through primary, secondary, and tertiary treatment—are thickened to reduce the liquid content. The settled solids are moved to the center of the tank and pumped to the digesters. The supernatant is recycled back to the Low Lift Pump Station Wetwell for treatment. The three thickening tanks are 65 ft. in diameter and 12 ft. deep. Each holds 298,000 gallons.

Biosolids Digestion & Dewatering

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The thickened biosolids are kept heated above 95°F and mixed to reduce the volume and to reduce pathogens in the solids. A byproduct of this process is methane gas, which is stored in the Gas Holder/Secondary Digester and used to fuel the boilers that heat the digesters and the buildings at Metro. The plant has three primary digesters that are 100ft in diameter with walls 27.5 ft. high. They each hold 1.8 million gallons. The secondary digester is 100ft in diameter with walls 24.5 ft. high. This digester holds 1.6 million gallons. The digested biosolids are treated with a polymer to promote further separation of solids and the water. The biosolids are then centrifuged to produce a cake which is about 30-33% solids, and currently transported to a sanitary landfill.

Biosolids Recycling

Metro serves as the central biosolids processing facility for four (4) other plants. The County treatment plants generate 110 tons of biosolids daily. The County is currently evaluating plans for long-term biosolids recycling.

INSTRUMENTATION & CONTROL

The Metro Board is located in the Plant Operations Center (POC) and is the Operations and Communication Center for the Metro Plant and all facilities in the southern half of Onondaga County. In addition to the telephone and 2-way radio, the Board is the home for data acquisition and the control computer, which monitors and controls most of the equipment in the plant. The computer generates alarms for certain conditions and allows the operators to cover more of the plant quickly and with fewer people. The computer also monitors the status of 69 pump stations and 3 other treatment plants and generates alarms so that the operators can call out the appropriate duty man. The Metro operators also utilize a personal computer to maintain the process control database and all operating data from 1990 to present. The computer system makes process control adjustment calculations and produces monthly monitoring reports. The Metro Board is staffed 24-hours a day from a crew of over twenty (20) operators, the majority of which are New York State licensed at 3A or above.

OPERATIONS LAB

The operations laboratory is located in the Plant Operations Building. The lab analyzes plant samples for process control. A total of 7,900 samples per year are analyzed in the lab. New York State certified testing of samples is also performed for regulatory reporting at the Onondaga County's Environmental Laboratory located at the Henry Clay Boulevard Facility in Liverpool, NY.

ELECTRICAL FACILITIES

Electrical power for the plant is supplied by two separate 34.5 kV feeders from the Niagara Mohawk Power Corporation. The plant's main substation distributes the electrical service to various units' substations within the plant. The distribution system is set up to provide for maximum reliability and minimal loss of plant operation should an electrical malfunction occur.

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APPENDIX C: COMBINED SEWER OUTFALLS

