

CLEAN WATER SYMPOSIUM

STONY BROOK UNIVERSITY CENTER FOR CLEAN WATER TECHNOLOGY

PETER A. SCULLY, DEPUTY COUNTY EXECUTIVE

FRIDAY, JUNE 17TH 2022

Reclaim  Our Water





THE LONG JOURNEY TOWARD CHANGE

Sewers Needed Now, Suffolk Warned

By Earl Lane
 Onkdale—Mention Long Island to some people in Bangalore, India, or Tashkent, USSR, and they might wrinkle their noses and ask, "Isn't that where they have cesspools?"
 That proves something, Dwight F. Metzler, the state's deputy health commissioner for environmental services, said yesterday to make a point about sewers.
 Recounting his travels through India, Russia and other countries and his discussions with health officials, Metzler said, "Long Island is the outstanding example in the world where a major population still discharges sewage in ground waters. Even people in underdeveloped countries tell me they can't understand it."

Metzler spoke at a conference at Dowling College on water pollution. He called for passage of a proposed sewer district for southwestern Suffolk County on the November ballot. After the session, he outlined steps that state agencies could take to prevent further pollution of the county's water supply by seepage from cesspools. About half of Nassau County is served by sewers. In Suffolk, only several isolated communities and developments have sewers.

Metzler said that the State Water Resources Commission, which issues permits for the use of fresh water supplies, could reduce or halt permits for use of the county's remaining water resources if the contamination continues. He also said that the drilling of new wells could be halted and existing wells could be quarantined in areas where underground water supplies are being contaminated.

Metzler said, "I doubt that the state will move in within the next five years" to press for construction of the sewers if the sewer proposal is defeated. But he said that the State Health Department would continue a close scrutiny of county water usage and contamination levels. He said that Suffolk health officials have been asked to meet next week with the Water Resources Commission in Albany to discuss the county's water supply. It will be the first such report from Suffolk in about two years, he said.

Metzler said that the State Pure Water Authority,

which can construct and operate sewers if requested to by a local government, has no authority to order sewer construction. A department of health spokesman said that if health conditions in an area become hazardous because of inadequate sewage facilities, the commissioner of health can intervene under broad provisions of the public health law and require a local timetable on projects to remedy the situation.

"Sewers must come; you need them now. The longer you put it off, the more expensive it will be," Metzler said. He said that about \$100,000,000 is left from a \$1 billion state bond issue approved in 1966 for sewer facilities. The proposed Southwest Sewer District would cost \$289,060,000 to build. Interest

charges on the 40-year bonds would bring the total cost to \$521,373,750. About \$60,000,000 of the remaining state funds can be applied to the Suffolk project. Metzler said that those funds will likely "be fully obligated by next summer" whether Suffolk acts or not. Metzler also said that inflation of construction costs of sewage facilities totals about 12 per cent a year.

John M. Flynn, a public health engineer in the county health department, agreed with Metzler that only about 20 per cent of Suffolk's water supply is being extracted from water tables less than 75 feet below the surface. The figure was about 80 per cent in 1959.

Ban on Cesspools In Suffolk Sought

By William Nack
 Brooklyn—A Suffolk conservation group, claiming that cesspools pollute the county's ground waters, is seeking a preliminary injunction in U.S. District Court here today restraining the county health department from allowing cesspools to be put in ground waters.

The arguments for the injunction are part of a broader suit which, if successful, would curtail almost all commercial, residential and industrial development in the county. The suit, prepared by attorney Victor J. Yannacone Jr. for the Suffolk Defenders of the Environment, is an attempt to block the county, 10 towns and 29 incorporated villages from "the further development of their natural resources . . . until ecologically sophisticated, environmentally responsible criteria for such development have been established." Yannacone said that citizens are being deprived of a "livable environment" without due process of law.

Yannacone said that he would seek a preliminary injunction before U.S. District Judge Joseph Zavatt "to restrain the Suffolk County Department of Health from issuing any more permits for cesspool construction in any location where those cesspools are set in ground waters." That would prohibit the installation of cesspools, which serve about 98 per cent of the Suffolk population, "almost anywhere south of the terminal moraine south of Jericho (Turripike) on the grounds that continued cesspool disposal of sewage waste would cause serious, permanent and irreparable damage to the (county) water supply," he said.

U.S. Warns Suffolk It May Act on Sewers

By Alan Eysen
 Patogue—The federal government may take an active role in bringing sewers to Suffolk County unless the county speeds its efforts to halt pollution of the bay waters between Blue Point and Westhampton Beach, a federal official said yesterday.
 Murray Stein, assistant commissioner for enforcement for the U.S. Water Pollution Control Administration, told a water pollution conference here that the federal government would join with the state in seeking development of a regional sewage collection and treatment system in the county if Suffolk fails to take action. "Unless you come up with such a system, you may have us working for the state for a long time," Stein said.

The federal official declined to go into detail on what the government could do to bring about the development of a sewer system or to suggest any deadline for local action. He said, however, "We can order the county to stop polluting the water." Stein added that if the county refused to comply with such an order, the government could bring a civil action that could result in fines being levied against Suffolk. A proposed sewer system for the West End was defeated in a February, 1967, referendum by a 6-1 margin.

The County Board of Supervisors is in the process of naming a new 10-member sewer agency to consist of five voting members, chosen for their knowledge of sewer engineering, and five non-voting members, including the county executive and the chairman of the board of supervisors.

Stein remarked on the need for a major Suffolk sewer system in approving the progress that has been made toward relieving pollution created in the eastern portion of Great South Bay and Moriches

Bay by duck farms and by the Village of Patogue's inadequate sewage treatment system.

