New York State Sewer Scorecard
A Snapshot of New York State's Sewage Treatment Plants

Citizens Campaign for the Environment

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Cover photo: Van Lare Sewage Treatment Plant and Lake Ontario

Photo Credit: Rochester Committee for Scientific Information (RCSI)
http://www.rcsiweb.org/gallery.html

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Executive Summary

Whether we find our favorite beaches closed in the summer, our drinking water contaminated, or sewage flooding our basements after rain events, it is clear that sewage pollution adversely impacts our quality of life. In New York, sewage pollution is especially problematic due to our aging infrastructure and scarce funding resources. To assess the state of New York State's sewage treatment plants, Citizens Campaign for the Environment, in collaboration with Scenic Hudson and the Clean Water Network, embarked on a project to evaluate numerous sewage treatment plants throughout New York State.

While our results revealed a few bright stars, overwhelmingly New York's sewage treatment facilities performed poorly. Sewage treatment plants were evaluated based on several criteria, including: no multiple raw sewage overflows, public notification of sewage overflows or bypasses, and sewage utility commitment to a compliance schedule or best management practices. The 22 sewage treatment plants reviewed earned an average grade of "D-".

The failure of many of our sewage treatment plants, while alarming, is not unsubstantiated. In the *Clean Watershed Needs Survey 2000 Report to Congress*, the United States Environmental Protection Agency (EPA) told Congress in August of 2003 that **New York State needs over $20 billion to improve our state's water quality** to benefit public health, local economies, and our environment. The following year, in its *Report to Congress on the Impacts and Controls of CSOs and SSOs,* the EPA concluded that occurrences of Combined Sewer Overflows (CSOs) and Sanitary Sewer Overflows (SSOs) are widespread and are heavily concentrated in the Northeast and Great Lakes States. Additionally, EPA estimates that more than 3,400 U.S. Beaches were closed in 2004. Of those, almost a third were due to high bacteria indicator readings. These high bacteria readings are often indicative of pollution from partially treated or raw sewage released into the environment.

The results of the first *New York State Sewer Scorecard* report further underscore the substantial resource gap that exists to upgrade and improve our aging and failing infrastructure. Understanding that over $20 billion is needed to meet that gap can be overwhelming, but finding solutions is imperative because sewer infrastructure cannot fix itself. There are many policy solutions, however, that can be adopted at the federal and state levels to help ease the burden on local municipalities and sewer operators and improve our water quality.

Clean water is essential to life. Working together with system operators, rate payers, and elected officials, we look forward to using this report as a catalyst for enacting long-term solutions and ending sewage pollution.

Dereth Glance
Program Director
Citizens Campaign for the Environment

Introduction: Protecting Our Water Resources

According to the United States Environmental Protection Agency (EPA), more than 3,400 U.S. beaches were closed in 2004. Of those, almost a third were due to high bacteria indicator readings. These high bacteria readings are often indicative of pollution from partially treated or raw sewage released into the environment.

Sewage is introduced into our environment primarily through two pathways, Sanitary Sewer Overflows (SSOs) and Combined Sewer Overflows (CSOs). SSOs occur when sewer systems, which carry sewage separate from storm water, discharge the sewage prior to treatment at the sewage plant, or when sewage escapes the system and overflows from manhole covers onto our streets and sidewalks. CSOs occur when sewer systems that carry sewage and stormwater in the same pipe discharge diluted sewage prior to full treatment at the sewage plant. Since Congress enacted the Clean Water Act in 1972, the discharge of raw or diluted sewage from sewage collection systems has been generally illegal. Although such discharges are generally illegal, raw or under-treated sewage often flows into our environment. ***In the August 2004*** **Report to Congress on the Impacts and Controls of CSOs and SSOs**, ***EPA concluded that occurrences of CSOs and SSOs are widespread and are heavily concentrated in the Northeast and Great Lakes States.***

What is in sewage? Our sewer systems carry waste from domestic, commercial, and industrial users. Sewage can contain disease-causing microorganisms, floating human wastes, toxic pollutants, oil and grease, pesticides, drugs, and other contaminants. In addition to posing public health risks, sewage pollution is rich is environmental nutrients, like nitrates and phosphates, that degrade water quality and contribute to algal blooms, hypoxia, and fish kills.

