Keeping Raw Sewage and Contaminated Stormwater Out of the Public's Water

2011

Introduction

Forty years ago, the federal Clean Water Act set the ultimate goal of achieving water quality improvements that would allow people to fish from and swim in our rivers, lakes and streams. The quality of our water is directly related to the quality of our life. It is a vital resource for human health, but water quality is often taken for granted. Forty years after the passage of the Clean Water Act, we must continue the work of enforcing the Clean Water Act while raising awareness about the activities that pollute our waterways.

Among the greatest challenges to the goals of fishable and swimmable waters are discharges and overflows of raw sewage into our waters. Many of the sewer systems in New York State and New Jersey and some in Puerto Rico are combined systems that carry sewage from homes and businesses as well as rainwater collected from street drains. When they overflow during heavy rains, the rainwater mixes with sewage and results in raw sewage being directly discharged into water bodies. This can pose serious environmental and public health risks. EPA has developed this report to answer some of the most commonly asked questions about combined sewer overflows and to raise awareness about this important water quality issue.

Sewer Systems in Our Communities

Many communities have separate sewer systems for wastewater collection – an independent sewer system that carries sewage from buildings and another for rainwater, also referred to as stormwater. The stormwater is sent directly to lakes, rivers and streams, while domestic sewage is transported to wastewater treatment plants, where it is treated to remove pathogens and other contaminants.

Combined sewer systems, on the other hand, are designed to transport sewage, industrial wastewater and rainwater runoff in the same pipes to wastewater treatment plants. They are remnants of the country's early infrastructure and are typically found in older cities. Combined sewer systems serve about 40 million people in roughly 772 communities nationwide. Most communities with combined sewer systems are located in the Northeast and Great Lakes regions, and the Pacific Northwest.

What are Combined Sewer Overflows?

Most of the time, combined sewer systems are able to transport all of the wastewater to a treatment plant, where it is treated and then discharged into a water body. During periods of heavy rainfall or snowmelt, however, the volume of wastewater traveling through a combined sewer system can exceed the capacity of the sewer system or treatment plant. For this reason, combined sewer systems are designed to overflow occasionally and discharge excess wastewater directly to nearby streams, rivers, lakes or other water bodies.

These overflows, called **combined sewer overflows** (CSOs), contain not only stormwater but also pollutants such as untreated human and industrial waste, toxic materials and debris. Stormwater may also contain pollutants, including oil, grease and toxic substances, picked up as rain washes across roads or fields. These pathogens, solids and toxic pollutants may be discharged directly to local waters when it rains, resulting in a discharge that exceeds water quality standards. They pose risks to human health, threaten aquatic habitats and life, and impair the use and enjoyment of the nation's waterways.

To view an actual CSO as it affects the Gowanus Canal in Brooklyn, visit: http://green.blogs.nytimes.com/2010/09/29/sewage-overflow-in-new-york-believe-it/.

Impacts of CSOs

Exposure to polluted water from CSOs can cause waterborne infections including hepatitis, gastroenteritis, as well as skin, wound, respiratory and ear infections. Although, generally, waterborne diseases result from ingesting contaminated water, they may also

be contracted through inhalation of water vapors, eating contaminated fish and shellfish, and swimming. The most common symptoms are diarrhea and nausea.

The impacts are not limited to adverse human health effects; CSOs can cause beach closures, affect fish survival, and result in shellfish bed closures, contamination of drinking water supplies, and the destruction of aquatic life. They can also limit recreational use of important and beautiful natural resources. Data for New York State in 2008 indicate that of the 138 beaches that had beach closures or advisories about water quality, approximately 5 percent were determined to be directly due to CSOs. CSO discharges can:

- Increase the presence of floating debris or slicks in the receiving waterways. Floating debris can also result in beach closures and seriously impair the aesthetic quality of receiving waters;
- Add significant amounts of toxic materials to the sediment that lies at the bottom of our rivers, lakes and streams. In recent years, contaminated sediment has emerged as a major ecological and human health issue throughout the U.S. The contaminated sediment has both acute and chronic toxic effects on aquatic life and is a continuing source of persistent bioaccumulative toxic chemicals, chemicals that can concentrate in the fatty tissues of fish and other organisms over time;
- Result in financial burdens for communities due to cleanup expenses, emergency repairs, lost tourism revenue, lost productivity, and medical treatment.