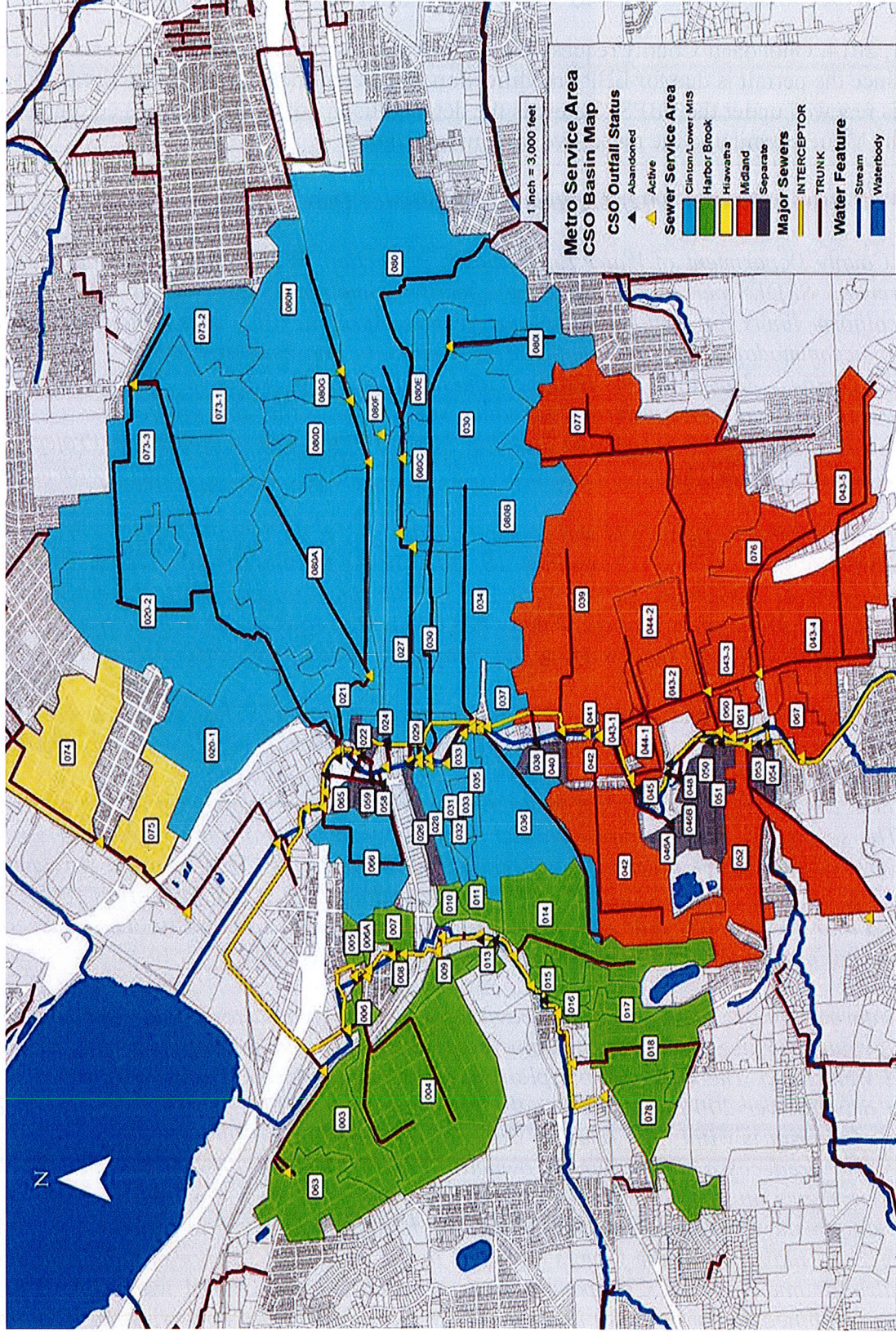
Outfall No.	Description	Latitude/Longitude	Receiving Water	Class
003	Hiawatha Boulevard (North of State Fair Blvd.)	43° 03' 20" N/76° 11' 07" W	Harbor Brook	C
004	State Fair Blvd.	43° 03' 13" N/76° 10' 54" W	Harbor Brook	C
04A	Lower Harbor Brook Storage Facility	43° 03' 14.5" N/76° 10' 58" W	Harbor Brook	C
005	West Genesee and Sackett Street	43° 03' 11" N/76° 10' 38" W	Harbor Brook	C
006	Park Avenue and Sackett St. Overflow (West of Harbor Brook)	43° 03' 07" N/76° 10' 35" W	Harbor Brook	C
06A	Park Avenue and Sackett St. Overflow (East of Harbor Brook)	43° 03' 07" N/76° 10' 35" W	Harbor Brook	C
007	Richmond Avenue and Liberty Street	43° 03' 00" N/76° 10' 26" W	Harbor Brook	C
008	Lakeview Avenue and Liberty Street	43° 02' 57" N/76° 10' 29" W	Harbor Brook	C
009	West Fayette Street (West of Harbor Brook)	43° 02' 47" N/76° 10' 33" W	Harbor Brook	C
010	West Fayette Street (East of Harbor Brook)	43° 02' 45" N/76° 10' 21" W	Harbor Brook	C
011	Gifford Street (East of Harbor Brook)	43° 02' 34" N/76° 10' 23" W	Harbor Brook	B
013	Seymour Street	43° 02' 30" N/76° 10' 28" W	Harbor Brook	B
014	Delaware Street	43° 02' 24" N/76° 10' 29" W	Harbor Brook	B
015	Herriman Street and Grand Avenue	43° 02' 20" N/76° 10' 38" W	Harbor Brook	B
016	Lydell Street	43° 02' 16" N/76° 10' 43" W	Harbor Brook	B
017	Hoeffler Street	43° 02' 12" N/76° 10' 47" W	Harbor Brook	B
018	Constructed Wetland Outfall	43° 02' 07" N/76° 11' 05" W	Harbor Brook	B
18A	Constructed Wetland Emergency Bypass	43° 02' 07" N/76° 11' 05" W	Harbor Brook	B
020	Butternut Floatables Control Facility Route 690	43° 03' 17" N/76° 09' 26" W	Onondaga Creek	C
021	Burnet Floatables Control Facility Route 690 and Burnet	43° 03' 16" N/76° 09' 25" W	Onondaga Creek	C
027	W. Fayette Street (Eastside of Onondaga Creek)	43° 02' 55" N/76° 09' 28" W	Onondaga Creek	C
028	Walton Street (Westside of Onondaga Creek)	43° 02' 53" N/76° 09' 27" W	Onondaga Creek	C
029	Walton Street (Eastside of Onondaga Creek)	43° 02' 53" N/76° 09' 27" W	Onondaga Creek	C
030	W. Jefferson Street (Eastside of Onondaga Creek)	43° 02' 50" N/76° 09' 27" W	Onondaga Creek	C
031	W. Jefferson Street (Westside of Onondaga Creek)	43° 02' 49" N/76° 09' 28" W	Onondaga Creek	C
032	Tully Street	43° 02' 45" N/76° 09' 28" W	Onondaga Creek	C
033	Dickerson Street	43° 02' 40" N/76° 09' 19" W	Onondaga Creek	C
33A	Clinton Storage Facility	43° 02' 47" N/76° 09' 25" W	Onondaga Creek	C
034	Clinton & West Onondaga Street	43° 02' 37" N/76° 09' 17" W	Onondaga Creek	C
035	Gifford Street	43° 02' 37" N/76° 09' 17" W	Onondaga Creek	C
036	West Onondaga Street	43° 02' 33" N/76° 09' 18" W	Onondaga Creek	C
037	Adams & Oneida Street	43° 02' 32" N/76° 09' 18" W	Onondaga Creek	C
039	Tallman Street (East of Onondaga Creek)	43° 02' 12" N/76° 09' 19" W	Onondaga Creek	C
042	Midland Street (Westside of Onondaga Creek)	43° 01' 59" N/76° 09' 29" W	Onondaga Creek	C
044	West Castle Street and South Avenue	43° 01' 50" N/76° 09' 34" W	Onondaga Creek	C
045	West Castle and Hudson Street	43° 01' 49" N/76° 09' 38" W	Onondaga Creek	C
052	Hunt Street & Elmhurst Avenue	43° 01' 15" N/76° 09' 21" W	Onondaga Creek	C
060/077	West Castle Street and Kirk Place Drive	43° 01' 25" N/76° 09' 17" W	Onondaga Creek	C
061	Crehange Street & Onondaga Creek Overflow	43° 02' 32" N/76° 09' 18" W	Onondaga Creek	C
063	Emerson & Milton Avenue	43° 03' 35" N/76° 11' 33" W	Harbor Brook	C
065	Plum and Evans Streets	43° 03' 20" N/76° 09' 37" W	Onondaga Creek	C

