



Department of
Environmental
Conservation

State Pollutant Discharge Elimination System (SPDES) DISCHARGE PERMIT

SIC Code:	4952	NAICS Code:	221320	SPDES Number:	NY0027901
Discharge Class (CL):	05	DEC Number:	3-3358-00038/00001		
Toxic Class (TX):	T	Effective Date (EDP):	EDP		
Major-Sub Drainage Basin:	15 - 01	Expiration Date (ExDP):	ExDP		
Water Index Number:	NJ-2	Item No.:	860-19	Modification Dates (EDPM):	
Compact Area:					

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.)

PERMITTEE NAME AND ADDRESS					
Name:	Orange County			Attention:	Erik Denega, Public Works Commissioner
Street:	P.O. Box 637				
City:	Goshen			State:	NY Zip Code: 10924
Email:	EDenega@orangecountygov.com				

is authorized to discharge from the facility described below:

FACILITY NAME, ADDRESS, AND PRIMARY OUTFALL									
Name:	OCSO #1 Harriman Sewage Treatment Plant								
Address / Location:	72 River Road, Harriman (V)						County:	Orange	
City:	Harriman				State:	NY	Zip Code:	10924	
Facility Location:	Latitude:	41 °	18 ' 45 "	N	& Longitude:	74 °	08 ' 34 "	W	
Primary Outfall No.:	001	Latitude:	41 °	18 ' 38 "	N	& Longitude:	74 °	08 ' 37 "	W
Outfall Description:	Treated Sanitary	Receiving Water:	Ramapo River			Class:	C	Standard:	C

and the additional outfalls listed in 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.

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:

Permit Administrator:	Rebecca S. Crist
Address:	21 South Putt Corners Road New Paltz, NY 12561
Signature	Date

Contents

DEFINITIONS.....	3
PERMIT LIMITS, LEVELS AND MONITORING.....	4
STORMWATER POLLUTION PREVENTION REQUIREMENT.....	12
MERCURY MINIMIZATION PROGRAM (MMP) - Type I.....	12
DISCHARGE NOTIFICATION REQUIREMENTS.....	15
INDUSTRIAL PRETREATMENT PROGRAM IMPLEMENTATION REQUIREMENTS.....	16
SCHEDULE OF COMPLIANCE.....	19
SCHEDULE OF COMPLIANCE – Interim Effluent Limitations.....	20
MONITORING LOCATIONS.....	21
GENERAL REQUIREMENTS.....	23
RECORDING, REPORTING AND ADDITIONAL MONITORING REQUIREMENTS.....	25
E. Schedule of Additional Submittals.....	26

DEFINITIONS

TERM	DEFINITION
7-Day Geo Mean	The highest allowable geometric mean of daily discharges over a calendar week.
7-Day Average	The average of all daily discharges for each 7-days in the monitoring period. The sample measurement is the highest of the 7-day averages calculated for the monitoring period.
12-Month Rolling Average (12 MRA)	The current monthly value of a parameter, plus the sum of the monthly values over the previous 11 months for that parameter, divided by the number of months for which samples were collected in the 12-month period.
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.
Action Level	Action level means a monitoring requirement characterized by a numerical value that, when exceeded, triggers additional permittee actions and DEC review to determine if numerical effluent limitations should be imposed.
Compliance Level / Minimum Level	A compliance level is an effluent limitation. A compliance level is given when the water quality evaluation specifies a Water Quality Based Effluent Limit (WQBEL) below the Minimum Level. The compliance level shall be set at the Minimum Level (ML) for the most sensitive analytical method as given in 40 CFR Part 136, or otherwise accepted by the DEC.
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 Maximum	The highest allowable Daily Discharge.
Daily Minimum	The lowest allowable Daily Discharge.
Effective Date of Permit (EDP or EDPM)	The date this permit is in effect.
Effluent Limitations	Effluent limitation means any restriction on quantities, quality, rates and concentrations of chemical, physical, biological, and other constituents of effluents that are discharged into waters of the state.
Expiration Date of Permit (ExDP)	The date this permit is no longer in effect.
Instantaneous Maximum	The maximum level that may not be exceeded at any instant in time.
Instantaneous Minimum	The minimum level that must be maintained at all instants in time.
Monthly Average	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.
Outfall	The terminus of a sewer system, or the point of emergence of any waterborne sewage, industrial waste or other wastes or the effluent therefrom, into the waters of the State.
Range	The minimum and maximum instantaneous measurements for the reporting period must remain between the two values shown.
Receiving Water	The classified waters of the state to which the listed outfall discharges.
Sample Frequency / Sample Type / Units	See NYSDEC's "DMR Manual for Completing the Discharge Monitoring Report for the SPDES" for information on sample frequency, type and units.

PERMIT LIMITS, LEVELS AND MONITORING

OUTFALL	LIMITATIONS APPLY	RECEIVING WATER	EFFECTIVE	EXPIRING
001	All year unless otherwise noted.	Ramapo River, Class C	EDP	ExDP

PARAMETER	EFFLUENT LIMITATION					MONITORING REQUIREMENTS				FN
	Type	Limit	Units	Limit	Units	Sample Frequency	Sample Type	Location		
								Inf.	Eff.	
Flow	Monthly Average	Monitor	MGD	-	-	Continuous	Recorder		X	
	Daily Maximum	Monitor		-					X	

OUTFALL	LIMITATIONS APPLY	RECEIVING WATER	EFFECTIVE	EXPIRING
01A	All year unless otherwise noted.	Ramapo River, Class C		

PARAMETER	EFFLUENT LIMITATION					MONITORING REQUIREMENTS				FN
	Type	Limit	Units	Limit	Units	Sample Frequency	Sample Type	Location		
								Inf.	Eff.	
Flow	Monthly Average	6.0	MGD	-	-	Continuous	Recorder	X		
	Daily Maximum	Monitor		-						
Temperature	Daily Maximum	Monitor	°F	-	-	3/day	Grab		X	
	Monthly Average	Monitor		-						
pH	Range	6.5-8.5	SU	-	-	3/day	Grab		X	
Oxygen, Dissolved	Daily Minimum	7.0	mg/l	-	-	1/day	Grab		X	
	Monthly Average	Monitor		-						
CBOD ₅ (June 1-Oct. 31)	Monthly Average	Monitor	mg/L	Monitor	lbs/d	1/week	24-hr. Comp.	X	X	1
	Daily Maximum	5.0		250						
CBOD ₅ (Nov 1-May 31)	Monthly Average	25	mg/L	1,300	lbs/d	1/week	24-hr. Comp.	X	X	1
	Daily Maximum	40		2,000						
CBOD ₅ , Percent Removal	Monthly Average	85	%	-	-	1/week	Calculated	X	X	
UOD (June 1-Oct 31)	Monthly Average	Monitor	mg/L	Monitor	lbs/d	1/week	Calculated		X	3
	Daily Maximum									

PARAMETER	EFFLUENT LIMITATION					MONITORING REQUIREMENTS				FN
	Type	Limit	Units	Limit	Units	Sample Frequency	Sample Type	Location		
								Inf.	Eff.	
UOD (Nov 1-May 31)	Monthly Average	Monitor	mg/L	Monitor	lbs/d	1/week	Calculated		X	3
	Daily Maximum	40		2,000						
Total Suspended Solids (TSS) (June 1-Oct 31)	Monthly Average	Monitor	mg/L	Monitor	lbs/d	2/week	24-hr. Comp.	X	X	1
	Daily Maximum	10		500						
Total Suspended Solids (TSS) (Nov 1-May 31)	Monthly Average	30	mg/L	1,500	lbs/d	2/week	24-hr. Comp.	X	X	1
	Daily Maximum	45		2,300						
Settleable Solids	Daily Maximum	0.1	mL/L	-	lbs/d	3/day	Grab		X	
Solids, Total Dissolved	Monthly Average	Monitor	mg/L	Monitor	lbs/d	1/week	24-hr. Comp.		X	4
	Daily Maximum	500		25,000						
Chlorides	Monthly Average	250	mg/l	13,000	lbs/d	1/week	24-hr. Comp.		X	4
	Daily Maximum	Monitor		Monitor						
Nitrogen, Ammonia (as N) (June 1– Oct 31)	Monthly Average	0.99	mg/L	50	lbs/d	2/week	24-hr. Comp.		X	
	Daily Maximum	Monitor		Monitor						
Nitrogen, Ammonia (as N) (Nov 1 – May 31)	Monthly Average	2.2	mg/L	110	lbs/d	2/week	24-hr. Comp.		X	
	Daily Maximum	Monitor		Monitor						
Total Kjeldahl Nitrogen (TKN) (as N)	Monthly Average	Monitor	mg/L	Monitor	lbs/d	1/week	24-hr. Comp.		X	
	Daily Maximum									
Total Phosphorus (as P)	Monthly Average	Monitor	mg/L	Monitor	lbs/d	2/week	24-hr. Comp.		X	
	Daily Maximum									
Copper, Total	Daily Maximum	20	ug/l	1.0	lbs/d	1/month	24-hr. Comp.		X	
Lead, Total	Daily Maximum	17	ug/l	0.84	lbs/d	1/month	24-hr. Comp.		X	
Zinc, Total	Daily Maximum	170	ug/l	8.4	lbs/d	1/month	24-hr. Comp.		X	

PARAMETER	EFFLUENT LIMITATION					MONITORING REQUIREMENTS				FN
	Type	Limit	Units	Limit	Units	Sample Frequency	Sample Type	Location		
								Inf.	Eff.	
Aluminum, Total	Daily Maximum	Monitor	ug/l	Monitor	lbs/d	1/month	24-hr. Comp.		X	
Chloroform	Daily Maximum	8.3	ug/l	Monitor	lbs/d	1/quarter	Grab		X	8,12
Mercury, Total	Daily Maximum	25	ng/L	-	-	1/quarter	Grab		X	6,8
	12 MRA	5.4		-						
ACTION LEVEL PARAMETERS	Type	Action Level	Units	Action Level	Units	Sample Frequency	Sample Type	Inf.	Eff.	FN
Total Phenolics	Action Level	5.0	ug/l	0.3	lbs/d	1/quarter	Grab		X	7,8
Bis 2-ethylhexylphthalate	Action Level	7.5	ug/l	Monitor	lbs/d	1/quarter	Grab		X	8,11

EFFLUENT DISINFECTION Required All Year		Limit	Units	Limit	Units	Sample Frequency	Sample Type	Inf.	Eff.	FN
Coliform, Fecal	30-Day Geometric Mean	200	No./100 mL	-	-	2/week	Grab		X	
Coliform, Fecal	7-Day Geometric Mean	400	No./100 mL	-	-	2/week	Grab		X	
Chlorine, Total Residual	Daily Maximum	0.3	mg/l	-	lbs/d	3/day	Grab		X	2,5
	Monthly Average	-		-						

WHOLE EFFLUENT TOXICITY (WET) TESTING		Limit	Units	Action Level	Units	Sample Frequency	Sample Type	Inf.	Eff.	FN
WET - Acute Invertebrate	See footnote	-	-	0.3	TUa	Quarterly	See footnote		X	13
WET - Acute Vertebrate	See footnote	-	-	0.3	TUa	Quarterly	See footnote		X	13
WET - Chronic Invertebrate	See footnote	-	-	1.0	TUc	Quarterly	See footnote		X	13
WET - Chronic Vertebrate	See footnote	-	-	1.0	TUc	Quarterly	See footnote		X	13

EMERGING CONTAMINANTS OUTFALL 01A	Type	Limit	Units	Action Level	Units	Sample Frequency	Sample Type	Inf.	Eff.	FN
Perfluorobutanoic Acid (PFBA) CAS No. 375-22-4 DMR Code: 51522	Daily Maximum	Monitor	ng/L	-	-	1/quarter	Grab		X	8,10
Perfluoropentanoic Acid (PFPeA) CAS No. 2706-90-3 DMR Code: 51623	Daily Maximum	Monitor	ng/L	-	-	1/quarter	Grab		X	8,10
Perfluorohexanoic Acid (PFHxA) CAS No. 307-24-4 DMR Code: 51624	Daily Maximum	Monitor	ng/L	-	-	1/quarter	Grab		X	8,10
Perfluoroheptanoic Acid (PFHpA) CAS No. 375-85-9 DMR Code: 51625	Daily Maximum	Monitor	ng/L	-	-	1/quarter	Grab		X	8,10
Perfluorooctanoic Acid (PFOA) CAS No. 335-67-1 DMR Code: 51521	Daily Maximum	-	-	10	ng/L	1/quarter	Grab		X	8,9,10
Perfluoro-nonanoic Acid (PFNA) CAS No. 375-95-1 DMR Code: 51626	Daily Maximum	Monitor	ng/L	-	-	1/quarter	Grab		X	8,10
Perfluoro-decanoic Acid (PFDA) CAS No. 335-76-2 DMR Code: 51627	Daily Maximum	Monitor	ng/L	-	-	1/quarter	Grab		X	8,10
Perfluoroundecanoic Acid (PFUnA) CAS No. 2058-94-8 DMR Code: 51628	Daily Maximum	Monitor	ng/L	-	-	1/quarter	Grab		X	8,10
Perfluorododecanoic Acid (PFDoA) CAS No. 307-55-1 DMR Code: 51629	Daily Maximum	Monitor	ng/L	-	-	1/quarter	Grab		X	8,10
Perfluorotridecanoic Acid (PFTrIA) CAS No. 72629-94-8 DMR Code: 51630	Daily Maximum	Monitor	ng/L	-	-	1/quarter	Grab		X	8,10
Perfluorotetradecanoic Acid (PFTeA) CAS No. 376-06-7 DMR Code: 51631	Daily Maximum	Monitor	ng/L	-	-	1/quarter	Grab		X	8,10
Perfluorobutanesulfonic Acid (PFBS) CAS No. 375-73-5 DMR Code: 52602	Daily Maximum	Monitor	ng/L	-	-	1/quarter	Grab		X	8,10
Perfluoropentanesulfonic Acid (PFPeS) CAS No. 2706-91-4 DMR Code: 52610	Daily Maximum	Monitor	ng/L	-	-	1/quarter	Grab		X	8,10
Perfluorohexanesulfonic Acid (PFHxS) CAS No. 355-46-4 DMR Code: 52605	Daily Maximum	Monitor	ng/L	-	-	1/quarter	Grab		X	8,10
Perfluoroheptanesulfonic Acid (PFHpS) CAS No. 375-92-8 DMR Code: 52604	Daily Maximum	Monitor	ng/L	-	-	1/quarter	Grab		X	8,10
Perfluorooctanesulfonic Acid (PFOS) CAS No. 1763-23-1 DMR Code: 52606	Daily Maximum	-	-	10	ng/L	1/quarter	Grab		X	8,9,10
Perfluorononanesulfonic Acid (PFNS) CAS No. 68259-12-1 DMR Code: 52611	Daily Maximum	Monitor	ng/L	-	-	1/quarter	Grab		X	8,10

EMERGING CONTAMINANTS OUTFALL 01A	Type	Limit	Units	Action Level	Units	Sample Frequency	Sample Type	Inf.	Eff.	FN
Perfluorodecanesulfonic Acid (PFDS) CAS No. 335-77-3 DMR Code: 52603	Daily Maximum	Monitor	ng/L	-	-	1/quarter	Grab		X	8,10
Perfluorododecanesulfonic Acid (PFDoS) CAS No. 79780-39-5 DMR Code: 52632	Daily Maximum	Monitor	ng/L	-	-	1/quarter	Grab		X	8,10
Perfluorooctanesulfonamide (FOSA) CAS No. 754-91-6 DMR Code: 51525	Daily Maximum	Monitor	ng/L	-	-	1/quarter	Grab		X	8,10
N-Methyl Perfluorooctanesulfonamidoacetic Acid (NMeFOSAA) CAS No. 2355-31-9 DMR Code: 51644	Daily Maximum	Monitor	ng/L	-	-	1/quarter	Grab		X	8,10
N-Ethyl Perfluorooctanesulfonamidoacetic Acid (NEtFOSAA) CAS No. 2991-50-6 DMR Code: 51643	Daily Maximum	Monitor	ng/L	-	-	1/quarter	Grab		X	8,10
1H,1H,2H,2H-Fluorotelomer Sulfonic Acid (4:2 FTS) CAS No. 757124-72-4 DMR Code: 52607	Daily Maximum	Monitor	ng/L	-	-	1/quarter	Grab		X	8,10
1H,1H,2H,2H- Fluorotelomer Sulfonic Acid (6:2 FTS) CAS No. 27619-97-2 DMR Code: 52608	Daily Maximum	Monitor	ng/L	-	-	1/quarter	Grab		X	8,10
1H,1H,2H,2H- Fluorotelomer Sulfonic Acid (8:2 FTS) CAS No. 39108-34-4 DMR Code: 52609	Daily Maximum	Monitor	ng/L	-	-	1/quarter	Grab		X	8,10
N-ethyl Perfluorooctanesulfonamide (NEtFOSA) CAS No. 4151-50-2 DMR Code: 52642	Daily Maximum	Monitor	ng/L	-	-	1/quarter	Grab		X	8,10
N-Methyl Perfluorooctane Sulfonamide (NMeFOSA) CAS No. 31506-32-8 DMR Code: 52641	Daily Maximum	Monitor	ng/L	-	-	1/quarter	Grab		X	8,10
N-Methyl Perfluorooctanesulfonamido Ethanol (NMeFOSE) CAS No. 24448-09-7 DMR Code: 51642	Daily Maximum	Monitor	ng/L	-	-	1/quarter	Grab		X	8,10
N-Ethyl Perfluorooctanesulfonamido Ethanol (NEtFOSE) CAS No. 1691-99-2 DMR Code: 51641	Daily Maximum	Monitor	ng/L	-	-	1/quarter	Grab		X	8,10
9-Chlorohexadecafluoro-3-Oxanone-1-Sulfonic Acid (9Cl-PF3ONS) CAS No. 756426-58-1 DMR Code: PF003	Daily Maximum	Monitor	ng/L	-	-	1/quarter	Grab		X	8,10
Hexafluoropropylene Oxide Dimer Acid (HFPO-DA or GenX) CAS No. 13252-13-6 DMR Code: 52612	Daily Maximum	Monitor	ng/L	-	-	1/quarter	Grab		X	8,10
11-Chloroeicosafluoro-3-Oxaundecane-1-Sulfonic Acid (11Cl-PF3OUdS) CAS No. 763051-92-9 DMR Code: PF004	Daily Maximum	Monitor	ng/L	-	-	1/quarter	Grab		X	8,10

EMERGING CONTAMINANTS OUTFALL 01A	Type	Limit	Units	Action Level	Units	Sample Frequency	Sample Type	Inf.	Eff.	FN
4,8-Dioxa-3h- Perfluorononanoic Acid (ADONA) CAS No. 919005-14-4 DMR Code: 52636	Daily Maximum	Monitor	ng/L	-	-	1/quarter	Grab		X	8,10
3-Perfluoropropyl Propanoic Acid (3:3FTCA) CAS No. 356-02-5 DMR Code: PF001	Daily Maximum	Monitor	ng/L	-	-	1/quarter	Grab		X	8,10
2H,2H,3H,3H- Perfluorooctanoic Acid (5:3FTCA) CAS No. 914637-49-3 DMR Code: PF007	Daily Maximum	Monitor	ng/L	-	-	1/quarter	Grab		X	8,10
3-Perfluoroheptyl Propanoic Acid (7:3FTCA) CAS No. 812-70-4 DMR Code: PF005	Daily Maximum	Monitor	ng/L	-	-	1/quarter	Grab		X	8,10
Nonafluoro-3,6-dioxaheptanoic Acid (NFDHA) CAS No. 151772-58-6 DMR Code: 52626	Daily Maximum	Monitor	ng/L	-	-	1/quarter	Grab		X	8,10
Perfluoro-4-Methoxybutanoic Acid (PFMBA) CAS No. 863090-89-5 DMR Code: PF006	Daily Maximum	Monitor	ng/L	-	-	1/quarter	Grab		X	8,10
Perfluoro-3-Methoxypropanoic Acid (PFMPA) CAS No. 377-73-1 DMR Code: PF002	Daily Maximum	Monitor	ng/L	-	-	1/quarter	Grab		X	8,10
Perfluoro(2- Ethoxyethane)Sulfonic Acid (PFEESA) CAS No. 113507-82-7 DMR Code: 52629	Daily Maximum	Monitor	ng/L	-	-	1/quarter	Grab		X	8,10
1,4 Dioxane	Daily Maximum	Monitor	ug/L	-	-	1/quarter	Grab		X	8

FOOTNOTES:

1. Effluent shall not exceed 15% and 15% of influent concentration values for BOD₅ & TSS respectively.
2. Sampling and reporting for total residual chlorine are only necessary if chlorine is used for disinfection, elsewhere in the treatment process, or the facility otherwise has reasonable potential to discharge chlorine. Otherwise, the permittee shall report NODI-9 on the DMR.
3. Ultimate Oxygen Demand (UOD) shall be computed as follows: $UOD = (1.46 \times CBOD_5) + (4.57 \times TKN)$.
4. This is a final effluent limitation. See Order on Consent #R3-20180619-124 for any applicable interim effluent limitations.
5. This is a Compliance Level for Total Residual Chlorine. The calculated WQBEL is 0.006 mg/l.
6. This is a Compliance Level for total mercury. The calculated WQBEL is 0.7 ng/L.
7. Action Levels Total Phenolics: If the action level is exceeded for Total Phenolics, the additional monitoring requirement is triggered, and the permittee shall undertake a short-term, high-intensity, monitoring program to collect 10 samples over a period of 3 months. Total phenols shall be determined by colorimetric or spectrophotometric analysis using EPA methods 420.1 and 420.2 and Gas Chromatography using EPA method 625.1. Results shall be expressed in both mass and concentration. If levels higher than the action levels are confirmed, the permittee shall evaluate the treatment system operation and identify and employ actions to reduce concentrations present in the discharge. The permit may also be reopened by the DEC for consideration of revised action levels or effluent limits. Action level monitoring results and the effectiveness of the actions taken shall be summarized and submitted with the monthly operating report [or DMR] data. The permittee is still required to conduct quarterly sampling requirements summarized in the Permit Limits, Levels and Monitoring section in addition to the short-term, high-intensity monitoring if the Action Level is exceeded.
8. Quarterly samples shall be collected in calendar quarters (Q1 – January 1st to March 31st; Q2 – April 1st to June 30th; Q3 – July 1st to September 30th; Q4 – October 1st to December 31st).
9. Emerging Contaminants Action Level: The permittee must collect one (1) confirmatory sample within seven (7) days of receiving the test result(s) when an Action Level is exceeded. If confirmed exceedance, the permittee must notify DEC at emergingcontaminantsdow@dec.ny.gov and initiate minimization program and continuous reporting as outlined in the [Schedule of Additional Submittals](#). Upon initiation of the minimization program, confirmatory sampling is no longer required when an Action Level is exceeded. If the reporting limit (RL) exceeds the Action Level, and the laboratory method shows no detection, the permittee must provide the DEC with documentation from the laboratory supporting the RL, including the basis for any matrix interference or method limitations.
10. All PFAS compound sampling shall use EPA Method 1633/1633A. Note that "DMR code" corresponds to the 5-digit code displayed in the top left of each parameter line on the DMR page within NetDMR.
11. Action Levels Bis 2-ethylhexyl phthalate: If the action level is exceeded, the additional monitoring requirement is triggered, and the permittee shall undertake a short-term, high-intensity, monitoring program to collect 10 samples over a period of 3 months. Samples identical to those required for routine monitoring purposes shall be taken on each of at least three consecutive days and analyzed. Results shall be expressed in both mass and concentration. If levels higher than the action levels are confirmed, the permittee shall evaluate the treatment system operation and identify and employ actions to reduce concentrations present in the discharge. The permit may also be reopened by the DEC for consideration of revised action levels or effluent limits. Action level monitoring results and the effectiveness of the actions taken shall be summarized and submitted with the monthly operating report [or DMR] data. The permittee is still required to conduct quarterly sampling requirements summarized in the Permit Limits, Levels and Monitoring section in addition to the short-term, high-intensity monitoring if the Action Level is exceeded.
12. This is a final Effluent Limit for Chloroform. Please refer to the Schedule of Compliance for interim Compliance Levels.