The commissioner said, "You need an areawide collection and treatment system if you want to utilize Moriches Bay to the fullest extent." Deputy State Health Commissioner Dwight F. Metzler, who also attended the conference, said that his agency would also press for action on such a system. Both Stein and Metzler said, however, that they would move cautiously in the hope that Suffolk would take the initiative in developing the system.

They said that their current efforts would be geared to following through on the recommendations made at two earlier conferences called by the federal government on pollution in the 18-mile stretch of bay between Blue Point and Westhampton Beach. Yesterday's conference was, in effect, a progress report on these recommendations. Stein said that it would be at least six months before the next conference will be held.

The recommendations were that the Village of Patogue construct a secondary sewage treatment plant to be in operation by 1970; that duck farmers in the area have pollution treatment facilities installed, and that federal and state authorities survey the Moriches Bay front and recommend dredging and waste disposal measures.

County Board Chairman John V. N. Klein said that he would not care to see the federal government force a sewer system on the county. "I would prefer to see the initiative come from the people of Suffolk County," he said. County Executive Dennison said, "We have to do something on the local level, and quickly. I have said often enough that if we don't move ourselves to eliminate the problems somebody would step in."

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74% NON-PERFORMING WASTEWATER TREATMENT



- Approximately 380,000 onsite cesspools and septic systems
- 209,000 in priority areas
- More than 250,00 pre-date 1973 requirement for septic tank

SUFFOLK COUNTY, NEW YORK



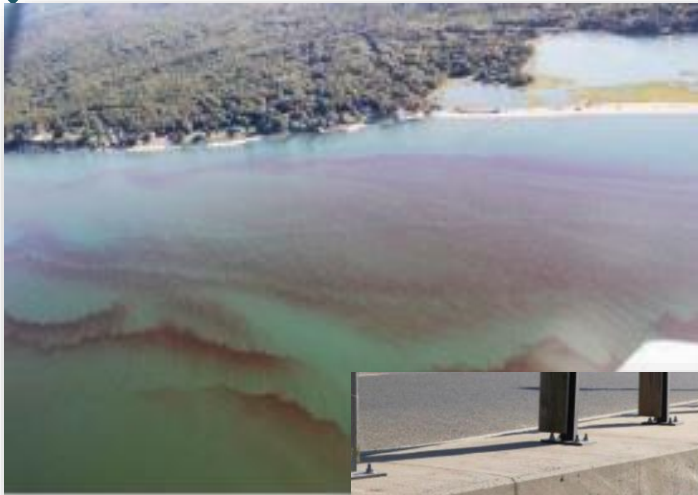
Environmental Resources at Risk



- ~1.5 million people on only 900 square miles
Largely unsewered (~74% of population)
- Vulnerable sole source aquifer
 - Diffuse public water supply well network (~900 wells)
 - Often relatively shallow (upper glacial aquifer)
 - ~35,000 Private wells
- Wetlands, surface waters, 3 major estuary systems
 - Groundwater and surface waters are connected
- All Three Estuaries are Impaired
- 190 Public Bathing Beaches
 - “The Environment is the Economy.”



WATER QUALITY IMPACTS



“Nitrogen discharge from onsite wastewater sources represents the single greatest factor that can be managed to restore and protect our waters from the impacts of nutrient enrichment-related water quality degradation.” – SWP Findings Statement, as Adopted by the Suffolk County Legislature



