

Clean Water Act Basics and the Stormwater Regulations

**Town of Bethlehem
March 1, 2016
Town Planning Board**



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**Stormwater Coalition of Albany County
Education, Participation, Compliance**

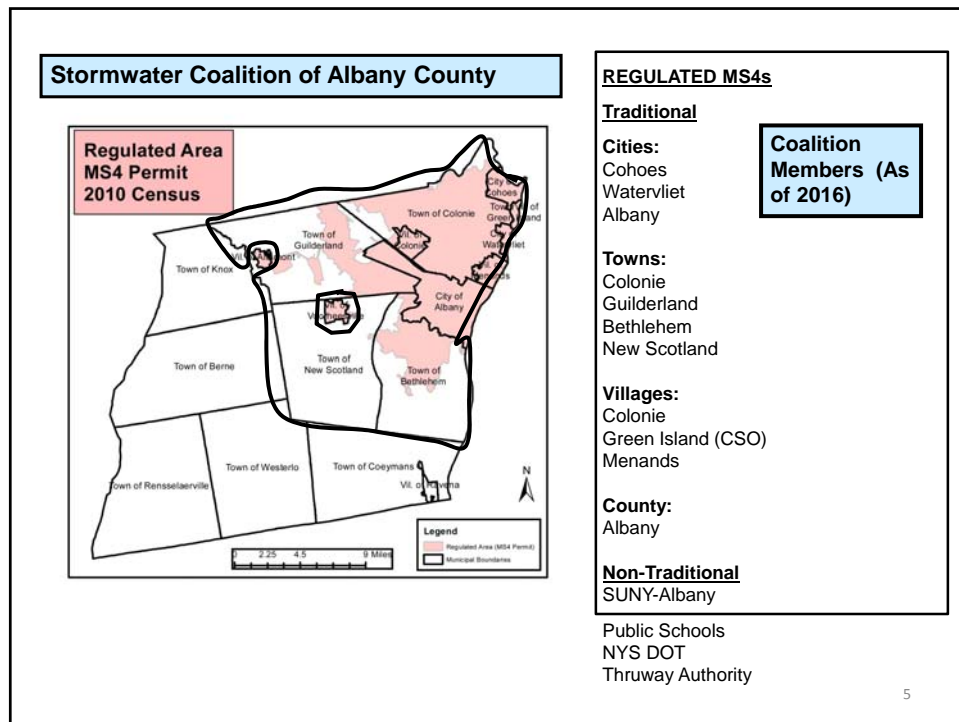
*Albany County; City of Albany; Town of Bethlehem; City of Cohoes; Town of Colonie; Village of Colonie; Village of Green Island;
Town of Guilderland; Village of Menands; Town of New Scotland; City of Watervliet; University at Albany -SUNY*

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Stormwater Coalition of Albany County