The pollutants of concern and the principal consequences of CSOs are summarized in the table below.

Pollutants of Concern (US EPA 2001)	**Principal Consequences**
Bacteria (e.g. FC, E. coli, enterococci) Viruses Protozoa (e.g. *Giardia*, *Cryptosporidium*)	Beach closures Adverse public health effects Shellfish bed closures
Trash and floating debris	Aesthetic impairment and devaluation of property

	Beach closures Adverse public health effects
Organic compounds Metals Oil and grease Toxic pollutants	Aquatic habitat impairment Adverse public health effects Fishing and shellfishing restrictions
Biochemical oxygen demands (BOD)	Reduced oxygen levels and fish kills Odors
Solids deposits (sediment)	Aquatic habitat impairment Shellfish bed closures Odors
Nutrients (e.g. nitrogen, phosphorus)	Aesthetic impairment Depletion of oxygen Algal blooms
Flow shear stress	Stream erosion

Prevalence and Location of CSOs in New York, New Jersey and Puerto Rico

Industrial, municipal and other facilities must obtain permits if discharges from their combined sewer systems go directly to surface waters. In New York and New Jersey, the permit program is administered by state environmental agencies and is an essential tool for the control of CSOs. In Puerto Rico, permits are issued by EPA.

Total number of CSO facilities and discharge points from which untreated wastewater is discharged into receiving waters:

- New York State has 76 CSO permit holders with 966 outfalls;
- New Jersey has 30 CSO permit holders with 254 outfalls;
- In Puerto Rico, EPA has recently identified four potential outfalls.

- For a list of all CSO facilities in New York, New Jersey and Puerto Rico *see attachment 1.*
- Maps of CSO locations:

Commented [sk1]: These maps could be included directly in the report, rather than as at the end.

- New York and New Jersey – *see attachment 2.*
- New York City Metro area – *see attachment 3.*
- Puerto Rico – *see attachment 4.*

What is EPA Doing about CSOs?

CSO Control Policy

Under the federal Clean Water Act, combined sewer discharges are prohibited without a permit. In December 2000, Congress amended the Clean Water Act by adding a section that requires each permit or enforcement document issued for a discharge from a municipal combined sewer system to "conform" to the CSO Policy. The CSO Policy is a comprehensive national strategy to ensure that local governments, permitting agencies, entities that establish water quality standards and the public engage in a comprehensive and coordinated planning effort to achieve CSO controls that ultimately meet appropriate health and environmental objectives.

The strategy has three objectives:

- Ensure that if CSOs occur, they are only as a result of wet weather;
- Bring all wet weather CSO discharge points into compliance with the technology and water quality based requirements of the Clean Water Act;
- Minimize the impact of CSOs on water quality.

CSO permits require permit holders to immediately undertake a process to characterize their combined sewer systems and CSO discharges accurately and to demonstrate that they have implemented the nine minimum technology-based controls identified in the policy.

Examples of Actions that Meet the Nine Minimum Controls

Nine Minimum Technology-Based Controls	Control Measure Examples
Proper operation and regular maintenance programs of the sewer system and CSOs	Maintain/repair flow regulator devices Maintain/repair tidegates Remove sediment/debris Repair pump stations Develop inspection program Inspect collection system

Maximum use of the collection system for storage	Maintain/repair tidegates Adjust flow regulator devices Remove small system bottlenecks Prevent surface runoff Remove flow obstructions Upgrade/adjust pumping operations	
Review and modification of pretreatment requirements to assure CSO impacts are minimized	Volume Control Diversion storage Flow restrictions Reduced runoff Curbs/dikes	Pollutant Control Process modifications Storm water treatment Improved Housekeeping Best Management Practices Plan
Maximization of flow to the publicly owned treatment works for treatment	Analyze flows Analyze unit processes Analyze headloss Evaluate design capacity Modify internal piping Use abandoned facilities Analyze sewer system	
Elimination of CSOs during dry weather	Perform routine inspections Remove illicit connections Adjust/repair flow regulator devices Repair tidegates Clean/repair combined sewer system Eliminate bottlenecks	
Control of solid and floatable materials in CSOs	Screening - Baffles, trash racks, screens (static and mechanical), netting, catch basin modifications Skimming - booms, skimmer boats, flow balancing Source controls - street cleaning, anti-litter, public education, solid waste collection, recycling	
Pollution prevention	Source controls (see above) Water conservation	
Public notification to ensure that the public receives adequate notification of CSO occurrences and CSO impacts	Posting (at outfalls, use areas, public places) TV/newspaper notification Direct mail notification	
Monitoring to effectively characterize CSO impacts and the efficacy of CSO controls.	Identify all CSO outfalls Record total number of CSO events and frequency and duration of CSOs for a representative number of events Summarize locations and designated uses of receiving waters Summarize water quality data for receiving waters Summarize CSO impacts/incidents	