Water Quality & Our Aging Infrastructure

Unlike potholes in our roads, our aging sewer infrastructure is out of sight and out of mind for most of us until we are faced with a problem, like a sewer backup or the closure of our favorite beach. Although the problems associated with our aging infrastructure often lack visibility, the public continues to strongly support strong sewage standards and clean water. In May 2005, the EPA wisely chose to shelve a wet weather sewage policy that would have weakened treatment standards. The EPA received over 98,000 comments opposing this proposal. Furthermore, Congress voted to deny funding to the EPA for the purpose of finalizing the ill-fated sewage "blending" policy. The shelved proposal was an attempt to respond to frustrated treatment operators and regulators, who deal regularly with the substantial financial gap between the need for sewage treatment plant upgrades and the resources available.

In May 2005, The EPA wisely chose to shelve a wet weather sewage policy that would have weakened treatment standards. The EPA received over 98,000 comments opposing this proposal.

Improvements Needed

The EPA's *Clean Watershed Needs Survey 2000 Report to Congress* quantified the substantial financial needs of our nation's aging sewage infrastructure to preserve our environment, improve our coastal economies, and protect public health. The improvements needed in New York State follow:

1. Secondary wastewater treatment, or the minimum level of treatment required of all (non-exempted) treatment facilities, at 48% of the total quantified need, constitutes the single largest improvement needed to positively impact water quality.

2. CSO correction constituted 27% of total quantified need and is the second largest improvement category. This category includes measures used to achieve water quality objectives by controlling or preventing CSOs from occurring during rain events. This category does not include flood control, drainage improvement, or treatment of storm water in separate sanitary sewer systems.

3. The physical collection systems—the sewer pipes—make up the third largest need at 14%. This category includes controlling water infiltrating the sewer system through defective pipes or manholes and controlling inflow of water from improper hook-ups. Also included in this category is the need for sewer replacement and rehabilitation.

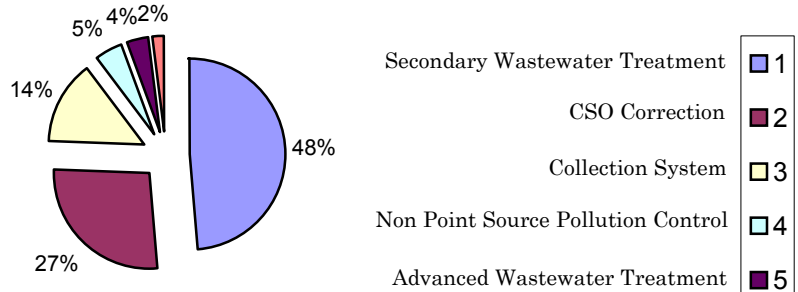
4. Non Point Source Pollution Control includes managing pollution in stormwater that comes from many sources, both agricultural and urban.

5. Advanced Wastewater Treatment is required in compromised watersheds to obtain pollution concentrations lower than achievable with basic secondary treatment.

6. Hydromodification is associated with decreasing non point source pollution through best management practices of altered watercourses. Examples included under this category are conservation easements, wetland restoration, and bank or channel stabilization.

New York State Clean Watershed Needs Assessment by Category

The EPA assessed New York State's Clean Watershed Needs is in excess of $20 billion.



Source: EPA, Clean Watershed Needs Survey 2000 Report to Congress, August 2003

Where Does the Money to Fix Our Sewer Systems Come From?