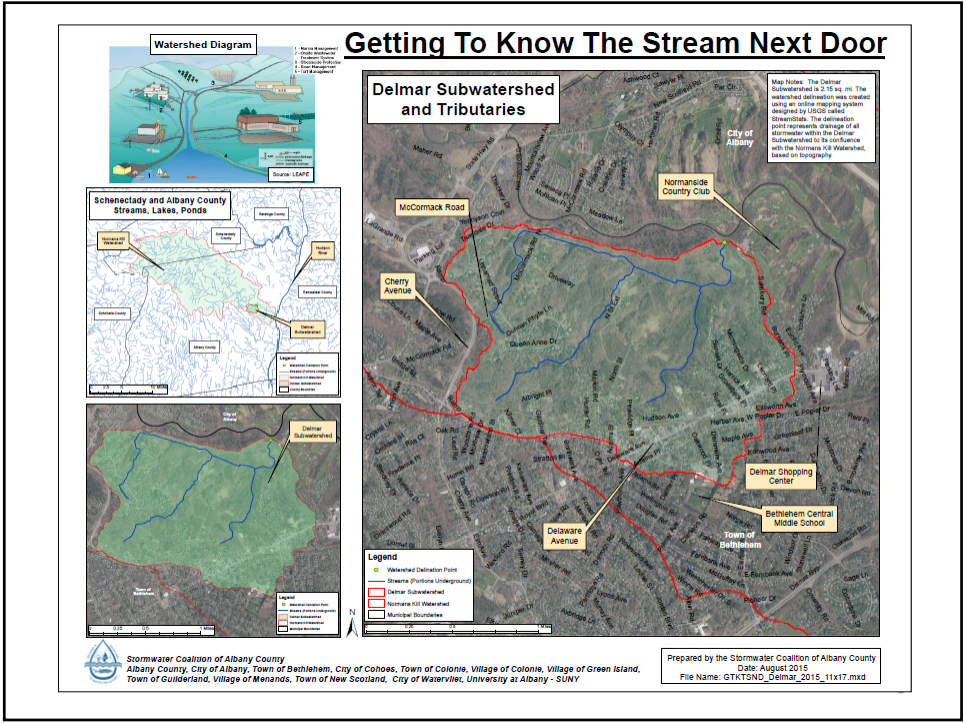
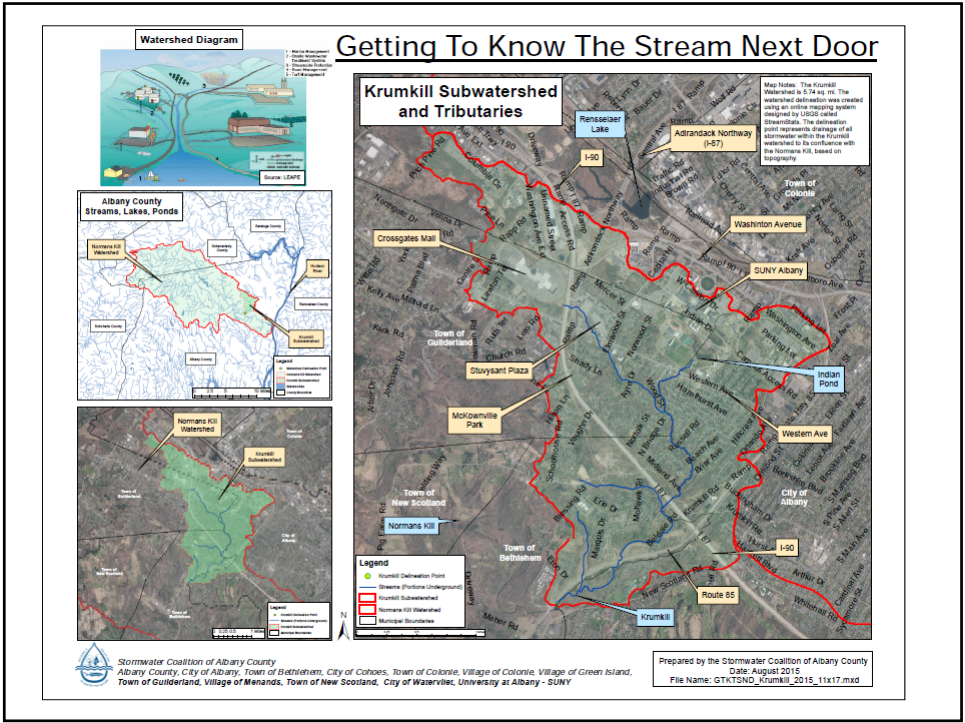
- **Formed via Intermunicipal Agreement (IMA)**—Start date: October 15, 2008; 2016 IMA renewal
- **Purpose**--same MS4 General SPDES Permit requirements→ members share services; joint reports, mapping, administration, training, apply for, implement, and manage grants
- **2016 Coalition Operating Budget**--\$179,962 (2016 Add'l \$482,720 NYSDEC Grant Map'g, Prog Mgmt)
- **Membership Fee Range** --\$4,710 to \$28,909
- **Albany County**--Host and Member of Coalition
- **Office location**--Albany County Building-Downtown; 112 State Street; Rm 720
- **Organizational structure**
 - Board of Directors:** 1 rep per municipality; appointed by municipal Governing Board; open meetings law; fiscal responsibilities; meets quarterly (V. of Green Is)
 - Working Group:** Multiple reps per MS4; conducts "work" of the Coalition; meets monthly (location changes, mtgs in each member community, if possible)
 - Staff:** 1 FT SW Program Coordinator-Director; 1 FT SW Program Technician
- **Membership History**--Annual Decision (Fees!); 2009 SUNY Albany joins; 2012 Town of Guilderland leaves (Jan); returns (Oct); 2013 Village of Voorheesville leaves; 2014 Village of Altamont joins (newly regulated MS4); 2016 Village of Altamont leaves
- **Stormwater Coalition website:** www.stormwateralbanycounty.org