CSO permits also require permit holders to develop a Long-Term Control Plan (LTCP) that evaluates alternatives for attaining compliance with the Clean Water Act, including compliance with water quality standards and the protection of the uses designated for each body of water, such as drinking, fishing and swimming. In developing its LTCP, the permit holder must actively involve the affected public in the selection of the controls.

Once the LTCPs are completed, permit holders are responsible for implementing the plans in accordance with approved schedules contained in their permits or orders.

The complete CSO Control Policy can be found at http://www.epa.gov/npdes/pubs/owm0111.pdf.

Commented [sk2]: RA asked to include info on where to view the control plans in each community. According to DEC there is no central location where these are published, each permittee does separately.

Implementation of CSO Control Policy in New York and New Jersey

The states of New York and New Jersey have been authorized by EPA to implement major portions of the Clean Water Act, including the permit program known as the National Pollutant Discharge Elimination System. EPA works closely with the state water permitting authorities – the New York State Department of Environmental Conservation and the New Jersey Department of Environmental Protection – to minimize or eliminate CSO discharges and implement the CSO Control Policy by ensuring permits contain requirements for implementing the nine minimum controls as well as controls identified in the permitees' LTCPs.

FOIA - Exemption 5

~~For the current status of CSO controls in New York and New Jersey, see attachment 5.~~

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National Enforcement Strategy

Sources that discharge to waters of the United States must comply with the Clean Water Act's technology-based and water quality-based requirements. EPA will continue to focus its enforcement efforts on reducing discharges of raw sewage and contaminated stormwater into our nation's rivers, streams and lakes. The Clean Water Act requires municipalities to treat sewage before it is discharged and to control contaminated stormwater discharges, but many municipalities are not in full compliance with these

requirements. The Clean Water Act also requires municipalities to meet water quality standards and protect the designated uses for a waterbody before sewage is discharged.

In recent years, EPA's enforcement efforts have resulted in agreements with many cities including Northeast Ohio Regional Sewer District, Ohio; Kansas City, Missouri; and Oswego, New York to address their CSO problems. An EPA National Enforcement Initiative for October 2011 - September 2011 focuses on the reduction of discharges from combined sewers, sanitary sewers, and municipal storm sewer systems, by obtaining commitments from municipalities to implement timely, comprehensive solutions to these problems, including increased use of green infrastructure as appropriate.

Promotion of Green Infrastructure

Green infrastructure is an approach to design that takes nature into account in order to mitigate the effects of existing and future growth on the environment. Green infrastructure includes techniques that can reduce, capture and treat stormwater runoff at its source before it reaches the sewer system. Site-specific practices, such as green roofs, downspout disconnections, rain harvesting/gardens, planter boxes, and permeable pavement are designed to mimic natural hydrologic functions and decrease the amount of impervious area and stormwater runoff from individual sites. The applications and design approaches can also be applied in neighborhood settings (i.e., green streets) or at larger regional scale (i.e., riparian buffers and urban forestry) to manage stormwater. These applications and approaches can keep stormwater out of the sewer system to reduce overflows and to reduce the amount of untreated stormwater discharging to surface waters.

Recovery Act

Under the 2009 American Recovery and Reinvestment Act, signed by President Obama, EPA has provided extra assistance to localities and states for CSO projects. In New Jersey, Recovery Act funding has gone to eight CSO projects with a total of more than $30 million allocated and about 25 full-time jobs created. In New York, five CSO projects have been awarded a total of more than $45 million in Recovery Act funding with approximately 32 full-time jobs created.