After the Clean Water Act passed in 1972, the EPA was involved in sewer system evaluation and rehabilitation projects under the Construction Grants Program. This program offered municipalities the opportunity to obtain substantial grants for the construction and upgrade of wastewater treatment facilities. This program ended in 1990, when the Revolving Loan Program, or State Revolving Fund (SRF), replaced the Construction Grants Program. Without a Construction Grants Program, cash-strapped municipalities were left to take on the financial responsibility of low or no interest loans to afford wastewater infrastructure improvements. In New York State, the Environmental Facilities Corporation and New York State Department of Environmental Conservation (DEC) jointly administer these low to no interest loans. According to the Natural Resources Defense Council and the Association of State and Interstate Water Pollution Control Administrators, federal dollars now account for about 5% of expenditures on clean water infrastructure improvements, a decrease of 70% over the past 30 years. Additionally, anticipated Congressional budget appropriations to New York's 2006 SRF are expected to be almost 50% lower than what New York received in 2004. With decreased federal assistance, wastewater treatment improvement costs continue to fall upon already cash-strapped municipalities. The challenge is before all of us – including ratepayers, the EPA, New York State, and wastewater treatment operators – to find solutions to abate sewage pollution.

Emerging Threats Facing Our Waters

At a time when financial need far exceeds current available resources, our serious problem of sewage pollution is only compounded by emerging pollutants that existing wastewater treatment plants are unprepared to treat. What goes down the drain can enter our waterways and, in turn, show up in our drinking water. Emerging pollutants are not regularly tested for by system operators, nor are they being removed. The United States Geological Survey (USGS) and various other research, health, and government agencies, however, have found pharmaceutical contamination to be a threat to our drinking water.

When a person (or animal) ingests medication of any kind, perscribed or over-the-counter, his/her body does not fully absorb the drug. Chemicals commonly used in human medicine, agriculture, personal care products, and household chemicals are finding their way into our waterways and, often, our drinking water supplies. The USGS tested 139 streams across 30 states during 1999 and 2000 and found organic waste contaminants, which include caffeine, fire retardants, various antibiotics used for medical or agricultural purposes, and commonly prescribed drugs including antacids, antidepressants, steroids, and hormones, present in 80% of the streams sampled. For most of these contaminants, there are no established state or federal drinking water standards. There is serious concern that these contaminants contribute to bacterial resistance to antibiotics, and scientists are calling for further research on the issue.

The United States Geogolical Survey tested 139 streams across 30 states during 1999 and 2000, and found organic waste compounds present in 80% of the streams sampled.

How Do Sewage Treatment Plants in New York Rate?

For the first New York State Sewer Scorecard, Citizens Campaign for the Environment, in collaboration with Scenic Hudson and the Clean Water Network, surveyed a diverse selection of sewage treatment plants across the state. The oldest facility surveyed was originally built more than 100 years ago, while the newest plant graded is a few decades old. The sewage treatment plants evaluated in this report treat waste from diverse communities throughout New York, from large metropolitan areas serving over a million people to smaller systems serving a few thousand users. These plants discharge into recreational waters from Lake Erie to the Atlantic Ocean. While a few bright stars were found, overwhelmingly New York's sewage treatment facilities did not fair well. Of the sewage treatment plants evaluated, 3 earned an "A", 1 earned an "A-", 1 earned a "B+", 4 were in the "C" range, 8 fell in the "D" range, and 5 failed. The average grade earned was a "D-".

Sewer Scorecard Methodology

To evaluate how sewage treatment plants were complying with requirements, 22 sewage treatment plants were identified that, collectively, discharge into the Niagara River, Lake Erie, Lake Ontario, Seneca River, Black River, St. Lawrence River, Hudson River, Long Island Sound, and the Atlantic Ocean.

Sewage treatment plant grades are based on criteria specific to the type of sewer system. In this report, two types of sewer systems were graded: separate sanitary sewer systems and combined sewer systems. After receiving copies of the 22 State Pollution Discharge Elimination System (SPDES) permits requested from the DEC, graders reviewed the permits, contacted the sewage treatment plant operators, and asked a series of individually-weighted questions specific to the type of sewer system.