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MS4 Permit Requirement (GP-0-15-003)
Part VII.A.5.a.v. (pg. 42)

“...utilize available training from sources such as Soil and Water Conservation Districts, Planning Councils, The New York State Department of State, USEPA, and/or the Department to **educate municipal boards and Planning and Zoning Boards** on low impact development principles, better site design approach, and **green infrastructure applications.**”



How Surface Water Often Travels To Streams

Storm
Drain/Catch
Basin



Conveyance System



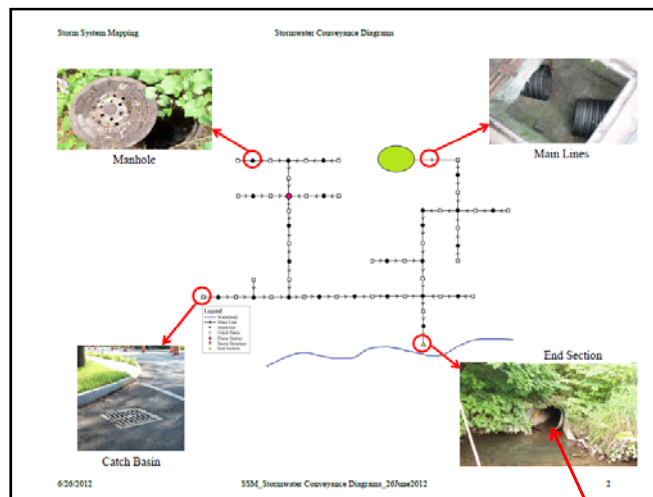
Outfall



Receiving Stream

Urbanized Watershed

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Outfall

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Pollutants and land use....

...a close look at a watershed.

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Where located, why?

Bacteria & viruses

Broken sanitary lines, failing septs

Gross solids

Trash, cigarette butts, grass clippings

Nutrients

Nitrogen & Phosphorus

Organics

Paint thinner, solvents, cleaners

Sediment

Small particles, suspended in water, transport pollutants

Thermal stress

Water too warm for aquatic life

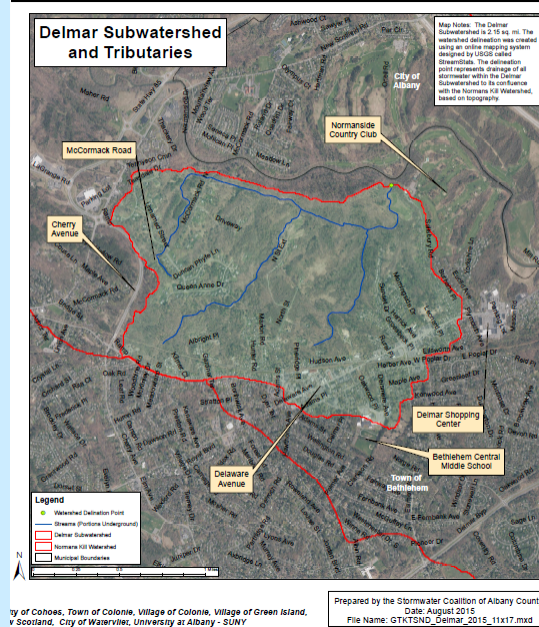
Metals

Lead, cadmium, zinc, nickel

Pesticides & herbicides

Oil and grease

Getting To Know The Stream Next Door





STORMWATER POLLUTION

Sediment (construction site)

What else? (busy road/cars:
metals, oil/gas, tire material...)

discharged here

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NURPS (Nationwide Urban Runoff Program)

- EPA funded series of studies and projects
- 1978 to 1983
- What EPA learned...

“...**stormwater contained** many of the same
conventional and **toxic pollutants** regulated
from process outfalls and publicly owned treatment works,
sometimes in very **high quantities**”

CPESC training manual, 2004

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Water pollution is regulated...