13. Whole Effluent Toxicity (WET) Testing:

Testing Requirements – Chronic WET testing is required, but report both the acute and chronic results. 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 DEC. 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 should be used to generate a definitive test endpoint, otherwise an immediate rerun of the test may be 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 0:1 for acute, and 0:1 for chronic.

Monitoring Period - WET testing shall be performed quarterly (calendar quarters) during calendar years ending in 8 and 3.

Reporting - Toxicity Units shall be calculated and reported on the DMR as follows: $TU_a = (100)/(48\text{-hr LC50})$ [note that Acute data is generated by both Acute and Chronic testing] and $TU_c = (100)/(7\text{-day NOEC})$ or $(100)/(7\text{-day IC25})$ 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, 7-day NOEC and/or IC25 are all expressed in % effluent. This must be done, including the Chronic prediction from the Acute data, for both species unless otherwise directed. For Chronic results, report the most sensitive endpoint (i.e. survival, growth and/or reproduction) corresponding to the lowest 7-day NOEC or IC25 and resulting highest TUC. For Acute results, report a TUa of 0.3 if there is no statistically significant mortality in 100% effluent as compared to the control. Report a TUa of 1.0 if there is statistically significant mortality in 100% effluent as compared to the control, but insufficient mortality to generate a 48-hr LC50. Also, in the absence of a 48-hr LC50, use 1.0 TUa for the Chronic prediction from the Acute data, and report a TUC of 10.0.

The complete test report including all bench sheets, 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 with your WET DMR and to the WET@dec.ny.gov email address. A summary page of the test results for the invertebrate and vertebrate species indicating TUa, 48-hr LC50 for Acute tests and/or TUC, 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 DEC 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 Identification/Reduction Evaluation (TI/RE) in accordance with DEC guidance. Enforceable WET limits may also apply. The permittee shall be notified in writing by their Regional DEC office of additional requirements. The written notification shall include the reason(s) why such testing, TI/RE and/or limits are required.

STORMWATER POLLUTION PREVENTION REQUIREMENT

The permittee must submit a Notice of Intent on nForm to apply for coverage under the SPDES Multi-Sector General Permit for Stormwater Discharges Associated with Industrial Activity (MSGP) Sector [T] (GP-0-23-001).

MERCURY MINIMIZATION PROGRAM (MMP) - Type I

1. **General** - The permittee must develop, implement, and maintain a mercury minimization program (MMP), containing the elements set forth below, to reduce mercury effluent levels with the goal of achieving the WQBEL of 0.7 ng/L. The goal of the MMP will be to reduce mercury effluent levels in pursuit of the WQBEL. Note – The mercury related requirements in this permit conform to the mercury Multiple Discharge Variance specified in NYSDEC policy *DOW 1.3.10*.
2. **MMP Elements** - The MMP must be a written document and must include any necessary drawings or maps of the facility and/or collection system. Other related documents already prepared for the facility may be used as part of the MMP and may be incorporated by reference. At a minimum, the MMP must include the following elements as described in detail below:
 - a. **Monitoring** - Monitoring at Outfall(s) 01A, influent and other locations tributary to compliance points shall be performed using either USEPA Method 1631 or 245.7, as approved under 40 CFR Part 136¹. Use of EPA Method 1669 during sample collection is recommended. Unless otherwise specified, all samples shall be grabs. 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 and Effluent, and Type II SSO Outfalls** – The permittee must collect samples at the location(s) and frequency as specified in the SPDES permit limitations table.
- ii. **Key Locations and Potential Mercury Sources** – The permit includes reduced monitoring requirements and does not require key location sampling. See section 2.a.iv below.
- iii. **Hauled Wastes** – The permittee must establish procedures for the acceptance of hauled waste to ensure the hauled waste is not a potential mercury source. Loads which may exceed 500 ng/L,² must receive approval from the DEC prior to acceptance.
- iv. **Decreased Monitoring Requirements** – The permittee has an EEQ at or below 12 ng/L and the permit includes the following requirements:
 - 1) Reduced requirements
 - a) Conduct influent monitoring, sampling quarterly, in lieu of monitoring within the collection system, such as at *key locations*; and
 - b) Conduct effluent compliance sampling quarterly.
 - 2) If a facility with reduced requirements reports discharges above 12 ng/L for two of four consecutive effluent samples, the DEC may undertake a Department-initiated modification to remove the allowance of reduced requirements.
 - 3) Under the decreased permit requirements, the facility must continue to conduct a status report, as applicable in accordance with 2.c of this MMP, to determine if any waste streams have changed.
- v. Additional monitoring must be completed as required elsewhere in this permit (e.g., locations tributary to compliance points).
- b. **Control Strategy** - The control strategy must contain the following minimum elements:
 - i. **Pretreatment/Sewer Use Law** - The permittee must review pretreatment program requirements and the Sewer Use Law (SUL) to ensure it is up-to-date and enforceable with applicable permit requirements and will support efforts to achieve a dissolved mercury concentration of 0.70 ng/L in the effluent.

¹ Outfall monitoring must be conducted using the methods specified in Table 8 of *DOW 1.3.10*.

² A level of 0.2 mg/L (200,000 ng/L) or more is considered hazardous per 40 CFR Part 261.11. 500 ng/L is used here to alert the permittee that there is an unusual concentration of mercury and that it will need to be managed appropriately.

iii. Monitoring and Inventory/Inspections for Outfall 01A -

- 1) Monitoring shall be performed as described in 2.a above. As mercury sources are found, the permittee must enforce its sewer use law to track down and minimize these sources.
 - 2) The permittee must inventory and/or inspect users of its system as necessary to support the MMP.
 - a) Dental Facilities
 1. The permittee must maintain an inventory of each dental facility.
 2. The permittee must inspect each dental facility at least once every five years to verify compliance with the wastewater treatment operation, maintenance, and notification elements of 6 NYCRR 374.4. Alternatively, the permittee may develop and implement an outreach program,³ which informs users of their responsibilities, and collect the "Amalgam Waste Compliance Report for Dental Dischargers"⁴ form, as needed, to satisfy the inspection requirements. The permittee must conduct the outreach program at least once every five years and ensure the "Amalgam Waste Compliance Report for Dental Dischargers" are submitted by new users, as necessary. The outreach program could be supported by a subset of site inspections.
 3. A file shall be maintained containing documentation demonstrating compliance with 2.b.ii.2)a) above. This file shall be available for review by DEC representatives and copies shall be provided upon request.
 - b) Other *potential mercury sources*
 1. The permittee must maintain an inventory of other *potential mercury sources*.
 2. The permittee must inspect other *potential mercury sources* once every five years. Alternatively, the permittee may develop and implement an outreach program which informs users of their responsibilities as *potential mercury sources*. The permittee must conduct the outreach program at least once every five years. The outreach program should be supported by a subset of site inspections.
 3. A file shall be maintained containing documentation demonstrating compliance with 2.b.ii.2)b) above. This file shall be available for review by DEC representatives and copies shall be provided upon request.
 - iv. Systems with CSO & Type II SSO Outfalls – Permittees must prioritize *potential mercury sources* upstream of CSOs and Type II SSOs for mercury reduction activities and/or controlled-release discharge.
 - v. Equipment and Materials – Equipment and materials (e.g., thermometers, thermostats) used by the permittee, which may contain mercury, must be evaluated by the permittee. As equipment and materials containing mercury are updated/replaced, the permittee must use mercury-free alternatives, if possible.
 - vi. Bulk Chemical Evaluation – For chemicals, used at a rate which exceeds 1,000 gallons/year or 10,000 pounds/year, the permittee must obtain a manufacturer's certificate of analysis, a chemical analysis performed by a certified laboratory, and/or a notarized affidavit which describes the substances' mercury concentration and the detection limit achieved. If possible, the permittee must only use bulk chemicals utilized in the wastewater treatment process which contain <10 ppb mercury.
- c. **Status Report - An annual** status report must be developed and maintained on site, in accordance with the Schedule of Additional Submittals, summarizing:
- i. A list of known and *potential mercury sources* for Outfall 01A
 - 1) If the permittee meets the criteria for MMP Type IV, the permittee must notify the DEC for a permittee-initiated modification;
 - ii. All actions undertaken, pursuant to the control strategy, during the previous reporting period;
 - iii. Actions planned, pursuant to the control strategy, for the upcoming reporting period; and
 - iv. Progress towards achieving a dissolved mercury concentration of 0.70 ng/L in the effluent (e.g., summarizing reductions in effluent concentrations as a result of the control strategy implementation and/or installation/modification of a treatment system).

³ For example, the outreach program could include education about sources of mercury and what to do if a mercury source is found.

⁴ The form, "Amalgam Waste Compliance Report for Dental Dischargers," can be found here:

https://www.dec.ny.gov/docs/water_pdf/dentalform.pdf

The permittee must maintain on-site a file with all MMP documentation. The file must be available for review by Department representatives and copies must be provided upon request in accordance with 6 NYCRR 750-2.1(i) and 750-2.5(c)(4).

3. MMP Modification - The MMP must be modified whenever:
- Changes at the facility, or within the collection system, increase the potential for mercury discharges;
 - Effluent discharges exceed the current permit limitation(s); or
 - A letter from the DEC identifies inadequacies in the MMP.

The DEC may use information in the status reports, as applicable in accordance with 2.c of this MMP, to determine if the permit limitations and MMP Type is appropriate for the facility.

DEFINITIONS:

Key location – a location within the collection/wastewater system (e.g. including but not limited to a specific manhole/access point, tributary sewer/wastewater connection, or user discharge point) identified by the permittee as a potential mercury source. The permittee may adjust key locations based upon sampling and/or best professional judgement.

Potential mercury source – a source identified by the permittee that may reasonably be expected to have total mercury contained in the discharge. Some potential mercury sources include switches, fluorescent lightbulbs, cleaners, degreasers, thermometers, batteries, hauled wastes, universities, hospitals, laboratories, landfills, Brownfield sites, or raw material storage.

DISCHARGE NOTIFICATION REQUIREMENTS

- (a) The permittee shall install and maintain identification signs at all outfalls to surface waters listed in this permit, unless the Permittee has obtained a waiver in accordance with the Discharge Notification Act (DNA). Such signs shall be installed before initiation of any new discharge location.
- (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:

N.Y.S. PERMITTED DISCHARGE POINT
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: () - ### - ####

- (e) The permittee shall provide for public review at the business office repository of the permittee or at the off-premises location of its choice, provided the custodian of the off-premise location grants written permission, (such off-premise location shall be the village, town, city or county clerk's office, local library or other location accessible by the public) all the Discharge Monitoring Reports (DMR) prepared by the permittee to demonstrate compliance with the SPDES permit conditions. A copy of each DMR shall be placed on file at such location at the same time it is sent to the department, or within 60 days of preparation for DMRs not required to be submitted to the Department. In accordance with the RECORDING, REPORTING AND ADDITIONAL MONITORING REQUIREMENTS page of your permit, each DMR shall be maintained (either electronically or as a hard copy) 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.

INDUSTRIAL 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:
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 (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 USEPA on July 8th, 2008.
 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 waste stream 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, 40 CFR Part 122, 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.
 - d) Provide a written technical evaluation of the need to revise local limits following permit issuance or reissuance.
 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.

INDUSTRIAL 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 DEC or the USEPA determines any source contributes pollutants to the POTW in violation of Pretreatment Standards or Requirements the DEC 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 DEC, and USEPA as long as USEPA remains the approval authority, 60 days prior to any major proposed change in the sludge disposal plan. DEC may require additional pretreatment measures or controls to prevent or abate an interference incident relating to sludge use or disposal.

INDUSTRIAL 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 in accordance with the Schedule of Submittals to the above noted offices within 60 days of the end of the reporting period. 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 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).
- E. **ADDITIONAL PRETREATMENT CONDITIONS:**
1. **Notification of Material Change:**
 - a) Facility shall provide adequate notice to the EPA prior to the introduction of any new pollutants from an indirect discharger that is subject to categorical standards and prior to any substantial change in the volume or character of pollutants by existing sources (40 CFR 122.42 (b) (1&2)). Adequate notice shall include information on (i) the quality and quantity of effluent introduced into the facility and (ii) any anticipated impact of the change on the quantity or quality of effluent to be discharged from the facility (40 CFR 122.42 (b)(3)).
 - b) Facility shall provide adequate notice to the DEC prior to the addition or modification of any SIUs or CIUs which may materially change the nature of the discharge from the POTW or increase the discharge of one or more substances authorized in this permit or discharge a substance not currently authorized in this permit (6 NYCRR Part 750-2.9(a)(1)). Adequate notice shall include information on (i) the quality and quantity of effluent introduced into the facility and (ii) any anticipated impact of the change on the quantity or quality of effluent to be discharged from the facility (6 NYCRR 750-2.9 (a)(1)(ii)). The noticed act is prohibited until the DEC determines whether a permit modification is necessary pursuant to 750-2.9(a)(2).

SCHEDULE OF COMPLIANCE

a) The permittee shall comply with the following schedule:

Outfall(s)	Compliance Action	Compliance Date ⁵
001	INTERIM PROGRESS REPORT⁶ The permittee shall provide a status update for the PRELIMINARY ENGINEERING REPORT - CHLOROFORM.	EDP + 9 Months
	PRELIMINARY ENGINEERING REPORT - CHLOROFORM The permittee shall submit an engineering report to the Department for approval that describes its plan to comply with final effluent limitations for chloroform. The preliminary engineering report shall follow the format as the Engineering Report Outline for Clean Water Projects. https://efc.ny.gov/state-revolving-fund-application-documentation	EDP + 12 Months
	INTERIM PROGRESS REPORT The permittee shall provide four status updates for the DESIGN DOCUMENTS - CHLOROFORM.	EDP + 21 months
	DESIGN DOCUMENTS - CHLOROFORM The permittee shall submit to the Department for approval a Basis of Design Report and Plans and Specifications to comply with final effluent limitations for chloroform.	EDP + 32 months
	INTERIM PROGRESS REPORT The permittee shall provide a status update for COMPLETE CONSTRUCTION.	EDP + 41 months
	COMPLETE CONSTRUCTION The permittee shall provide a Construction Completion Certification ⁷ to the DEC (send to the Regional Water Engineer and NetDMR@dec.ny.gov) that the system has been fully completed in accordance with the approved Design Documents.	EDP + 54 months
	COMMENCE OPERATION Following receipt of DEC acceptance of the Construction Completion Certification, the permittee shall comply with the final effluent limitation(s) described in this permit for chloroform.	Upon Department Acceptance
Unless noted otherwise, the above actions are one-time requirements.		

⁵ 6 NYCRR 750-1.14 (a)

⁶ 6 NYCRR 750-1.14 (b)

⁷ 6 NYCRR 750-2.10 (c)

SCHEDULE OF COMPLIANCE – Interim Effluent Limitations

OUTFALL	EXPIRING
001	EDP + 5 years

PARAMETER	INTERIMEFFLUENTLIMIT					MONITORINGREQUIREMENTS				Notes
	Type	Limit	Units	Limit	Units	Sample Frequency	Sample Type	Location		
								Inf.	Eff.	
Chloroform	Daily Maximum	Monitor	ng/L	-	-	1/quarter	Grab	-	X	

MONITORING LOCATIONS

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

- Outfall 01A sampling in junction box (not pictured).
- Outfall 001 flow rate and temperature recording taken in outfall 001 pipe.

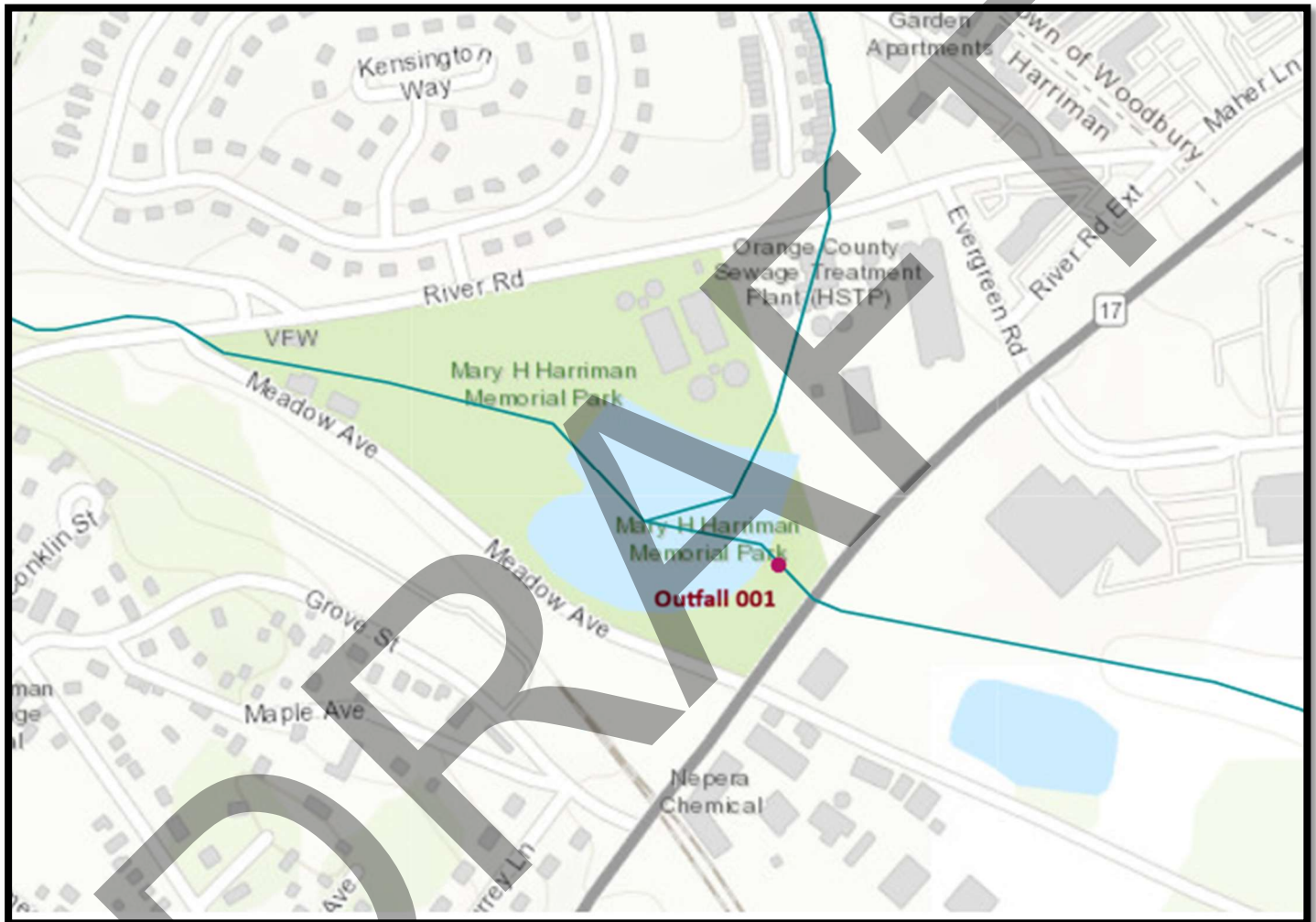


Figure 1: Outfall 001 Location

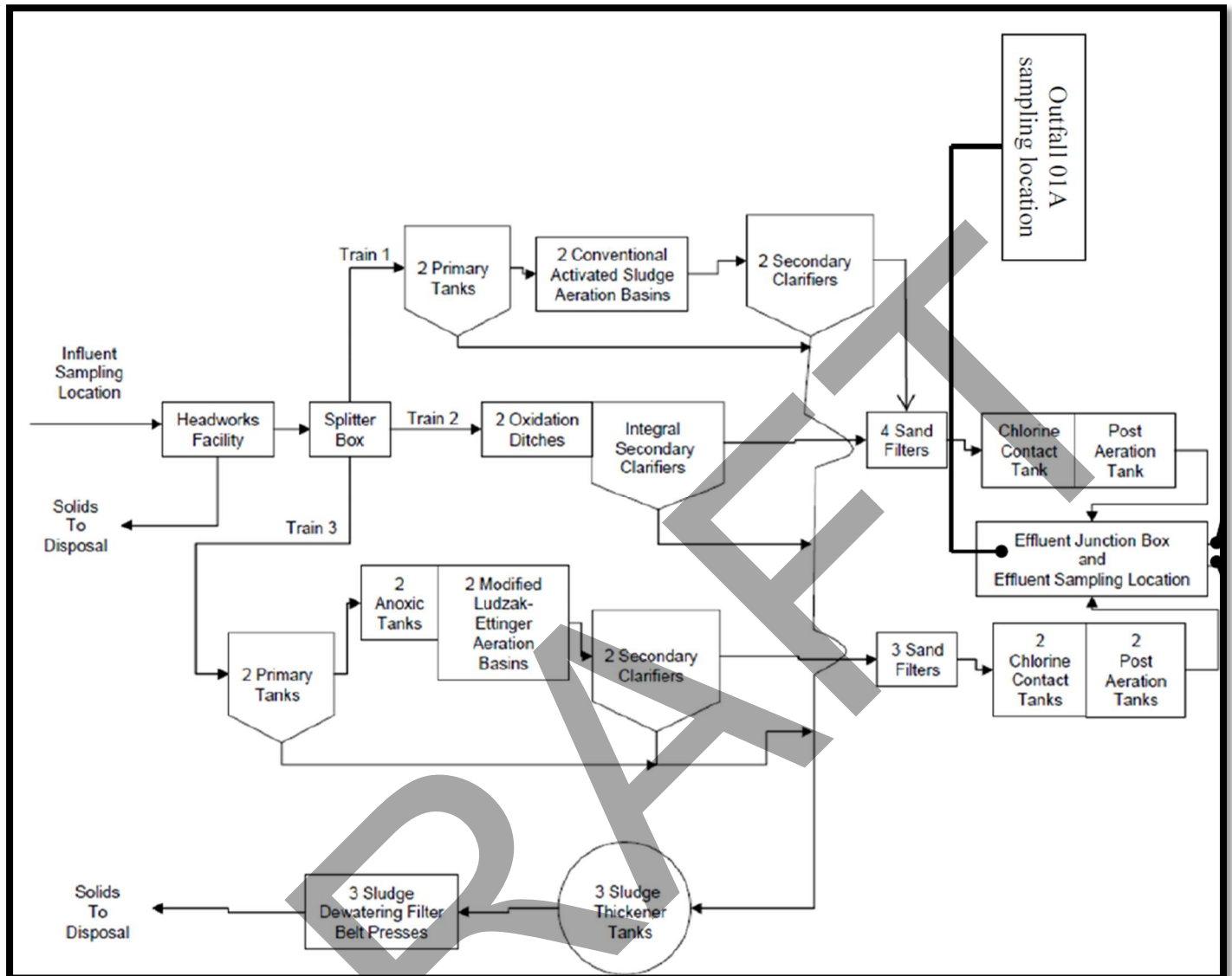


Figure 2: Process Flow Diagram

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 | 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. In accordance with 6 NYCRR 750-2.7, the permittee shall give notice to the DEC at least 45 days prior to planned physical alterations or additions to the permitted facility when:
 - a. The alteration or addition to the permitted facility may meet any 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 either 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 DEC, 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)

2. Notification Requirement for POTWs

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

G. Sludge Management

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

H. 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 DEC, 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.

I. Water Treatment Chemicals (WTCs)

New or increased use and discharge of a WTC requires prior DEC review and authorization. At a minimum, the permittee must notify the DEC in writing of its intent to change WTC use by submitting a completed *WTC Notification Form* for each proposed WTC. The DEC will review that submittal and determine if a SPDES permit modification is necessary or whether WTC review and authorization may proceed under the current permit. 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 DEC. 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 DEC.
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 submitted in electronic format and attached to either the December DMR or through nForm. The *WTC Notification Form* and *WTC Annual Report Form* are available from the DEC's website at: <http://www.dec.ny.gov/permits/93245.html>

RECORDING, REPORTING AND ADDITIONAL MONITORING REQUIREMENTS

- A. The monitoring information required by this permit shall be retained for a period of at least five years from the date of the sampling for subsequent inspection by the DEC or its designated agent.
- B. Discharge Monitoring Reports (DMRs): Completed DMR forms shall be submitted for each 1 month reporting period in accordance with the DMR Manual available on DEC's website.