Separate Sanitary Sewer Systems: Grading Criteria

What are Separate Sanitary Sewer Systems? *These systems transport sewage and storm water in separate pipes. Storm water is discharged, without treatment, into local tributaries. The sewage is transported to the sewage treatment plant to be treated to remove solids, excess nutrients like phosphorus and nitrates, and to remove viruses and pathogens, like Cyptosporidum and Giardia, that cause waterborne illnesses.*

Separate sanitary sewer systems were graded favorably for fully treating all sewage under normal operating conditions and removing excessive nutrients, if discharging into an impaired waterway. Points could also be earned if the system had committed to a compliance schedule or plan to achieve treatment of sewage under normal operating conditions and provided public notification in the event of sewage bypass or overflow. Systems were penalized for allowing multiple raw sewage overflows and/or regularly bypassing sewage treatment during minor rain events, generally understood as a half of inch of rain or less. To account for extreme weather events or one-time anomalies, separate sanitary systems were not penalized for experiencing only one raw sewage overflow.

Specific grading criteria follow:

1. Is all discharged effluent fully treated under normal operating conditions, including most rain events?
2. If not, is the utility committed to a "compliance schedule," or plan to achieve full treatment of sewage under normal operating conditions?
3. Does the utility fully treat all sewage by not blending treated sewage with raw sewage or bypassing treatment for minor rain events?
4. Is the public notified when sewer overflows or bypasses occur?
5. Has the utility experienced no more than one sewer overflow over the past year?
6. Is all effluent disinfected?
7. Is the utility using de-chlorination or non-chlorine disinfectant to avoid creating dangerous byproducts?
8. If discharging into or upstream of a water body impaired by excess nutrients, like phosphorus and nitrates, are nutrients removed from the effluent?

Combined Sewer Systems: Grading Criteria

What are Combined Sewer Systems? *Among the earliest sewer systems constructed in the United States, these systems transport domestic, commercial, and industrial sewage and storm water runoff in a single pipe to the sewage treatment plant for treatment. Combined Sewer Overflows (CSOs) occur when a combined sewer system discharges prior to treatment.*

Combined sewer systems were graded favorably for disinfecting all sewage, committing to an EPA long-term control plan, and removing excessive nutrients, if discharging into impaired waterways. Sewage treatment utilities were penalized if raw or partially treated sewage was discharged during minor rain events and/or the utility sought to bypass sewage treatment. Additional points were gained by the utility for fully implementing best management practices, being in compliance with its schedule for long-term plan implementation, de-chlorinating effluent or using non-chlorine treatment methods to avoid creating dangerous byproducts, and supporting "green infrastructure."

Specific criteria for combined sewer systems follow:

1. Has the sewage plant implemented best management practices or EPA's nine minimum controls?
2. Has the sewage plant committed to an EPA-approved long-term control plan?
3. Is the utility on schedule with the implementation of its long-term control plan?
4. Does the utility fully treat all sewage and not discharge any raw or partially treated sewage during rain events?
5. Is "green infrastructure" or the use of rain gardens and green roofs to control storm water run-off supported by the sewage utility?
6. Is the public effectively notified if sewer overflows and bypasses occur?
7. Is all effluent disinfected?
8. Is the utility using de-chlorination or non-chlorine disinfectant to avoid creating dangerous byproducts?
9. If discharging into or upstream of a water body impaired by excess nutrients, like phosphorus and nitrates, are nutrients removed from the effluent?

Grades for Sewage Treatment Plants

What Do the Grades Mean?

"A" "Excellent"
No untreated sewage is released under normal operating conditions, and with regular operation and maintenance, the sewage treatment plant (STP) should be able to continue to perform well.

"B" "Good"
Some areas could be improved, but overall the STP is in acceptable shape.

"C" "Fair"
Critical improvements have been identified to control overflows and/or remove excess nutrients.

"D" "Poor"
The STP is in poor shape and in need of substantial improvement to control overflows and nutrient loads.

"F" "Fail"
The STP completely failed the expectations for functioning as effective and efficient sewage infrastructure, and drastic improvements are needed to protect water quality.