1972 Federal Clean Water Act

Required the regulation of Point Source discharges of pollutants to the "Waters of the U.S."

NPDES Permits (EPA)

National Pollutant Discharge Elimination System Permits

1978 to 1983
NURPS Data

NEED TO REGULATE
STORMWATER
POLLUTION...how?

1987

Amendments to the Federal Clean Water Act

"STORMWATER" Discharge Permits
Phased Approach

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1987 Amendments – Phased & Nation-wide

- **Phase I promulgated in 1990**
 - Large municipalities
 - Construction disturbing >5 acres
 - Industrial activities
- **Phase II promulgated in 1999**
 - Smaller municipalities (small cities, towns, villages, counties)
 - Schools, universities
 - Construction disturbing >1acre
 - Industrial activities

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1972 Federal Clean Water Act

*Environmental Protection Agency (EPA) authorized
New York State Department of Environmental Conservation
(NYSDEC) to administer the
Clean Water Act permit program*

NPDES Permits

National Pollutant Discharge
Elimination System Permits



SPDES Permits

State Pollutant Discharge
Elimination System Permits

"Waters of the United States"



"Waters of the New York State"

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EPA Audit Town of Colonie MS4 Permit Compliance September 3, 4, 5, 2016



**MANY REGULATORY "EYES"
WATCHING FOR COMPLIANCE**

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The Clean Water Act legal construct....

- “Waters of New York State” defined
- Content of SPDES Permits
 - Control/limit pollution before it discharges to “Waters of New York State”
 - Ongoing tasks/timeline to receive & maintain permit coverage
 - Legal action, penalties, and fines if permit requirements not met

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“Waters of New York State”

Classify Streams
“Best Use”

Waterbody Inventory-Priority Waterbody List
Is water quality acceptable given “Best Use”?

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Content of SPDES Permits

- Vary in type, purpose, and infrastructure components
- Share common elements
- Discharge points (outfalls)-look alike
- Processed outfalls-factories & wastewater plants
- Stormwater outfalls-rainwater picks up pollutants within drainage area, transported through conveyance system, often discharged at multiple outfall locations

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ALBANY COUNTY SPDES PERMITS (1980 and 2011)								
Categories	INDIVIDUAL			GENERAL				
Description	Factories; Sewage Treatment Plants	Sanitary Sewer Overflows	Combined Sewer Overflow	Concentrated Animal Feeding Operation (Livestock)	Municipal Separated Storm Sewer Systm	Land disturbance > 1 acre; During and Post Construction SW Mgmt	Industrial	Stormwater
Primary Pollutants of Concern (POCs)	Variable; Depends on Type of Facility	Bacteria	Bacteria and Urban Runoff (Multiple POCs)	Nutrients	Urban Runoff (Multiple POCs), Flow	Sediment; Phosphorus, Nitrogen, Flow	Variable, Depends On Type of Facility or Sector, as defined in Permit	Stormwater
# of SPDES Permits in Albany County	EPA Major (Classes 03, 05) State Significant Minor (Classes 01, 07, 09)	State Non-Significant Minor (Classes 02, 04)						
1980 (Total=25)	21	no data	1	3	0	0	0	0
2011 (Total=477)	53	100	1	4	3	15	252 (active); 251 (terminated)	49 (active); 22 (no exposure); 19 (terminated)
Permit "Owner-Operator"	Factory Owner; Sewage Treatment Plant Owner (Public and Private Sector)	Factory Owner; Sewage Treatment Plant Owner (Private Sector)	Owner of Sanitary System	Municipality Where CSO is Located	Owner of Livestock Operation	Owner of Public Storm System (Municipality; County; Public University; Community College; Authority; State Roads; Mandated Oversight of Construction Activity Permit	Anyone disturbing > 1 acre of land (ex. developer; County/Town/Village/State road project; homeowner additions to house, etc.)	Anyone who owns a facility which qualifies as a regulated sector as described in the Permit
County or Local Municipality Enforcement Action and Fines	NA					MS4 will take enforcement in the areas under MS4 authority.	NA	
NYS Environmental Conservation Law Enforcement Action and Fines	The enforcement action take depends on the violation. The procedure for enforcement is described in the NYSDEC TOGS 1.4.2 Compliance and Enforcement of State Pollutant Discharge Elimination System (SPDES) Permits. Standard Permit Conditions: Failure of the covered entity, its contractors, sub-contractors, agents and/or assigns to strictly adhere to any of the SPDES General Permit requirements contained herein shall constitute a permit violation. There are substantial criminal, civil, and administrative penalties associated with violating the provisions of this permit. Fines up to \$37,500 per day for each violation and imprisonment for up to fifteen (15) years may be assessed depending upon the nature and degree of the offense. (All SPDES Permits have this language)							
Federal Clean Water Act-Enforcement Action and Fines	Depends on violation and EPA's enforcement procedures for a given program. Penalties are not calculated until compliance is achieved.							

