



Department of
Environmental
Conservation

State Pollutant Discharge Elimination System (SPDES) DISCHARGE PERMIT

SIC Code: 9511	NAICS Code: 924110	SPDES Number:	NY0300004
Discharge Class (CL): 01	DEC Number: 7-3150-00112/00004	Effective Date (EDP):	
Toxic Class (TX): T	Major-Sub Drainage Basin: Seneca Oneida - Skaneateles	Expiration Date (ExDP):	
Water Index Number: Ont 66-12-29-P193	Item No.: 0707 - 0004	Modification Dates (EDPM):	
Compact Area: IJC			

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:	City of Syracuse Dept. of Water	Attention:	Rich Abbott
Street:	20 West Genesee Street	State:	NY Zip Code: 13152
City:	Skaneateles	Phone:	(315) 263-9254
Email:	rabbott@syrgov.net		

is authorized to discharge EarthTec up to 2 times per year from the facility described below:

FACILITY NAME, ADDRESS, AND PRIMARY OUTFALL							
Name:	Skaneateles Lake						
Address / Location:						County:	Onondaga
City:	Skaneateles			State:	NY	Zip Code:	13152
Facility Location:	Latitude:	42 °	56 '	41 " N	& Longitude:	76 °	25 ', 46 " W
Primary Outfall No.:	*	Latitude:		" N	& Longitude:		" W
Wastewater Description:	Pesticide Labeled for Aquatic Use	Receiving Water:	Skaneateles Lake	NAICS:	924110	Class:	AA

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:

CO BWP - Permit Coordinator
CO BWC - SCIS
RWE
RPA
EPA Region II

Permit Administrator:	
Address:	625 Broadway Albany, NY 12233-1750
Signature:	Date: //

*See Figure 1 located in the monitoring location section of this permit.

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DEFINITIONS FOR PERMIT LIMITS, LEVELS AND MONITORING TERMS

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 12.
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 department 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 Department.
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 No.	LIMITATIONS APPLY:		RECEIVING WATER	EFFECTIVE	EXPIRING	
Treatment areas	Post-treatment		Skaneateles Lake	EDP	ExDP	
PARAMETER	ACTION LEVEL		UNITS	SAMPLE FREQUENCY	SAMPLE TYPE	FN
	Daily Avg.	Daily Max.				
Microcystin	NA	4	µg/L	Daily	Grab	(1)

FOOTNOTES:

1. See Post-Treatment Requirements

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SPECIAL CONDITIONS

Pre-treatment Requirements

1. A treatment may occur when necessary for the protection of the drinking water for the service area of the City of Syracuse Department of Water. Within one month of the effective date of this permit, the City shall develop a Pesticide Management Plan, to be maintained on-site (not submitted), that will include at a minimum:
 - Identification of the procedures and analyses that will be performed prior to a decision to apply the pesticide EarthTec for treatment for protection of the water supply
 - Identification of Responsibilities for the application – including the person responsible for the pesticide application, as soon as determined.
 - Control Measures - spill response and adverse incident procedures

Treatment Requirements

1. There shall only be up to 2 EarthTec applications to the full treatment area in a calendar year. There must be at least 14 days between treatments in any treatment area.
2. All NYSDEC Pesticide Program rules and regulations must be followed.
3. Treatment with EarthTec must be in accordance with the product label instructions and requirements.
4. Treatment must begin closest to the shore and proceed outward in bands to allow fish to move into untreated areas.
5. EarthTec shall be applied at a rate between 0.16 – 1.0 gallons per acre foot. The application area shall not exceed 570 acres as identified in the proposed application area in Figure 1.
6. Treatment shall immediately cease, and permittee shall notify NYSDEC if there is any visual evidence of biological impacts, including fish kills, during treatment.
7. Water temperature shall be a minimum of 16 °C and pH shall be a minimum of 6.5 during application. During application for each day(s) of treatment, meter read in-situ sampling shall be conducted in a location within the treatment area that is representative of the treatment area water quality.
8. The treatment may only occur between 8am-5pm.

Post-treatment Requirements

1. The City must collect and analyze a sample for microcystin concentration once within 24 hours following treatment within 100 feet of these beaches/resources: Skaneateles Country Club Bathing Area, Village of Skaneateles bathing area, Village of Skaneateles pier, and NYSDEC boat launch. Sampling must continue daily for 14 days following treatment, unless the microcystin concentration is less than 4 micrograms per liter ($\mu\text{g/L}$).
2. If the microcystin concentration is greater than or equal to 4 $\mu\text{g/L}$, the City will notify local and State Health Departments within 24 hours. The City will also notify the beach/resource manager within 24 hours for the purpose of coordinating postings as directed by the local or State Health Departments.