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Outfall No.	Description	Latitude/Longitude	Receiving Water	Class
066	Maltbie and Evans Street - Maltbie Floatables Control Facility	43° 03' 20" N/76° 09' 41" W	Onondaga Creek	C
067	Newell Street	43° 00' 58" N/76° 09' 28" W	Onondaga Creek	C
071	Spencer Street Bypass	43° 03' 26" N/76° 09' 41" W	Onondaga Creek	C
073	Teall Floatables Control Facility	43° 04' 42" N/76° 07' 25" W	Teall Brook	C
074	Spring Street & Hiawatha Blvd. (Hiawatha Regional Treatment Facility)	43° 04' 36" N/76° 10' 19" W	Ley Creek	C
075	Route 81 & Hiawatha Blvd. (Associated with Kirk Patrick PS)	43° 03' 54" N/76° 10' 25" W	Onondaga Creek	C
076	Midland Avenue and Brighton Avenue	43° 01' 09" N/76° 09' 18" W	Onondaga Creek	C
078	Bellevue Avenue & Velasko Road	43° 02' 08" N/76° 11' 19" W	Harbor Brook	B
079	Park Avenue & Lakeview Avenue	43° 03' 08" N/76° 10' 36" W	Onondaga Creek	C
080	Erie Blvd Storage System (EBSS) & Onondaga Creek	43° 03' 03" N/76° 09' 30" W	Onondaga Creek	C
80A	James Street Relief Sewer	EBSS		
80B	Fayette Street & Irving Avenue	EBSS		
80C	S. Crouse Avenue & Washington	EBSS		
80D	Burnet Ave & Elm Street	EBSS		
80E	E. Washington & Pine Street	EBSS		
80F	S. Beech & Canal	EBSS		
80G	Burnet & Sherwood	EBSS		
80H	Burnet & Teall	EBSS		
80I	Genesee & Westcott Street	EBSS		
M01	Main CSO Outfall at Midland RTF	43° 02' 00" N/76° 09' 30" W	Onondaga Creek	C
M02	Emergency CSO Outfall at Midland RTF	43° 02' 01" N/76° 09' 30" W	Onondaga Creek	C