Note: Data compiled by NYSDEC Region 4 staff for the Stormwater Coalition of Albany County (December 9, 2011)

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SPDES Permits Concept Map

KEY:

- Municipal Boundary
- Private/Commercial
- SPDES Permit
- Sanitary Line
- Storm Lines
- Combined
- Separated

Individual Permit
Factories, Wastewater Treatment Plants, Complex Facility
OUTFALLS
(Discharge Treated Liquid Waste)

Individual Permit
"CSO" OUTFALL
"R" Overflow structure →

General Permit
STORMWATER OUTFALL
MS4-Municipal Separated Storm Sewer System Permit

General Permit
STORMWATER OUTFALL
Construction Activity Permit

General Permit
STORMWATER OUTFALL
Multi-Sector Permit
Industrial Site—Landfill "MSGP" Permit

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Hands on tour of the New York State Stormwater General Permits...

Content	Construction Activity	MS4	Multi-Sector (Industrial)
Common Elements			
Format	Cover Page & Table of Contents	Cover Page & Table of Contents	Cover Page & Table of Contents
Enforcement, Fines	pg. 31	pg. 24	pg. 59
Reporting & Records	pg. 30	pg. 19-22	pg. 37-57
Impaired Waters & TMDLs	Appendix E	pg. 12	pg. 18
Permit Specific			
SWMP		pg. 15-18	
MCMs		pg. 30 Trad MS4s T/V/C; Pg. 51 Non Trad and Trad County	
SWPPP	pg. 18 to 24		pg. 19-33
MS4 Permit Points To Other Permits		pg. 48 (Trad MS4, T/V/C); Pg. 67 (Non Trad MS4, Trad MS4 County)	→
	←	pg. 60	
Green Infrastructure	Design Manual, Blue Book	MS4 Owned Projects-Need Construction Permit SWPPPs	

Construction Activity General Permit

G. Construction Stormwater General Permit

Violation	Base Penalty Rate
Failure to obtain coverage under General Permit and is employing appropriate erosion & sediment control practices	< 5 acres (or 5,000 sq ft - 1 acre for east of Hudson in the New York City Watershed (NYCW)) \$1,000/day ≥ 5 acres (or > 1 acre for east of Hudson in the NYCW) \$1,500/day
Failure to obtain coverage under General Permit and is employing minimal or no erosion & sediment control practices	< 5 acres (or 5,000 sq ft - 1 acre for east of Hudson in the NYCW) \$1,500/day ≥ 5 acres (or > 1 acre for east of Hudson in the NYCW) \$3,000/day
Failure to develop and implement a SWPPP	\$3000/event
Has coverage under General Permit, and has significant permit violations including but not limited to: - Substantial failure to implement or maintain BMPs	< 5 acres (or 5,000 sq ft - 1 acre for east of Hudson in the NYCW) \$1,000/day ≥ 5 acres (or > 1 acre for east of Hudson in the NYCW) \$2,500/day