In total, Citizens Campaign for the Environment and Scenic Hudson evaluated 22 sewage treatment plants from across the State of New York. Receiving waters for the evaluated treatment plants discharge into the following drainage basins in the state:

- Atlantic Ocean
- Long Island Sound
- Hudson River
- Delaware River
- Susquehanna River
- Great Lakes Basin, which includes:
    - Genesee River
    - Black River
    - St. Lawrence River
    - Seneca River / Oneida Lake
    - Lake Ontario
    - Lake Erie / Niagara River

Scenic Hudson graded sewage treatment plants in the Hudson River basin, while Citizens Campaign for the Environment graded sewage treatment plants in the remaining drainage basins.

Atlantic Ocean and Long Island Sound Drainage Basins

New Rochelle Sewage Treatment Plant	
County	*Westchester*
Population Served	*80,000*
Date Built	*1955*
Sewer System Type	*Separate*
Receiving Water	*Long Island Sound*
EPA Watershed Needs Assessment	*$77,660,000*
Grade	***C-***
Comments	*Does not dechlorinate or remove excessive nutrients.*

Greenport Village Sewage Treatment Plant	
County	*Suffolk*
Population Served	*2,100*
Date Built	*1940*
Sewer System Type	*Separate*
Receiving Water	*Long Island Sound*
EPA Watershed Needs Assessment	*$3,324,000*
Grade	***C***
Comments	*In process of upgrading system to remove excessive nutrients.*

Southwest-Suffolk County Sewage District #3	
County	*Suffolk*
Population Served	*175,000*
Date Built	*1977*
Sewer System Type	*Separate*
Receiving Water	*Atlantic Ocean*
EPA Watershed Needs Assessment	*$68,254,000*
Grade	***C-***
Comments	*In process of upgrading system for nutrient removal.*

Bay Park Water Pollution Control Plant	
County	*Nassau*
Population Served	*507,000*
Date Built	*1949 built, updated in 1983*
Sewer System Type	*Separate*
Receiving Water	*Reynolds Channel*
EPA Watershed Needs Assessment	*$8,968,000*
Grade	***C***
Comments	*System does not remove nitrogen, nor does it dechlorinate effluent.*

Atlantic Ocean and L.I. Sound Drainage Basins (cont.)

New York City—Jamaica Water Pollution Control Plant	
County	*Queens*
Population Served	*648,690*
Date Built	*1943, updated in 1977*
Sewer System Type	*Combined*
Receiving Water	*Jamaica Bay*
EPA Watershed Needs Assessment	*$630,177,000*
Grade	***F***
Comments	*Regularly bypasses treatment, blends sewage, does not disinfect all effluent. Long-term control plan will be finalized in 2006.*

New York City--Wards Island Water Pollution Control Plant	
County	*New York*
Population Served	*1,013,783*
Date Built	*1937, updated in 1999*
Sewer System Type	*Combined*
Receiving Water	*East River*
EPA Watershed Needs Assessment	*$1,628,650,000*
Grade	***D***
Comments	*Regularly blends sewage. In process of updating facility and complying with long-term control plan.*

New York City—Coney Island Water Pollution Control Plant	
County	*Kings*
Population Served	*621,157*
Date Built	*1892, updated in 1992*
Sewer System Type	*Combined*
Receiving Water	*Rockaway Inlet*
EPA Watershed Needs Assessment	*$525,890,000*
Grade	***D-***
Comments	*Does not dechlorinate or remove excessive nutrients.*

Hudson River Drainage Basin

Yonkers Joint Wastewater Treatment Plant	
County	*Westchester*
Population Served	*500,000*
Date Built	*1960, updated in 1979*
Sewer System Type	*Combined*
Receiving Water	*Hudson River*
EPA Watershed Needs Assessment	*$94,132,000*
Grade	***A-***
Comments	*Considering green infrastructure and in process of implementing long-term control plan.*

Albany County Sewage District North	
County	*Albany*
Population Served	*120,000*
Date Built	*1974*
Sewer System Type	*Combined*
Receiving Water	*Hudson River*
EPA Watershed Needs Assessment	*$ 2,237,000*
Grade	***F***
Comments	*Has yet to implement EPA's nine minimum controls.*