DMRs must be submitted electronically using the electronic reporting tool (NetDMR) specified by DEC. Instructions on the use of NetDMR can be found at: [How To Complete And Submit Discharge Monitoring Reports \(DMRs\) - NYSDEC](#). **Hardcopy paper DMRs will only be accepted if a waiver from the electronic submittal requirements has been granted by DEC to the facility.**

Attach the monthly "Wastewater Facility Operation Report" (form 92-15-7) and any required DMR attachments electronically to the DMR or with the hardcopy submittal.

The first monitoring period begins on the effective date of this permit, and, unless otherwise required, the reports are due no later than the 28th day of the month following the end of each monitoring period.

- C. Additional information required to be submitted by this permit shall be summarized and reported to the Regional Water Engineer and Bureau of Water Permits at the following addresses:

Department of Environmental Conservation
Division of Water, Bureau of Water Permits
625 Broadway, Albany, New York 12233-3505

Phone: (518) 402-8111

Department of Environmental Conservation
Regional Water Engineer, Region 3
220 White Plains Road, Suite 110, Tarrytown, New York, 10591,

Phone: (914) 803-8157

- D. Bypass and Sewage Pollutant Right to Know Reporting: In accordance with the Sewage Pollutant Right to Know Act (ECL § 17-0826-a), Publicly Owned Treatment Works (POTWs) are required to notify DEC and Department of Health within two hours of discovery of an untreated or partially treated sewage discharge and to notify the public and adjoining municipalities within four hours of discovery. Information regarding reporting and other requirements of this program may be found on the DEC's website. In addition, POTWs are required to provide a five-day incident report and supplemental information to the DEC in accordance with Part 750-2.7(d) by utilizing the Division of Water Report of Noncompliance Event form unless waived by DEC on a case-by-case basis.

E. Schedule of Additional Submittals

The permittee shall submit the following information to the Regional Water Engineer and to the Bureau of Water Permits, unless otherwise instructed:

SCHEDULE OF ADDITIONAL SUBMITTALS		
Outfall(s)	Required Action	Due Date
001	<u>EMERGING CONTAMINANT (EC) MINIMIZATION PROGRAM</u> The permittee shall initiate track down of potential sources by utilizing the "Emerging Contaminants Investigation Checklist for POTWs" available at Emerging Contaminants In NY's Waters - NYSDEC https://dec.ny.gov/environmental-protection/water/emerging-contaminants. The permittee shall continue track down of potential sources and submit reports summarizing: - All EC monitoring results taken to date; - A list of likely EC sources; - All actions taken to reduce EC contaminants; and - Proposed next steps, including a monitoring plan to identify/confirm EC sources, and ensure continued progress towards minimization/eliminating contaminants. *Reports no longer required once effluent falls below action levels for at least 12 months or until further notified by the DEC.	Confirmation of initial Action Level exceedance 12 months after confirmation of initial Action Level exceedance, and every 6 months thereafter*
001	<u>WATER TREATMENT CHEMICAL (WTC) ANNUAL REPORT FORM</u> The permittee shall submit a completed WTC Annual Report Form each year that Water Treatment Chemicals are used.	December DMR or nForm (January 28 th)
001	<u>ANNUAL FLOW CERTIFICATION</u> The permittee shall submit an Annual Flow Certification form each year in accordance with 750-2.9(C)(4). The form shall be submitted through nForm.	March 28 th
001	<u>ANNUAL EMERGENCY RESPONSE PLAN CERTIFICATION</u> The principal executive officer or ranking elected official of the municipality or a duly authorized representative of that person shall submit an Annual Emergency Response Plan Certification form electronically using a NYSDEC approved form.	Annually
001	<u>ANNUAL CYBERSECURITY CONTROLS CERTIFICATION</u> The principal executive officer or ranking elected official of the municipality or a duly authorized representative of that person shall submit an Annual Cybersecurity Controls Certification form electronically using a NYSDEC approved form.	Annually
001	<u>BIENNIAL POLLUTANT SCAN</u> Biennial Pollutant Scan: The permittee shall perform effluent sampling every two (2) years for all applicable pollutants identified in the NY-2A Application, Tables A - D. Sampling data shall be collected according to the guidance in the NY-2A application and maintained by the permittee. Monitoring results shall not be submitted on the DMR. Data shall be submitted with the next submission of the NY-2A form.	Retain and submit with next NY-2A Application

SCHEDULE OF ADDITIONAL SUBMITTALS		
Outfall(s)	Required Action	Due Date
001	<u>ACTION LEVEL AND SHORT-TERM HIGH-INTENSITY MONITORING PROGRAM</u> If Action Level is exceeded the permittee shall collect 10 samples representative of normal discharge conditions and treatment operations over 3 months for Total Phenolics or Bis 2-ethylhexyl phthalate. Total phenols shall be determined by colorimetric or spectrophotometric analysis using EPA methods 420.1 and Gas Chromatography using EPA method 625.1. Results shall be expressed in both mass and concentration. Action level monitoring results shall be summarized and submitted with the monthly operating report [or DMR] data.	Date of Action Level Exceedance + 5 months
001	<u>SHORT-TERM HIGH-INTENSITY MONITORING PROGRAM</u> The permittee shall collect 10 samples representative of normal discharge conditions and treatment operations over 3 months for Total Endosulfan, which is a summation of Endosulfan Alpha, Endosulfan Beta and Endosulfan Sulfate. Endosulfan Alpha, Endosulfan Beta, and Endosulfan Sulfate are sampled separately, and a summation of the sampling results are used to determine Total Endosulfan. Total Endosulfan results shall be expressed in both mass and concentration.	EDP + 6 months
001	<u>WHOLE EFFLUENT TOXICITY (WET) TESTING</u> WET testing shall be performed as required in the footnote of the permit limits table. The toxicity test report including all information requested of this permit shall be attached to your WET DMRs and sent to the WET@dec.ny.gov email address.	Within 60 days following the end of each monitoring period
001	<u>MERCURY MINIMIZATION PLAN</u> The permittee must complete and maintain onsite a mercury minimization plan and subsequent annual mercury minimization status reports in accordance with the requirements of this permit.	Maintained Onsite EDP + 12 months, annually thereafter
001	<u>INDUSTRIAL PRETREATMENT PROGRAM</u> 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 ANNUALLY, with reporting period ending on April 1st.	Annually by May 31 st
001	<u>FUNDING AGREEMENT WITH USGS FOR GAGE STATION</u> Renew the 5-year Joint Funding Agreement with the USGS New York Water Science Center for the annual operation and maintenance of the 01387095 Ramapo R at Mary H Harriman stream gage located at these coordinates: 41°18'41.53"N, 74° 8'48.90"W. Provide the Department with confirmation of agreement upon each period of renewal.	September 30 th , 2031 Every 5 years until 2050

SCHEDULE OF ADDITIONAL SUBMITTALS		
Outfall(s)	Required Action	Due Date
001	<u>INFLOW AND INFILTRATION</u> The permittee shall conduct a complete sewer system evaluation to identify excessive infiltration and inflow (I/I) that can be feasibly and economically removed. The evaluation shall include a review of previous work, communication with County staff for known problem areas (including areas with hydraulic bottlenecks), as well as extensive field investigations which could include visual inspection of manholes, smoke testing, flow metering studies, CCTV camera/video inspections, or other necessary methods. In addition to its own system, the permittee shall determine whether tributary flows from satellite municipalities are contributing excessive I/I. As part of this determination of the satellite's impact, the following information should be reviewed: • Intermunicipal agreements • Flow data • Flow meter calibration records • Ease of access to flow data • Billing accuracy • Enforcement history The evaluation shall be documented in a complete sewer system evaluation report and shall include a prioritized list of projects and an implementation schedule necessary to minimize sources of excessive I/I in the most cost effective and feasible manner, as well as any recommended changes to the agreements from the satellite municipality. The permittee shall provide annual status updates.	EDP + 12 Months, annually thereafter

Unless noted otherwise, the above actions are one-time requirements.

- F. Monitoring and analysis shall be conducted using sufficiently sensitive test procedures approved under 40 CFR Part 136, unless other test procedures have been specified in this permit.
- G. 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.
- H. Calculations which require averaging of measurements shall utilize an arithmetic mean unless otherwise specified in this permit.
- I. 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.
- J. 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.

Permittee: Orange County DPW-DEFS
Facility: OCSD#1 Harriman STP
SPDES Number: NY0027901
USEPA Major/Class 05 Municipal

Date: August 18th, 2026 v.1.27
Permit Writer: Elizabeth (Liz) Dautel
Water Quality Reviewer: Elizabeth (Liz) Dautel
Full Technical Review

SPDES Permit Fact Sheet Orange County OCSD #1 Harriman STP NY0027901



**Department of
Environmental
Conservation**

Contents

Summary of Permit Changes	3
Administrative History	3
Facility Information	5
Site Overview	5
Enforcement History	13
Existing Effluent Quality	13
Receiving Water Information	13
Reach Description	13
Impaired Waterbody Information	16
Critical Receiving Water Data	16
Permit Requirements.....	18
Whole Effluent Toxicity (WET) Testing.....	18
Anti-backsliding	19
Antidegradation	19
Discharge Notification Act Requirements	19
Stormwater Pollution Prevention Requirements	19
Mercury.....	19
Biennial Pollutant Scan.....	19
Emerging Contaminant Monitoring.....	20
Schedule of Compliance	20
Schedule of Additional Submittals.....	20
Outfall and Receiving Water Summary Table.....	23
Pollutant Summary Table.....	24
Outfall 01A.....	24
Outfall 01A Emerging Contaminants	36
Outfall 001	41
Appendix: Regulatory and Technical Basis of Permit Authorizations	42
Regulatory References	42
Outfall and Receiving Water Information	43
Interstate Water Pollution Control Agencies.....	43
Existing Effluent Quality.....	43
Permit Requirements.....	43

Summary of Permit Changes

The Department drafted a State Pollutant Discharge Elimination System (SPDES) permit renewal for the OCSD #1 Harriman Sewage Treatment Plant (OCSD #1) with department-initiated modifications. The changes to the permit are summarized below:

- A new limit and Schedule of Compliance have been added for **Chloroform**.
- A new limit has been added for **Mercury**.
- A new monitoring requirement has been added for **1,4 Dioxane**.
- A new monitoring requirement has been added for **Aluminum**.
- A new Action Level has been added for **Bis 2-ethylhexyl phthalate**.
- A new short-term high intensity monitoring requirement has been added for **Endosulfan Alpha, Endosulfan Beta and Endosulfan Sulfate**.
- An Action Level is continued for **Total Phenolics** with a new additional requirement to determine the source of the detections.
- New Action Levels have been added for **PFOS and PFOA**.
- Outfall 002 is closed and has been removed.
- Monitoring frequencies have been updated based on guidance in TOGS 1.3.3.

This fact sheet summarizes the information used to determine the effluent limitations (limits) and other conditions contained in the permit. General background information including the regulatory basis for the effluent limitations and other conditions are in the [Appendix](#) linked throughout this fact sheet.

Administrative History

- 03/01/2020 The Department performed a full technical review and the SPDES permit became effective with a new five-year term and expiration date of 2/28/2025. The 2020 permit has formed the basis of this permit.
- 02/01/2021 OCSD #1 submitted a permittee-initiated modification request for a variance from Total Dissolved Solids (TDS) and Chloride.
- 04/19/2021 DEC sent a Notice of Incomplete Application (NOIA #1) for the 2021 permittee-initiated modification.
- 05/05/2022 As part of the response to the NOIA #1, OCSD #1 submitted a TDS and Chloride Sampling QAPP.
- 09/14/2022 DEC and Orange County executed Order on Consent R3-20180619-124. The Order on Consent addressed violations regarding effluent from the facility causing or contributing to the contravention of the water quality standard for TDS in the Ramapo River and for failing to submit an engineering report detailing the plan to achieve final effluent limits for TDS and Chlorides as required by the SPDES permit.
- 03/28/2023 EPA and OCSD #1 executed Administrative Order on Consent CWA-02-2023-3013 to address violations recorded in the Pretreatment Compliance Inspection Report.
- 09/11/2023 OCSD #1 responded to NOIA #1 and submitted an updated permittee-initiated modification request for a variance from TDS and Chloride, including an NY-2A application.
- 08/06/2024 OCSD #1 submitted a timely and sufficient renewal application.
- 09/16/2024 The 2020 SPDES permit was administratively extended pursuant to the State Administrative Procedures Act (SAPA)¹

¹ State Administrative Procedures Act Section 401(2) and 6 NYCRR 621.11(I).

- 09/26/2024 DEC sent a Notice of Incomplete Application (NOIA #2) for the permittee-initiated modification request for a variance from TDS and Chloride.
- 12/17/2024 DEC sent a Request for Information (RFI) to modify and renew the SPDES permit in accordance with 6 NYCRR 750-1.16(f) and 750-2.1(i).
- 12/19/2024 DEC approved Orange Country's TDS Minimization Plan, which was submitted as required by Order on Consent R3-20180619-124.
- 01/31/2025 OCSD #1 submitted a third revision to the permittee-initiated modification request for a variance from TDS and Chloride.
- 03/17/2025 OCSD #1 submitted a response to the 12/17/2024 RFI
- 03/21/2025 OCSD #1 submitted a permittee-initiated modification (PIM) request for a 9 MGD expansion.
- 04/21/2025 DEC sent a Notice of Incomplete Application (NOIA #3) for the permittee-initiated modification request for a variance from TDS and Chloride.
- 05/20/2025 DEC sent a Notice of Incomplete Application (NOIA #1) for requested expansion of the plant capacity from 6 million gallons per day (MGD) to 9 MGD.
- 08/20/2025 OCSD #1 notified DEC of its intention to close Outfall 002 in accordance with 6 NYCRR 750 - 2.11.
- 10/31/2025 OCSD #1 submitted a response to NOIA #1 for the requested expansion of the plant capacity from 6 MGD to 9 MGD.
- 11/10/2025 DEC issued a Department Initiated Modification (DIM) pursuant to 6 NYCRR 621.11(i)(3) to update the NPDES eRule related to the industrial pretreatment annual reports. This rule replaced most paper-based NPDES reporting requirements with electronic reporting. The reporting frequency changed from semi-annual to annual and the reporting period for OCSD #1 continues to be April 2 – April 1 with the annual report due no later than May 31 each year.
- 12/15/2025 DEC sent a Notice of Incomplete Application (NOIA #2) for requested expansion of the plant capacity from 6 MGD to 9 MGD.
- 01/13/2026 OCSD #1 submitted the WWTP Outfall 002 Decommissioning Plan.
- 01/20/2026 DEC requested that the County resubmit the NY-2A application for the renewal with corrections
- 02/17/2026 OCSD #1 submitted a partial response to NOIA #2 for the requested expansion of the plant capacity from 6 MGD to 9 MGD.
- 02/18/2026 OCSD #1 submitted the corrected 6 MGD NY2A permit application.
- 03/27/2026 DEC accepted the WWTP Outfall 002 Decommissioning Plan.
- 05/07/2026 OCSD#1 submitted a partial response to the NOIA # 2 which included an application for a Water Withdrawal Non-Public Permit for construction dewatering of the requested expansion of the plant capacity from 6 MGD to 9 MGD
- 05/20/2026 DEC issued a letter of No Jurisdiction for Freshwater Wetlands permit for the requested expansion of the plant capacity from 6 MGD to 9 MGD
- 06/22/2026 OCSD#1 submitted a response to NOIA #2 for the requested expansion of the plant capacity from 6 MGD to 9 MGD.

Facility Information

Site Overview

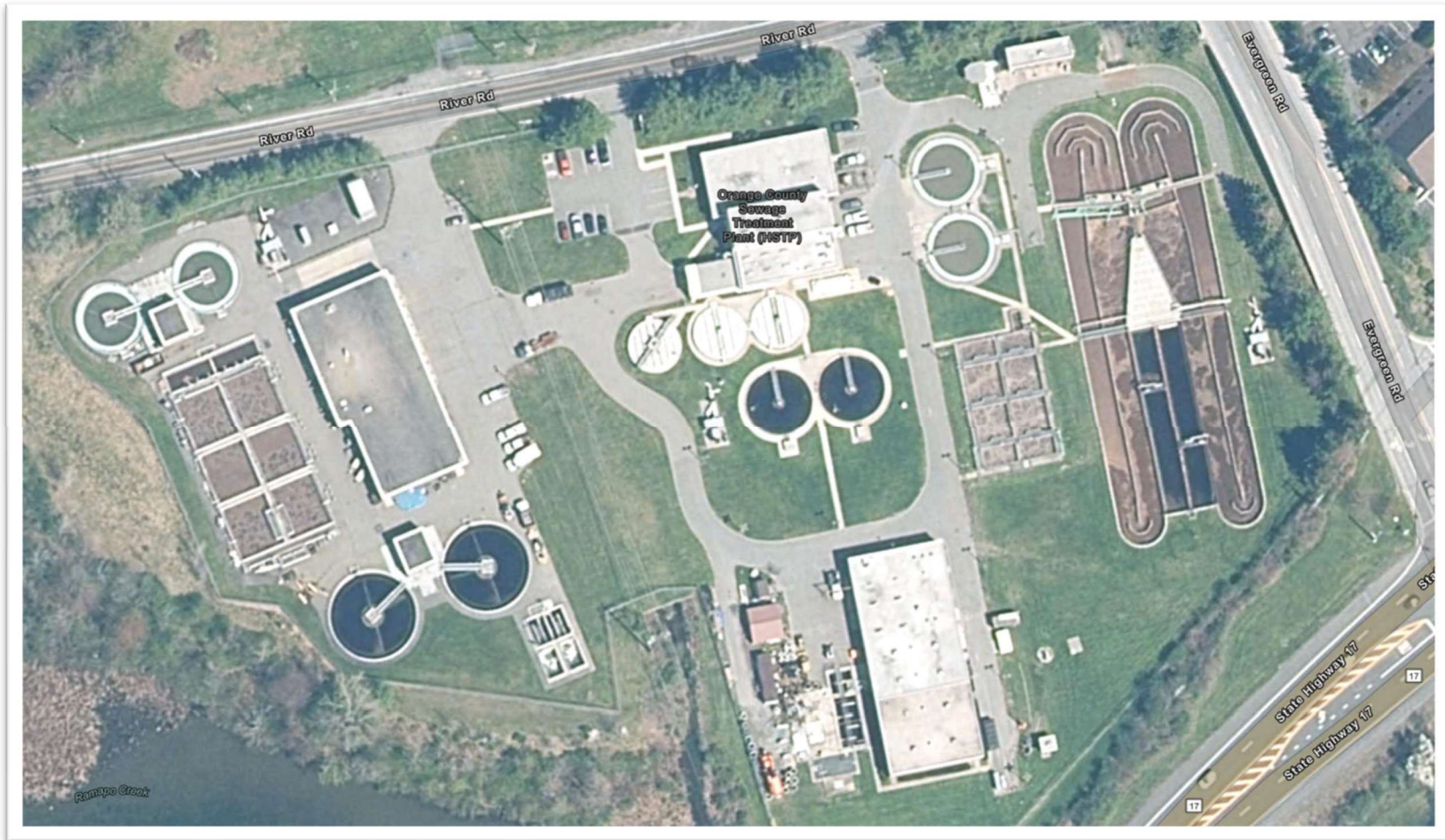


Figure 1: Aerial View of Site

This facility is a publicly owned treatment works that receives flow from domestic and industrial users, including wastewater from significant industrial users, with effluent consisting of treated sanitary and process water. The collection system consists of separate sewers.

The treatment plant was constructed in 1977 to provide tertiary treatment for a design flow of 2.0 MGD. The treatment plant has since been expanded to provide nitrification and, most recently, a design flow of 6.0 MGD in 2006. The current 6.0 MGD treatment plant consists of three process "trains."

All three trains share: screen removal, grit removal, and flow measurement at the plant's headworks building.

1. Train 1 has a design flow of 2.0 MGD and consists of activated sludge, two (2) primary clarifiers, two (2) aeration basins, and two (2) secondary clarifiers. Train 1 shares four (4) sand filters and a chlorine contact tank with dechlorination and post aeration with Train 2.
2. Train 2 consists of two (2) oxidation ditches each designed to treat 1.0 MGD. Each ditch has an integral secondary clarifier and shares four (4) sand filters and a chlorine contact tank with dechlorination and post aeration with Train 1.
3. Train 3 is a Modified Ludzack-Ettinger Process (MLE) with internal recycle and a design flow of 2.0 MGD. This train consists of two (2) primary clarifiers, two (2) anoxic tanks, two (2) modified Ludzack-Ettinger aeration basins, two (2) secondary clarifiers, three (3) sand filters, two (2) chlorine contact tanks with dechlorination, and two (2) post aeration tanks.