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Has coverage under General Permit, and has non-significant permit violations	< 5 acres (or 5,000 sq ft - 1 acre for east of Hudson in the NYCW) \$500/day ≥ 5 acres (or > 1 acre for east of Hudson in the NYCW) \$1,000/day
Significant unauthorized discharge (refer to draft EPA Wet Weather SNC Policy <i>et seq.</i>)	\$3,000/event
Unauthorized discharge	\$1,000/event
Causing or contributing to a Water Quality Standards violation	\$5,000/event
Failure to meet major milestones required in a permit or administrative or judicial order	\$250/day
Failure to meet other (non-major) milestone or other non-significant permit violations	\$100/day
Failure to submit required report (including failure to respond to an information request)	\$500/month
Failure to retain records as required	\$500/event
Failure to allow inspection/sampling by the Department	\$5,000/event
Falsifying information on DEC submittal ⁴¹	\$10,000/report
Failure to comply with other (not specifically noted in this Appendix) applicable requirements set forth in 6 NYCRR Part 750-2, "Operating in Accordance with a SPDES Permit"	\$100/day
ECL Article 17 violations not related to permit	\$250/day

⁴¹ The penalty calculated based on this Base Penalty Rate and the maximum adjustment factors may exceed the statutory limitation (currently \$37,500 per day per violation.) A separate calculation for this violation using the case specific adjustment factors should be performed first. If the assessed penalty exceeds the statutory limitation, the penalty assessed for this violation must be changed to the statutory maximum.

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Multi-Sector General Permit

“Industrial
Permit”

“MSGP”

H. Multi-Sector General Permit (MSGP)

Violation	Base Penalty Rate
Failure to renew or transfer coverage under General Permit	\$1,000/month
Failure to apply for coverage under the General Permit	\$3,000/event
Failure to submit DMR or Annual Certification Report	\$1,000/event
Failure to develop and implement a SWPPP or SWMP	\$3,000/event
Causing or contributing to a Water Quality Standards violation	\$5,000/event
Significant unauthorized discharge (refer to draft EPA Wet Weather SNC Policy <i>et seq.</i>)	\$3,000/event
Unauthorized discharge	\$1,000/event
Failure to meet significant permit requirements including but not limited to: <ul style="list-style-type: none"> Substantially inadequate SWPPPs; Substantial failure to develop or implement the SWPPP; Substantial failure to implement or maintain BMPs; Substantial failure to implement MSGP requirements. 	\$3,000/event
Exceeding interim or final effluent limits for non-toxic parameter under SPDES permit: <ul style="list-style-type: none"> Daily max/min discharge (each day = 1 violation⁴¹ = 1 event) Daily Average (7 day average = 7 violations⁴² = 1 event) Daily Average (30 day average = 30 violations⁴³ = 1 event) or Monthly Average 	\$1,000/event \$1,500/event \$2,000/event
Exceeding interim or final limits for toxic parameter under SPDES permit: <ul style="list-style-type: none"> Daily max/min discharge (each day = 1 violation = 1 event) Daily Average (7 day average = 7 violations⁴² = 1 event) Daily Average (30 day average = 30 violations⁴³ = 1 event) or Monthly Average 	\$2,000/event \$3,000/event \$4,000/event
Failure to meet major milestones required in a permit or administrative order or judicial decree	\$250/day
Failure to meet other (non-major) milestone or other non-significant permit violations	\$100/day

⁴¹Exceedence of the 7-day average constitutes seven violations. 7-day average, as defined in 40CFR133.101(a), is “the arithmetic mean of pollutant parameter values of samples collected in a period of 7 consecutive days.”

⁴²Exceedence of the 30-day average constitutes thirty violations. Legal precedence for this has been established by federal court rulings. The 30-day average, as defined, in 40CFR133.101(b), is “the arithmetic mean of pollutant parameter values of samples collected in a period of 30 consecutive days.”

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Failure to submit required report (including failure to respond to an information request)	\$500/month
Failure to retain records as required	\$500/event
Failure to allow inspection/sampling by the Department	\$5,000/event
Falsifying information on DEC submittal ⁴⁴	\$10,000/report
Failure to comply with other (not specifically noted in this Appendix) applicable requirements set forth in 6 NYCRR Part 750-2, “Operating in Accordance with a SPDES Permit”	\$100/day
ECL Article 17 violations not related to permit	\$250/day

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Combined Sewer Overflow Requirements