DISCHARGE NOTIFICATION REQUIREMENTS

1. 48 hours prior to an EarthTec application the City must notify the following parties of the date and location of an application: NYSDOH; Onondaga County Health Department; NYSDEC; Skaneateles Lake Association; elected officials of the Village of Skaneateles and the Town of Skaneateles; riparian owners and users within the treatment area; and, if the treatment will occur within 100 ft of any of these beaches/resources the beach/resource manager of Skaneateles Country Club Bathing Area, Village of Skaneateles bathing area, Village of Skaneateles pier, or NYSDEC boat launch. Notification methods may include any of the following: email (Cornell Cooperative Extension & Soil and Water Conservation District of Onondaga County listserv), verbal communications, mailings and door-to-door handouts.

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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:

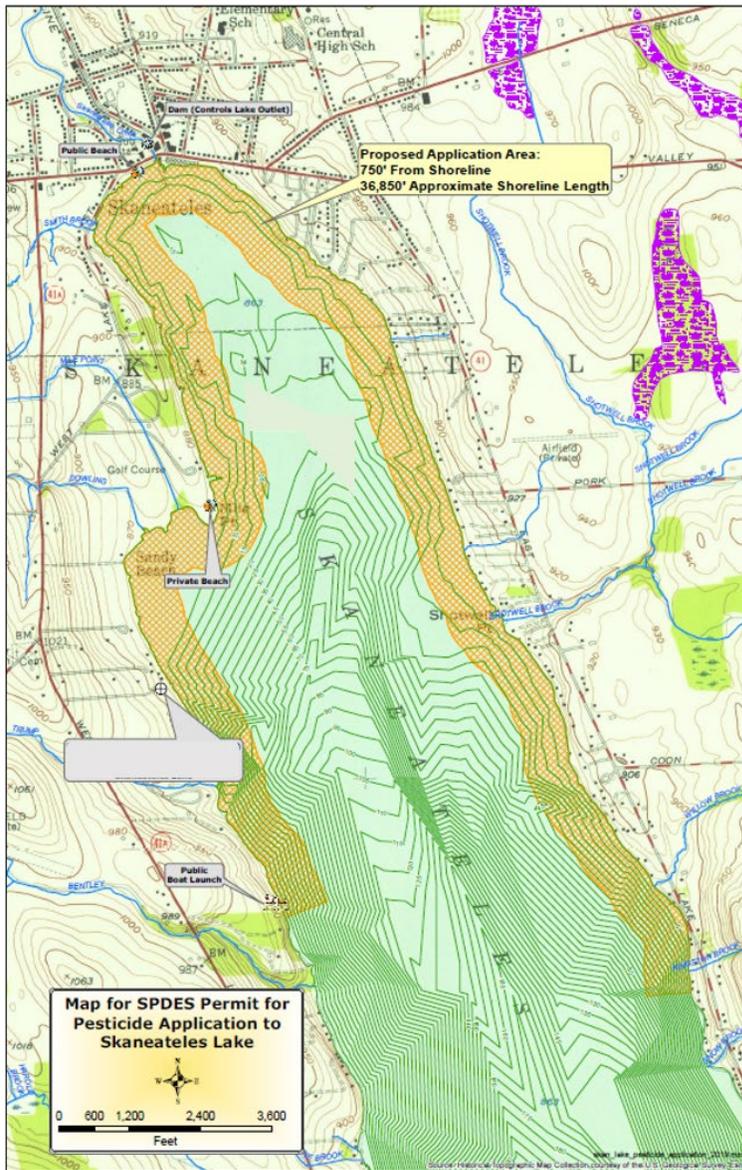


Figure 1 – Treatment Area Locations

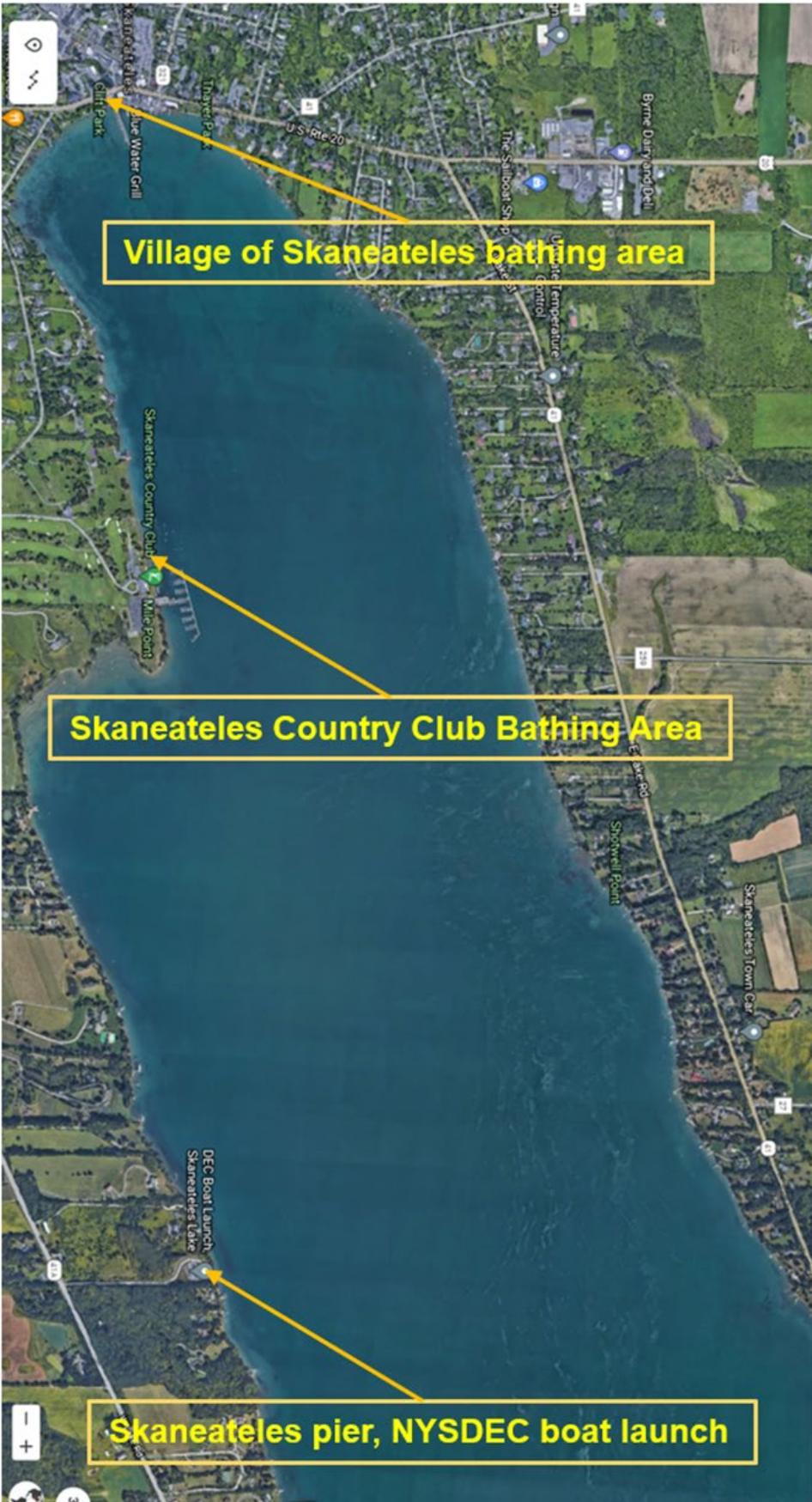


Figure 2 – Monitoring Locations

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 H as follows:
- B. General Conditions
- | | |
|--|---|
| 1. Duty to comply | 6 NYCRR 750-2.1(e) & 2.4 |
| 2. Duty to reapply | 6 NYCRR 750-1.16(a) |
| 3. Need to halt or reduce activity not a defense | 6 NYCRR 750-2.1(g) |
| 4. Duty to mitigate | 6 NYCRR 750-2.7(f) |
| 5. Permit actions | 6 NYCRR 750-1.1(c), 1.18, 1.20 & 2.1(h) |
| 6. Property rights | 6 NYCRR 750-2.2(b) |
| 7. Duty to provide information | 6 NYCRR 750-2.1(i) |
| 8. Inspection and entry | 6 NYCRR 750-2.1(a) & 2.3 |
- C. Operation and Maintenance
- | | |
|-----------------------------------|--------------------------------------|
| 1. Proper Operation & Maintenance | 6 NYCRR 750-2.8 |
| 2. Bypass | 6 NYCRR 750-1.2(a)(17), 2.8(b) & 2.7 |
| 3. Upset | 6 NYCRR 750-1.2(a)(94) & 2.8(c) |
- D. Monitoring and Records