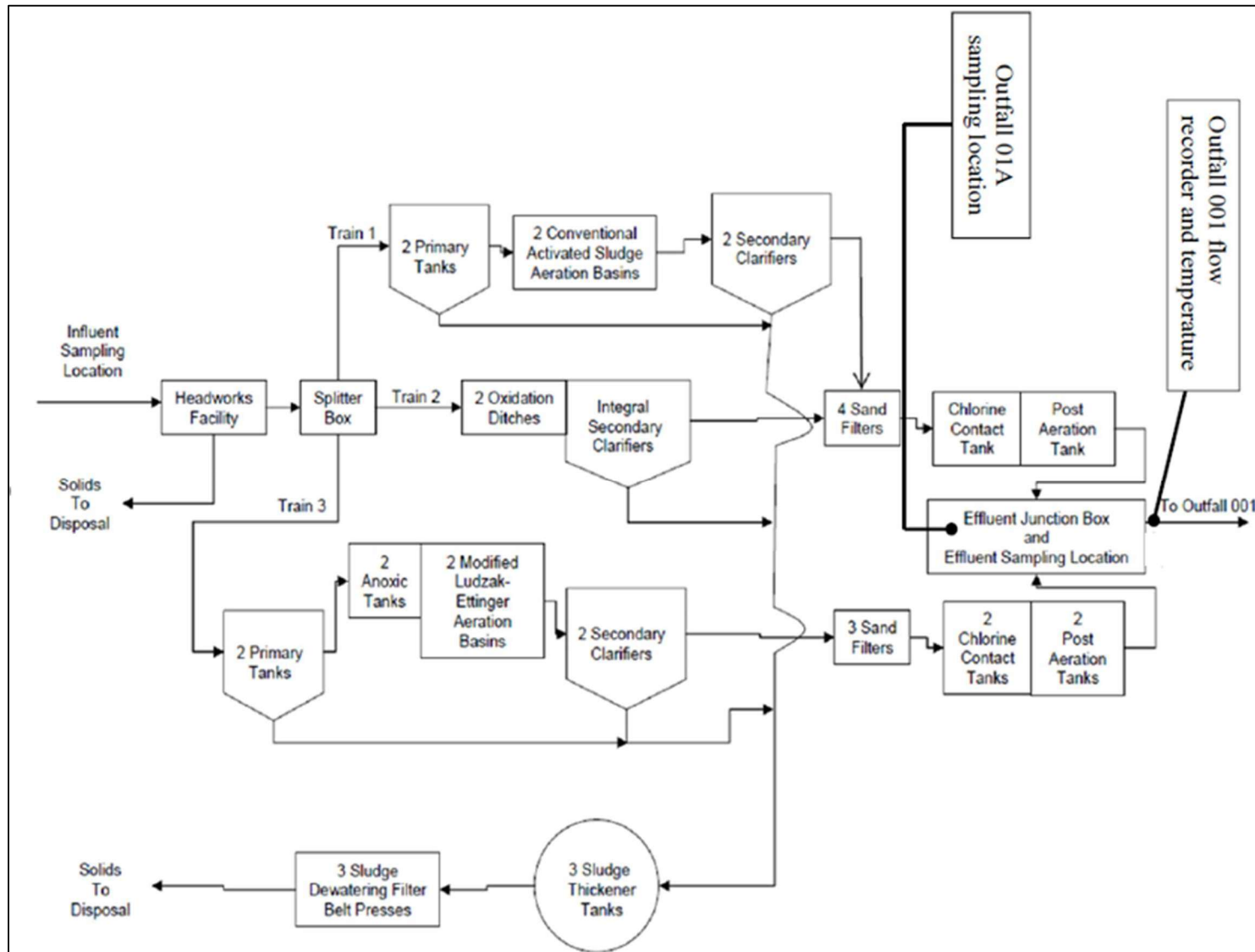


Figure 2: Flow Diagram

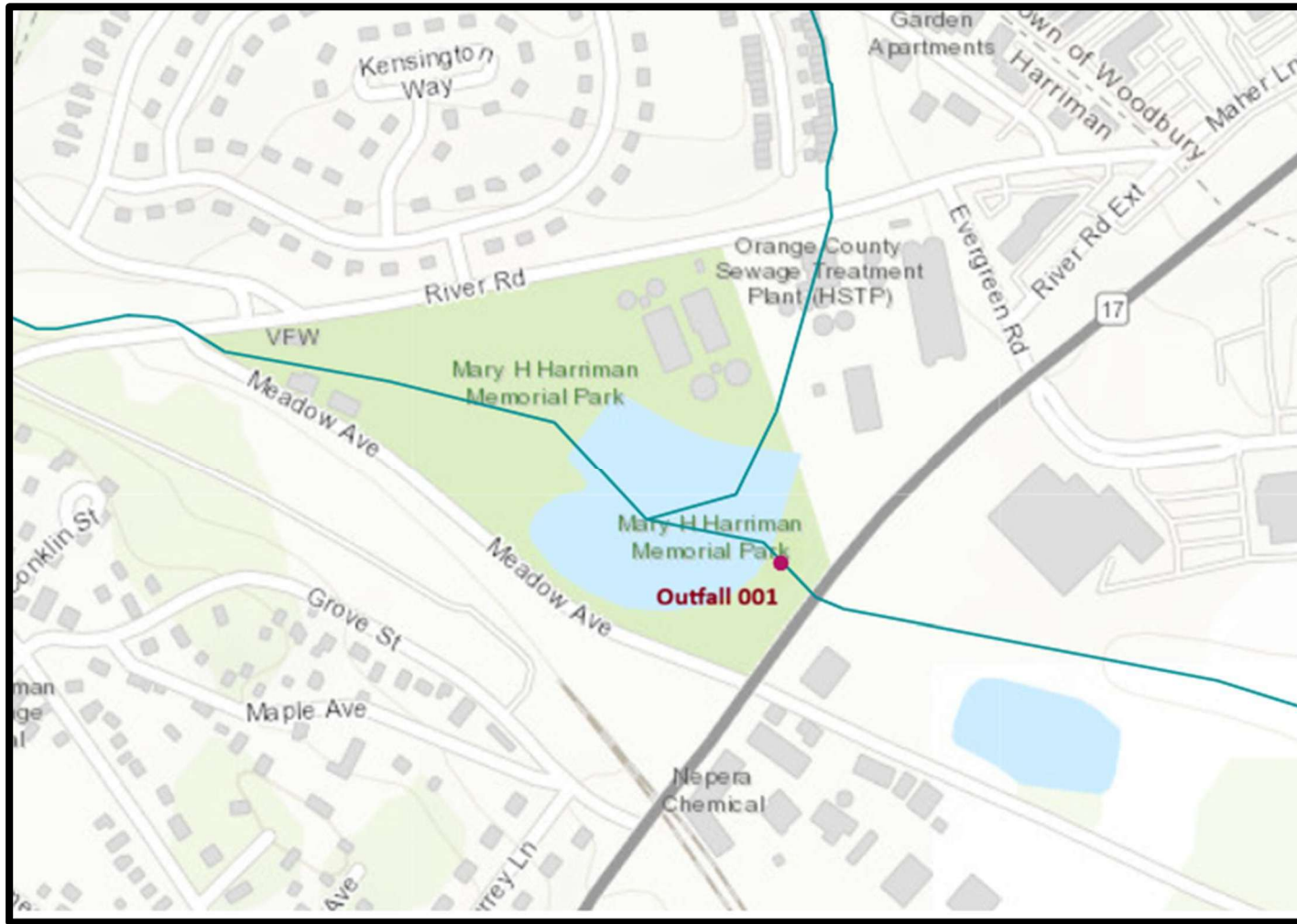


Figure 3: Outfall 001 Location

The facility sends treated sewage through a junction box (Outfall 01A) before being discharged through Outfall 001 (Class C). Effluent from all three trains is combined in Outfall 01A before discharging to the Ramapo River through Outfall 001. On August 20, 2025, the facility notified DEC that it no longer intended to use Outfall 002 and was pursuing outfall closure. Therefore, the proposed SPDES permit no longer authorizes the use of Outfall 002.

Sludge is sent to sludge thickener tanks and sludge dewatering filter belt presses before it is hauled to the Synagro Naugatuck, CT or Waterbury, CT locations. Synagro uses multiple processes for sludge disposal including land application.

Outfall 001 discharges just downstream of Mary Harriman Pond. The outfall terminates at the bank. The location of the outfall, and the name, classification, and index numbers of the receiving waters are indicated in the Outfall & Receiving Water Location Table in 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.

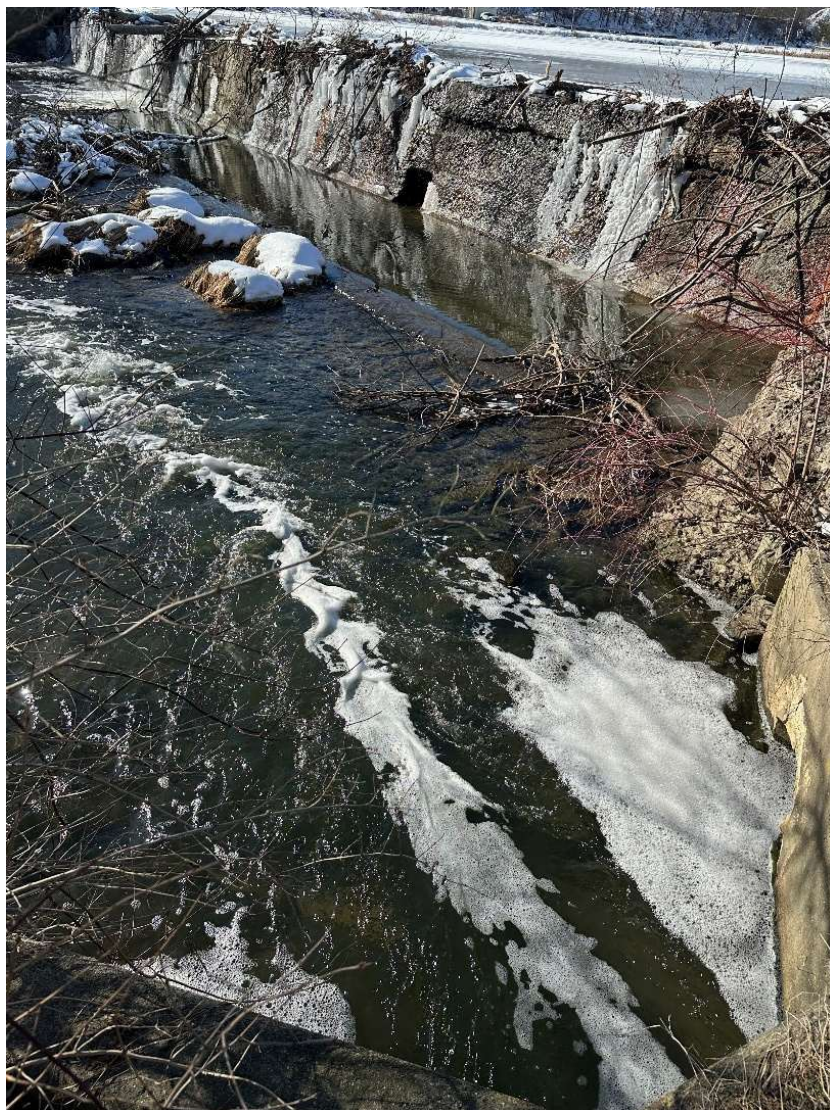


Figure 4: Outfall 001



Figure 5: View from Outfall 001



Figure 6: Oxidation Ditch



Figure 7: Secondary Treatment Clarifiers



Figure 8: Solids Removal

The facility accepts wastewater from the following municipalities:

Municipality	POSS #	County
Orange County Sewer District #1 (Village of Harriman, Kiryas Joel, Town of Monroe)	NY0027901	Orange
Town of Monroe (outside of OCSD SD #1)	NYS300043	Orange
Town of Chester	NYS300040	Orange
Village of Chester	NYS300058	Orange
Village of South Blooming Grove	NYS300086	Orange
Village of Woodbury	NYS300039	Orange
Village of Kiryas Joel	NYS300095	Orange

The facility accepts wastewater from the following significant industrial users (SIUs):

Significant Industrial User (SIU)	SIC Code	Categorical Reference (if applicable to 40 CFR)	Industrial Waste Discharge Permit Number
BYK USA, Inc.	2865	Part 414 – Organic chemicals, plastics and synthetic fibers – thermoplastic resins	003-2023
Varas Car Wash, LLC	7542	N/A	011-2023
Village of Kiryas Joel Water Filtration Plant	4941	N/A	005-2023

Enforcement History

This section summarizes active DEC Orders on Consent, any permit violations since the last permit was issued, and any Notices of Violations that have not been addressed by an Order on Consent.

Notice of Violations:

Permit violations for Sanitary Sewer Overflow (SSO) events, Total Copper, Ammonia (as N), Flow, TDS, Chlorides, Ultimate Oxygen Demand, CBOD₅ and TSS were recorded through the 2022, 2023, 2025 and 2026 inspection reports.

- OCSD #1 responded to the 2023 inspection report NOV for SSOs on 2023-09-29 with a plan to conduct public outreach.
- OCSD #1 responded to the 2025 inspection report NOVs for SSOs, ammonia and CBOD₅.

- 1. DEC Order on Consent:** The facility is operating under Order on Consent R3-20180619-124 with an effective date of 09/14/2022. The Order on Consent addressed violations regarding effluent from the facility causing or contributing to the contravention of the water quality standard for TDS in the Ramapo River and for failing to submit an engineering report detailing the plan to achieve final effluent limits for TDS and Chlorides as required by the SPDES permit. The order will terminate when all tasks required under the compliance schedule are completed to DEC's satisfaction.

The Order requires the following compliance actions:

- **TDS Minimization Plan** - Orange County shall develop, maintain, and implement a TDS Minimization Plan, including the required elements as outlined in the Order. A TDS Minimization Plan is required because the TDS effluent concentrations recorded at Outfall 01A are significantly higher than the water quality-based effluent limit for TDS of 500 mg/L. The goal of the TDS Minimization Plan will be to meet the 500 mg/L effluent limit at Outfall 01A in accordance with the Schedule of Compliance set forth in the Order.

Compliance and enforcement information can be found on the EPA's [Enforcement and Compliance History Online \(ECHO\)](#) website.

Existing Effluent Quality

The [Pollutant Summary Table](#) presents the existing effluent quality and effluent limitations. The Department determined existing effluent quality based on data from the Monthly Operating Reports and Discharge Monitoring Reports and NY-2A sampling data submitted by the permittee for the period 3/31/2020 to 12/31/2024. [Appendix Link](#)

Receiving Water Information

The facility discharges via the following outfalls:

Outfall No.	SIC Code	Wastewater Type	Receiving Water
001	4952	Treated Effluent	Ramapo River, Class C
01A	4952	Treated Effluent	Internal Outfall to Outfall 001

Reach Description

The facility discharges to a Class C portion of the Ramapo River (6 NYCRR 860 Item No. 19), which is part of a sole-source aquifer (SSA). SSAs are designated by USEPA. Per USEPA, the SSA program is authorized

by Section 1424(e) of the Safe Drinking Water Act of 1974 (Public Law 93-523, 42 U.S.C. 300 et. seq). The SSA designation does not change the development of the SPDES permit or the application of standards. Pursuant to New York State's Environmental Conservation Law (ECL), the SSA designation requires additional notification to potentially affected members of the public².

ECL § 17-0828 requires OCSD #1 to provide the following with their application for renewal:

In addition to any other requirements imposed by this title, any person seeking a SPDES permit or a renewal hereunder, within an area designated pursuant to any federal or state statute as a sole source aquifer, shall include as a part of the required information, the name and address of all public water purveyors with a service area or portion thereof located within a three mile radius of the applicant's facility. The names of all public water purveyors identified in the SPDES permit application or renewal shall be included in the project description as set forth when announced in the environmental notice bulletin. For the purposes of this section "public water purveyor" shall mean any person, partnership, public or private corporation, municipality, or public authority which sells water derived from a sole source aquifer to at least five service connections or at least twenty-five individuals.

The OCSD #1 provided the following information regarding public water purveyors located within a three-mile radius of the facility:

Name of Water Purveyor	Contact Address
Village of Harriman (multiple wells)	1 Church St, Harriman, NY 10926
Village of Monroe (Well #4)	7 Stage Road, Monroe, NY 10950
Village of Kiryas Joel (multiple wells)	51 Forest Road, Monroe, NY 10950
Village of Woodbury (Amdur Park WD)	PO Box 1004, Highland Mills, Woodbury, NY 10930
Village of Woodbury (Consolidated WD)	PO Box 1004, Highland Mills, Woodbury, NY 10930
Golf Club at Mansion Ridge	1292 Orange Turnpike, Monroe, NY 10950
Cromwell Hills Commons	Property Management, PO Box 2010, Hyde Park, NY 10950
Country Crossing	28 Country Hollow Road, Highland Mills, NY 10930

Approximately 1.5 miles downstream of Outfall 001, the water classification changes from Class C to a Class A (Trout) waterbody (6 NYCRR 860 Item No. 18, Priority Waterbody List (PWL) segment 1501-0036 of the Ramapo River). 6 NYCRR 701.6 defines the best uses for Class A fresh surface waters as: a source of water supply for drinking, culinary or food processing purposes; primary and secondary contact recreation; and fishing. The waters shall be suitable for fish, shellfish and wildlife propagation and survival.

² ECL § 17-0826 requires that DEC follow the process as follows: Whenever a provision of this title is violated by a facility operating under or pursuant to a SPDES permit and located within an area designated pursuant to any federal or state statute as a sole source aquifer, all public water purveyors with a service area or portion thereof located within a three mile radius of the violating facility shall be notified by the department of such violation if the department determines that the violation could have a significant impact on the water resources of the area. The department's notices pursuant to this section shall be made within fourteen days of the official notice of noncompliance of the SPDES permit to the violating facility. There is no corresponding permit condition.

Consistent with 6 NYCRR 701.1, the Department developed the proposed SPDES permit with consideration for potential downstream impacts to the Class A (T) waterbody.

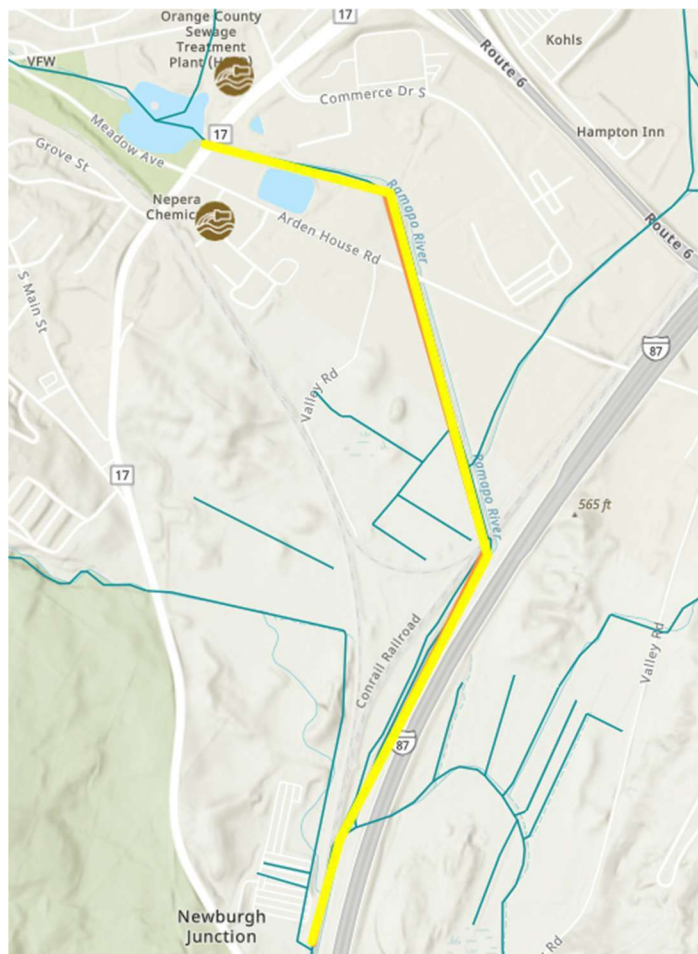


Figure 9: The yellow line shows the extent of the Class C portion of the Ramapo River.

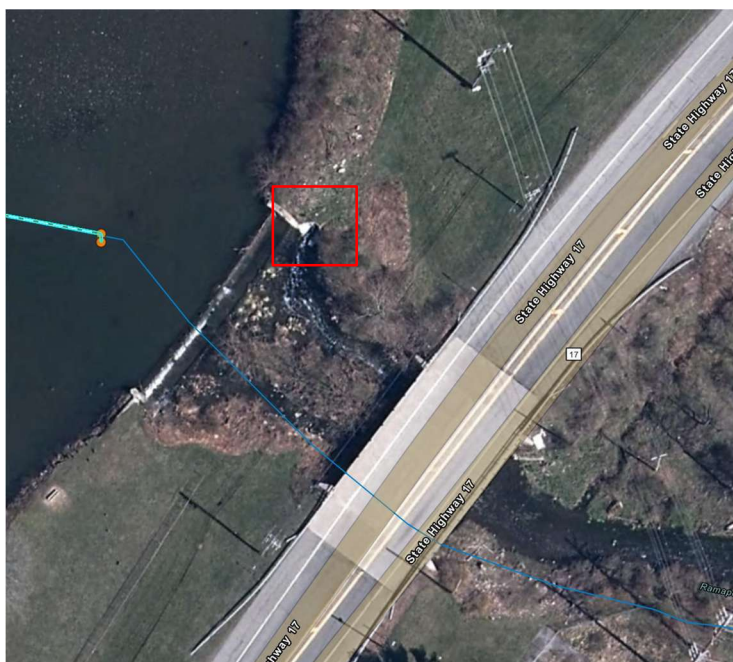


Figure 10: Outfall 001 Location

Impaired Waterbody Information

The Ramapo River segment (PWL No. 1501-0037) was first listed on the 2020/2022 [New York State Section 303\(d\) List](#) of Impaired/TMDL Waters as impaired due to TDS, Nitrite, Aluminum and pH. A TMDL has not been developed to address the impairment and, therefore, there are no applicable waste load allocations (WLAs) for this facility.

Consistent with 6 NYCRR 702.16(b)(1) and TOGS 1.3.1(l) page 5, in the development of the SPDES permit, a water quality impairment means that there is no assimilative capacity available.

Critical Receiving Water Data

Consistent with regulatory requirements in 6 NYCRR 701.1 and 702.16 (b)(1), and in accordance with TOGS 1.2.1 and 1.3.1, WQBELs are developed using dilution ratios that relate the critical low flow condition of the receiving waterbody to the critical effluent flow. The critical low flow condition used in the dilution ratio will be different depending on whether the limitations are for aquatic or human health protection. For chronic aquatic protection, the critical low flow condition of the waterbody is typically represented by the 7Q10 flow and is calculated as the lowest average flow over a 7-day consecutive period within 10 years. For acute aquatic protection, the critical low flow condition is typically represented by the 1Q10 and is calculated as the lowest 1-day flow within 10 years. However, NYSDEC considers using 50% of the 7Q10 to be equivalent to the 1Q10 flow. For the protection of human health, the critical low flow condition is typically represented by the 30Q10 flow and is calculated as the lowest average flow over a 30-day consecutive period within 10 years. However, NYSDEC considers using 1.2 x 7Q10 to be equivalent to the 30Q10. The 7Q10 or 30Q10 flow is used with the critical effluent flow to calculate the dilution ratio. The critical effluent flow can be the maximum daily flow reported on the permit application, the maximum of the monthly average flows from discharge monitoring reports for the past three years, or the facility design flow. When more than one applicable standard exists for aquatic or human health protection for a specific pollutant, a reasonable potential analysis is conducted for each applicable standard and corresponding critical flow to ensure effluent limitations are sufficiently stringent to ensure all applicable water quality standards are met as required by 40 CFR 122.44(d)(1)(i). For brevity, the pollutant summary table reports the results of the most conservative scenario for each pollutant.

Winter Critical Low Flows at Outfall 001

As explained in the Critical Receiving Water Data & Mixing Zone, the 7Q10 of 2.0 cfs for winter is based on an analysis conducted by the Department, which used 11 flow measurements made on the Ramapo River at Harriman between December and March. This analysis is memorialized in a letter from the Department to EPA dated October 11, 1974. The 1Q10 was estimated as 1.0 cfs and the 30Q10 was estimated as 2.3 cfs. This analysis continues to be relevant and there is no new information available to consider. Therefore, the proposed SPDES permit uses the same critical low flows for winter as established in the 2020 SPDES Permit.