LACK OF SEWERS = STAGNANT DOWNTOWNS

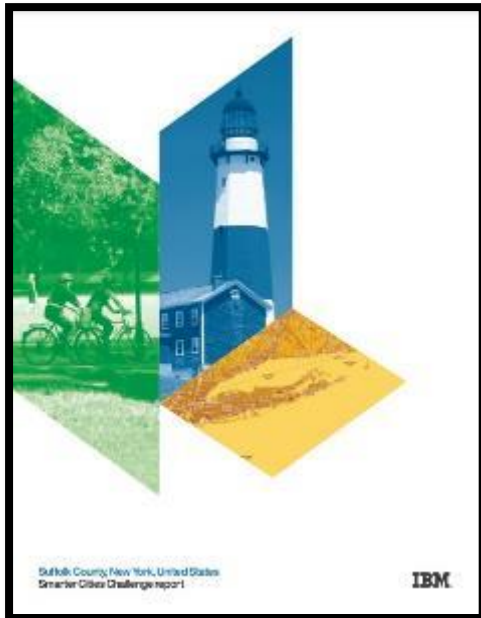




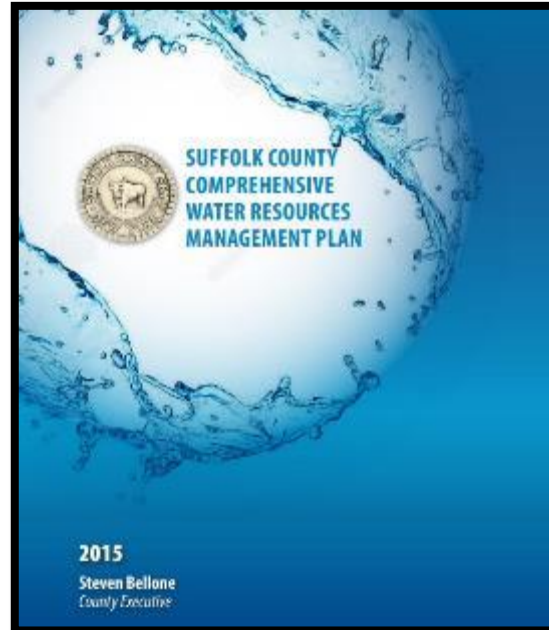
Reclaim Our Water

STEADY PROGRESS TOWARD A SOLUTION

2014

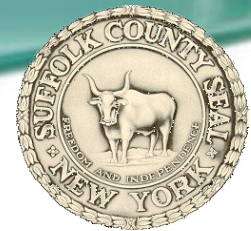


2015



2016





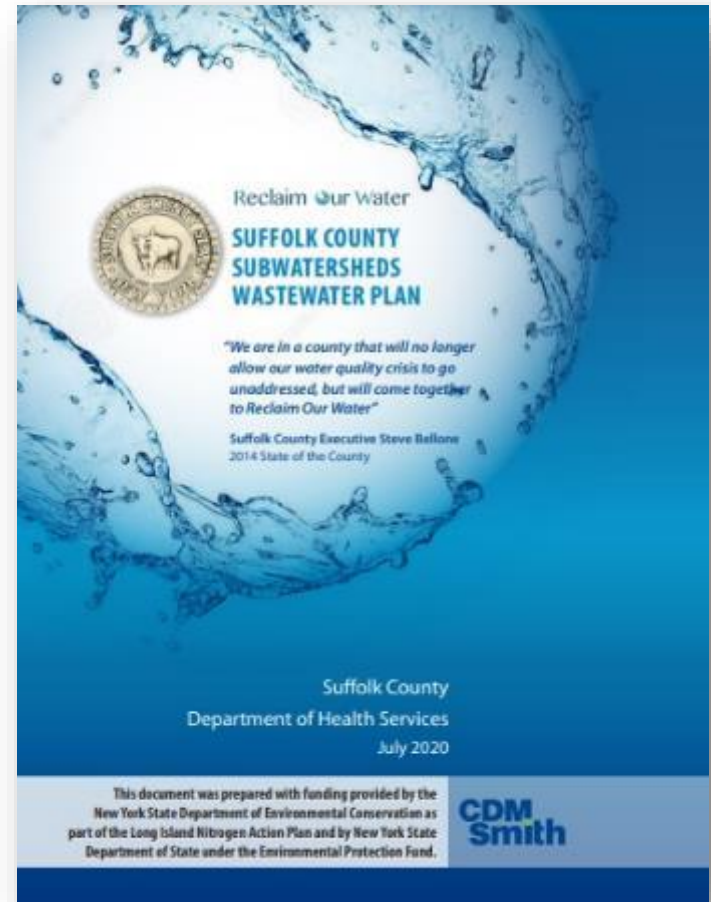
SUBWATERSHEDS WASTEWATER PLAN -2020

Purpose:

To establish a science-based, parcel-specific roadmap to upgrade 380,000 onsite wastewater systems over 50 years through connection to sewers or upgrade to IA systems.

"The strength of this plan is the incredibly strong and sound science on which it is based...While I have spent my career documenting the degradation of Long Island's fisheries and aquatic habitats, it is inspiring to finally see a plan designed and implemented that will reverse course on decades of negative trajectories. The citizens of Suffolk County will reap the benefits of this plan for decades to come."

- *Christopher J. Gobler, Ph.D., Endowed Chair of Coastal Ecology and Conservation School of Marine and Atmospheric Sciences and Director, New York State Center for Clean Water Technology at Stony Brook University.*

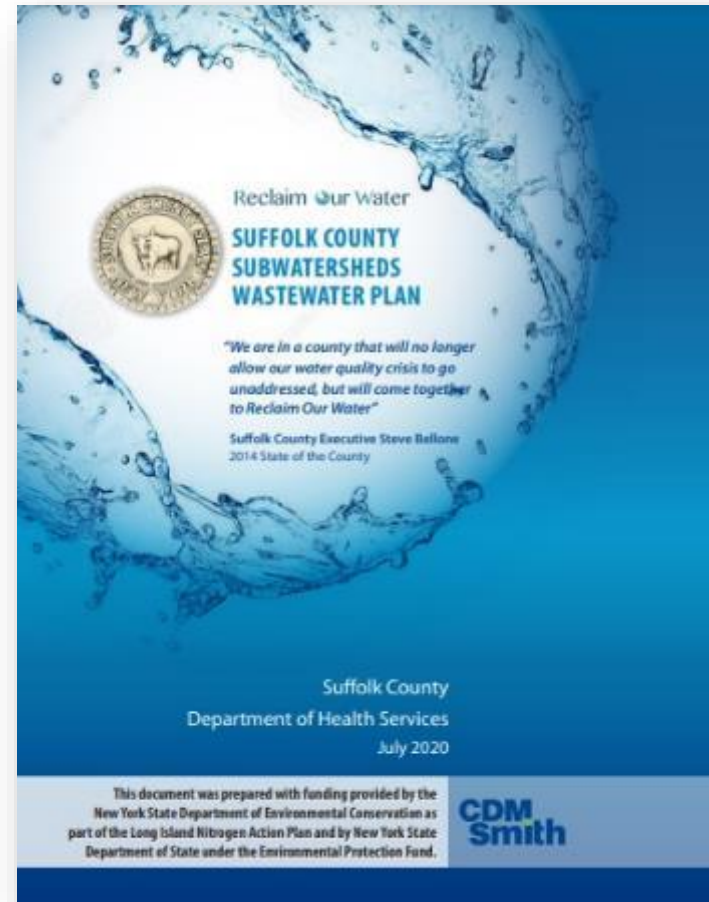


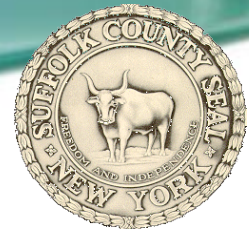


SUBWATERSHEDS WASTEWATER PLAN

Calls for:

- Investment of **\$4 billion** over 50 years in new wastewater infrastructure
- Establishment countywide wastewater management district
- Creation of recurring revenue stream to fund new infrastructure
- Connection of up to 39,000 additional parcels to sewers
- Strongly supported by labor, building trades and NGOs





SUBWATERSHEDS WASTEWATER PLAN

172,000 upgrades*
30 years

76,000 upgrades*
15 Years

131,000 upgrades
Timeframe TBD

Phase II

SW Priority Area 1
GW Priority Area 1
0-2 Year Contributing Area

Phase III

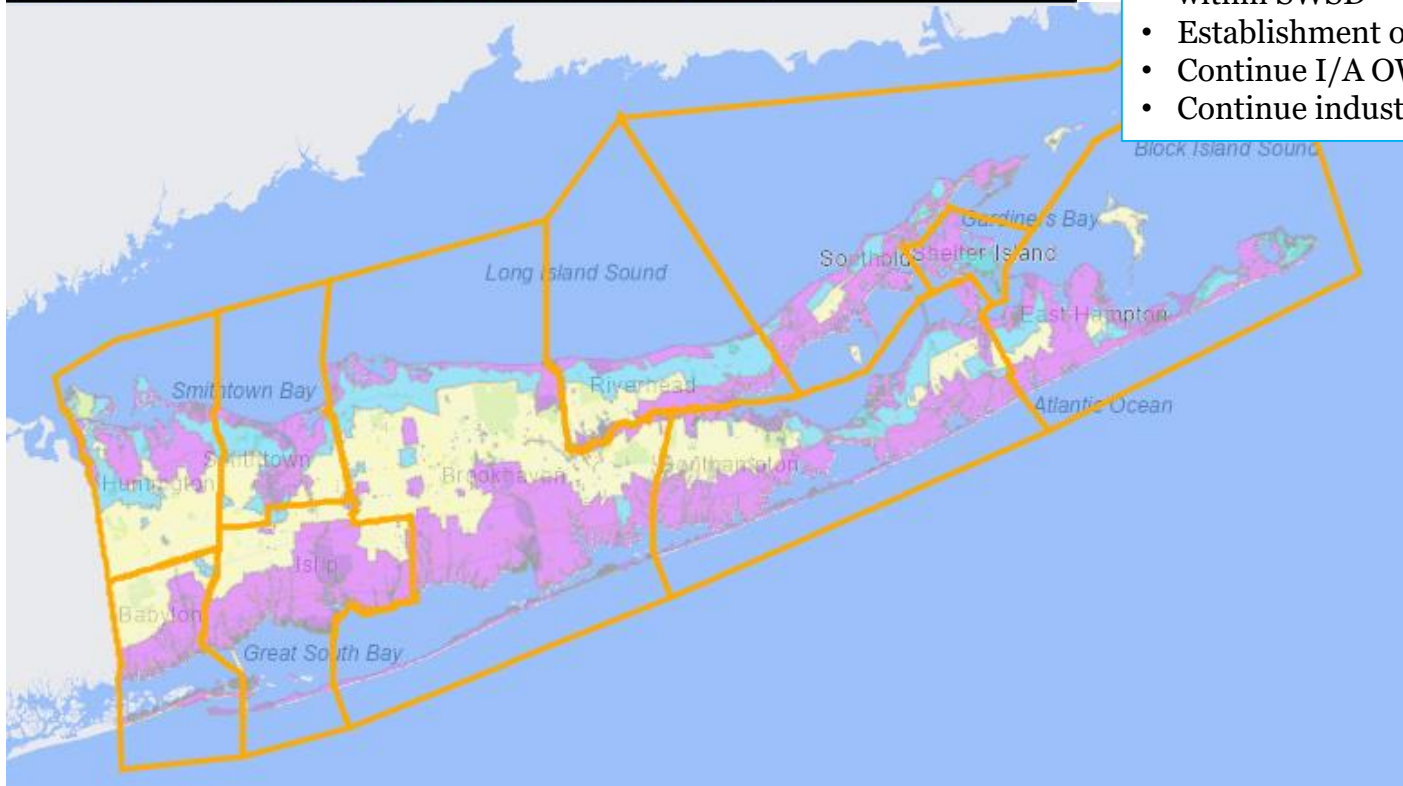
SW Priority Area 2-4
GW Priority Area 2
2-25/50 Year Contributing Area