- | | |
|---------------------------|--|
| 1. Monitoring and records | 6 NYCRR 750-2.5(a)(2), 2.5(a)(6), 2.5(c)(1), 2.5(c)(2), & 2.5(d) |
| 2. Signatory requirements | 6 NYCRR 750-1.8 & 2.5(b) |
- E. Reporting Requirements
- | | |
|---|-----------------------------------|
| 1. Reporting requirements for non-POTWs | 6 NYCRR 750-2.5, 2.6, 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) |
- F. SPDES Permit Program Fee
- The permittee shall pay to the Department an annual SPDES permit program fee within 30 days of the date of the first invoice, unless otherwise directed by the Department, and shall comply with all applicable requirements of ECL 72-0602 and 6 NYCRR Parts 480, 481 and 485. Note that if there is inconsistency between the fees specified in ECL 72-0602 and 6 NYCRR Part 485, the ECL 72-0602 fees govern.

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 Department or its designated agent.
- B. Annual SPDES Monitoring Reports: An annual report shall be submitted to the Department by February 1st each year. The report shall summarize information for January to December of the previous year and shall be submitted electronically, or in hardcopy format. The permittee shall submit a summary report of the data collected prior to, during, and after the EarthTec treatments.

Hard copy submission of the Annual Report shall be submitted to the Bureau of Water Permits and the Regional Water Engineer at the address below:

Department of Environmental Conservation
Regional Water Engineer, Region 7
615 Erie Boulevard West, Syracuse, New York, 13204-2400 Phone: (315)426-7500

Department of Environmental Conservation
Division of Water, Bureau of Water Permits
625 Broadway, 4th Floor
Albany, NY 12233

- C. 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.

SPDES Permit Fact Sheet

City of Syracuse Department of Water

Skaneateles Lake

NY0300004

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**Department of