Summer Critical Low Flows at Outfall 001

For the 2020 SPDES permit, the Department used the New York Streamflow Estimation Tool (NYSET) developed by the United States Geological Survey (USGS) to determine the 1Q10, 7Q10 and 30Q10 at Outfall 001. NYSET computes 7Q10 low-flow statistics on ungaged streams. NYSET identified the "Ramapo River at Ramapo, NY 01387400 Gage Station" located at the coordinates (41.14037, -74.16848) as the most representative gage location for Outfall 001. The calculated 7Q10 is 0.12 cfs and the corresponding drainage basin area is 11.3 square miles. This analysis continues to be relevant and there is no new information available to consider. Therefore, the proposed SPDES permit uses the same critical low flows for summer as established in the 2020 SPDES permit.

As stated in the Ruling on Issues and Order Status on January 18th, 2019 (page 16) in the development of the 2020 SPDES permit, OCSD #1 requested that the Village of Kiryas Joel (KJ) Sewage Treatment Plant (STP) flow be included in the low flow estimates for summer. In the 2020 permit, the Department used KJ STP's minimum reported discharge flow for a three-year period. While the approach used in the 2020 permit was protective, repeating that approach may result in different critical low flows each time the permit is renewed, which may make long-term planning for compliance challenging. The design flow is a better representation of

upstream conditions because it reflects a permitted flow rather than a short duration condition. As explained in the Critical Receiving Water Data & Mixing Zone, the proposed SPDES permit continues to include flows from the KJ STP but uses the design flow instead. The Department added KJ STP's design flow of 1.5 cfs to the 1Q10, 7Q10, and 30Q10. Therefore, the adjusted 1Q10, 7Q10, and 30Q10 are 1.56 cfs, 1.62 cfs, and 1.64 cfs, respectively. This proposed permit uses different adjusted critical low flows than the previous 2020 permit, because of the availability of new information.

Summer Critical Low Flows at Stream Class Change (Former Outfall 002)

The Department also analyzed summer critical low flows at the point where the waterbody classification changes from Class C to Class A(Trout). The Department calculated the 1Q10, 7Q10, and 30Q10 at this location by multiplying the drainage basin ratio at the location of the classification change by the critical flows at Outfall 001. The Department calculated the drainage basin ratio by dividing the drainage basin area at Outfall 002 by the drainage basin area at Outfall 001.

Below is a table of the values used to find the summer 7Q10 flow at the location of the classification change on the Ramapo River downstream of OCSD #1:

Parameter	Value	Unit
Drainage Basin Area at Outfall 001	11.3	square miles
Drainage Basin Area: location of classification change	16.0	square miles
Drainage basin ratio	$16.0/11.3 = 1.42$	-
1Q10 at Outfall 001	$(0.12/2) + 1.5 = 1.56$	cfs
7Q10 at Outfall 001	$0.12 + 1.5 = 1.62$	cfs
30Q10 at Outfall 001	$(0.12*1.2) + 1.5 = 1.64$	cfs
1Q10 at change from Class C to A(T) on Ramapo	$((0.12*1.42)/2) + 1.5 = 1.58$	cfs
7Q10 at change from Class C to A(T) on Ramapo	$(0.12*1.42) + 1.5 = 1.67$	cfs
30Q10 at change from Class C to A(T) on Ramapo	$(0.12*1.42*1.2) + 1.5 = 1.70$	cfs

In 2020, OCSD #1 and USGS installed Stream Gage 01387095 upstream of Outfall 001. While there is not yet sufficient data to develop low flows (1Q10, 7Q10, 30Q10), the Department reviewed the data using the USGS Hydrologic Toolbox to confirm the reasonableness of the low-flow assumptions included in the 2020 permit. A summary of the available gaging data from 2020 to 2025 are included in the table below:

Ramapo R at Mary H Harriman 01387095	Winter Nov. 1st – May 31st	Summer June 1st – Oct. 31st
MIN (cfs)	2.35	0.58
MAX (cfs)	623	586
AVERAGE (cfs)	22.6	14.2

Although the Department did not use the stream gage data to estimate low flow 7Q10 data, the preliminary results indicate that the 2020 permit assumptions continue to reasonably reflect the conditions in the receiving waterbody (i.e. the Department included the min, max, and average flow to reaffirm that the Department's

analysis for this current permit is representative of the flow in the Ramapo).

Dilution Ratios

The 1Q10, 7Q10, and 30Q10 flows were used to calculate the acute, chronic, and human, aesthetic, wildlife (HEW) dilution ratios, respectively.

Dilution Ratio = (Facility Flow + Low Flow) / Facility Flow

Season and Location	Acute Dilution Ratio A(A)	Chronic Dilution Ratio A(C)	Human, Aesthetic, Wildlife Dilution Ratio (HEW)	Basis
Summer (Start of Class A(T) Water Downstream of Outfall 001)	1.2:1	1.2:1	1.2:1	TOGS 1.3.1
Winter	1.1:1	1.2:1	1.2:1	TOGS 1.3.1

Critical receiving water data are listed in the [Pollutant Summary Table](#) at the end of this fact sheet. [Appendix Link](#)

Permit Requirements

The technology based effluent limitations ([TBELs](#)), water quality-based effluent limitations ([WQBELs](#)), [Existing Effluent Quality](#) and a discussion of the selected effluent limitation for each pollutant present in the discharge are provided in the [Pollutant Summary Table](#).

Whole Effluent Toxicity (WET) Testing

An evaluation of the discharge indicates the potential for toxicity based on the following criteria: [Appendix Link](#)

- 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. (#4)
- Treatment plants which equal or exceed a discharge of 1MGD. (#7)

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
02/23	>100% (FI)	<0.3 (FI)	0.3	97.5% (F)	Pass	<0.8	**No	>100% (FI)/>100% (FI)	<1.0 (FI)/<1.0 (FI)	1.0	Pass/Pass	<2.6	***No
05/23	>100% (FI)	<0.3 (FI)	0.3	100% (FI)	Pass	<0.8	**No	>100% (FI)/>100% (FI)	<1.0 (FI)/<1.0 (FI)	1.0	Pass/Pass	<2.6	***No
08/23	>100% (FI)	<0.3 (FI)	0.3	100% (FI)	Pass	<0.8	**No	>100% (FI)/>100% (FI)	<1.0 (FI)/<1.0 (FI)	1.0	Pass/Pass	<2.6	***No
10/23	>100% (FI)	<0.3 (FI)	0.3	100% (FI)	Pass	<0.8	**No	>100% (FI)/>100% (FI)	<1.0 (FI)/<1.0 (FI)	1.0	Pass/Pass	<2.6	***No

Figure 11: WET Test Results 2023

Consistent with TOGS 1.3.2, a reasonable potential analysis was performed using the existing WET data for this facility (see Figure 11). The Department determined that there is the potential for toxicity in the effluent and WET action levels are being continued in the permit. Given the dilution available and location outside of the Great Lakes basin, the permit requires chronic WET testing. The permittee is required to perform WET testing at the specified sample frequency for years ending in 8 and 3. The permit includes WET testing action levels of 0.3 TUa and 1.0 TUC for each species. The chronic action levels represent the chronic dilution ratio.

Anti-backsliding

The limitations contained in the permit are at least as stringent as the previous permit limits and there are no instances of backsliding.

[Appendix Link](#)

Antidegradation

The permit contains effluent limitations which ensure that the best usages of the receiving waters will be maintained. The Notice of Complete Application published in the Environmental Notice Bulletin contains information on the State Environmental Quality Review (SEQR)³ determination. [Appendix Link](#)

Discharge Notification Act Requirements

In accordance with the ECL 17-0815-a and 6 NYCRR 750-1.12, the permittee is required to post a sign at each point of wastewater discharge to surface waters. Additionally, the permit contains a requirement to make the DMR sampling data available to the public in accordance with 6 NYCRR 750-1.12(b)(2). The requirement to post a sign at each discharge location has been continued from the previous permit.

Stormwater Pollution Prevention Requirements

The facility is a publicly owned treatment works ≥ 1 MGD that requires SPDES permit coverage under 40 CFR 122.26(b)(14)(ix). On 03/17/2025, the permittee submitted a Conditional Exclusion for No Exposure Form, certifying that all industrial activities and materials are completely sheltered from exposure. The stormwater pollution prevention language was removed from the permit, and the permittee must submit the Conditional Exclusion for No Exposure Form to the SPDES Multi-Sector General Permit for Stormwater Discharges Associated with Industrial Activity (MSGP) Sector [T] (GP-0-23-001). This condition must be maintained for the exclusion to remain applicable. This requirement is new.

Mercury⁴

The DOW 1.3.10 Mercury – Multiple Discharge Variance (MDV), dated December 31, 2025, provides the framework for DEC to require mercury monitoring and mercury minimization programs (MMPs), through SPDES permitting. All the following permit conditions are consistent with the MDV.

The facility is an EPA major class 05 municipal facility with a 6.0 MGD design flow. Consistent with DOW 1.3.10, the permit includes requirements for the implementation of MMP Type I.

The new daily max limit of 25 ng/L represents the general level currently achievable (GLCA). Based on 18 data points with a max of 5.4 ng/L collected from 12/31/2020 to 12/31/2024, the facility is expected to meet the GLCA (with monthly sampling frequency).

- The MMP consists of the following: Control strategy for implementation of the MMP; and,
- Annual status report (maintained onsite) in accordance with 6 NYCRR 750-1.14(f)

The permit language also reflects additional reductions in the MMP requirements, including influent monitoring quarterly in lieu of monitoring at key locations within the collection system.

Biennial Pollutant Scan

In accordance with 40 CFR 122.21(j)(4)(vi) and 6 NYCRR 750-1.13(c), the permit includes a requirement to perform biennial sampling (once every two years) of the WWTP effluent for the parameters in the NY-2A Application, Tables A – D. This sampling will provide the required three effluent samples from applicable parameters for submittal with the next NY-2A Application⁵. This requirement ensures the data is representative

³ As prescribed by 6 NYCRR Part 617

⁴ In accordance with DOW 1.3.10 Mercury – SPDES Permitting & Multiple Discharge Variance (MDV), updated December 31, 2025.

⁵ Pursuant to 40 CFR 122.21(j)(4)(vi).

of effluent conditions over the permit term and will be available for the next application submittal and permit review. This requirement is new.

Emerging Contaminant Monitoring

The SPDES permit includes Action Levels for PFOA and PFOS, and minimization programs when exceedances of those Action Levels are confirmed. Due to the emerging nature of PFOA and PFOS; the USEPA's addition of PFOA and PFOS to the hazardous substance list under CERCLA; the USEPA's addition of PFOA and PFOS to the recommended contaminant monitoring list for state fish advisory programs; and the need to protect the best usages of the receiving water and downstream waterbodies pursuant to 6 NYCRR 701.1. The use of minimization programs is also supported by 6 NYCRR 750-1.14(f).

The Action Level for PFOS is set at the NYS Department of Health (DOH) Maximum Contaminant Level (MCL) of 10 ng/L for drinking water as a proxy for background concentrations in the facility's influent. Discharges above the MCL indicate the potential presence of a controllable source beyond drinking water and the need to implement track down measures. Pursuant to 6 NYCRR 750-1.13(b), the SPDES permit also requires monitoring for the remaining 38 PFAS compounds. Those monitoring requirements are consistent with guidance released in EPA memos dated April 28, 2022, and December 5, 2022. Please see the Pollutant Summary Table for more information.

Schedule of Compliance

A schedule of compliance has been included for the following:

- Chloroform
 - In accordance with 6 NYCRR 750-1.14(a), the permittee needs time to comply with proposed effluent limitations. The permittee needs to evaluate the source of the pollutant, assess compliance options, and potentially design and install additional treatment units.

Schedule of Additional Submittals

A schedule of additional submittals has been included for the following ([Appendix Link](#)):

- **Emerging Contaminant Minimization Program**
 - Pursuant to 6 NYCRR 750-1.14(f), the permit includes an Emerging Contaminant Minimization Program. Upon confirmation of action level exceedance, the permittee must initiate track down of potential sources and submit reports summarizing all emerging contaminant monitoring data, likely sources, actions taken to reduce emerging contaminants, and proposed next steps to minimize/eliminate emerging contaminants. Please see "Emerging Contaminant Monitoring" section for more information.
- **Annual Flow Certification**
 - In accordance with 6 NYCRR 750-2.9(c), POTWs are required to monitor and report both flow volume and strength of the wastewater entering the treatment plant. Annually, the chief fiscal officer of the municipality shall submit an Annual Flow Certification form through the [nForm Portal](#) where an electronic version of this form is available. This requirement is new.
- **Annual Emergency Response Plan Certification**
 - In accordance with 6 NYCRR 750-2.9(d)(4), the principal executive officer or ranking elected official of the municipality or a duly authorized representative of that person (as defined in 6 NYCRR 750-2.9(f)) shall submit an Annual Emergency Response Plan Certification form electronically using a NYSDEC approved form. This requirement is new.

- **Annual Cybersecurity Controls Certification**

- In accordance with 6 NYCRR 750-2.9(e)(5), the principal executive officer or ranking elected official of the municipality or a duly authorized representative of that person (as defined in 6 NYCRR 750-2.9(f)) shall submit an Annual Cybersecurity Controls Certification form electronically using a NYSDEC approved form.

- **Biennial Pollutant Scan**

- In accordance with 40 CFR 122.21(j)(4)(vi) and 6 NYCRR 750-1.7(d), POTW SPDES permit applicants must submit data from a minimum of three samples taken within four and one-half years prior to the date of the permit application. Please see "Biennial Pollutant Scan" section. This requirement is new.

- **Action Level and Short-term, high intensity monitoring**

- The permit requirements for Total Phenolics and Bis 2-ethylhexyl phthalate at Outfall 01A are described in the Pollutant Summary Table. In accordance with 6 NYCRR 750-1.13(d), the permittee must submit a summary of the results if the specified Action Level is exceeded. This requirement is new.
 - Short-term, high intensity monitoring of **Total Phenolics** for 3 months to determine necessity of or to assist with refinement of effluent limits. Both EPA methods 420 and 625 should be used to determine if the detections are accurate or caused by the analytical method applied.
 - Short-term, high intensity monitoring of **Bis 2-ethylhexyl phthalate** for 3 months to determine necessity of or to assist with refinement of effluent limits.

- **Short-term, high intensity monitoring**

- The previous permit required three months of short-term high intensity monitoring which resulted in a detection of Endosulfan Alpha over the specified water quality standard for Total Endosulfan. Consistent with 6 NYCRR 750-1.13(d), any discharge authorized by a SPDES permit shall be subject to such requirements for monitoring the discharge as may be reasonably required by the Department to determine compliance with effluent limitations and water quality standards that are or may be affected by the discharge. Three stereoisomers make up the composition of Total Endosulfan. Therefore, all three stereoisomers will need to be monitored and added together to accurately represent Total Endosulfan. The individual stereoisomer, Endosulfan Alpha, does not have an applicable water quality standard and there is no EPA approved method for analyzing Total Endosulfan.
 - Short-term, high intensity monitoring of **Endosulfan Alpha, Endosulfan Beta and Endosulfan Sulfate** for 3 months to determine necessity of or to assist with refinement of effluent limits.

- **Inflow and Infiltration (I&I) Program**

- In accordance with 6 NYCRR Part 750-2.9(a)(3) and TOGS 1.3.3 Appendix G, the permittee is to conduct a comprehensive, system-wide collection system evaluation to document and identify excessive I/I that can be feasibly and economically removed. This requirement is new.

- **Whole Effluent Toxicity (WET) Testing**

- In accordance with 6 NYCRR 750-2.1(i), the permittee must submit a report of all WET testing activity and results with the specific data outlined in TOGS 1.3.2, Appendix I. This requirement is continued.

- **WTC Annual Report**

- In accordance with 6 NYCRR 750-2.6(a) and 750-2.9(a)(1), the permittee must notify the DEC of a change in effluent quality. As such, new or increased use and discharge of a water treatment chemical (WTC) requires prior DEC review and authorization. At a minimum, the permittee must notify the DEC in writing of its intent to change WTC use by submitting a completed WTC Notification Form for each proposed WTC. In accordance with 6 NYCRR 750-2.1(i), the permit requires submission of an annual report of the WTCs that the permittee discharged the prior calendar year, January 1 through December 31. The permittee must attach the annual report to either to the December DMR or annual monitoring report required by the permit. More information is located on the DEC's website under SPDES Permitting of Water Treatment Chemicals. This requirement is continued.

- **Mercury Minimization Program Annual Status Report (maintained onsite)**

- In accordance with 6 NYCRR 750-2.1(i), the permittee is required to submit annual Status Report. This requirement is continued.

- **USGS Stream Gage Operating Agreement**

- Renew Operating Agreement every 5 years until 2050 with USGS for the 01387095 Ramapo R at Mary H Harriman stream gage located at 41°18'41.53"N, 74° 8'48.90"W.

Outfall and Receiving Water Summary Table

Outfall	Latitude	Longitude	Receiving Water Name	Water Class	Water Index No./ Priority Waterbody Listing (PWL) No.	Major / Sub Basin	Hardness (mg/l)	1Q10 (cfs)		7Q10 (cfs)		30Q10 (cfs)		Critical Effluent Flow (MGD)	Dilution Ratio (Summer)		
								Summer	Winter	Summer	Winter	Summer	Winter		A(A)	A(C)	HEW
General Notes: Three sampling locations were used to estimate hardness for metals calculations: 15-RAMA-16.8 RIBS Station, KJ STP effluent, and OCSD #1 effluent. The previous permit (2020) required the permittee to conduct short-term, high-intensity hardness sampling for a total of ten samples. The average of the ten data points was 207 mg/l, which the Department used to calculate the flow weighted hardness. The flow weighted hardness concentration of 210 mg/l was calculated using the following values: Kiryas-Joel STP Design Flow = 1.5 cfs, OCSD #1 7Q10 flow at Outfall 001 = 0.12 cfs, OCSD #1 design flow = 9.29 cfs, Kiryas-Joel STP Hardness = 231 mg/l, 15-RAMA-16.8 RIBS Average Hardness = 173 mg/l and OCSD #1 Hardness = 207 mg/l. The flow weighted hardness concentration calculation is outlined below: 1. Total flow = 9.29 cfs + 0.12 + 1.5 = 10.91 cfs 2. Kiryas-Joel (hardness) = 1.5 cfs / 10.91 cfs X 231 mg/l = 31.8 mg/l 3. Ramapo (hardness) = 0.12 cfs / 10.91 cfs X 173 mg/l = 1.9 mg/l 4. OCSD #1 (hardness) = 9.29 cfs / 10.91 cfs X 207 mg/l = 176 mg/l 5. Flow weighted hardness = SUM (KJ, Ramapo, OCSD #1) = 31.8 + 1.9 + 176 = 210 mg/l																	
Start of Class A(T) Water Downstream of Outfall 001	41° 17' 33.83" N	74° 08' 23.12" W	Ramapo River	A(T)	NJ-12 PWL : 1501-0037	15-01	210	1.6	0.95	1.7	2.0	1.7	2.28	6 MGD	1.2:1	1.2:1	1.2:1

Permittee: Orange County DPW-DEFS
 Facility: OCSD#1 Harriman STP
 SPDES Number: NY0027901
 USEPA Major/Class 05 Municipal

Date: August 18th, 2026 v.1.27
 Permit Writer: Elizabeth (Liz) Dautel
 Water Quality Reviewer: Elizabeth (Liz) Dautel
 Full Technical Review

Pollutant Summary Table

Outfall 01A

Outfall #	01A	Description of Wastewater: This facility accepts domestic and industrial users, including waste from categorical industrial users, with effluent consisting of treated sanitary and process water.													
		Type of Treatment: Grit removal, primary clarification, aeration tank, anoxic tank, modified Luzak-Ettinger aeration basins, secondary clarifier, sand filters, chlorine contact tanks and post aeration tanks.													
Effluent Parameter	Units	Averaging Period	Existing Discharge Data			TBELs		Water Quality Data & WQBELs						Basis for Permit Requirement	
			Permit Limit	Existing Effluent Quality	Detects/ Non-Detects	Limit	Basis	Ambient	Projected Instream Conc. (A(A), A(C), HEW	WQStd. or GV	WQ Type	Calc. WQBEL	Basis		
General Notes: The Department obtained existing discharge data from 3/31/2020 to 11/30/2024 from Discharge Monitoring Reports (DMR) and Monthly Operating Reports provided by the permittee. Unless otherwise noted, the existing effluent quality is equal to the maximum value provided in the DMR data. The Department reviewed all applicable water quality standards for development of the WQBELs. The water quality standard and resulting WQBEL, shown below, represent the most stringent of any applicable water quality standard. The Department used sampling data from the Ramapo River RIBS station, 15-RAMA-16.8, located upstream of the facility to determine the ambient water quality.															
Flow	MGD	Monthly Avg	6.0	7.6	56/0	6.0	Design Flow, TOGS 1.3.3	No alterations that will impair the waters for their best usages.				703.2	Continued		
		Daily Max	Monitor	17	56/0	Monitor	750-1.13 Monitor								
	Consistent with TOGS 1.3.3, a monthly average flow limitation equal to the average daily design capacity of the treatment plant is specified.														

Outfall #	01A	Description of Wastewater: This facility accepts domestic and industrial users, including waste from categorical industrial users, with effluent consisting of treated sanitary and process water.												
		Type of Treatment: Grit removal, primary clarification, aeration tank, anoxic tank, modified Luzak-Ettinger aeration basins, secondary clarifier, sand filters, chlorine contact tanks and post aeration tanks.												
Effluent Parameter	Units	Averaging Period	Existing Discharge Data			TBELs		Water Quality Data & WQBELs						Basis for Permit Requirement
			Permit Limit	Existing Effluent Quality	Detects / Non-Detects	Limit	Basis	Ambient	Projected Instream Conc. (A(A), A(C), HEW	WQ Std. or GV	WQ Type	Calc. WQBEL	Basis	
Temperature	°F	Daily Max	Monitor	77	56/0	Monitor	750-1.13	20.5	-				704.2	Continued
		Monthly Average		74	56/0									
	Consistent with 6 NYCRR 750-1.13(a), monitoring is continued to determine compliance with the water quality standard.													
pH	SU	Min	6.5	7.3	56/0	6.5	750-1.10(c)	7.5	6.5 – 8.5	Range	6.5-8.5	703.3	Continued	
		Max	8.5	8.2	56/0	8.5								
	To prevent backsliding, the effluent limitation is continued.													
Dissolved Oxygen (DO)	mg/L	Daily Min	7	7	56/0	7.0	750-1.10(c)	5.8 Critical Point	For trout waters (T), the minimum daily average shall not be less than 6.0 mg/L, and at no time shall the concentration be less than 5.0 mg/L.	6.0	703.3	Continued		
		Monthly Ave	Monitor	7.5	56/0	Monitor	750-1.13			-				
	The Department conducted a reasonable potential analysis in the following manner following the procedures in TOGS 1.3.1.D: Reach Description: The model includes the OCSD #1 WWTP along with the additional flow from Kiryas-Joel. The model also accounted for the change in waterbody classification from Class C to A(T) approximately 1.5 miles downstream. Summer (Jun 1 – Oct 31): The Department modeled the downstream DO concentration using the Streeter-Phelps equations and the following assumptions: effluent DO =7.0 mg/L, effluent UOD = 17 mg/L (calculated using CBOD₅ and NOD values) Effluent CBOD₅ = 7.2 mg/L (maximum effluent concentration) Effluent NOD = 6.3 mg/L (Translated Ammonia as N permit limit to NOD). The critical point for DO was 5.8 mg/L. Winter (Nov 1 – May 31): The Department modeled the downstream DO concentration using the Streeter-Phelps equations and the following assumptions: effluent DO =7.0 mg/L, effluent UOD = 29 mg/L (calculated using CBOD₅ and NOD values Effluent CBOD₅ = 8.9 mg/L (maximum effluent concentration), Effluent NOD = 16.0 mg/L (translated Ammonia as N permit limit to NOD). The critical point for DO was 7.2 mg/L. The Streeter-Phelps model continues to show that a limit is necessary to ensure downstream water quality is protected. The TBEL is equivalent to the WQBEL.													