Commented [sk4]: RA suggested this as a news hook at the opening of the report, but since we want this document to be timeless, we decided to keep under "What EPA is doing" section.

Success Story

The city of Oswego, New York is an excellent example of how the Agency's enforcement strategy is resulting in system enhancements that will improve water quality. Improvements to the city's sewer system, to be implemented under a settlement lodged in federal court, will significantly reduce the number of sewer overflows.

Under the settlement, the city has agreed to undertake a comprehensive, system-wide program that will bring the city into compliance with the Clean Water Act. Specific measures include: separating 75 percent of the combined system into sanitary and stormwater components to prevent high volumes of rainwater from overwhelming the treatment plant; a 50 percent expansion of the capacity for wastewater treatment on the city's west side; disconnection of catch basins to reduce the inflow of rainwater into the existing sanitary sewer system; major improvements in daily operation and maintenance procedures; and sewer financing reforms.

It is estimated that the final CSO implementation program will eliminate approximately 30 CSO events per year and greatly reduce the amount of pollution entering the Oswego River and Lake Ontario.

Beaches Environmental Assessment and Coastal Health (BEACH) Act

The BEACH Act of 2000 requires that coastal and Great Lakes states and territories report to EPA on water pollution levels at beaches and provide notification data on coastal waters used for recreation.

The BEACH Program focuses on the following five areas to meet the goals of improving public health and environmental protection for beach goers and providing the public with information about the quality of their beach water:

- strengthening beach standards and testing;
- providing faster laboratory test methods;
- predicting pollution;
- investing in health and methods research;
- informing the public.

In 2010, EPA made almost $10 million in grants available to 37 eligible coastal and Great Lakes states, territories and tribes to monitor beach water quality and notify the public of conditions that may be unsafe for swimming.

Clean Beaches Plan

Through the Clean Beaches Plan, EPA is working with state, tribal and local beach managers to strengthen their programs. A strategy for reducing the risks of infection to people who use our recreational waters, the plan recognizes that beach managers need tools that allow for local and regional differences in pollution sources and climate. The Clean Beaches Plan describes how EPA will achieve two major goals: promotion of recreational water quality programs nationwide and creation of scientific improvements that support timely recreational water monitoring and reporting.

EPA also provides grants to states for beach monitoring and notification programs, technical guidance, scientific studies and federal water quality standards to support state and territorial efforts where necessary. EPA will award grants to states and territories to augment their monitoring of beaches and reporting to the public when the beaches are closed for health reasons.

Floating Debris Action Plan

The Floatables Action Plan, developed in 1989 and most recently amended in 2008, addresses floating debris in the New York Bight, which includes the New York/New Jersey Harbor and the shorelines of Long Island and New Jersey. The plan was developed by an interagency workgroup that included city, state and federal representatives. The Floatables Action Plan has been carried out every year since to control washups of floating debris on area beaches. The plan consists of aerial surveillance by an EPA helicopter and plane, a communications network to report slick sightings and to coordinate cleanup response, and routine cleanups conducted by skimmer boats in the New York/New Jersey Harbor. Since its inception, the plan has significantly reduced the amount of floating debris escaping the harbor and has been expanded to include volunteer collection, booming and skimming, combined sewer

overflow collection and beach cleanup programs. As of 2009, approximately 392 million pounds of debris had been removed from the New York Bight area.

Marine Debris

Marine debris is a problem along shorelines, and in coastal waters, estuaries and oceans throughout the world. Marine debris consists of trash and other solid material that enter our waterways either directly or indirectly. Common types of marine debris include plastic bags, bottles and cans, cigarette filters and bottle caps. When trash is not recycled or properly disposed of on land it can become marine debris, often by washing from the street into sewers or storm drains. Many types of animals like seals, sea turtles, birds, fish, and crabs, can be wounded, strangled, or unable to swim if they consume or become entangled in marine debris. EPA scientists have conducted numerous studies to identify types and sources of marine debris. EPA also focuses control efforts on specific sources such as street litter, stormwater runoff, and industrial wastewater and supports recycling programs.

Preventative Measures -- Simple Steps to Help Prevent CSOs:

What Individuals Can Do

- *Participate in your community's planning process*

If you live in a community with a combined sewer system, then your municipality must implement a Long-Term Control Plan (LTCP). An important aspect of the plan is public participation. Take advantage of this process and help your community make decisions regarding CSOs. Call your local water department or visit your municipality's website to see how you can get involved.