Environmental
Conservation**

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Summary of Permit Changes

A new State Pollutant Discharge Elimination System (SPDES) permit has been drafted for the City of Syracuse Water Department for:

- Application of the aquatic pesticide EarthTec in Skaneateles Lake to protect the City's water supply

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

Administrative History

- 4/24/2019 The City of Syracuse Department of Water submitted a request for a permit to Discharge a Pesticide Labeled for Aquatic Use
- 8/16/2020 The City of Syracuse Department of Water submitted a complete permit application.

Please see the Notice of Complete Application, published in the Environmental Notice Bulletin and newspapers, for information on the public notice process.

Facility Information

Skaneateles Lake is a class AA waterbody that is used by the City of Syracuse as the primary source of their unfiltered water supply. Water is pumped from the lake to a reservoir where it is treated with Chlorine prior to distribution. The lake is a highly populated recreational lake with numerous riparian users. Harmful Algal Blooms (HABs) have been periodically detected at various locations within the lake.

Generally, aquatic pesticide applications in NYS are permitted under the SPDES Pesticide General Permit (GP-0-16-005), which works closely with other NYSDEC programs, such as the Aquatic Pesticide Program. The Aquatic Pesticide, Article 15, permitting process requires the applicant to certify that affected riparian owners and users have been notified of: the purpose and pesticide to be used for the proposed water treatment, any water use restrictions, and their right and how to file an objection. However, for Skaneateles Lake, the use of copper sulfate for algae control by a duly constituted water supply agency in its water supply is exempt from Article 15 permitting (see 6 NYCRR 327.1(c)).