Permittee: Orange County DPW-DEFS
 Facility: OCSD#1 Harriman STP
 SPDES Number: NY0027901
 USEPA Major/Class 05 Municipal

Date: August 18th, 2026 v.1.27
 Permit Writer: Elizabeth (Liz) Dautel
 Water Quality Reviewer: Elizabeth (Liz) Dautel
 Full Technical Review

Outfall #	01A	Description of Wastewater: This facility accepts domestic and industrial users, including waste from categorical industrial users, with effluent consisting of treated sanitary and process water.												
		Type of Treatment: Grit removal, primary clarification, aeration tank, anoxic tank, modified Luzak-Ettinger aeration basins, secondary clarifier, sand filters, chlorine contact tanks and post aeration tanks.												
Effluent Parameter	Units	Averaging Period	Existing Discharge Data			TBELs		Water Quality Data & WQBELs						Basis for Permit Requirement
			Permit Limit	Existing Effluent Quality	Detects / Non-Detects	Limit	Basis	Ambient	Projected Instream Conc. (A(A), A(C), HEW	WQ Std. or GV	WQ Type	Calc. WQBEL	Basis	
5-day Carbonaceous Biochemical Oxygen Demand (CBOD5)(June 1 -Oct31)	mg/L	Monthly Average	Monitor	3.7	6/19	Monitor	750-1.10(c)	-	See Dissolved Oxygen			-	703.3	Continued
		Daily Max	5	7.2	24/1	5.0								
	lbs/d	Monthly Average	Monitor	120	6/19	Monitor								
		Daily Max	250	360	24/1	250.0								
	This requirement is proposed to be continued as it still meets the requirements of 40 CFR Part 133, 6 NYCRR 750-1.10(c), and consistent with TOGS 1.3.1, 1.3.1.D, and 1.3.3. Consistent with TOGS 1.3.1(g) the daily max limitations are protective of water quality; therefore, monthly average CBOD5 will be monitor only. See also Ultimate Oxygen Demand. The Streeter-Phelps model showed that DO standards are maintained and consequently WQBELs for CBOD5 are unnecessary and the TBELs are protective of water quality (see Dissolved Oxygen).													
5-day Carbonaceous Biochemical Oxygen Demand(Nov 1- May 31)	mg/L	Monthly Average	25	4.1	13/23	25	750-1.10(c)	-	See Dissolved Oxygen			-	703.3	Continued
		7 Day Avg	40	8.9	28/3	40								
	lbs/d	Monthly Average	1,300	190	13/23	1,300								
		7 Day Avg	2000	370	28/3	2,000								
	This requirement is proposed to be continued as it still meets the requirements of 40 CFR 133, 750-1.10(c) requirements, and TOGS 1.3.1, 1.3.1.D, and 1.3.3. See Ultimate Oxygen Demand. A WQBEL is not necessary because Winter CBOD is controlled by Winter UOD. See UOD Nov 1-May 31st. The Streeter-Phelps model showed that DO standards are maintained and consequently, WQBELs for CBOD5 are unnecessary, and the TBELs are protective of water quality (see Dissolved Oxygen).													

Permittee: Orange County DPW-DEFS
 Facility: OCSD#1 Harriman STP
 SPDES Number: NY0027901
 USEPA Major/Class 05 Municipal

Date: August 18th, 2026 v.1.27
 Permit Writer: Elizabeth (Liz) Dautel
 Water Quality Reviewer: Elizabeth (Liz) Dautel
 Full Technical Review

Outfall #	01A	Description of Wastewater: This facility accepts domestic and industrial users, including waste from categorical industrial users, with effluent consisting of treated sanitary and process water.												
		Type of Treatment: Grit removal, primary clarification, aeration tank, anoxic tank, modified Luzak-Ettinger aeration basins, secondary clarifier, sand filters, chlorine contact tanks and post aeration tanks.												
Effluent Parameter	Units	Averaging Period	Existing Discharge Data			TBELs		Water Quality Data & WQBELs						Basis for Permit Requirement
			Permit Limit	Existing Effluent Quality	Detects / Non-Detects	Limit	Basis	Ambient	Projected Instream Conc. (A(A), A(C), HEW	WQ Std. or GV	WQ Type	Calc. WQBEL	Basis	
CBOD Percent Removal	%Removal	Minimum	85.0	91 actual min	56/0	85	750-1.10(c)	-	-			-	703.3	Continued
	Limits were developed consistent with Federal regulations at 40 CFR 133, 750-1.10(c) requirements, and TOGS 1.3.3. The Streeter-Phelps model showed that DO standards are maintained and consequently WQBELs for CBOD5 are unnecessary and the TBELs are protective of water quality (see Dissolved Oxygen).													
Ultimate Oxygen Demand (UOD)(June 1-Oct. 31)	mg/l	Monthly Average	Monitor	13	0/21	Monitor	750-1.13	-	See Dissolved Oxygen			703.3	Continued	
		Daily Maximum		17.0	18/7									
	lbs/d	Monthly Average		480.0	0/21									
		Daily Maximum		820.0	18/7									
	In accordance with 6 NYCRR 750-1.13, any discharge authorized by a SPDES permit shall be subject to such requirements for monitoring the discharge as may be reasonably required by the Department to determine compliance with effluent limitations and water quality standards that are or may be affected by the discharge. Ultimate oxygen demand (UOD) is a measure of the total oxygen consumption due to organic and inorganic pollutants. Monitoring is required so the Department may determine the sufficiency of carbonaceous and nitrogenous oxygen-demanding pollutant limits. UOD is calculated as follows: UOD= 1.5(CBOD ₅) + 4.5(TKN). The Streeter-Phelps model showed that DO standards are maintained and consequently WQBELs for UOD are unnecessary and the TBELs are protective of water quality (see Dissolved Oxygen).													
Ultimate Oxygen Demand (UOD)(Nov 1-May 31)-	mg/l	Monthly Average	Monitor	30.0	6/31	Monitor	750-1.10(c)	-	See Dissolved Oxygen			703.3	Continued	
		Daily Maximum	40.0	48.0	28/3	40								
	lbs/d	Monthly Average	Monitor	1200.0	6/31	Monitor								
		Daily Maximum	2000.0	3800.0	28/3	2000								
	In accordance with 6 NYCRR 750-1.13, any discharge authorized by a SPDES permit shall be subject to such requirements for monitoring the discharge as may be reasonably required by the Department to determine compliance with effluent limitations and water quality standards that are or may be affected by the discharge.													
	The Department developed limits in accordance with 6 NYCRR 750-1.10(c), and consistent with TOGS 1.3.1, 1.3.1.D, and 1.3.3. Ultimate oxygen demand (UOD) is a measure of the total oxygen consumption due to organic and inorganic pollutants. Monitoring is required so the Department may determine the sufficiency of carbonaceous and nitrogenous oxygen-demanding pollutant limits. UOD is calculated as follows: UOD= 1.5(CBOD ₅) + 4.5(TKN). The Streeter-Phelps model showed that DO standards are maintained and consequently WQBELs for UOD are unnecessary and the TBELs are protective of water quality (see Dissolved Oxygen).													

Permittee: Orange County DPW-DEFS
 Facility: OCSD#1 Harriman STP
 SPDES Number: NY0027901
 USEPA Major/Class 05 Municipal

Date: August 18th, 2026 v.1.27
 Permit Writer: Elizabeth (Liz) Dautel
 Water Quality Reviewer: Elizabeth (Liz) Dautel
 Full Technical Review

Outfall #	01A	Description of Wastewater: This facility accepts domestic and industrial users, including waste from categorical industrial users, with effluent consisting of treated sanitary and process water.													
		Type of Treatment: Grit removal, primary clarification, aeration tank, anoxic tank, modified Luzak-Ettinger aeration basins, secondary clarifier, sand filters, chlorine contact tanks and post aeration tanks.													
Effluent Parameter	Units	Averaging Period	Existing Discharge Data			TBELs		Water Quality Data & WQBELs						Basis for Permit Requirement	
			Permit Limit	Existing Effluent Quality	Detects / Non-Detects	Limit	Basis	Ambient	Projected Instream Conc. (A(A), A(C), HEW	WQ Std. or GV	WQ Type	Calc. WQBEL	Basis		
Total Suspended Solids (TSS) (June 1 – Oct 31)	mg/L	Monthly Average	Monitor	4.2	14/11	Monitor	750-1.10(c)	None from sewage, industrial wastes or other wastes that will cause deposition or impair the waters for their best usages.						703.2	Continued
		Daily Maximum	10.0	8.6	22/3	10									
	lbs/d	Monthly Average	Monitor	160.0	14/11	Monitor									
		Daily Maximum	500.0	450.0	22/3	500									
	The Department developed limits in accordance with 40 CFR Part 133, 6 NCRR 750-1.10(c), and consistent with TOGS 1.3.3. There is no numeric WQS or numeric GV for translation of the narrative WQS. Therefore, compliance with the TBEL is expected to also meet the narrative standard due to the measured effluent concentration and the small number of reported water quality standard violations.														
Total Suspended Solids (TSS) (Nov 1 – May 31)	mg/L	Monthly Average	30.0	11.0	20/11	30	750-1.10(c)	None from sewage, industrial wastes or other wastes that will cause deposition or impair the waters for their best usages.						703.2	Continued
		7 Day Avg	45.0	22.0	28/3	45									
	lbs/d	Monthly Average	1500.0	440.0	20/11	1500									
		7 Day Avg	2300.0	1100.0	28/3	2300									
	Limits were developed consistent with Federal regulations at 40 CFR 133, 750-1.10(c) requirements, and TOGS 1.3.3. There is no numeric WQS or numeric GV for translation of the narrative WQS. Therefore, compliance with the TBEL is expected to also meet the narrative standard due to the measured effluent concentration and the small number of reported water quality standard violations.														
Settleable Solids	mL/L	Daily Maximum	0.1	ND	0/49	0.1	750-1.10(c)	None from sewage, industrial wastes or other wastes that will cause deposition or impair the waters for their best usages						703.2	Continued
		Limits were developed consistent with 750-1.10(c) requirements and TOGS. Consistent with TOGS 1.3.3., since the permitted WWTP includes filtration, a TBEL of 0.1 mL/L is applied. There is no numeric WQS or numeric GV for translation of the narrative WQS. Therefore, compliance with the TBEL is expected to also meet the narrative standard due to the measured effluent concentration and the absence of any reported water quality standard violations.													

Permittee: Orange County DPW-DEFS
 Facility: OCSD#1 Harriman STP
 SPDES Number: NY0027901
 USEPA Major/Class 05 Municipal

Date: August 18th, 2026 v.1.27
 Permit Writer: Elizabeth (Liz) Dautel
 Water Quality Reviewer: Elizabeth (Liz) Dautel
 Full Technical Review

Outfall #	01A	Description of Wastewater: This facility accepts domestic and industrial users, including waste from categorical industrial users, with effluent consisting of treated sanitary and process water.																	
		Type of Treatment: Grit removal, primary clarification, aeration tank, anoxic tank, modified Luzak-Ettinger aeration basins, secondary clarifier, sand filters, chlorine contact tanks and post aeration tanks.																	
Effluent Parameter	Units	Averaging Period	Existing Discharge Data			TBELs		Water Quality Data & WQBELs						Basis for Permit Requirement					
			Permit Limit	Existing Effluent Quality	Detects / Non-Detects	Limit	Basis	Ambient	Projected Instream Conc. (A(A), A(C), HEW)	WQ Std. or GV	WQ Type	Calc. WQBEL	Basis						
Total Dissolved Solids	mg/l	Monthly Average	Monitor	-	-	Monitor	750-1.10(c)	756	Chronic:1100	500	A(C)	500	703.3	Continued					
		Daily Max	500	1700	56/0	500													
	Limits were developed consistent with Federal regulations at 40 CFR 122.45, 750-1.10(c) requirements, and 6 NYCRR 703.3. The TBEL is equivalent to the WQBEL. Interim limits apply, see order number R3-20180619-124.																		
Chlorides	mg/l	Monthly Average	250	-	-	250	750-1.10(c)	370	Chronic: 530	250	A(C)	250	TOGS 1.1.1	Continued					
		Daily Max	Monitor	560	56/0	Monitor													
	The Department developed limits in accordance with 40 CFR 122.45, 6 NYCRR 750-1.10(c), and 6 NYCRR 703.5. A comparison of the projected instream concentration to the WQS indicates a reasonable potential to cause or contribute to a WQS violation. The TBEL is equivalent to the WQBEL. Interim limits apply, see order number R3-20180619-124																		
Nitrogen, Ammonia (as N) (June 1 – Oct 31)	mg/L	Monthly Average	0.99	0.63	1/24	0.99	750-1.10(c)	0.042	HEW: 0.96	0.93	A(C)	1.1	703.5	Continued					
		Daily Max	Monitor	3.7	24/1	Monitor													
	lbs/d	Monthly Average	50	-	0/24	50		-	-	-	-								
		Daily Max	Monitor	140	24/1	Monitor													
	The Department developed limits in accordance with at 40 CFR 122.45, 6 NYCRR 750-1.10(c) and consistent with TOGS 1.1.1. and TOGS 1.3.1E. The Department determined the WQS for Ammonia from TOGS 1.1.1 from a pH of 7.4 and a summer temperature of 24 °C. The temperature of the receiving waterbody was an assumed value and consistent with TOGS 1.3.1E. An effluent limitation equal to the TBEL will reasonably protect classified water use and ensure compliance with applicable water quality standards.																		

Permittee: Orange County DPW-DEFS
 Facility: OCSD#1 Harriman STP
 SPDES Number: NY0027901
 USEPA Major/Class 05 Municipal

Date: August 18th, 2026 v.1.27
 Permit Writer: Elizabeth (Liz) Dautel
 Water Quality Reviewer: Elizabeth (Liz) Dautel
 Full Technical Review

Outfall #	01A	Description of Wastewater: This facility accepts domestic and industrial users, including waste from categorical industrial users, with effluent consisting of treated sanitary and process water.													
		Type of Treatment: Grit removal, primary clarification, aeration tank, anoxic tank, modified Luzak-Ettinger aeration basins, secondary clarifier, sand filters, chlorine contact tanks and post aeration tanks.													
Effluent Parameter	Units	Averaging Period	Existing Discharge Data			TBELs		Water Quality Data & WQBELs						Basis for Permit Requirement	
			Permit Limit	Existing Effluent Quality	Detects / Non-Detects	Limit	Basis	Ambient	Projected Instream Conc. (A(A), A(C), HEW	WQ Std. or GV	WQ Type	Calc. WQBEL	Basis		
Nitrogen, Ammonia (as N) (Nov 1 –May 31)	mg/L	Monthly Average	2.2	6.5	9/22	2.2	750-1.10(c)	0.016	HEW: 9.3	1.9	HEW	2.3	703.5	Continued	
		Daily Max	Monitor	12	31/0	Monitor						Monitor			
	lbs/d	Monthly Average	110	180	9/22	110		-	-	-	-	120.0			
		Daily Max	Monitor	680	31/0	Monitor						Monitor			
	The Department developed limits in accordance with at 40 CFR 122.45, 6 NYCRR 750-1.10(c) and consistent with TOGS 1.1.1. and TOGS 1.3.1E. The Department determined the WQS for Ammonia from TOGS 1.1.1 1 from a pH of 7.5 and a winter temperature of 10 °C. The temperature of the receiving waterbody was an assumed value and consistent with TOGS 1.3.1E. An effluent limitation equal to the TBEL will reasonably protect classified water use and ensure compliance with applicable water quality standards.														
Nitrogen TKN (as N)	mg/L	Monthly Average	Monitor	7.8	20/36	Monitor	750-1.13	1.6	Chronic: 11	None in amounts that will result in growths of algae, weeds and slimes that will impair the waters for their best usages.	703.2	Continued			
		Daily Max		13	53/3										
	lbs/d	Monthly Average		430	20/36				-						
		Daily Max		790	53/3										
	In accordance with 6 NYCRR 750-1.13, any discharge authorized by a SPDES permit shall be subject to such requirements for monitoring the discharge as may be reasonably required by the Department to determine compliance with effluent limitations and water quality standards that are or may be affected by the discharge. Total Kjeldahl Nitrogen (TKN) is used to calculate UOD. Monitoring is required so the Department may determine the sufficiency of carbonaceous and nitrogenous oxygen-demanding pollutant limits. See UOD.														

Permittee: Orange County DPW-DEFS
 Facility: OCSD#1 Harriman STP
 SPDES Number: NY0027901
 USEPA Major/Class 05 Municipal

Date: August 18th, 2026 v.1.27
 Permit Writer: Elizabeth (Liz) Dautel
 Water Quality Reviewer: Elizabeth (Liz) Dautel
 Full Technical Review

Outfall #	01A	Description of Wastewater: This facility accepts domestic and industrial users, including waste from categorical industrial users, with effluent consisting of treated sanitary and process water.												
		Type of Treatment: Grit removal, primary clarification, aeration tank, anoxic tank, modified Luzak-Ettinger aeration basins, secondary clarifier, sand filters, chlorine contact tanks and post aeration tanks.												
Effluent Parameter	Units	Averaging Period	Existing Discharge Data			TBELs		Water Quality Data & WQBELs						Basis for Permit Requirement
			Permit Limit	Existing Effluent Quality	Detects / Non-Detects	Limit	Basis	Ambient	Projected Instream Conc. (A(A), A(C),HEW	WQ Std. or GV	WQ Type	Calc. WQBEL	Basis	
Phosphorus (as P)	mg/L	Monthly Average	Monitor	5.7	56/0	Monitor	TOGS 1.3.6	0.00007	Chronic: 4.8	None in amounts that will result in growths of algae, weeds and slimes that will impair the waters for their best usages.			703.2	TBEL
		Daily Max		11	56/0									
	lbs/d	Monthly Average		180	56/0			-	-					
		Daily Max		360	56/0									
In accordance with 6 NYCRR 750-1.13, any discharge authorized by a SPDES permit shall be subject to such requirements for monitoring the discharge as may be reasonably required by the Department to determine compliance with effluent limitations and water quality standards that are or may be affected by the discharge. At time of permit development, there is no numeric water quality standard for Class A waterbodies, however there is an applicable narrative water quality standard in 6 NYCRR703.2. Compliance with the TBEL is expected to also meet the narrative standard due to the measured effluent concentration and the absence of reported water quality standard violations.														
Copper, Total	µg/L	Daily Max	20	33	53/3	20	750-1.10(c)	4.9	Chronic: 90	17	A(C)	20	TOGS 1.1.1	Continued
	lbs/d	Daily Max	1.0	1.3	53/3	1.0		-	-	-	-	1.0		
The Department developed limits in accordance with 40 CFR 122.45, 6 NYCRR 750-1.10(c) , and consistent with TOGS 1.1.1. The Department used a flow-weighted hardness of 210 mg/L to calculate the WQS. The Department calculated hardness from three sampling locations 15-RAMA-16.8 RIBS Station, KJ STP effluent, and OCSD #1 effluent (see Hardness section). In accordance with 40 CFR 122.45, the Department calculated a mass-based limit to ensure continual compliance with the WQS at different WWTP discharge volumes. The TBEL is equivalent to the WQBEL, therefore it is protective of water quality.														

Permittee: Orange County DPW-DEFS
 Facility: OCSD#1 Harriman STP
 SPDES Number: NY0027901
 USEPA Major/Class 05 Municipal

Date: August 18th, 2026 v.1.27
 Permit Writer: Elizabeth (Liz) Dautel
 Water Quality Reviewer: Elizabeth (Liz) Dautel
 Full Technical Review

Outfall #	01A	Description of Wastewater: This facility accepts domestic and industrial users, including waste from categorical industrial users, with effluent consisting of treated sanitary and process water.												
		Type of Treatment: Grit removal, primary clarification, aeration tank, anoxic tank, modified Luzak-Ettinger aeration basins, secondary clarifier, sand filters, chlorine contact tanks and post aeration tanks.												
Effluent Parameter	Units	Averaging Period	Existing Discharge Data			TBELs		Water Quality Data & WQBELs						Basis for Permit Requirement
			Permit Limit	Existing Effluent Quality	Detects / Non-Detects	Limit	Basis	Ambient	Projected Instream Conc. (A(A),A(C), HEW	WQ Std. or GV	WQ Type	Calc. WQBEL	Basis	
Lead, Total	µg/L	Daily Max	17	2.6	4/52	17.0	750-1.10(c)	1.3	Chronic: 2.4	8.4	A(C)	15	TOGS 1.1.1	Continued
	lbs/d	Daily Max	0.8	0.1	7/49	0.84		-	-	-	-	0.74		
	Limits were developed consistent with Federal regulations at 40 CFR 122.45, 750-1.10(c) requirements, and TOGS 1.1.1. A flow-weighted hardness of 210 mg/L was used to calculate the WQS; hardness data was calculated from three sampling locations 15-RAMA-16.8 RIBS Station, KJ STP effluent, and OCSD #1 effluent (see Hardness section).													
	The Department calculated the projected instream concentration consistent with USEPA's TSD Ch. 3.3 (1991, USEPA/505/2-90-001), using an effluent sample value of 2.6 µg/L and an assumed ambient upstream concentration of 1.3 to calculate the projected instream concentration. A comparison of the projected instream concentration to the WQS indicates no reasonable potential to cause or contribute to a WQS violation. The TBEL is higher than the WQBEL, but since there is no reasonable potential to violate the WQS, the TBEL is protective of water quality.													
Zinc, Total	µg/L	Daily Max	170	99	54/2	170	750-1.10(c)	7.16	Chronic:150	160	A(C)	180	TOGS 1.1.1	Continued
	lbs/d	Daily Max	8.4	4	54/2	8.4		-	-	-	-	9.2		
	Limits were developed consistent with Federal regulations at 40 CFR 122.45, 750-1.10(c) requirements, and TOGS 1.1.1. An average hardness of 210 mg/L was used to calculate the WQS; hardness data was calculated from three sampling locations 15-RAMA-16.8 RIBS Station, KJ STP effluent, and OCSD #1 effluent (see Hardness section). A mass-based limit is also included to ensure continual compliance with the WQS at different WWTP discharge volumes and 40 CFR 122.45. The TBEL is lower than the WQBEL, therefore it is protective of water quality.													
Aluminum, Total	µg/L	Daily Max	-	-	0/0	Monitor	750-1.13	4.1	-	100 (Ionic)	A(C)	-	TOGS 1.3.1	TBEL
	lbs/d	Daily Max	-	-	0/0	Monitor		-	-	-	-	-		
	In accordance with 6 NYCRR 750-1.13, any discharge authorized by a SPDES permit shall be subject to such requirements for monitoring the discharge as may be reasonably required by the Department to determine compliance with effluent limitations and water quality standards that are or may be affected by the discharge. This segment of the receiving waterbody has an impairment due to aluminum. Consistent with 6 NYCRR 750-1.13, monitoring is proposed to evaluate the permittee's contribution to the aluminum impairment in the receiving waterbody. See also Impaired Waterbody Information.													