Phase IV

Remaining Surface
Water and Groundwater
Protection Parcels

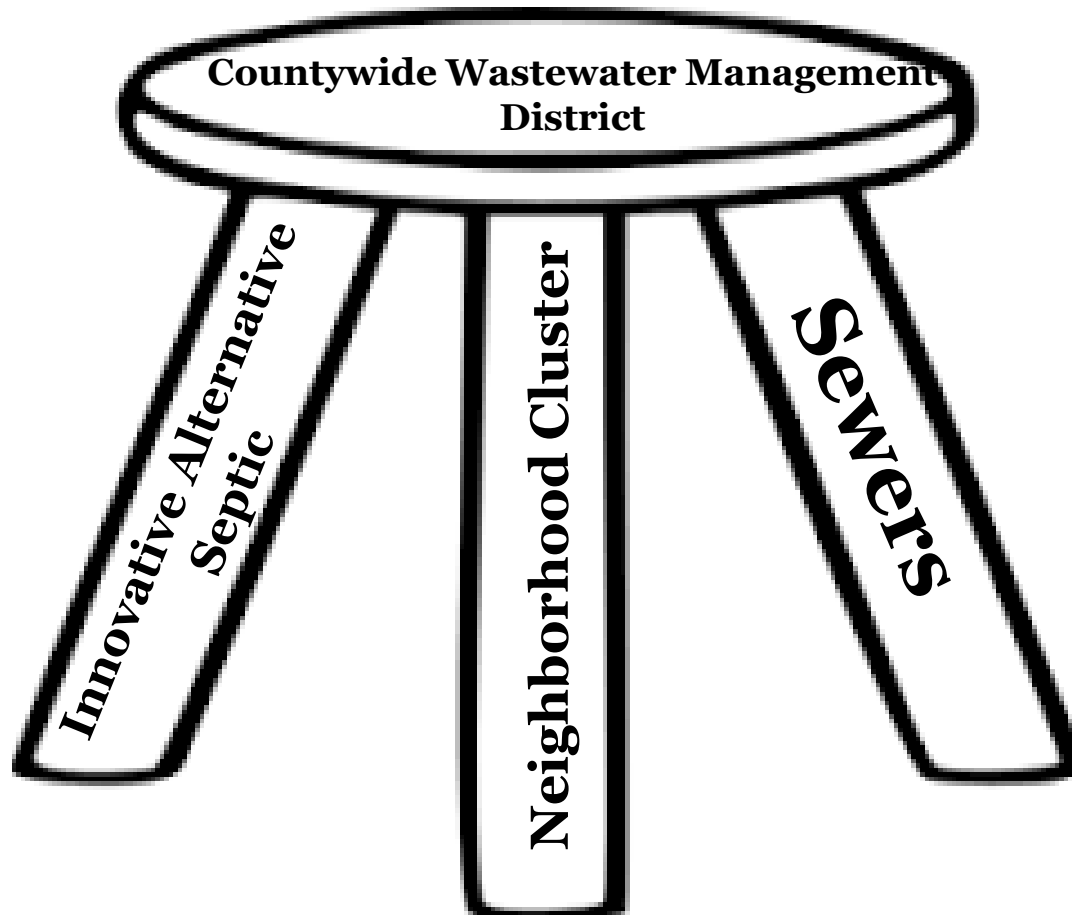
Years 2021 through 2023
Phase I "Program Ramp Up" includes:

- **I/A OWTS for New Construction/Addition**
- **Increase allowable flow of App. A systems to 30,000 gpd**
- Implement SCCRI sewer connections (\$440M existing Federal funding) plus connections within SWSD
- Establishment of revenue source/CWMD
- Continue I/A OWTS voluntary incentives
- Continue industry/RME ramp up





MULTIFACETED APPROACH





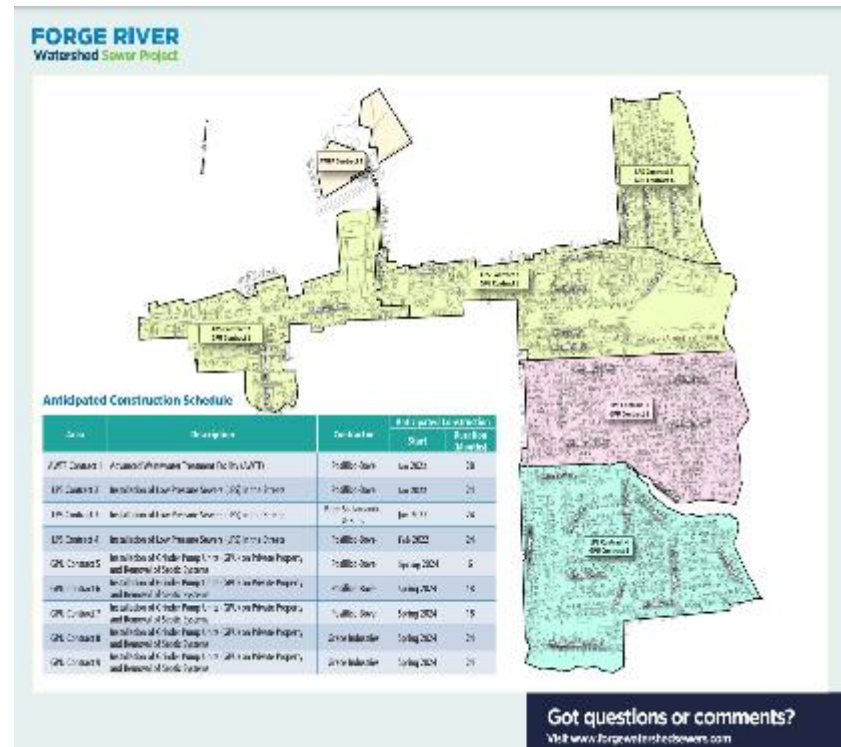
Forge River Watershed Sewers

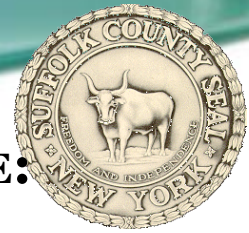
This project will:

- Construct a new Sewage Treatment Plant
 - Ground was broken in January 2022
- Sewer 1,879 residential parcels and 154 commercial parcels
- Remove 193 lbs./day of nitrogen
- 14.4% reduction of Forge River wastewater nitrogen load

Key Facts:

- Most eutrophic water body in Suffolk County
- Sustained severe anoxia during summer
- GW levels of nitrogen are already at 10 mg/L
- Nitrogen levels projected to go 14 mg/L if no action





SUFFOLK COUNTY COASTAL RESILIENCY INITIATIVE: SEWER PROJECTS SUMMARY

Carlls River / Wyandanch

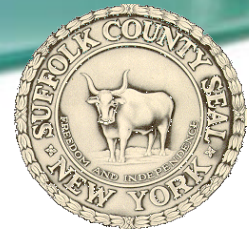
This project will:

- Connect 2,180 parcels
- Remove 357 lbs./day of nitrogen
- 33.5% reduction in existing Carlls River wastewater nitrogen load
- Additional 2.6% reduction GSB-wide by connecting all remaining unsewered parcels within Sewer District #3.