- *Report overflows during dry weather*

If you see a combined sewer overflow during dry weather, report it to your state environmental agency:

New Jersey Department of Environmental Protection (NJDEP), http://www.nj.gov/dep/warndep.htm

Commented [sk5]: Added phone numbers, addresses and websites.

401 E. State Street
P.O. Box 402
Trenton, NJ 08625-0402
Toll-free hotline for reporting environmental incidents: (877) 927-6337

New York Department of Environmental Conservation (NYSDEC)
http://www.dec.ny.gov/chemical/48595.html
Division of Water
625 Broadway
Albany, NY 12233-3500
518-402-8111

Puerto Rico Environmental Quality Board (PREQB)
http://www.gobierno.pr/JCA/Servicios/Agua/
Director de Área: Roberto Ayala Padró
E-mail: robertoayala@jca.gobierno.pr
Tel: (787) 767-8073
(787)767-8181 ext. 3475, 3476

CSO outfall locations ~~should be~~ are usually marked with a warning sign which can help you identify their occurrence. In general, CSOs look like a concentrated flow of waste water from an open sewer pipe into a body of water. In many cases, a CSO can be identified by the smell of raw sewage.

Commented [sk6]: According to DEC, permittees can ask for a waiver, so it's not 100% that ALL outfalls have signs, nor can we say that it is strictly law since there are exceptions.

- *The 3 Rs: Reduce, Reuse, Recycle*

By generating less garbage, you help reduce the amount of garbage that can make its way into a combined sewer system.

- *Flush Responsibly*

Don't pour household products such as cleansers, beauty products, old medicine, auto fluids, or paint and lawn care products down the drain. Properly dispose of them at your local household hazardous waste facility. To find out where one is in your community, visit http://earth911.com.

- *Conserve Water*

By conserving water, you help reduce CSOs by reducing the flow of combined sewage, which helps reduce flows during rain storms. Plus you will save money on your water bill. There are many ways you can conserve water:

- Fix leaks throughout your house;
- Water your garden or lawn during the coolest part of the day and do not water on windy days;
- Use WaterSense labeled products, such as showerheads, toilets and sinks. WaterSense is an EPA-sponsored partnership program that promotes water-efficient products, programs and practices. These products work just as well, if not better than their counterparts, while using less water.

- *Reduce the Use of Pesticides*

When it rains, pesticides can run off into the storm drains, where they enter the sewer systems. Use non-toxic products whenever possible and reduce the amount of pesticides and fertilizers used in homes and businesses to reduce the amount of these toxins entering sewers and waterways.

- *Green Infrastructure*

Green Infrastructure is an approach to wet weather management that incorporates the collection and absorption of rain in order to prevent runoff. Examples of green infrastructure at home include:

- Rain Harvesting—create a rain barrel to collect rain water. Use collected water to water your garden;
- Rain Gardens—plant a rain garden to help capture rain water, preventing it from flowing into the street and down the storm drain;
- Don't pave everything.

What Businesses, and Industries Can Do

- *Erosion and Sediment Control*

Loose soil is easily transported when it rains into storm drains. Implement erosion and sediment controls during construction activities, such as silt fences, storm drain protection and seeding of soil piles.

- *Pesticides Reduction*

Using non-toxic products whenever possible will reduce the amount of pesticides and fertilizers entering sewers and waterways.

- *Don't Fill in Wetlands*

Wetlands are critical areas of land that help protect and improve water quality, provide fish and wildlife habitats; absorb water, preventing flooding; and maintain surface water flow. When wetlands are filled in (even partially), nature's water balance is damaged.

- *Green Infrastructure*
    - Green Roofs—a flat roof can create a large amount of water runoff. Planting grass and plants on a roof can greatly reduce runoff.
    - Vegetated Areas—even small parcels of land can be transformed into a green space. A little bit goes a long way!
    - Permeable Parking Lots—segmented concrete or permeable materials can transform a parking lot from a flood zone to a water-saving area.