Permittee: Orange County DPW-DEFS
 Facility: OCSD#1 Harriman STP
 SPDES Number: NY0027901
 USEPA Major/Class 05 Municipal

Date: August 18th, 2026 v.1.27
 Permit Writer: Elizabeth (Liz) Dautel
 Water Quality Reviewer: Elizabeth (Liz) Dautel
 Full Technical Review

Outfall #	01A	Description of Wastewater: This facility accepts domestic and industrial users, including waste from categorical industrial users, with effluent consisting of treated sanitary and process water.												
		Type of Treatment: Grit removal, primary clarification, aeration tank, anoxic tank, modified Luzak-Ettinger aeration basins, secondary clarifier, sand filters, chlorine contact tanks and post aeration tanks.												
Effluent Parameter	Units	Averaging Period	Existing Discharge Data			TBELs		Water Quality Data & WQBELs						Basis for Permit Requirement
			Permit Limit	Existing Effluent Quality	Detects / Non-Detects	Limit	Basis	Ambient	Projected Instream Conc. (A(A),A(C), HEW	WQ Std. or GV	WQ Type	Calc. WQBEL	Basis	
Mercury, Total	ng/L	Daily Max	50	5.4	18/0	-	-	-	-	0.7	H(FC)	25	GLCA	DOW 1.3.10
	ng/L	12 MRA	-	-	-	-	-	-	-	-	-	5.4	EEQ	DOW 1.3.10
	See Mercury section of this fact sheet.													
Phenolics, Total	µg/L	Action Level	5.0	7.5	7/10	5.0	750-1.13	-	HEW: 8.9	1.0	E	1.2	TOGS 1.1.1	TBEL
	lbs/d	Action Level	0.3	0.3	7/10	0.3			-	-		-		
	TOGS 1.1.1 specifies an ambient water quality standard of 1.0 ug/l. The ML is 5.0 ug/l, which is higher than the WQS of 1.0 ug/l. Therefore, an Action Level is proposed to be continued. In accordance with 6 NYCRR 750-1.2(a)(2), and consistent with TOGS 1.2.1(B)(3) when the Action Level is exceeded, then the permittee must conduct a 3-month short-term, high intensity monitoring requirement using both EPA methods 625 and 420. See "Schedule of Additional Submittals".													
Coliform, Fecal	#/100ml	30d Geo Mean	200.0	32.0	49/7	200.0	750-1.10(c)	-	-	The monthly geometric mean, from a minimum of five examinations, shall not exceed 200.		703.4	Continued	
		7d Geo Mean	400.0	280.0	56/0	400.0		-	-					
	In accordance with 6 NYCRR 750-1.10(c) and consistent with TOGS 1.3.3(B)(7)(a), effluent disinfection is required year-round for Class A waterbodies to protect public health.													

Permittee: Orange County DPW-DEFS
 Facility: OCSD#1 Harriman STP
 SPDES Number: NY0027901
 USEPA Major/Class 05 Municipal

Date: August 18th, 2026 v.1.27
 Permit Writer: Elizabeth (Liz) Dautel
 Water Quality Reviewer: Elizabeth (Liz) Dautel
 Full Technical Review

Outfall #	01A	Description of Wastewater: This facility accepts domestic and industrial users, including waste from categorical industrial users, with effluent consisting of treated sanitary and process water.												
		Type of Treatment: Grit removal, primary clarification, aeration tank, anoxic tank, modified Luzak-Ettinger aeration basins, secondary clarifier, sand filters, chlorine contact tanks and post aeration tanks.												
Effluent Parameter	Units	Averaging Period	Existing Discharge Data			TBELs		Water Quality Data & WQBELs						Basis for Permit Requirement
			Permit Limit	Existing Effluent Quality	Detects / Non-Detects	Limit	Basis	Ambient	Projected Instream Conc. (A(A), A(C), HEW)	WQ Std. or GV	WQ Type	Calc. WQBEL	Basis	
Total Residual Chlorine (TRC)	mg/L	Monthly Avg	Monitor	-	-	-	750-1.10(c)	-	Chronic: 0.04	0.005	A(C)	0.006	703.4	ML 0.03
		Daily Max	0.03	0.05	55/1	0.03								
	In accordance with 6 NYCRR 750-1.10(c) and consistent with TOGS 1.3.3(l)(7)(a) effluent disinfection is required year-round for Class A waterbodies to protect public health. The Department calculated the WQBEL by multiplying the WQS by the chronic dilution ratio. The WQBEL is less than the ML, therefore the permit includes an Action Level TBEL that is equal to the ML. This requirement is proposed to be continued.													
Chloroform	ug/L	Monthly Average	-	23	14/0	-	-	-	HEW: 30	7.0	H(WS)	8.3	703.5	WQBEL
	lbs/d			0.84	-				-	-	-	-		
	The previous permit required three months of short-term high intensity monitoring to determine the need for a WQBEL. A comparison of the projected instream concentration to the WQS indicates reasonable potential to cause or contribute to a WQS violation, therefore a WQBEL is proposed. A Schedule of Compliance is proposed to provide time to comply. This requirement is new.													
Bis 2-ethylhexyl phthalate	ug/L	Action Level	-	7.6	1/14	7.5	750-1.13	-	Chronic: 9.6	0.6	A(C)	0.72	TOGS 1.1.1	ML 7.5
	Existing effluent quality is from sampling performed for the NY-2A (2023). The Department calculated the projected instream concentration consistent with USEPA's TSD Ch.3.3 (1991, USEPA/505/2-90-001), using an effluent sample value of 7.6 µg/L and an assumed ambient upstream concentration of 0. It is unclear whether this EEQ of 7.6 ug/l is an outlier. Due to the low number of data points available, the Department used a multiplier of 2.6 to calculate the projected instream concentration. A comparison of the projected instream concentration to the WQS indicates a reasonable potential to cause or contribute to a WQS violation and therefore an Action Level is specified. See "Schedule of Additional Submittals".													
	As outlined in TOGS 1.3.1. E., Bis (2-ethylhexyl) phthalate detections may be a result of sample contamination from plastic tubing. Consistent with 6 NYCRR 750-1.13, any discharge authorized by a SPDES permit shall be subject to such requirements for monitoring the discharge as may be reasonably required by the Department to determine compliance with effluent limitations and water quality standards that are or may be affected by the discharge. In accordance with 6 NYCRR 750-1.2(a)(2), and consistent with TOGS 1.2.1(B)(3), when the Action Level is exceeded the permittee must conduct a 3-month short-term, high intensity monitoring requirement required so the Department may determine whether limits are necessary to protect the receiving water body. See "Schedule of Additional Submittals".													

Permittee: Orange County DPW-DEFS
 Facility: OCSD#1 Harriman STP
 SPDES Number: NY0027901
 USEPA Major/Class 05 Municipal

Date: August 18th, 2026 v.1.27
 Permit Writer: Elizabeth (Liz) Dautel
 Water Quality Reviewer: Elizabeth (Liz) Dautel
 Full Technical Review

Outfall #	01A	Description of Wastewater: This facility accepts domestic and industrial users, including waste from categorical industrial users, with effluent consisting of treated sanitary and process water.												
		Type of Treatment: Grit removal, primary clarification, aeration tank, anoxic tank, modified Luzak-Ettinger aeration basins, secondary clarifier, sand filters, chlorine contact tanks and post aeration tanks.												
Effluent Parameter	Units	Averaging Period	Existing Discharge Data			TBELs		Water Quality Data & WQBELs						Basis for Permit Requirement
			Permit Limit	Existing Effluent Quality	Detects / Non-Detects	Limit	Basis	Ambient	Projected Instream Conc. (A(A), A(C), HEW)	WQ Std. or GV	WQ Type	Calc. WQBEL	Basis	
Dichlorobromomethane	ug/L	Daily Max	-	4.5	4/0	-	-	-	HEW: 9.9	50	H(WS)	59	-	No Limitation
	Existing effluent quality is from sampling performed for the NY-2A (2023). The Department calculated the projected instream concentration consistent with USEPA's TSD Ch. 3.3 (1991, USEPA/505/2-90-001), using an effluent sample value of 4.5 µg/L and an assumed ambient upstream concentration of 0. A comparison of the projected instream concentration to the WQS indicates no reasonable potential to cause or contribute to a WQS violation and therefore the permit does not include additional monitoring.													

Outfall 01A Emerging Contaminants

Emerging Contaminants: Outfall # 01A															
Effluent Parameter	Units	Averaging Period	Existing Discharge Data			TBELs		Water Quality Data & WQBELs						ML	Basis for Permit Requirement
			Permit Limit	Existing Effluent Quality	# of Data Points Detects / Non-Detects	Limit	Basiss	Ambient Bkgd. Conc.	Projected Instream Conc.	WQ Std. or GV	WQ Type	Calc. WQBEL	Basis		
Notes: See Emerging Contaminant Monitoring section above. Select samples were analyzed for the 40 PFAS compounds and 1,4-Dioxane.															
Perfluoro-butanoic Acid (PFBA)	ng/L	Daily Max	-	84	3/0	-	-	-	HEW: 210	-	-	-	-	-	Monitor 750-1.13(b)(2)(ii)
	Monitoring has been added to support establishment of future standards or TBELs.														
Perfluoro-pentanoic Acid (PFPeA)	ng/L	Daily Max	-	12	3/0	-	-	-	HEW: 30	-	-	-	-	-	Monitor 750-1.13(b)(2)(ii)
	Monitoring has been added to support establishment of future standards or TBELs.														
Perfluoro-hexanoic Acid (PFHxA)	ng/L	Daily Max	-	18	3/0	-	-	-	HEW: 45	-	-	-	-	-	Monitor 750-1.13(b)(2)(ii)
	Monitoring has been added to support establishment of future standards or TBELs.														
Perfluoro-heptanoic Acid (PFHpA)	ng/L	Daily Max	-	1.1	3/0	-	-	-	HEW: 2.7	-	-	-	-	-	Monitor 750-1.13(b)(2)(ii)
	Monitoring has been added to support establishment of future standards or TBELs.														
Perfluoro-octanoic Acid (PFOA)	ng/L	Daily Max	-	6.3	3/0	10	BPJ MCL	-	HEW: 16	6.7	H(W/S)	-	-	-	Action Level
	PFOA was detected in the effluent. In accordance with 6 NYCRR 750-1.13(b)(2)(ii), any discharge authorized by a SPDES permit shall be subject to such requirements for monitoring the discharge as may be reasonably required by the Department to determine compliance with effluent limitations and water quality standards that are or may be affected by the discharge.														
	The projected instream concentration was calculated using the maximum measured effluent concentration of 6.3 ng/L, a multiplier of 3, the HEW dilution ratio, and an assumed negligible upstream ambient concentration. Due to the low number of samples, there is reasonable potential to cause or contribute to a WQS exceedance. However, additional samples may indicate that there is no reasonable potential to cause or contribute to a WQS exceedance. Therefore, the permit requires an action level to continue to collect additional data and ensure any detections above the MCL are identified and mitigated by controlling potential sources. See the Emerging Contaminant Monitoring and Action Level sections for more information.														
Perfluoro-nonanoic Acid (PFNA)	ng/L	Daily Max	-	0.47	3/0	-	-	-	HEW: 1.2	-	-	-	-	-	Monitor 750-1.13(b)(2)(ii)
	Monitoring has been added to support establishment of future standards or TBELs.														
Perfluoro-decanoic Acid (PFDA)	ng/L	Daily Max	-	0.31	3/0	-	-	-	HEW: 0.8	-	-	-	-	-	Monitor 750-1.13(b)(2)(ii)
	Monitoring has been added to support establishment of future standards or TBELs.														

Permittee: Orange County DPW-DEFS
 Facility: OCSD#1 Harriman STP
 SPDES Number: NY0027901
 USEPA Major/Class 05 Municipal

Date: August 18th, 2026 v.1.27
 Permit Writer: Elizabeth (Liz) Dautel
 Water Quality Reviewer: Elizabeth (Liz) Dautel
 Full Technical Review

Emerging Contaminants: Outfall # 01A															
Effluent Parameter	Units	Averaging Period	Existing Discharge Data			TBELs		Water Quality Data & WQBELs						ML	Basis for Permit Requirement
			Permit Limit	Existing Effluent Quality	# of Data Points Detects / Non-Detects	Limit	Basis	Ambient Bkgd. Conc.	Projected Instream Conc.	WQ Std. or GV	WQ Type	Calc. WQBEL	Basis		
Perfluoro-undecanoic Acid (PFUnA)	ng/L	Daily Max	-	ND	0/3	-	-	-	-	-	-	-	-	-	Monitor 750-1.13(b)(2)(ii)
	Monitoring has been added to support establishment of future standards or TBELs.														
Perfluoro-dodecanoic Acid (PFDoA)	ng/L	Daily Max	-	ND	0/3	-	-	-	-	-	-	-	-	-	Monitor 750-1.13(b)(2)(ii)
	Monitoring has been added to support establishment of future standards or TBELs.														
Perfluoro-tridecanoic Acid (PFTriA)	ng/L	Daily Max	-	ND	0/3	-	-	-	-	-	-	-	-	-	Monitor 750-1.13(b)(2)(ii)
	Monitoring has been added to support establishment of future standards or TBELs.														
Perfluoro-tetradecanoic Acid (PFTeA)	ng/L	Daily Max	-	ND	0/3	-	-	-	-	-	-	-	-	-	Monitor 750-1.13(b)(2)(ii)
	Monitoring has been added to support establishment of future standards or TBELs.														
Perfluoro-butanesulfonic Acid (PFBS)	ng/L	Daily Max	-	2.4	3/0	-	-	-	HEW: 6.1	-	-	-	-	-	Monitor 750-1.13(b)(2)(ii)
	Monitoring has been added to support establishment of future standards or TBELs.														
Perfluoro-pentanesulfonic Acid (PFPeS)	ng/L	Daily Max	-	ND	0/3	-	-	-	-	-	-	-	-	-	Monitor 750-1.13(b)(2)(ii)
	Based on available data, no additional monitoring is required at this time.														
Perfluoro-hexanesulfonic Acid (PFHxS)	ng/L	Daily Max	-	0.55	3/0	-	-	-	HEW: 1.4	-	-	-	-	-	Monitor 750-1.13(b)(2)(ii)
	Monitoring has been added to support establishment of future standards or TBELs.														
Perfluoro-heptanesulfonic Acid (PFHpS)	ng/L	Daily Max	-	ND	0/3	-	-	-	-	-	-	-	-	-	Monitor 750-1.13(b)(2)(ii)
	Monitoring has been added to support establishment of future standards or TBELs.														

Permittee: Orange County DPW-DEFS
 Facility: OCSD#1 Harriman STP
 SPDES Number: NY0027901
 USEPA Major/Class 05 Municipal

Date: August 18th, 2026 v.1.27
 Permit Writer: Elizabeth (Liz) Dautel
 Water Quality Reviewer: Elizabeth (Liz) Dautel
 Full Technical Review

Emerging Contaminants: Outfall # 01A															
Effluent Parameter	Units	Averaging Period	Existing Discharge Data			TBELs		Water Quality Data & WQBELs						ML	Basis for Permit Requirement
			Permit Limit	Existing Effluent Quality	# of Data Points Detects / Non-Detects	Limit	Basis	Ambient Bkgd. Conc.	Projected Instream Conc.	WQ Std. or GV	WQ Type	Calc. WQBEL	Basis		
Perfluoro-octanesulfonic Acid (PFOS)	ng/L	Daily Max	-	2.9	3/0	10	BPJ MCL	-	HEW: 7.4	2.7	H(WS)	-	TOGS 1.1.1	-	Action Level
	PFOS was detected in the effluent. In accordance with 6 NYCRR 750-1.13(b)(2)(ii), any discharge authorized by a SPDES permit shall be subject to such requirements for monitoring the discharge as may be reasonably required by the Department to determine compliance with effluent limitations and water quality standards that are or may be affected by the discharge. The projected instream concentration was calculated using the maximum measured effluent concentration of 2.9 ng/L, a multiplier of 3, the HEW dilution ratio, and an assumed negligible upstream ambient concentration. Due to the low number of samples, there is reasonable potential to cause or contribute to a WQS exceedance. However, additional samples may indicate that there is no reasonable potential to cause or contribute to a WQS exceedance. Therefore, the permit requires an action level to continue to collect additional data and ensure any detections above the MCL are identified and mitigated by controlling potential sources. See the Emerging Contaminant Monitoring and Action Level sections for more information.														
Perfluoro-nonanesulfonic Acid (PFNS)	ng/L	Daily Max	-	ND	0/3	-	-	-	-	-	-	-	-	-	Monitor 750-1.13(b)(2)(ii)
	Monitoring has been added to support establishment of future standards or TBELs.														
Perfluoro-decanesulfonic Acid (PFDS)	ng/L	Daily Max	-	ND	0/3	-	-	-	-	-	-	-	-	-	Monitor 750-1.13(b)(2)(ii)
	Monitoring has been added to support establishment of future standards or TBELs														
Perfluoro-dodecane-sulfonic Acid (PFDoS)	ng/L	Daily Max	-	ND	0/3	-	-	-	-	-	-	-	-	-	Monitor 750-1.13(b)(2)(ii)
	Monitoring has been added to support establishment of future standards or TBELs.														
Perfluoro-octane-sulfonamide (FOSA)	ng/L	Daily Max	-	ND	0/3	-	-	-	-	-	-	-	-	-	Monitor 750-1.13(b)(2)(ii)
	Monitoring has been added to support establishment of future standards or TBELs.														
N-methyl Perfluoro-octanesulfon-amidoacetic Acid (NMeFOSAA)	ng/L	Daily Max	-	ND	0/3	-	-	-	-	-	-	-	-	-	Monitor 750-1.13(b)(2)(ii)
	Based on available data, no additional monitoring is required at this time.														
N-ethyl Perfluoro-octanesulfon-amidoacetic Acid (NEtFOSAA)	ng/L	Daily Max	-	ND	0/3	-	-	-	-	-	-	-	-	-	Monitor 750-1.13(b)(2)(ii)
	Monitoring has been added to support establishment of future standards or TBELs.														
4:2 Fluorotelomer Sulfonic Acid (FTS)	ng/L	Daily Max	-	ND	0/3	-	-	-	-	-	-	-	-	-	Monitor 750-1.13(b)(2)(ii)
	Monitoring has been added to support establishment of future standards or TBELs.														

Permittee: Orange County DPW-DEFS
 Facility: OCSD#1 Harriman STP
 SPDES Number: NY0027901
 USEPA Major/Class 05 Municipal

Date: August 18th, 2026 v.1.27
 Permit Writer: Elizabeth (Liz) Dautel
 Water Quality Reviewer: Elizabeth (Liz) Dautel
 Full Technical Review

Emerging Contaminants: Outfall # 01A															
Effluent Parameter	Units	Averaging Period	Existing Discharge Data			TBELs		Water Quality Data & WQBELs						ML	Basis for Permit Requirement
			Permit Limit	Existing Effluent Quality	# of Data Points Detects / Non-Detects	Limit	Basis	Ambient Bkgd. Conc.	Projected Instream Conc.	WQ Std. or GV	WQ Type	Calc. WQBEL	Basis		
6:2 Fluorotelomer Sulfonic Acid (FTS)	ng/L	Daily Max	-	ND	0/3	-	-	-	-	-	-	-	-	-	Monitor 750-1.13(b)(2)(ii)
Monitoring has been added to support establishment of future standards or TBELs.															
8:2 Fluorotelomer Sulfonic Acid (FTS)	ng/L	Daily Max	-	ND	0/3	-	-	-	-	-	-	-	-	-	Monitor 750-1.13(b)(2)(ii)
Monitoring has been added to support establishment of future standards or TBELs															
N-ethyl Perfluoro-octanesulfon-amide (NEtFOSA)	ng/L	Daily Max	-	ND	0/3	-	-	-	-	-	-	-	-	-	Monitor 750-1.13(b)(2)(ii)
Monitoring has been added to support establishment of future standards or TBELs.															
N-methyl Perfluoro-octanesulfon-amide (NMeFOSA)	ng/L	Daily Max	-	ND	0/3	-	-	-	-	-	-	-	-	-	Monitor 750-1.13(b)(2)(ii)
Monitoring has been added to support establishment of future standards or TBELs.															
N-methyl Perfluoro-octanesulfon-amidoethanol (NMeFOSE)	ng/L	Daily Max	-	ND	0/3	-	-	-	-	-	-	-	-	-	Monitor 750-1.13(b)(2)(ii)
Monitoring has been added to support establishment of future standards or TBELs.															
N-ethyl Perfluoro-octanesulfon-amidoethanol (NEtFOSE)	ng/L	Daily Max	-	ND	0/3	-	-	-	-	-	-	-	-	-	Monitor 750-1.13(b)(2)(ii)
Monitoring has been added to support establishment of future standards or TBELs.															
9-Chlorohexadeca-fluoro-3-oxanonane-1-sulfonic Acid (9Cl-PF3ONS)	ng/L	Daily Max	-	ND	0/3										Monitor 750-1.13(b)(2)(ii)
Monitoring has been added to support establishment of future standards or TBELs.															
Hexafluoro-propylene Oxide Dimer Acid (HFPO-DA or GenX)	ng/L	Daily Max	-	110	3/0	-	-	-	HEW: 210	-	-	-	-	-	Monitor 750-1.13(b)(2)(ii)
Monitoring has been added to support establishment of future standards or TBELs.															
11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic Acid (11Cl-PF3OUdS)	ng/L	Daily Max	-	ND	0/3										Monitor 750-1.13(b)(2)(ii)
Monitoring has been added to support establishment of future standards or TBELs.															
4,8-Dioxa-3H-perfluorononanoic Acid (ADONA)	ng/L	Daily Max	-	ND	0/3	-	-	-	-	-	-	-	-	-	Monitor 750-1.13(b)(2)(ii)
Monitoring has been added to support establishment of future standards or TBELs															

Permittee: Orange County DPW-DEFS
 Facility: OCSD#1 Harriman STP
 SPDES Number: NY0027901
 USEPA Major/Class 05 Municipal

Date: August 18th, 2026 v.1.27
 Permit Writer: Elizabeth (Liz) Dautel
 Water Quality Reviewer: Elizabeth (Liz) Dautel
 Full Technical Review

Emerging Contaminants: Outfall # 01A															
Effluent Parameter	Units	Averaging Period	Existing Discharge Data			TBELs		Water Quality Data & WQBELs						ML	Basis for Permit Requirement
			Permit Limit	Existing Effluent Quality	# of Data Points Detects / Non-Detects	Limit	Basis	Ambient Bkgd. Conc.	Projected Instream Conc.	WQ Std. or GV	WQ Type	Calc. WQBEL	Basis		
3-Perfluoropropyl Propanoic Acid (3:3 FTCA)	ng/L	Daily Max	-	11	3/0	-	-	-	HEW: 210	-	-	-	-	-	Monitor 750-1.13(b)(2)(ii)
	Monitoring has been added to support establishment of future standards or TBELs.														
2H,2H,3H,3H-Perfluorooctanoic Acid (5:3 FTCA)	ng/L	Daily Max	-	ND	0/3	-	-	-	-	-	-	-	-	-	Monitor 750-1.13(b)(2)(ii)
	Monitoring has been added to support establishment of future standards or TBELs.														
3-Perfluoroheptyl Propanoic Acid (7:3 FTCA)	ng/L	Daily Max	-	ND	0/3	-	-	-	-	-	-	-	-	-	Monitor 750-1.13(b)(2)(ii)
	Monitoring has been added to support establishment of future standards or TBELs.														
Nonafluoro-3,6-dioxaheptanoic Acid (NFDHA)	ng/L	Daily Max	-	ND	0/3	-	-	-	-	-	-	-	-	-	Monitor 750-1.13(b)(2)(ii)
	Monitoring has been added to support establishment of future standards or TBELs.														
Perfluoro-4-methoxybutanoic Acid (PFMBA)	ng/L	Daily Max	-	ND	0/3	-	-	-	-	-	-	-	-	-	Monitor 750-1.13(b)(2)(ii)
	Monitoring has been added to support establishment of future standards or TBELs.														
Perfluoro-3-methoxypropanoic Acid (PFMPA)	ng/L	Daily Max	-	ND	0/3	-	-	-	-	-	-	-	-	-	Monitor 750-1.13(b)(2)(ii)
	Monitoring has been added to support establishment of future standards or TBELs.														
Perfluoro(2-ethoxyethane)sulfonic Acid (PFEEESA)	ng/L	Daily Max	-	ND	0/3	-	-	-	-	-	-	-	-	-	Monitor 750-1.13(b)(2)(ii)
	Monitoring has been added to support establishment of future standards or TBELs.														
1,4-Dioxane	µg/L	Daily Max	-	0.33	3/0	Monitor	750-1.13(b)(2)(ii)	-	HEW: 0.84	0.35	H(WS)	0.41	TOGS 1.1.1	-	TBEL
	In accordance with 6 NYCRR 750-1.13(b)(2)(ii), any discharge authorized by a SPDES permit shall be subject to such requirements for monitoring the discharge as may be reasonably required by the Department to determine compliance with effluent limitations and water quality standards that are or may be affected by the discharge. The projected instream concentration was calculated using the maximum measured effluent concentration of 0.33 ug/L, a multiplier of 3, the HEW dilution ratio, and an assumed negligible upstream ambient concentration. The multiplier was selected from EPA's Technical Support Document Chapter 3.3 to account for the number of samples. Due to the number of samples, there is reasonable potential to cause or contribute to a WQS exceedance. A monitoring requirement has been specified to continue to collect additional data and ensure any detections are identified and mitigated by controlling potential sources.														