Key facts:

- Sewering SW district resulted in reducing nitrate from 4 mg/L → 2 mg/L
- Nitrate should be 0.5 mg/L or less in surface waters





COST PER PARCEL - SEWERS VERSUS IA/OWTS

Sewers

- **Forge River Watershed Sewer District**

\$119,000 per parcel with new STP.

- **Carlls River Watershed Sewer Project**

- **\$72,000 per parcel** with existing STP.

IA/OWTS

Average IA installation cost
under Suffolk County Septic Improvement
Program - **\$25,000**



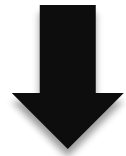
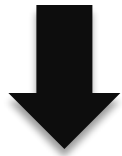
IA/OWTS INSTALLATIONS





SETTING THE STAGE FOR THE SOLUTION TO NITROGEN POLLUTION:

Evolution to the Use of Innovative Treatment Systems



INNOVATIVE
ONSITE
SYSTEMS

PREPARING
THE
INDUSTRY

RESPONSIBLE
MANAGEMENT
ENTITY

CODE
AMENDMENTS

PUTTING NEW
TECHNOLOGIES
IN PLACE



PILOT
PROGRAM

LICENSING
LAW

ENACTED
ARTICLE 19

WORKING
GROUPS

IDENTIFY
PRIORITY AREAS
FOR ADVANCED
TREATMENT



CERTIFICATIONS

TRAINING

REGULATE
INSTALLATIONS
AND MAINTENANCE

UPDATES OF
OUTDATED
REGULATIONS

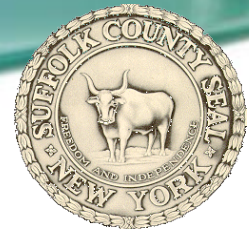
FUNDING
MECHANISM



SUFFOLK COUNTY SIP & NY STATE GRANTS

- **Suffolk County Septic Improvement Program (SIP)**
 - \$10,000 base grant
 - Add'l \$5,000 for pressurized shallow drainfield leaching system
 - Add'l \$5,000 for installation for LMI eligible applicants
 - Potential add'l \$5,000 for design services for LMI eligible applicants
- **NY State Septic System Replacement Program (SSRP)**
 - Up to \$10,000 grant
- **Low Interest Loan Program with CDCLI**
 - Up to \$10,000 loan
- **Town CPF Funds**
 - Southampton, East Hampton & Shelter Island
- Grant funding enables Suffolk County to implement upgrades in accordance with the timeline in the Subwatersheds Wastewater Plan.

SEPTIC IMPROVEMENT PROGRAM STATISTICS



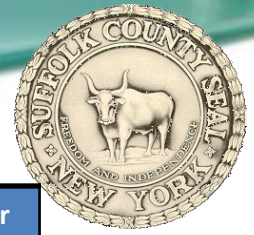
- Suffolk County SIP Launched July 2017; NYS SSRP Began October 2018
- **Suffolk County Invested \$21,700,000.00 into Grant Funding**
 - Add'l \$4,500,000.00 in Grant Funding recently awarded to the County SIP Program
- **New York State Invested \$20,050,000.00 into Grant Funding in Suffolk**
 - 3rd request for Grant Funding for the NYS SSRP program has been submitted

- **3,386 - Total Applications Submitted through the Reclaim Our Water website**
- **1,839 – Total County SIP Grants Issued**
- **1,857 – Total NYS SSRP Grants Issued**
- **1,110 – SIP & SSRP Funded I/A OWTS Installations**

- **\$19,885,928.10 County SIP Funds Allocated to Grant Awardees**
- **\$11,120,843.75 County SIP Funds Paid Out**

- **\$17,047,576.70 NYS SSRP Funds Allocated to Grant Awardees**
- **\$10,536,724.70 NYS SSRP Funds Paid**

<u>Average Applications Received per Month</u>
2017: 30
2018: 17
2019: 70
2020: 77
2021: 74
2022: 87