Saratoga County Sewer District	
County	*Saratoga County*
Population Served	*80,000*
Date Built	*1960, updated in 1979*
Sewer System Type	*Separate*
Receiving Water	*Hudson River*
EPA Watershed Needs Assessment	*$18,203,000*
Grade	***B+***
Comments	*System experiences some infiltration during major storm events.*

Rensselaer County Sewer District #1	
County	*Rensselaer*
Population Served	*80,000*
Date Built	*1976*
Sewer System Type	*Combined*
Receiving Water	*Hudson River*
EPA Watershed Needs Assessment	*$2,237,000*
Grade	***F***
Comments	*Under-treated sewage discharged, and long-term control plan is "in the works."*

Susquehanna and Delaware River Drainage Basins

Binghamton-Johnson City Joint Sewage Treatment Plant	
County	*Broome*
Population Served	*100,000*
Date Built	*1960, updated in 1973*
Sewer System Type	*Combined*
Receiving Water	*Susquehanna River*
EPA Watershed Needs Assessment	*$124,669,000*
Grade	***D-***
Comments	*In process of upgrading plant to remove excessive nutrients.*

South Fallsburg Sewer District	
County	*Sullivan*
Population Served	*100,000*
Date Built	*1932, updated in 1982*
Sewer System Type	*Separate*
Receiving Water	*Delaware River*
EPA Watershed Needs Assessment	*Not available*
Grade	***A***
Comments	*Removes excessive nutrients and dechlorinates.*

Great Lakes Basin

Village of Malone Sewage Treatment Plant	
County	*Franklin*
Population Served	*14,000*
Date Built	*1943, updated in 1993*
Sewer System Type	*Separate*
Receiving Water	*Salmon River*
Drainage Basin	*St. Lawrence River*
EPA Watershed Needs Assessment	*Not available*
Grade	***D-***
Comments	*Does not disinfect all effluent, does not dechlorinate.*

Village of Fredonia Wastewater Treatment Plant	
County	*Chautauqua*
Population Served	*15,000*
Date Built	*1978, updated in 1999*
Sewer System Type	*Separate*
Receiving Water	*Lake Erie*
Drainage Basin	*Lake Erie / Niagara River*
EPA Watershed Needs Assessment	*$1,028,000*
Grade	***A***
Comments	*No raw sewage overflows.*

Great Lakes Basin (cont.)

Village of Seneca Falls Wastewater Treatment Plant	
County	*Seneca*
Population Served	*100,000*
Date Built	*1970*
Sewer System Type	*Separate*
Receiving Water	*Seneca River/Barge Canal*
Drainage Basin	*Seneca/Oneida*
EPA Watershed Needs Assessment	*$6,855,000*
Grade	***A***
Comments	*Discharges fully-treated sewage under normal operating conditions*

Town of Livonia Sewage Treatment Plant	
County	*Livingston*
Population Served	*11,000*
Date Built	*1972, updated in 1986*
Sewer System Type	*Separate*
Receiving Water	*Consensus Lake Outlet*
Drainage Basin	*Genesee River*
EPA Watershed Needs Assessment	*$1,970,000*
Grade	***F***
Comments	*Multiple raw sewage overflows, violates ammonia permit limit, and not all effluent is disinfected.*

Village of Lyons Wastewater Treatment Plant	
County	*Wayne*
Population Served	*4,300*
Date Built	*1912, updated in 1970*
Sewer System Type	*Separate*
Receiving Water	*Clyde River/Barge*
Drainage Basin	*Seneca/Oneida*
EPA Watershed Needs Assessment	*$1,083,000*
Grade	***D-***
Comments	*Not all discharged effluent is disinfected, nor are excessive nutrients removed.*

City of Watertown Sewage Treatment Plant	
County	*Jefferson*
Population Served	*30,000*
Date Built	*1965, updated 1988*
Sewer System Type	*Combined*
Receiving Water	*Black River*
Drainage Basin	*Black River*
EPA Watershed Needs Assessment	*$71,225,000*
Grade	***F***
Comments	*Discharges sewage during minor rain events, in process of implementing EPA long-term control plan.*

Great Lakes Basin (cont.)