N. Violation of Combined Sewer Overflow (CSO) Requirements:

Violations	Circumstance	Department's Minimum Response
Multiple significant unauthorized discharges or multiple significant overflows (refer to draft EPA Wet Weather SNC Policy et seq.)	All (permitted and unpermitted outfalls)	Consult with DEC law enforcement or legal to assess potential criminal prosecution or civil enforcement.
Substantial failure to implement any of the nine minimum controls (NMCs) as required in an administrative or judicial order or in a permit.	i) 30 days overdue	i) NOV
	ii) More than 60 days overdue	ii) Formal Enforcement
Failure to report overflow(s) or discharge(s) at permitted CSOs in Annual BMP Report as required in an administrative or judicial order or in a permit.	All	NOV
Failure to submit an approvable Long Term Control Plan (LTCP), as required in an administrative order, judicial decree, or in a permit.	i) 30 days overdue	i) NOV
	ii) More than 60 days overdue	ii) Formal Enforcement
Failure to meet and implement the major milestones (including LTCP milestones) or reporting requirements (including failure to respond to an information request) required in an administrative order, judicial decree, or in a permit.	i) 30 days overdue	i) NOV
	ii) More than 60 days overdue	ii) Formal Enforcement
Failure to comply with incident reporting requirements pursuant to Part 750-2.6 and Part 750-2.7. This includes failure to report overflow(s) or discharge(s) at unpermitted CSOs.	All	NOV
Reporting false information	All	Consult with DEC law enforcement or legal to assess potential criminal prosecution or civil enforcement.

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EPA Audits Local MS4 Permit Compliance (Coalition members)