Sources of Additional Information:

U.S. Environmental Protection Agency:
http://cfpub.epa.gov/npdes/home.cfm?program_id=5

New York Department of Environmental Conservation:
http://www.dec.ny.gov/chemical/48595.html

New Jersey Department of Environmental Protection:
http://www.state.nj.us/dep/dwq/gp_cso.htm

Riverkeeper:
http://www.riverkeeper.org/campaigns/stop-polluters/cso/

New York-New Jersey Harbor Estuary Program:
http://www.harborestuary.org/

US EPA Region 2
290 Broadway
New York, New York 10007-1866
(212) 637-3660
www.epa.gov/region2

Attachment 1:

Note: There is one additional CSO permittee listed in New York State that is located on tribal land (Salamanca, Seneca Nation). A number of CSO permit holders in New York State have eliminated their CSO discharges or have been reclassified. The New Jersey listing contains more than 30 permit holders since some facilities require both an individual permit as well as an authorization under the New Jersey General Permit.

New York State CSO Facilities

Permittee Status	Facility Name	City (Mail)	Current Outfalls
ACTIVE	Target Hill WWTP		1
ACTIVE	Binghamton CSO	Binghamton	9
ACTIVE	Albany CSO	Albany	12
ACTIVE	Watertown WPCP	Watertown	17
ACTIVE	Plattsburgh WPCP	Plattsburgh	14

ACTIVE	Rensselaer CSO	Rensselaer	8
ACTIVE	Newburgh WPCP	Newburgh	12
ACTIVE	Lockport WWTP	Lockport	13
ACTIVE	Clayton Village WTF	Clayton	2
ACTIVE	Bird Island WWTF	Buffalo	58
ACTIVE	Glens Falls WWTP	Glens Falls	1
ACTIVE	Oswego-West Side STP	Oswego	1
ACTIVE	Waterford WWTP	Waterford	4
ACTIVE	Kingston WWTF	Kingston	7
ACTIVE	Ogdensburg WWTP	Ogdensburg	16
ACTIVE	Watervliet CSO	Watervliet	5
ACTIVE	Cohoes CSO	Cohoes	16
ACTIVE	Utica CSO	Utica	81
ACTIVE	Green Island CSO	Green Island	3
ACTIVE	Chemung County-Elmira S.D. STP	Elmira	11
ACTIVE	Rensselaer County	Troy	0
ACTIVE	Troy CSO	Troy	49
ACTIVE	Washington County S.D. 2	Fort Edward	11
ACTIVE	Gouverneur STP	Gouverneur	1
ACTIVE	Amsterdam WWTP	Amsterdam	3
ACTIVE	Catskill WWTP	Catskill	6
ACTIVE	Boonville WWTP	Boonville	2
ELIMINATED	City of Salamanca		
ACTIVE	Schenectady WPCP	Schenectady	2
ELIMINATED	Wellsville WWTP	Wellsville	0
ACTIVE	Potsdam WPCP	Potsdam	1
ACTIVE	Medina WWTP	Medina	13
ACTIVE	Auburn STP	Auburn	9
ACTIVE	Hudson STP	Hudson	10
ELIMINATED	Erie County S.D. #6	Buffalo	1
ACTIVE	Little Falls WWTP	Little Falls	3
ELIMINATED	Village of Holley STP	Holley	0
ACTIVE	Village of Johnson City CSO	Johnson City	2