MAP SHOWING LOCATION OF CSO OUTFALLS¹⁷



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APPENDIX D: DEC Responses to a July 11, 2014 Request For Permit Modification

In a July 11, 2014, Onondaga County requested to modify the permit to address a few issues and concerns. However, since the permit is due for EBPS modification, the Department decided to address these issues when the permit is renewed under the EBPS. Below is the detailed listing of the permittee's comments and concerns regarding the Metro permit and the respective responses by DEC:

1. Metro WWTP Bypass (Outfall 002) Treatment Compliance Date

Onondaga County Department of Water Environment Protection (WEP) requests a modification to the above-referenced SPDES permit to extend the effective compliance date for the total residual chlorine and fecal coliform limits for Outfall 002 by one year to April 1, 2017. This requested action is necessary to accommodate numerous complexities related to constructing necessary tankage and facilities on the Metro campus. Moreover, the proposed amended date will enhance WEP's ability to control costs via a v o i d a n c e of an accelerated schedule. Noteworthy is that this project has a budget of \$20.4 million dollars, which is in addition to the \$14 million Metro Phosphorus Optimization Project now in design, and the \$8.0 million for the Metro Grit and Biosolids Pump project currently under construction.

The compliance alternatives analysis and conceptual design for the bypass project were sent to Mr. Joseph Zalewski of your office on November 18, 2013 in the form of a technical memorandum by Conestoga-Rovers & Associates (CRA, April 2013). This memorandum (attachment A) details the proposed \$20.4 million project that the County has committed to in order to meet the proposed SPDES permit requirements and introduces some of the complexity associated with constructing the new facilities.

Since this technical memorandum was submitted to your office, WEP has contracted with CRA for design and construction phase services. A pre-design investigation (POI) was implemented during November/December 2013 at Metro to support the design of the secondary bypass improvements, which include a new 2 million gallon chlorine contact tank, chemical feed/storage, pump station, and related facilities. The secondary bypass improvements will be constructed in the western portion of the Metro WWTP property, west of the primary clarifiers and aeration tanks. This location was determined optimal, as the existing chlorine contact tank and secondary bypass configuration could be incorporated into the project, thus reducing cost and operational complexity. The reuse of abandoned tertiary tankage on the campus was also determined to be infeasible.

Based on information provided by CRA, excavations are anticipated to extend approximately 19 to 27 feet below ground surface (BGS) for the chlorine contact tank and as deep as 27 feet BGS for the pump station wet well sump. The entire Metro plant is located on extremely poor quality soils, which will necessitate driving over 200 piles with lengths exceeding 250 ft. Furthermore, the proposed construction footprint is within the limits of the Hiawatha Boulevard former manufactured gas plant (MGP) site, the predecessor of previously owned Niagara Mohawk, presently owned by National Grid. Special requirements must be employed in terms of personnel certification and training, personal protective equipment, environmental monitoring, and handling of soils and groundwater. The footprint for the project as indicated in the figures included in the Technical Memorandum is adjacent to both the two railroads and National Grid powers lines. In addition, the OCWA water line is in the project area. These combined factors greatly increase the project complexity necessitating additional time to complete the construction, as well as careful consideration and time during design.

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Based on the complexities described above combined with the size of facilities required, it is estimated that a contractor will require 24 months from notice to proceed to complete construction and commission the secondary bypass disinfection facilities. CRA has been performing a number of detailed design evaluations and is now commencing development of the 25 percent design. Coordination will be required with National Grid, the Onondaga County Water Authority, and two railroad firms throughout design to ensure their facilities are protected as part of the design. CRA anticipates that the project will be ready to advertise for bid late this year. Subsequent to bidding and award and contract preparation, we anticipate that notice to proceed to be issued early spring 2015. With a 24-month construction/commissioning period, the facilities are projected to be operational by April 1, 2017. Please note that this schedule assumes a NYSDEC and NYSEFC review and approval period of 30 calendar days.