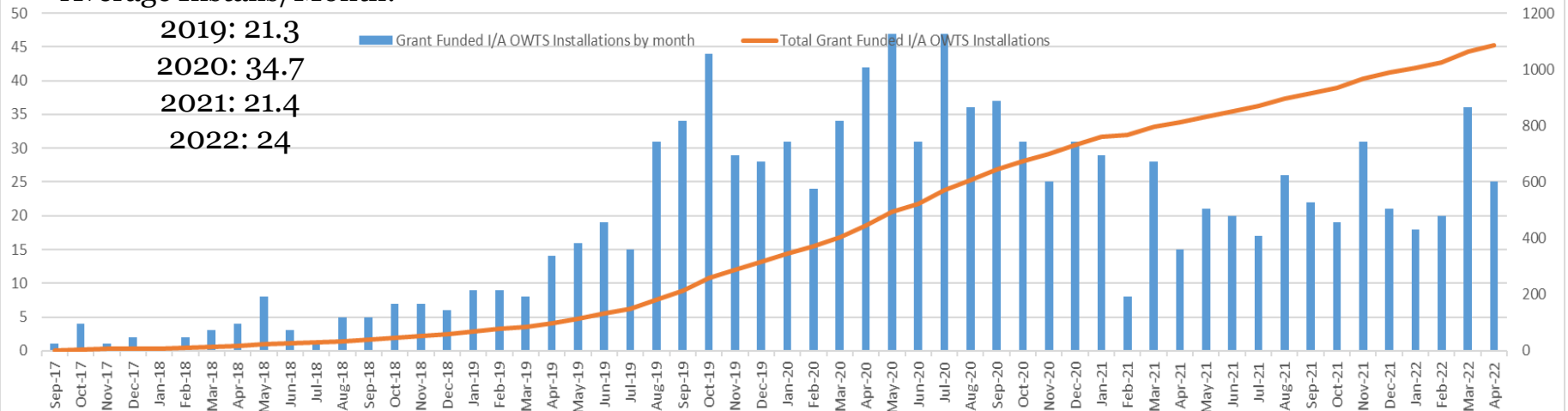


SEPTIC IMPROVEMENT PROGRAM STATISTICS

Year	Jan.	Feb.	March	April	May	June	July	August	Sept.	Oct.	Nov.	Dec.	Year Total
2017	-	-	-	-	-	-	-	-	1	4	1	2	8
2018	0	2	3	4	8	3	1	5	5	7	7	6	51
2019	9	9	8	14	16	19	15	31	34	44	29	28	256
2020	31	24	34	42	47	31	47	36	37	31	25	31	416
2021	29	8	28	15	21	20	17	26	22	19	31	21	257
2022	18	20	36	25	22	1							122
Total of 1,110 SIP & SSRP Funded I/A OWTS Installations as of 6/1/2022													

Average Installs/Month:

Grant Funded I/A OWTS Installations

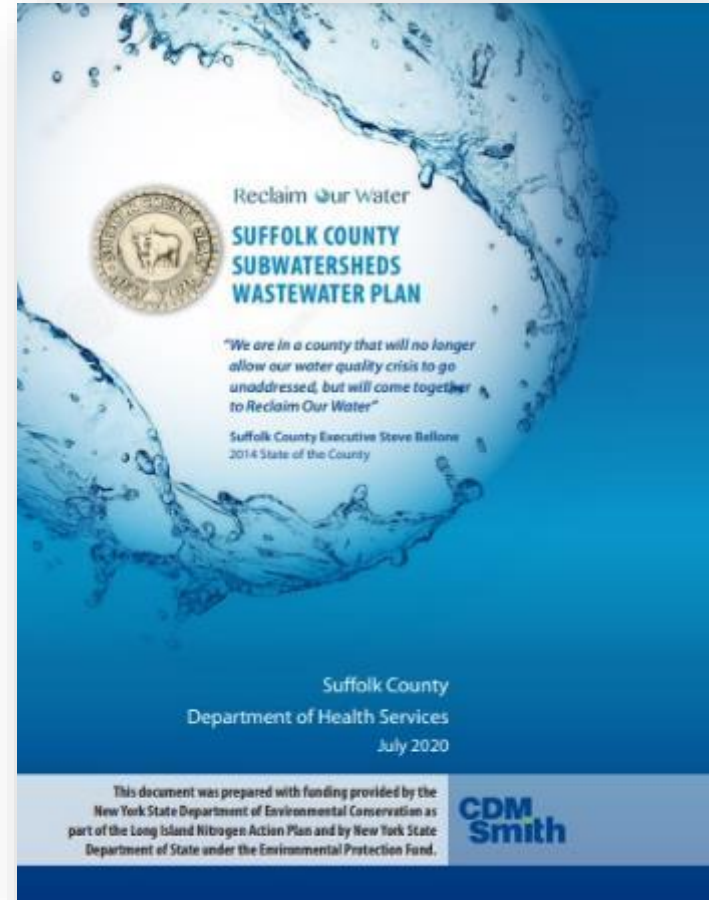




SUBWATERSHEDS WASTEWATER PLAN

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- Investment of **\$4 billion** over 50 years in new wastewater infrastructure
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- Connection of up to 39,000 additional parcels to sewers
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SUBWATERSHEDS WASTEWATER PLAN NEXT STEPS

Countywide Wastewater District

Purpose and need:

- Create administrative structure needed to implement long term infrastructure plan:
 - Oversight of Sewer Expansion
 - Regulation of O&M for IAs
 - Grant administration
- Consolidate existing sewer districts and create more equitable sewer rate structure
- Make sewer connections and system upgrades affordable for homeowners
- Subwatersheds Plan infrastructure improvements will create jobs and enhance property values

SUFFOLK COUNTY DEPARTMENT OF ECONOMIC DEVELOPMENT & PLANNING

Countywide Wastewater Management District Feasibility Study & Implementation Plan Report

May 15, 2020

"We are a county that will no longer allow our water quality crisis to go unaddressed, but will come together to Reclaim Our Water."

Steve Bellone, Suffolk County Executive



Suffolk County Water Quality Restoration Act

- Authorizing legislation included in the Governor's budget for actions required to implement the Subwatersheds Wastewater Plan
- Would allow the County to let voters decide if Countywide District and the Water Quality Restoration Fund should be established
- Strongly supported by organized labor, building trades and environmental community

01/17/22 204 12673-01-2

1 PART IV

2 Section 1. Short title. This act shall be known and may be cited as the
3 "Suffolk County water quality restoration act".