Frank E. Van Lare Sewage Treatment Plant	
County	*Monroe*
Population Served	*462,224*
Date Built	*1917, updated 1975*
Sewer System Type	*Combined*
Receiving Water	*Lake Ontario*
Drainage Basin	*Lake Ontario*
EPA Watershed Needs Assessment	*$146,686,000*
Grade	***D-***
Comments	*Bypasses full treatment during minor rain events, in process of implementing best management practices.*

Village of Blasdell Sewage Treatment Plant	
County	*Erie*
Population Served	*7,000*
Date Built	*1950, updated 1984*
Sewer System Type	*Separate*
Receiving Water	*Rush Creek/Blasdell Creek*
Drainage Basin	*Lake Erie/Niagara River*
EPA Watershed Needs Assessment	*$1,469,000*
Grade	***D***
Comments	*Multiple raw sewage overflows.*

Niagara Falls Wastewater Treatment Plant	
County	*Niagara*
Population Served	*61,840*
Date Built	*1977, updated 1983*
Sewer System Type	*Combined*
Receiving Water	*Niagara River—Falls*
Drainage Basin	*Lake Erie/Niagara River*
EPA Watershed Needs Assessment	*$107,462,000*
Grade	***D-***
Comments	*Bypasses full treatment during minor rain events, in process of implementing best management practices.*

Key Findings

- The majority of sewage treatment plants surveyed were teetering on the edge of failure or were failing.

- Sewage treatment plants were either doing well or poorly. There was little middle ground.

- Overall, separate systems faired slightly better than combined systems.
    - The average grade of combined systems evaluated was failure.
    - The average grade of separate systems evaluated was a "C".

- Results from the *New York State Sewer Scorecard* strongly indicate the need for substantial investment in our aging and failing infrastructure.

Policy Recommendations

The results of the first ***New York State Sewer Scorecard*** further underscore the substantial resource gap that exists to upgrade and improve our aging and failing sewer infrastructure. Understanding that over $20 billion is needed to close the gap can be overwhelming. Finding solutions is imperative, however, because sewer infrastructure cannot fix itself. The good news is that there are many policy solutions that can be adopted at the federal and state levels to help ease the burden on local municipalities and sewer operators and improve our water quality. The technological know-how exists to keep sewage in the pipes and treat it effectively. What is needed is the political will to adequately fund, implement, monitor, and enforce existing sewer infrastructure improvement programs.

Specific policy recommendations:

1. Restore & Restructure Federal Funding for Wastewater Infrastructure
In spite of increasing sewer infrastructure needs, federal funding has decreased 70% since the passage of the Clean Water Act in 1972. Currently, federal funding amounts to only 5% of national infrastructure costs (NRDC, July 25 2005 PR). While unaddressed maintenance, rehabilitation, and repair needs accumulate, the costs of improving our already failing infrastructure will only inflate.

- **Establish a Clean Water Trust Fund**

By creating a funding program similar to the dedicated federal program for ensuring quality highways and airports, our wastewater infrastructure would have a self-funded program to ensure that communities have access to federal resources to improve failing infrastructure.

- **Target Federal Spending**

Spending our limited dollars wisely is critical to closing such a large resource gap. Federal funds should be targeted exclusively to existing systems. Costs associated with building sewer systems for new developments should be ineligible for public resources and instead borne by developers.

- **Prioritize Funding the Most Cost-Efficient and Sound Solutions**

Often, centralized treatment solutions cost more to develop and maintain in the long run than pollution prevention approaches. To stretch our dollars further, long-term cost efficiency that includes reducing operation and maintenance costs should be a priority for funding eligibility.

2. Enforce Current Sewage Treatment Plant Requirements

Enforcing the Clean Water Act and state water quality laws is essential to creating an environment where sewer operators will invest in solutions and call on political leaders to provide additional resources to ensure compliance. In a regulatory environment absent of consistent consequences, however, limited resources will be spent elsewhere. The DEC took an important step in addressing the SPDES backlog by re-prioritizing permits, yet enforcement staff shortages and permit backlogs continue to stall the process.