Permittee: Orange County DPW-DEFS
 Facility: OCSD#1 Harriman STP
 SPDES Number: NY0027901
 USEPA Major/Class 05 Municipal

Date: August 18th, 2026 v.1.27
 Permit Writer: Elizabeth (Liz) Dautel
 Water Quality Reviewer: Elizabeth (Liz) Dautel
 Full Technical Review

Outfall 001

Outfall #	001	Description of Wastewater: This facility accepts domestic and industrial users, including waste from categorical industrial users, with effluent consisting of treated sanitary and process water. Type of Treatment: Grit removal, primary clarification, aeration tank, anoxic tank, modified Luzak-Ettinger aeration basins, secondary clarifier, sand filters, chlorine contact tanks and post aeration tanks.												
Effluent Parameter	Units	Averaging Period	Existing Discharge Data			TBELs		Water Quality Data & WQBELs						Basis for Permit Requirement
			Permit Limit	Existing Effluent Quality	Detects / Non-Detects	Limit	Basis	Ambient	Projected Instream Conc.	WQ Std. or GV	WQ Type	Calc. WQBEL	Basis	
General Notes: Existing discharge data from 3/31/2020 to 11/30/2024 was obtained from Discharge Monitoring Reports provided by the permittee.														
Flow	MGD	Monthly Avg	Monitor	4.3	56/0	Monitor	750-1.13	No alterations that will impair the waters for their best usages.					703.2	Continued
		Daily Max	Monitor	7.7	-	Monitor	750-1.13							
	In accordance with 6 NYCRR 750-1.13, any discharge authorized by a SPDES permit shall be subject to such requirements for monitoring the discharge as may be reasonably required by the Department to determine compliance with effluent limitations and water quality standards that are or may be affected by the discharge. Daily maximum data from March-September 2020 was not required to be reported, therefore it was not included in the existing effluent quality analysis.													

Appendix: Regulatory and Technical Basis of Permit Authorizations

The Appendix is meant to supplement the fact sheet for multiple types of SPDES permits. Portions of this Appendix may not be applicable to this specific permit.

Regulatory References

The provisions of the permit are based largely upon 40 CFR 122 subpart C and 6 NYCRR Part 750 and include monitoring, recording, reporting, and compliance requirements, as well as general conditions applicable to all SPDES permits. Below are the most common citations for the requirements included in SPDES permits:

- Clean Water Act (CWA) 33 section USC 1251 to 1387
- Environmental Conservation Law (ECL) Articles 17 and 70
- Federal Regulations
 - 40 CFR, Chapter I, subchapters D, N, and O
- State environmental regulations
 - 6 NYCRR Part 621
 - 6 NYCRR Part 750
 - 6 NYCRR Parts 700 - 704 – Best use and other requirements applicable to water classes
 - 6 NYCRR Parts 800 – 941 - Classification of individual surface waters
- NYSDEC water program policy, referred to as Technical and Operational Guidance Series (TOGS)
- USEPA Office of Water Technical Support Document for Water Quality-based Toxics Control, March 1991, Appendix E

The following is a quick guide to the references used within the fact sheet:

SPDES Permit Requirements	Regulatory Reference
Anti-backsliding	6 NYCRR 750-1.10(c)
Best Management Practices (BMPS) for CSOs	6 NYCRR 750-2.8(a)(2)
Environmental Benefits Permit Strategy (EBPS)	6 NYCRR 750-1.18, NYS ECL 17-0817(4), TOGS 1.2.2 (revised January 25,2012)
Exceptions for Type I SSO Outfalls (bypass)	6 NYCRR 750-2.8(b)(2), 40 CFR 122.41
Mercury Multiple Discharge Variance	Division of Water Program Policy 1.3.10 (DOW 1.3.10)
Mixing Zone and Critical Water Information	TOGS 1.3.1 & Amendments
PCB Minimization Program	40 CFR Part 132 Appendix F Procedure 8, 6 NYCRR 750-1.13(a) and 750-1.14(f), and TOGS 1.2.1
Pollutant Minimization Program (PMP)	6 NYCRR 750-1.13(a), 750-1.14(f), TOGS 1.2.1
Schedules of Compliance	6 NYCRR 750-1.14
Sewage Pollution Right to Know (SPRTK)	NYS ECL 17-0826-a, 6 NYCRR 750-2.7
State Administrative Procedure Act (SAPA)	State Administrative Procedure Act Section 401(2), 6 NYCRR 621.11(l)
State Environmental Quality Review (SEQR)	6 NYCRR Part 617

SPDES Permit Requirements	Regulatory Reference
USEPA Effluent Limitation Guidelines (ELGs)	40 CFR Parts 405-471
USEPA National CSO Policy	33 USC Section 1342(q)
Whole Effluent Toxicity (WET) Testing	TOGS 1.3.2
General Provisions of a SPDES Permit Department Request for Additional Information	NYCRR 750-2.1(i)

Outfall and Receiving Water Information

Impaired Waters

The [NYS 303\(d\) List of Impaired/TMDL Waters](#) identifies waters where specific best usages are not fully supported. The state must consider

the development of a Total Maximum Daily Load (TMDL) or other strategy to reduce the input of the specific pollutant(s) that restrict waterbody uses, in order to restore and protect such uses. SPDES permits must include effluent limitations necessary to implement a waste load allocation (WLA) of an EPA-approved TMDL (6 NYCRR 750-1.11(a)(5)(ii)), if applicable. In accordance with 6 NYCRR 750-1.13(a), permittees discharging to waters which are on the list but do not yet have a TMDL developed may be required to perform additional monitoring for the parameters causing the impairment. Accurate monitoring data is needed to determine the existing capabilities of the wastewater treatment plants and to assure that WLAs are allocated equitably.

Interstate Water Pollution Control Agencies

Some POTWs may be subject to regulations of interstate basin/compact agencies including: Interstate Sanitation Commission (ISC), International Joint Commission (IJC), Delaware River Basin Commission (DRBC), Ohio River Valley Water Sanitation Commission (ORSANCO), and the Susquehanna River Basin Commission (SRBC). Generally, basin commission requirements focus principally on water quality and not treatment technology. However, interstate/compact agency regulations for the ISC, IJC, DRBC and NYC Watershed contain explicit effluent limits which must be addressed during permit drafting. 6 NYCRR 750-2.1(d) requires SPDES permits for discharges that originate within the jurisdiction of an interstate water pollution control agency, to include any applicable effluent standards or water quality standards (WQS) promulgated by that interstate agency.

Existing Effluent Quality

The existing effluent quality is determined from a statistical evaluation of effluent data 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 (TSD). The existing effluent quality is equal to the 95th (monthly average) and 99th (daily maximum) percentiles of the lognormal distribution of existing effluent data. When there are greater than three non-detects, a delta-lognormal distribution is assumed, and delta-lognormal calculations are used to determine the monthly average and daily maximum pollutant concentrations. Statistical calculations are not performed for parameters where there are less than ten data points. If additional data is needed, a monitoring requirement may be specified either through routine monitoring or a short-term high intensity monitoring program. The [Pollutant Summary Table](#) identifies the number of sample data points available.

Permit Requirements

Basis for Effluent Limitations

Sections 101, 301, 304, 308, 401, 402, and 405 of the CWA and Titles 5, 7, and 8 of Article 17 ECL, as well as their implementing federal and state regulations, and related guidance, provide the basis for the effluent limitations and other conditions in the permit.

When conducting a full technical review of an existing permit, the previous effluent limitations form the basis for the next permit. Existing effluent quality is evaluated against the existing effluent limitations to determine if

these should be continued, revised, or deleted. Generally, existing limitations are continued unless there are changed conditions at the facility, the facility demonstrates an ability to meet more stringent limitations, or in response to updated regulatory requirements. Pollutant monitoring data is also reviewed to determine the presence of additional contaminants that should be included in the permit based on a reasonable potential analysis to cause or contribute to a water quality standards violation.

Anti-backsliding

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(f) and 6 NYCRR 750-1.10(c) and (d). Generally, the relaxation of effluent limitations in permits is prohibited unless one of the specified exceptions applies, which will be cited on a case-by-case basis in this fact sheet. Consistent with current case law⁶ and USEPA interpretation⁷ anti-backsliding requirements do not apply should a revision to the final effluent limitation take effect before the scheduled date of compliance for that final effluent limitation.

Antidegradation Policy

New York State implements the antidegradation portion of the CWA based upon two documents: (1) Organization and Delegation Memorandum #85-40, "Water Quality Antidegradation Policy" (September 9, 1985); and, (2) TOGS 1.3.9, "Implementation of the NYSDEC Antidegradation Policy – Great Lakes Basin (Supplement to Antidegradation Policy dated September 9, 1985) (undated)." The permit for the facility contains effluent limitations which ensure that the existing best usage of the receiving waters will be maintained. To further support the antidegradation policy, SPDES applications have been reviewed in accordance with the State Environmental Quality Review Act (SEQR) as prescribed by 6 NYCRR Part 617.

Effluent Limitations

In developing a permit, the Department determines the technology-based effluent limitations (TBELs) and 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 of water quality criteria to occur, water quality-based effluent limitations (WQBELs) are developed. A WQBEL is designed to ensure that the water quality standards of receiving waters are met. In general, the CWA requires that the effluent limitations for a particular pollutant are the more stringent of either the TBEL or WQBEL.

Technology-based Effluent Limitations (TBELs)

CWA sections 301(b)(1)(B) and 304(d)(1), 40 CFR 133.102, ECL section 17-0509, and 6 NYCRR 750-1.11 require technology-based controls, known as secondary treatment. These and other requirements are summarized in TOGS 1.3.3. Where the TBEL is more stringent than the WQBEL, the TBEL is applied as a limit in accordance with TOGS 1.3.3. Equivalent secondary treatment, as defined in 40 CFR 133.105, allow for effluent limitations of the more stringent of the consistently achievable concentrations or monthly/weekly averages of 45/65 mg/L, and the minimum monthly average of at least 65% removal. Consistently achievable concentrations are defined in 40 CFR 133.101(f) as the 95th percentile value for the 30-day (monthly) average effluent quality achieved by the facility in a period of two years. The achievable 7-day (weekly) average value is equal to 1.5 times the 30-day average value calculated above. Equivalent secondary treatment applies to those facilities where the principal treatment process is either a trickling filter or a waste stabilization pond; the treatment works provides significant biological treatment of municipal wastewater; and, the effluent concentrations consistently achievable through proper operation and maintenance of the facility cannot meet traditional secondary treatment requirements. There are no federal technology-based standards for toxic pollutants from POTWs. A statistical analysis of

⁶ American Iron and Steel Institute v. Environmental Protection Agency, 115 F.3d 979, 993 n.6 (D.C. Cir. 1997)

⁷ U.S. EPA, Water Quality Standards; Establishment of Numeric Criteria for Priority Toxic Pollutants for the State of California; 65 Fed. Reg. 31682, 31704 (May 18, 2000); Proposed Water Quality Guidance for the Great Lakes System, 58 Fed. Reg. 20802, 20837 & 20981 (April 16, 1993)

existing effluent data, as described in TOGS 1.2.1, may be used to establish other performance-based TBELs.

Water Quality-Based Effluent Limitations (WQBELs)

In addition to the TBELs, permits must include additional or more stringent effluent limitations and conditions, including those necessary to protect water quality. CWA sections 101 and 301(b)(1)(C), 40 CFR 122.44(d)(1), and 6 NYCRR Parts 750-1.11 require that permits include limitations for all pollutants or parameters which are or may be discharged at a level which may cause or contribute to an exceedance of any State water quality standard adopted pursuant to NYS ECL 17-0301. Additionally, 6 NYCRR Part 701.1 prohibits the discharge of pollutants that will cause impairment of the best usages of the receiving water as specified by the water classifications at the location of discharge and at other locations that may be affected by such discharge. Water quality standards can be found under 6 NYCRR Parts 700-704. The limitations must be stringent enough to ensure that water quality standards are met at the point of discharge and in downstream waters and must be consistent with any applicable WLA which may be in effect through a TMDL for the receiving water. 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 DEC considers a mixing zone analysis, critical flows, and reasonable potential analysis when developing a WQBEL.

Mixing Zone Analyses

In accordance with TOGS 1.3.1., the DEC may perform additional analysis of the mixing condition between the effluent and the receiving waterbody. Mixing zone analyses using plume dispersion modeling are conducted in accordance with the following:

“EPA Technical Support Document for Water Quality-Based Toxics Control” (March 1991); EPA Region VIII’s “Mixing Zones and Dilution Policy” (December 1994); NYSDEC TOGS 1.3.1, “Total Maximum Daily Loads and Water Quality-Based Effluent Limitations” (July 1996); “CORMIX v11.0” (2019).

Critical Flows

In accordance with TOGS 1.2.1 and 1.3.1, WQBELs are developed using dilution ratios that relate the critical low flow condition of the receiving waterbody to the critical effluent flow. The critical low flow condition used in the dilution ratio will be different depending on whether the limitations are for aquatic or human health protection. For chronic aquatic protection, the critical low flow condition of the waterbody is typically represented by the 7Q10 flow and is calculated as the lowest average flow over a 7-day consecutive period within 10 years. For acute aquatic protection, the critical low flow condition is typically represented by the 1Q10 and is calculated as the lowest 1-day flow within 10 years. However, NYSDEC considers using 50% of the 7Q10 to be equivalent to the 1Q10 flow. For the protection of human health, the critical low flow condition is typically represented by the 30Q10 flow and is calculated as the lowest average flow over a 30-day consecutive period within 10 years. However, NYSDEC considers using 1.2 x 7Q10 to be equivalent to the 30Q10. The 7Q10 or 30Q10 flow is used with the critical effluent flow to calculate the dilution ratio. The critical effluent flow can be the maximum daily flow reported on the permit application, the maximum of the monthly average flows from discharge monitoring reports for the past three years, or the facility design flow. When more than one applicable standard exists for aquatic or human health protection for a specific pollutant, a reasonable potential analysis is conducted for each applicable standard and corresponding critical flow to ensure effluent limitations are sufficiently stringent to ensure all applicable water quality standards are met as required by 40 CFR 122.44(d)(1)(i). For brevity, the pollutant summary table reports the results of the most conservative scenario.

Reasonable Potential Analysis (RPA)

The Reasonable Potential Analysis (RPA) is a statistical estimation process, outlined in the 1991 USEPA Technical Support Document for Water Quality-based Toxics Control (TSD), Appendix E. This process uses existing effluent quality data and statistical variation methodology to project the maximum amounts of pollutants that could be discharged by the facility. This projected instream concentration (PIC) is calculated using the appropriate ratio and compared to the water quality standard (WQS). When the RPA process determines the WQS may be exceeded, a WQBEL is required. The procedure for developing WQBELs includes the following steps:

- 1) identify the pollutants present in the discharge(s) based upon existing data, sampling data collected by the

permittee as part of the permit application or a short-term high intensity monitoring program, or data gathered by the DEC;

- 2) identify water quality criteria applicable to these pollutants;
- 3) determine if WQBELs are necessary (i.e. reasonable potential analysis (RPA)). The RPA will utilize the procedure outlined in Chapter 3.3.2 of EPA's Technical Support Document (TSD). As outlined in the TSD, for parameters with limited effluent data the RPA may include multipliers to account for effluent variability; and,
- 4) calculate WQBELs (if necessary). Factors considered in calculating WQBELs include available dilution of effluent in the receiving water, receiving water chemistry, and other pollutant sources.

The DEC uses modeling tools to estimate the expected concentrations of the pollutant in the receiving water and develop WQBELs. These tools were developed in part using the methodology referenced above. If the estimated concentration of the pollutant in the receiving water is expected to exceed the ambient water quality standard or guidance value (i.e. numeric interpretation of a narrative water quality standard), then there is a reasonable potential that the discharge may cause or contribute to an exceedance of any State water quality standard adopted pursuant to NYS ECL 17-0301. If a TMDL is in place, the facility's WLA for that pollutant is applied as the WQBEL.

For carbonaceous and nitrogenous oxygen demanding pollutants, the DEC uses a model which incorporates the Streeter-Phelps equation. The equation relates the decomposition of inorganic and organic materials along with oxygen reaeration rates to compute the downstream dissolved oxygen concentration for comparison to water quality standards.

The Division of Water has been using the TMDL approach in permit limit development for the control of toxic substances. Since the early 1980's, the loading capacity for specific pollutants has been determined for each drainage basin. Water quality-limiting segments and pollutants have been identified, TMDLs, wasteload allocations and load allocations have been developed, and permits with water quality-based effluent limits have been issued. In accordance with TOGS 1.3.1, the Division of Water implements a Toxics Reduction Strategy which is committed to the application of the TMDL process using numeric, pollutant-specific water quality standards through the Watershed Approach. The Watershed Approach accounts for the cumulative effect of multiple discharges of conservative toxic pollutants to ensure water quality standards are met in downstream segments.

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. TOGS 1.3.1 includes guidance for determining when aquatic toxicity testing should be included in SPDES permits. The authority to require toxicity testing is in 6NYCRR 702.9. TOGS 1.3.2 describes the procedures which should be followed when determining whether to include toxicity testing in a SPDES permit and how to implement a toxicity testing program. 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. POTWs 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.

Minimum Level of Detection

Pursuant to 40 CFR 122.44(i)(1)(iv) and 6 NYCRR 750-2.5(d), SPDES permits must contain monitoring requirements using sufficiently sensitive test procedures approved under 40 CFR Part 136. A method is “sufficiently sensitive” when the method’s minimum level (ML) is at or below the level of the effluent limitation established in the permit for the measured pollutant parameter; or the lowest ML of the analytical methods approved under 40 CFR Part 136. The ML represents the lowest level that can be measured within specified limitations of precision and accuracy during routine laboratory operations on most effluent matrices. When establishing effluent limitations for a specific parameter (based on technology or water quality requirements), it is possible that the calculated limitation will fall below the ML established by the approved analytical method(s). In these instances, the calculated limitation is included in the permit with a compliance level set equal to the ML of the most sensitive method.

Monitoring Requirements

CWA section 308, 40 CFR 122.44(i), 6 NYCRR 750-1.13, and 750-2.5 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 reporting results on Discharge Monitoring Reports (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 and characterize the nature of the discharge of the monitored flow or pollutant. Variable effluent flows and pollutant levels may be required to be monitored at more frequent intervals than relatively constant effluent flow and pollutant levels (6 NYCRR 750-1.13). For industrial facilities, sampling frequency is based on guidance provided in TOGS 1.2.1. For municipal facilities, sampling frequency is based on guidance provided in TOGS 1.3.3.

Other Conditions Mercury

The multiple discharge variance (MDV) for mercury was developed in accordance with 6 NYCRR 702.17(h) “to address widespread standard

or guidance value attainment issues including the presence of a ubiquitous pollutant or naturally high levels of a pollutant in a watershed.” The first MDV was issued in October 2010, and subsequently revised and reissued in 2015; each subsequent iteration of the MDV is designed to build off the previous version, to make reasonable progress towards the water quality standard (WQS) of 0.7 ng/L dissolved mercury. The MDV is necessary because human-caused conditions or sources of mercury prevent attainment of the WQS and cannot be remedied (i.e., mercury is ubiquitous in New York waters at levels above the WQS and compliance with a water quality based effluent limitation (WQBEL) for mercury cannot be achieved with demonstrated effluent treatment technologies). The DEC has determined that the MDV is consistent with the protection of public health, safety, and welfare. During the effective period of this MDV, any increased risks to human health are mitigated by fish consumption advisories issued periodically by the NYSDOH. All surface water SPDES permittees are eligible for authorization by the MDV provided they meet the requirements specified in DOW 1.3.10.

Schedules of Compliance

Schedules of compliance are included in accordance with 40 CFR Part 132 Attachment F, Procedure 9, 40 CFR 122.47 and 6 NYCRR 750-

1.14. Schedules of compliance are intended to, in the shortest reasonable time, achieve compliance with applicable effluent standards and limitations, water quality standards, and other applicable requirements. Where the time for compliance is more than nine months, the schedule of compliance must include interim requirements

Permittee: Orange County DPW-DEFS
Facility: OCSD#1 Harriman STP
SPDES Number: NY0027901
USEPA Major/Class 05 Municipal

Date: August 18th, 2026 v.1.27
Permit Writer: Elizabeth (Liz) Dautel
Water Quality Reviewer: Elizabeth (Liz) Dautel
Full Technical Review

and dates for their achievement. If the time necessary to complete the interim milestones is more than nine months, and not readily divisible into stages for completion, progress reports must be required. Interim progress reports for schedule of compliance items TDS, chlorides, and TRC submitted every 9 months.

[Schedule\(s\) of Additional Submittals](#)

Schedules of Additional Submittals are used to summarize the deliverables required by the permit not identified in a separate Schedule of Compliance.

[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.