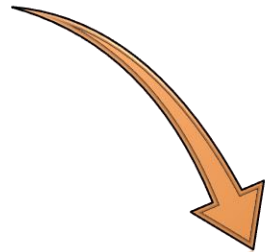
4 § 2. Legislative intent. The county of Suffolk [county], with a
5 population of one million five hundred thousand persons, has in excess
6 of three hundred eighty thousand existing onsite systems, comprised
7 mostly of cesspools and septic systems, with two hundred nine thousand
8 of these onsite systems in environmentally sensitive areas which could
9 benefit from nitrogen-reducing technologies. The United States Environ-
10 mental Protection Agency recognizes Long Island as having a sole source
11 aquifer system for its drinking water supply. Suffolk county has an
12 imminent need to preserve this valuable water resource by reducing the
13 amount of nitrogen discharged into the groundwater by onsite systems.
14 The full water cycle is impacted by increasing quantities of nutrients,
15 pathogens, pesticides, volatile organic contaminants and saltwater
16 intrusion, as well as a number of emerging threats such as prescription
17 drugs and sea level rise.



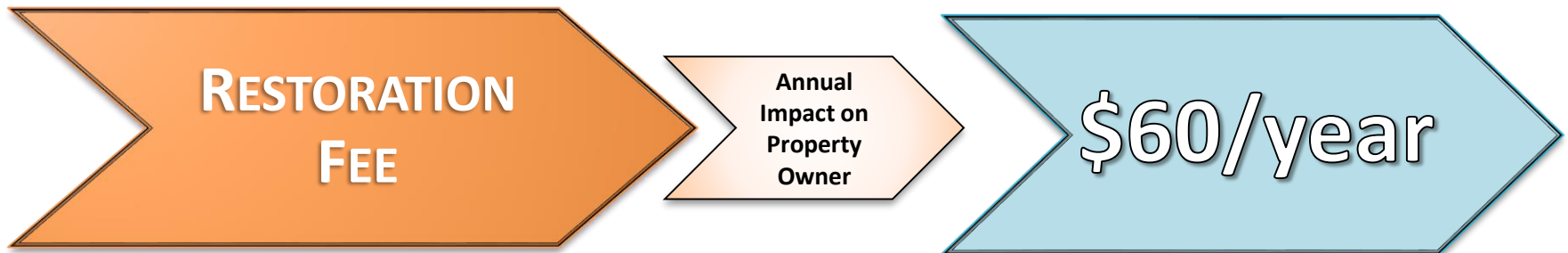
SUFFOLK COUNTY WATER QUALITY RESTORATION FUND

Modeled after the State of Maryland's Bay Restoration Fund

\$5.00 per month



**\$42.2
million**
Annual Yield





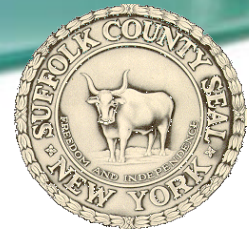
BROAD-BASED SUPPORT FROM LEADERS

John R. Durso, President of the Long Island Federation of Labor, AFL-CIO said, “Suffolk County Executive Steve Bellone, the legislature, the environmental movement, economic development organizations, communities, and our union movement have advanced the Suffolk County Subwatersheds Waste Water Management Plan to address the environmental challenges faced by our region’s working families.” **Durso** continued, “The authorizing legislation introduced by Governor Hochul in today’s budget address puts our future in the hands of Suffolk County residents. Suffolk County is on the precipice of building out the administrative infrastructure needed to improve our water quality in a significant way. If adopted in the final budget agreement families across our county will have an opportunity to vote on improving water quality, creating good union jobs, and shaping our region’s future in a positive way. Thank you Governor for trusting the people.”

John D. Cameron, Jr., P.E. Chairman Long Island Regional Planning Council said, “Suffolk County Executive Steve Bellone in conjunction with the County Legislature is spearheading an important initiative advanced by the State Legislature for the creation of a Countywide Wastewater Management District. The initiative, which has the strong support of the business, labor and environmental communities, will enable the County to equitably manage its wastewater on a Countywide basis for the protection of the County’s ground and surface waters as well as stimulate much needed economic development critical for the long-term sustainability of the County.”

Adrienne Esposito, Executive Director of Citizens Campaign for the Environment, “Every Suffolk resident needs clean water. Failing infrastructure is causing nitrogen pollution to plague our bays and estuaries causing fish die offs, harmful algal blooms, and degraded water quality each year. We have a once-in-a-lifetime chance to restore the health of Suffolk County’s waterways and provide long term protection for our drinking water. We applaud Governor Hochul and Suffolk County Bellone for giving Suffolk residents the right to vote on investing in upgrades to our antiquated septic systems and sewage treatment plants. Let the public’s voice decide if they support these necessary infrastructure upgrades that will provide a pathway to ecosystem restoration for our local waterways. Nitrogen pollution is a problem that impacts every Long Island community and every resident should have the right to vote on whether they are willing to invest in the solution.”

Mitchell H. Pally, Chief Executive Officer of the Long Island Builders Institute said, “The need for a comprehensive management plan to ensure the protection of our water supply and provide new economic development options in communities has never been more important,” said Mitchell H. Pally, Chief Executive Officer of the Long Island Builders Institute. “LIBI strongly supports the new opportunity provided by Governor Hochul for the county to create such a plan and for the public to decide whether to implement it through a public referendum. We look forward to working with our county officials and other stakeholders to create a comprehensive and dedicated Wastewater district in the year ahead.”



FINAL THOUGHT

Suffolk County's goal in the near-term is to establish a wastewater management district and responsible management entity, to enable the financing, installation, and oversight of improved wastewater treatment systems throughout areas in need in the County. This will be a truly historic breakthrough for the region.

We look forward to continuing to work in PARTNERSHIP to Reclaim Our Water.

Contact information:

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