Town of Colonie: June 3-5, 2013

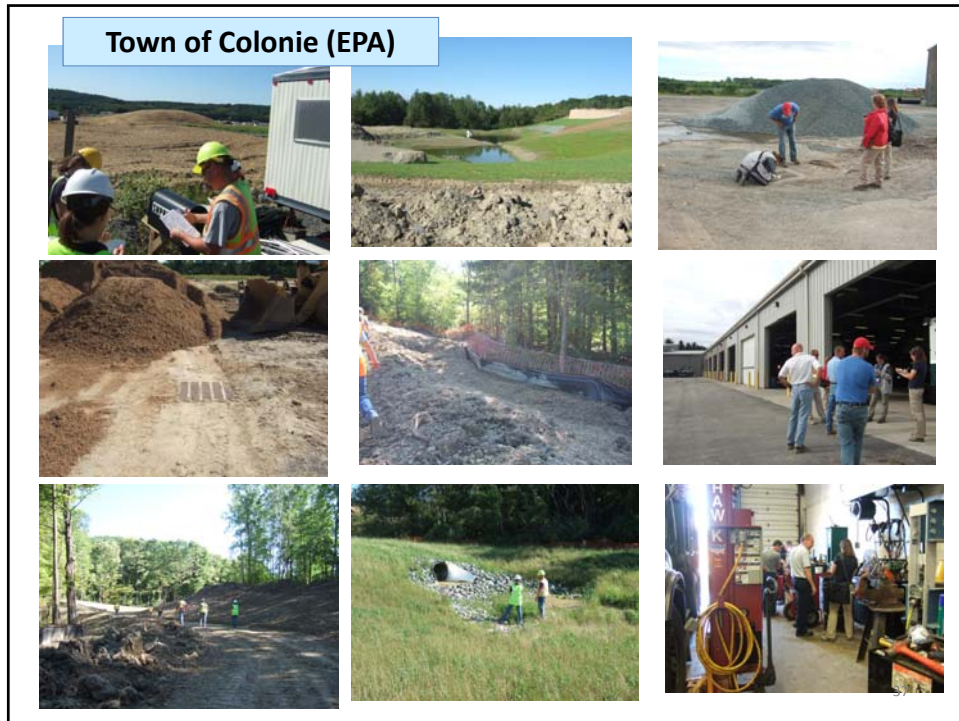
City of Albany: Sept 3-5, 2014

University at Albany-SUNY Uptown: March 19, 2015

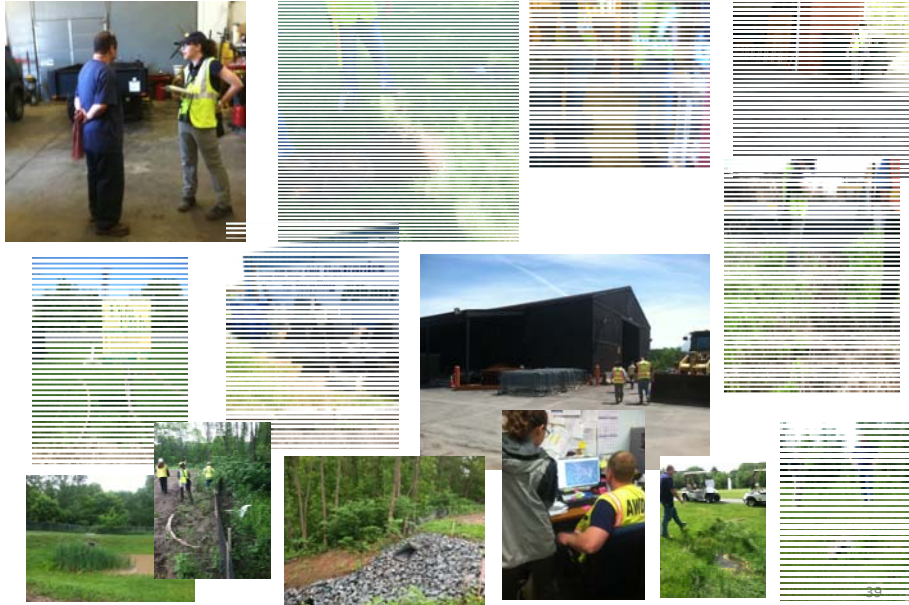
Recent NYSDEC Audits (1 day)

V/Menands (12/6/2012); T/New Scotland (2/11/2014);
C/Cohoes (7/16/2014); V/Colonie (1/21/2015)

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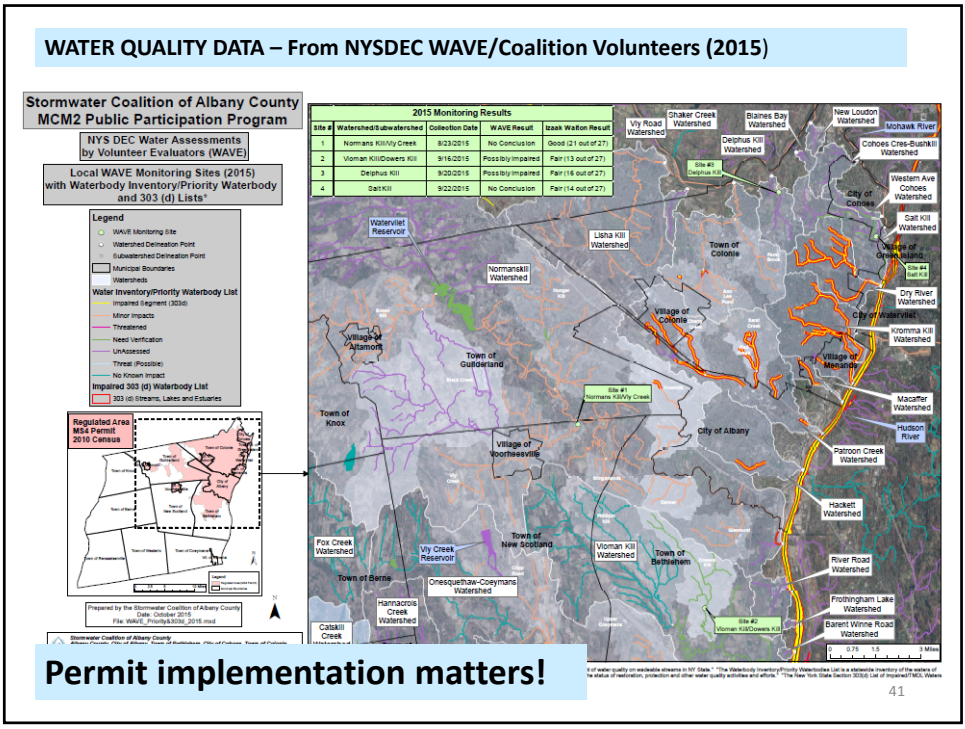


City of Albany (EPA)



University at Albany-Uptown (EPA)





Earth Water Supply

97% salt

2.4% glaciers/ice caps

~.6% unavailable

~003% potable and drinkable

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Questions?

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