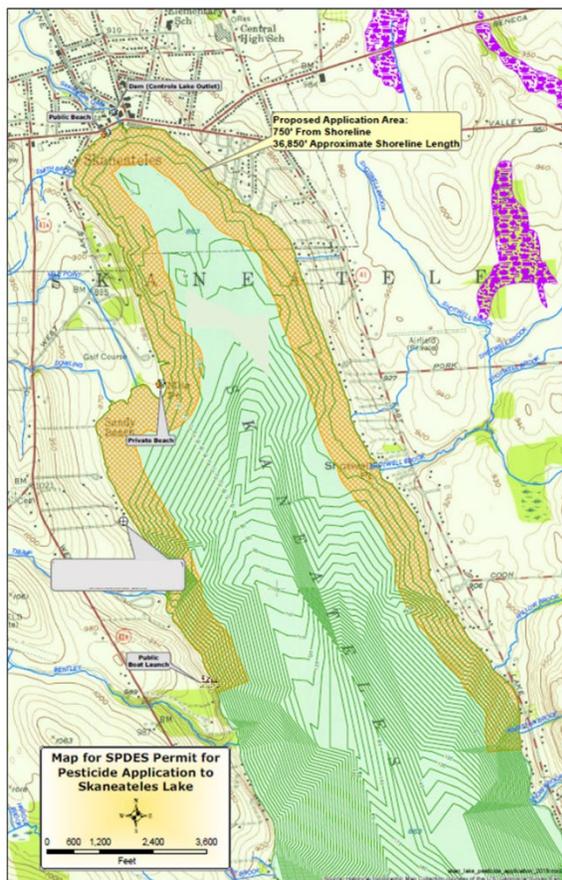
Due to the potential for pesticide by-products resulting from application during a HAB outbreak, the proposed application of copper sulfate to Skaneateles Lake requires additional site-specific monitoring and operating conditions beyond those provided by the PGP to avoid adverse environmental impacts. The PGP does not include public participation requirements prior to authorization, nor a vehicle to require post pesticide application monitoring to verify the pesticide by-products are at safe levels to allow the water (Skaneateles Lake) to return to routine use. The cyanobacterial toxin microcystin is the application by-product of concern that DOW believes should have additional oversight and monitoring to ensure the safety of the public who recreate in the lake. Therefore, an individual SPDES permit has been developed to provide additional site-specific control measures to ensure public safety.

This permit will authorize the use of the aquatic pesticide EarthTec in the North basin of Skaneateles Lake up to 2 times a year in an area of approximately 560 acres. EarthTec is an algaecide/bactericide, which uses copper sulfate as the active ingredient. The purpose of the proposed treatment is to protect the public water supply (Skaneateles Lake) from excessive algae growth, which may develop HABs. The use of the pesticide has the potential to release the toxin microcystin, if present in the bacteria being treated.

The NYSDOH Guidance value for microcystin below which permitted bathing beaches may reopen, is 4 µg/L. In accordance with the Department's narrative standard for protecting waters from deleterious substances that may contravene their best uses (6 NYCRR 703.2), this guidance value will ensure the recreational areas, identified below, that are located in the authorized treatment area will be protected. Monitoring of microcystin will be conducted following each EarthTec treatment at the Skaneateles Country Club bathing area, Village of Skaneateles bathing area and the Village of Skaneateles Pier and NYSDEC Boat Launch. If levels of microcystin exceed the 4µg/L concentration, the permit requires that the City to inform the Local Health Department with jurisdiction of the affected are and NYS Department of Health (DOH) for any follow up actions.

In accordance with the purpose of the Department's public notification requirement (6 NYCRR Part 750-1.12) for point source discharges, the permit requires notification be made to NYSDEC, NYSDOH, the elected officials of the five townships in the watershed, and the riparian owners and users at least 48 hours prior to application to the treatment area.

[Site Overview – Treatment Area \(orange highlight\)](#)



Enforcement History

Environmental regulatory compliance and enforcement information for this facility can be found on the Enforcement and Compliance History Online at <https://echo.epa.gov>.

Existing Effluent Quality

N/A

Additional Site-Specific Concerns

None

Receiving Water Information

Skaneateles Lake is classified as a Class AA water.

Impaired Waterbody Information

The Skaneateles Lake segment (PWL No. 0707-0004) is not listed on the 2018 New York State Section 303(d) List of Impaired/TMDL Waters, and therefore, there are no applicable wasteload allocations (WLAs) for this discharge.

Mixing Zone and Critical Receiving Water Data

The City proposed to apply the pesticide EarthTec® to Skaneateles Lake, which is a ponded waterbody. The proposed dosage rates of the active ingredient in EarthTec® will be from 0.03 ppm Cu - 0.18 ppm Cu, which is in accordance with the Department approved EarthTec® label requirements.

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

None of the seven criteria that are indicative of potential toxicity and listed in the [Appendix](#) to this factsheet, are applicable to this facility. Therefore, WET testing is not included in the permit.