Response: Your request for an extension has been granted and the change is reflected in the footnote on Page 15 of the SPDES permit.

2. **Metro WWTP Bypass (Outfall 01B)**

2.1 *Page 15: The limits for Settleable Solids and Fecal Coliform were not previously included in the permit originally dated March 21, 2012, and as we understand it were not publicly noticed. While we believe these mentions may be an inadvertent typographical error, we must request that you take notice that the County categorically objects to Settleable Solids and Fecal Coliform limits for Outfall 01B. Outfall 01B is a combined sewer overflow and should not be inappropriately regulated as anything else. The County is not aware of other New York State wastewater municipalities having headworks bypasses regulated in such a way and believes it to be impractical and of inconsequential utility for this application.*

Response: Fecal coliform requirement has been removed. However, Settleable Solids (SS) monitoring requirement will remain in the permit. During the March 18, 2015 meeting at the Metro facility, DEC shared with your staff a similar facility (with almost an identical layout as the Metro facility) in the state where SS monitoring is required.

3. **Phenol Limit and Trackdown Study**

3.1 *Page 8: Total Phenol Limits of 9.7 lbs/day. The following comments are based on NYS Water Quality Standards and NYSDEC TOGS 1.3.1.E:*

- *There is no current water quality standard for Total Phenols for Class C water, which is the classification of Onondaga Lake where the Metro WWTP outfalls discharge.*
- *There is a water quality standard for non-chlorinated phenols for Class C water (5.0 micrograms/liter). TOGS 1.3.1.E specifically states that these non-chlorinated phenols should be limited as "total phenolics" by the 4 AAP method.*
- *Given the above, it is requested that the permit be modified so as to include a "total phenolics" permit listing (for outfall 001) based on the non-chlorinated water quality standard (5.0 micrograms/liter). It is also requested that a footnote be added referencing the basis and the subject NYSDEC TOGS.*
- *Noteworthy is that the above approach would also be consistent with the Wetzel Rd WWTP SPDES permit as recently issued by your office.*
- *There is a water quality standard for chlorinated phenols for Class C water (1.0 microgram/liter). TOGS 1.3.1.E specifically describes the application thereof.*
- *WEP has been collecting chlorinated phenol data from 2004-present via Priority Pollutant scans, a large dataset with typically 43 data points per parameter. Importantly, it is noted*

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that all of that chlorinated phenol data has been non-detectable, with reporting levels ranging from <2.5 micrograms/liter to <50 micrograms/liter. The variance in reporting values is due to analytical interferences that exist – our analytical goal is always the same, that is, to run the analysis at the lowest reporting level possible.

- *Given this large dataset of non-detectable data, it is requested that the DEC not impose a limit for chlorinated phenols as it does not appear warranted. As a means of allaying potential DEC concerns, the county is willing to continue to sample for chlorinated phenols as is currently done via USEPA Priority Pollutant Scan.*
- *Implementation of the above would correspondingly negate the need for a phenol trackdown study, toxicity testing, and/or a phenols method detection limit (see page 11, footnote #9; and page 27, Section B). As such, it is requested that said requirement be deleted.*

Response: Please see the factsheet and the permit for the revised monitoring requirements for Total Phenols.

4. **CSO Outfall Updates**

- 4.1 *Page 3: Combine CSO 006-079 to one outfall.*
- 4.2 *Page 3: Delete CSO 008 Lakeview Avenue and Liberty Street- outfall sealed; mechanical plug for 10+ years; sealed permanently May 20, 2013.*
- 4.3 *Page 3: Delete CSO 013 Seymour Street - separated.*
- 4.4 *Page 3: Delete CSO 016 Lydell Street - separated.*
- 4.5 *Page 3: CSO 018 Constructed Wetland Outfall - revise Latitude/Longitude coordinates to Lat 43 02' 09.82" and Lon -76 10' 57.96". Refer to the Constructed Wetland map (attachment B) for additional information.*
- 4.6 *Page 3: CSO 018A Constructed Wetland Overflow Outfall (formerly Rowland Street Outfall) - delete. With the construction of the Harbor Brook CSO 018 Pilot Constructed Wetlands Treatment Facility, this is no longer an operational Overflow Outfall to Harbor Brook (refer to attachment C).*
- 4.7 *Page 3: CSO 018A: Constructed Wetland Emergency Bypass Outfall - add.*
 - *Outfall No.: 018A*
 - *Description: Constructed Wetlands Emergency Bypass*
 - *Receiving Water: Harbor Brook via Constructed Wetlands Main Outfall 018*

With the construction of the Harbor Brook CSO 018 Pilot Constructed Wetlands Treatment Facility, the Emergency Bypass (CSO Outfall No. 018A) will discharge via the Main Outfall 018 to Harbor Brook.