- **Establish a Dedicated Enforcement Funding Stream**

Increasing fees and fines associated with New York State's water pollution permit program could create resources to fund additional enforcement staff.

3. Increase Data Collection and Public Awareness

In a world where information is available at the click of mouse, it is astounding how much is unknown about the state of our nation's infrastructure. The 2002 *Future Investment in Drinking Water and Wastewater Infrastructure* report by the Congressional Budget Office found "limited information available at the national level about existing water infrastructure," and "…no accessible inventory of the age and condition of pipes, even for the relatively few large systems that serve most of the country's households."

- **Establish a Sewage Release Inventory**

A Sewage Release Inventory (SRI) could be modeled after the Congressionally mandated EPA Toxic Release Inventory (TRI), created in 1988. The TRI gives the public the right to know and readily access information on toxic chemical releases in their communities. The publicly accessible database names individual manufacturing

plants and reports quantities of each toxic chemical (in the same units) released in our air, land, and water. The TRI is an invaluable citizen tool that has encouraged responsive industry CEO's to effectively halve toxic releases in our country. An SRI would create an accessible database to help the public to understand the impact that aging sewer infrastructure has on local water quality. The SRI would also allow comparison of sewer authorities across counties, states, and regions.

- **Require Monitoring and Public Notification**

While EPA does have the legal authority to require monitoring and reporting of raw sewage overflows, it has yet to enact regulations. **The Raw Sewage Overflow Community Right-to-Know Act,** introduced in April 2005 by Representative Timothy Bishop (D-NY), would require annual reporting, documenting raw sewage overflows, to state environmental authorities and increased public notification if raw sewage overflows occur.

4. **Fund the Great Lakes Regional Collaboration Action Plan Recommendations**.

Established by Presidential Executive Order in 2004, the Great Lakes Regional Collaboration (GLRC) was created to bring together federal, state, tribal, and local officials, along with leaders of non-governmental organizations and industry, to improve Great Lakes water quality. Developed by more than 1,500 Great Lakes advocates, the GLRC action plan is a consensus-based, comprehensive strategy to protect and restore the Great Lakes ecosystem. As part of the plan, recommendations were made on actions and funding levels from local, state, and federal governments to maintain and upgrade wastewater infrastructure in the Great Lakes basin.

Summary

New York's sewer systems are systematically failing. Only through dedicated investment at the federal, state, and local levels, along with consistent and accessible reporting and data gathering, will the state of our sewer systems improve so that public and water resource health is protected. The $20 billion wastewater infrastructure need identified in the EPA Clean Watershed Assessment is reflected in a record number of beach closures in 2004, property damage caused by sewer backups flooding basements, and adverse health impacts from exposure to untreated sewage. While this figure may seem large now, by ignoring the sewage pollution, the problems will only worsen as our infrastructure continues to crumble.

These are solvable problems. All that is needed is the public and political will to keep sewage in the pipes, ensure it is treated at the plant, and protect our receiving waters from as much pollution as possible. Clean water is vital to our economy, well-being, and existence. Our children and our children's children deserve nothing less.

Sources and Recommended Reading

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4. *Clean Watershed Needs Survey 2000 Report to Congress,* United States Enviornmetnal Protection Agency, August 2003. http://www.epa.gov/OWM/mtb/cwns/index.htm

5. *Plain Language Guide to Sanitary Sewer Overflows: A Brief Introduction to the Basics of SSOs and What You Can Do to Eliminate Them,* Citizens Environmental Research Institute, May 2001.

6. *Future Investment in Drinking Water and Wastewater,* Congressional Budget Office, November 2002. http://www.cbo.gov/showdoc.cfm?index=3983&sequence=0

7. *Swimming in Sewage: The Growing Problem of Sewage Pollution and How the Bush Administration is Putting Our Health and Envirnment at Risk,* National Resources Defense Council and Environmental Integrity Project, Febuary 2004.

8. *Clean & Safe Water for the 21st Century: A Renewed National Commitment to Water and Wastewater Infastructure*, Water Infastructure Network, April 2000.