Anti-backsliding

N/A

Antidegradation

The permit contains effluent limitations which ensure that the designated best use of the receiving waters will be maintained. Please see the Environmental Notice Bulletin for information on the State Environmental Quality Review (SEQR)¹ determination. [Appendix Link](#)

Mercury²

There are no mercury effluent limitations applicable to this pesticide application.

Special Conditions

The permit contains: notifications that must occur prior to the pesticide treatment; the requirements to adhere to during treatment; post treatment monitoring requirements; and possible further action, if, and as directed, by the NYSDOH.

¹ As prescribed by 6 NYCRR Part 617

² In accordance with NYS' Mercury Multiple Discharge Variance (MDV) in TOGS 1.3.10.

RECEIVING WATER SUMMARY TABLE

- Treatment Area	Latitude	Longitude	Receiving Water Name	Water Class	Water Index No. / Priority Waterbody Listing (PWL) No.	Major / Sub Basin	Hardness (mg/l) ¹	1Q10 (MGD)	7Q10 (MGD)	30Q10 (MGD)	Critical Effluent Flow (MGD)	Dilution Ratio		
												A(A)	A(C)	HEW
North end of the lake	42° 51' 37.548" N	76° 21' 50.076" W	Skaneateles Lake	AA	Ont 66-12-29-P193 PWL: 0707-0004	07 / 07	125	-	-	-	-	-	-	-

ACTION LEVEL TABLE

Outfall Treatment Area

Treatment Area	Description of Wastewater: N/A														
	Type of Treatment: Pesticide Application														
Effluent Parameter	Units	Averaging Period	Existing Discharge Data			TBELs		Water Quality Data & WQBELs						ML	Basis for Permit Requirement
			Permit Limit	Existing Effluent Quality ³	# of Data Points Detects / Non-Detects	Limit	Basis	Ambient Bkgd. Conc.	Projected Instream Conc.	WQ Std. or GV	WQ Type	Calc. WQBEL	Basis for WQBEL		
Microcystin Post-treatment	µg/l														Action Level
Action level of 4 ug/L based upon the NYSDOH Guidance Value for microcystin for contact recreation. If this level is exceeded, the City of Syracuse is required to notify the local NYSDOH districts such that any further action, as directed by the NYSDOH, can be performed.															

¹Ambient hardness data obtained from 1984 WQSN Hardness data memo

Appendix: Regulatory and Technical Basis of Permit Authorizations

The information presented in the Appendix is meant to supplement the factsheet for multiple types of permits and may not be applicable to this specific permit.

Regulatory References

The requirements included in SPDES permits are based on both federal and state laws, regulations, policies, and guidance.

- 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, often referred to as Technical and Operational Guidance Series memos (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 factsheet:

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 (TOGS 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
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)

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.

Outfall and Receiving Water Information

Impaired Waters

The NYS 303(d) List of Impaired/TMDL Waters (<http://www.dec.ny.gov/chemical/31290.html>) identifies waters where specific designated uses are not fully supported and for which the state must consider the development of a 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

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 for the development of the TMDL, and to allow the Department to accurately determine the existing capabilities of the wastewater treatment plant. Accurate monitoring data will also assure that wasteload allocations (WLAs) are allocated equitably.

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 permit limitations form the basis for the next permit. Existing effluent quality is evaluated against the existing permit 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, and/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(l) 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 factsheet. Consistent with current case law⁴ and USEPA interpretation⁵ 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.

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. 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

⁴ American Iron and Steel Institute v. Environmental Protection Agency, 115 F.3d 979, 993 n.6 (D.C. Cir. 1997)

⁵ 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)

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.

Other Technology Based Effluent Limitations:

There are no federal technology-based standards for toxic pollutants from POTWs. For each toxic parameter present in the discharge a Reasonable Potential Analysis is conducted. This may be a statistical analysis of existing data in accordance with TOGS 1.2.1, or an assessment of the technology employed at the facility and selection of the appropriate limitation from TOGS 1.2.1 Attachment C. Where the TBEL is more stringent than the WQBEL, the TBEL is applied as an action level in accordance with TOGS 1.3.3.

Minimum Level of Detection

Pursuant to 40 CFR 122.44(i)(1), 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), and 6 NYCRR 750-1.13 require that monitoring be included in permits to determine compliance with effluent limitations. Additional effluent monitoring may also be required to gather data to determine if effluent limitations may be required. The permittee is responsible for conducting the monitoring and 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.