ACTIVE	Binghamton-Johnson City Joint WWTF		
ELIMINATED	Lewiston ORF	Lewiston	1
ELIMINATED	Carthage West WPCF		
RECLASSIFIED	Oneida County WPCP	Utica	1
ACTIVE	Port Richmond WPCF	New York	36
ACTIVE	NYCDEP Jamaica WPCP	Elmhurst	6
ACTIVE	Wards Island WPCP	New York	78
ACTIVE	NYCDEP Bowery Bay WPCP	Elmhurst	46
ACTIVE	NYCDEP Owls Head WPCP	Elmhurst	16
ACTIVE	NYCDEP Oakwood Beach WPCP	Elmhurst	1
ACTIVE	NYCDEP Coney Island WPCP	New York	4
ACTIVE	NYCDEP-Hunt's Point WPCP	Elmhurst	36
ACTIVE	Newtown Creek WPCP	New York	83
ACTIVE	NYCDEP 26th Ward	Elmhurst	4
ACTIVE	NYCDEP Rockaway WWTP	Elmhurst	18
ACTIVE	Tallmans Island WPCP	New York	22
ACTIVE	North River WPCF	New York	50
ACTIVE	Poughkeepsie WPCP	Poughkeepsie	6
ACTIVE	North Tonawanda WWTP	North Tonawanda	6
ACTIVE	Niagara Falls WWTP	Niagara Falls	9
ACTIVE	Yonkers Joint WWTP	Yonkers	12
ACTIVE	Albany South WWTP		
ACTIVE	Albany North WWTP		
ACTIVE	Red Hook WPCP	Elmhurst	34
ACTIVE	Syracuse Metro WWTP	Syracuse	62
ACTIVE	Lewiston Master S.D.	Lewiston	1
ACTIVE	Dunkirk WWTP	Dunkirk	1
ELIMINATED	Saratoga County Sewer District 1		
ACTIVE	Frank E. VanLare STP	Rochester	6
ACTIVE	City of Oswego, East Side STP	Oswego	6
ELIMINATED	Owego STP		
ELIMINATED	Owasco S.D. #1 Overflows		
ACTIVE	Canastota WPCF	Canastota	1

ACTIVE	Tupper Lake WPCP	Tupper Lake	2
ELIMINATED	Massena WWTP	Massena	9
ACTIVE	Dock Street STP	Saugerties	0
ACTIVE	Village of Coxsackie STP	Coxsackie	3
ACTIVE	Ticonderoga S.D. #5 WPCP	Ticonderoga	2
ELIMINATED	City of Mechanicville CSO	Mechanicville	0

New Jersey CSO Facilities

Permittee Status	Facility Name	City (Mail)	Current Outfalls
ACTIVE	Bergen County WWTP Utilities Authority	Little Ferry	0
ACTIVE	Middlesex County Utility Authority	Sayreville	0
ACTIVE	Passaic Valley Sewerage Commissioners	Newark	0
ACTIVE	Joint Meeting of Essex & Union Counties	Elizabeth	0
ACTIVE	North Hudson SA-West NY (River Road)	West New York	2
ACTIVE	North Hudson SA-Hoboken (Adams Street)	Hoboken	8
ACTIVE	Camden County MUA	Camden	0
ACTIVE	North Bergen MUA (Woodcliff)	North Bergen	0
ACTIVE	North Bergen MUA (Central)	North Bergen	0
ACTIVE	Fort Lee	Ft. Lee	2
ACTIVE	Guttenberg Town	Guttenberg	1
ACTIVE	Jersey City MUA	Jersey City	21
ACTIVE	Newark	Newark	17
ACTIVE	City of Hackensack	Hackensack	2
ACTIVE	City of Elizabeth	Elizabeth	34
ACTIVE	Cliffside Park Borough	Cliffside Park	0
ACTIVE	City of Camden	Camden	31
ACTIVE	Gloucester City	Gloucester	7
ACTIVE	Town of Harrison	Harrison	7
ACTIVE	City of Paterson	Paterson	24
ACTIVE	Ridgefield Park Village	Ridgefield Park	6
ACTIVE	City of Bayonne CSOs	Bayonne	28
ACTIVE	Town of Kearny	Kearny	5
ACTIVE	East Newark	East Newark	1

ACTIVE	Perth Amboy	Perth Amboy	16
ACTIVE	Trenton Sewer Utilities Authority	Trenton	1
ELIMINATED	City of New Brunswick		
ELIMINATED	Edgewater MUA	Edgewater	0
ELIMINATED	Rahway Valley Sewerage Authority	Rahway	0
ELIMINATED	Rahway City		
ACTIVE	Passaic Valley Sewerage Commissioners	Newark	0
ACTIVE	Joint Mt. Of Essex and Union	Elizabeth	0
ACTIVE	Camden County MUA	Camden	1
ACTIVE	North Bergen MUA	North Bergen	10
ACTIVE	Bergen County WWTP Utilities Authority	Little Ferry	0

Puerto Rico CSO Facilities

Permittee Status	Facility Name	City (Mail)	Current Outfalls
*	~~Santurce Sanitary~~ Puerto Nuevo Sewer System	San Juan	~~46~~

* EPA has recently identified four potential outfalls in Puerto Rico.