- 4.8 *Page 5: Delete CSO 079 Park Avenue & Lakeview Avenue: CSO 079 has common outfall with CSO 006.*
- 4.9 *Page 6: Delete CSO outfalls 022 and 045 – separated. Please add a footnote and/or statement be added which identifies their closure date so as to establish the start of the applicable closure verification period.*
- 4.10 *Add CSO 033A – Clinton Storage Facility Latitude/Longitude coordinates: Lat 43 02' 46.87" and Lon -76 09' 25.28" (refer to attachment D). Add CSO 004A – Lower Harbor Brook Storage Facility Latitude/Longitude coordinates: Lat 43 03' 14.52" and Lon -76 10' 58.08" (refer to attachment D).*

Response: In an April 3, 2015 email to Mr. Dave Snyder, we informed the county that any deleted outfalls will remain in the modified permit until the Table 1.4 condition for deletion has been met. The condition says that:

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Upon inspection and confirmation by NYSDEC that these outfalls have been permanently sealed or eliminated, this table will be deleted from the permit.

However, all the Clinton Storage and Lower Harbor Brook facilities have been added.

5. **Other Permit Concerns**

- 5.1 *Page 11: Footnote 9 - Please eliminate the requirement for ambient monitoring and toxicity testing data for the track-down studies. Note a plan was submitted to NYSDEC on September 13, 2012.*
- 5.2 *Page 13: Footnote 9-Add (for continuous discharges) after thereafter.*
- 5.3 *Page 14: Footnote 9 - Change language to match comment above for page 13, footnote 9.*
- 5.4 *Page 27: As there is currently no NYSDEC guidance value for total iron, please delete the requirement for iron from the source track down plan..*
- 5.5 *Page 37: Footnote 7 - Delete. A detailed sampling plan for this outfall was submitted to NYSDEC as part of the Wet Weather Operating Plan for Metro on October 20, 2011.*
- 5.6 *Page 46: The event sampling protocol requirement noted on Page 46 of 48 for monitoring the Harbor Brook CSO 018 Pilot Constructed Wetlands Treatment Facility is not consistent with Footnote 10. It is requested that page 46 wording be changed to be consistent with page 47 regarding the 60 minute response requirement.*
- 5.7 *Page 47: Footnote 9 - Request modification to extend the interim effluent limit for fecal coliform to "Monitor" from April 1, 2016, to April 1, 2017. This extension will allow two full years of facility operation and evaluation prior to NYSDEC's determination of seasonal disinfection requirements for the effluent.*
- 5.8 *Page 47: Change reference to Page A-13 in footnote 2 to page 48. There is no longer a page A-13.*

Response: See the permit.

ENDNOTES:

¹ 2012 Waterbody Report for Onondaga Lake: http://ofmpub.epa.gov/waters10/attains_waterbody.control?p_au_id=NY0702-0021&p_cycle=2012

² 305(b) Assessed Waterbody History Report for Onondaga Lake: http://ofmpub.epa.gov/waters10/attains_wb_history_au.control?p_assessment_unit_id=NY0702-0021&p_cycle=2012

³ Non-Detect reported on DMR

⁴ Non-Detect reported on DMR

⁵ Facilities descriptions taken from the 2014 Metro Wet Weather Operation Plan

⁶ Facilities descriptions taken from <http://savetherain.us/wetland/>

⁷ 12-Month Rolling Average

⁸ Reported in lbs/year

⁹ 12-Month Rolling Sum

¹⁰ Parameter not included in the application. Data taken from DMR.

¹¹ Application indicated flow was during a bypass event.

¹² Permittee-requested parameters according to SPDES permit.

¹³ Application indicated flow was during a bypass event.

¹⁴ Application indicated flow was during a bypass event.

¹⁵ Calculated as lbs/yr

¹⁶ From Application Form NY-2A

¹⁷ Taken from the Onondaga Lake Ambient Monitoring Program Report, Final February 2014

