



Nassau County



S.E.P.T.I.C. Program



Coastal Wastewater Solutions, LLC



SOIL & WATER
CONSERVATION DISTRICT

Nassau County's Septic Environmental Program To Improve Cleanliness (S.E.P.T.I.C.) Program

2024 Program Update



Onsite | 2024 Spokane, WA Wastewater Mega-Conference

Celebrating Tomorrow's Environment
Clean Water for the Future



Derek Betts – Nassau County Soil and Water Conservation District
Olivia Cunningham – Nassau County Soil and Water Conservation District
Justin Jobin – Coastal Wastewater Solutions, LLC
Eric Swenson – Nassau County Soil and Water Conservation District



Nassau County Soil & Water Conservation District

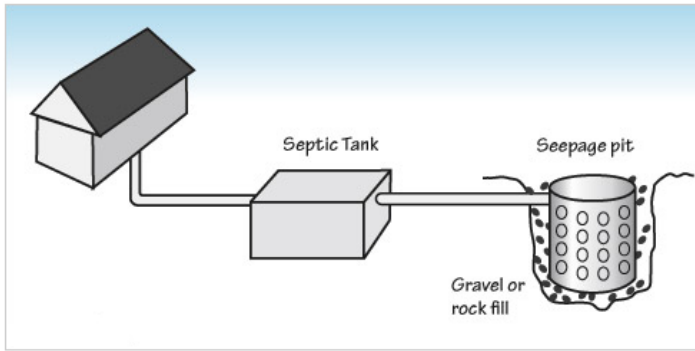
- WHO WE ARE

- Soil and Water Conservation districts are local units of government that develop, manage, and direct natural resource programs at the community level. The Nassau County Soil and Water Conservation District has been in existence since 1977, providing county residents with assistance, educational programs and services for over 45 years.
- Our purpose is to protect, preserve, restore, and enhance natural resources through education and technical assistance, and provide programs and technical services to all Nassau County residents and municipalities.
- In 2021, Nassau County tapped The Nassau County Soil and Water Conservation District to manage the Nassau County S.E.P.T.I.C. Replacement Program.

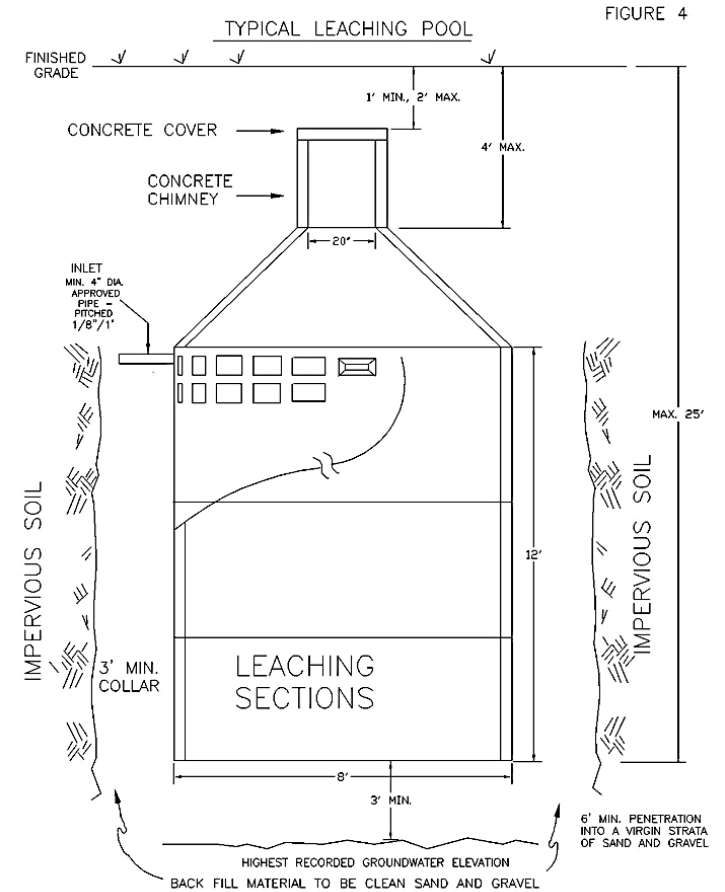
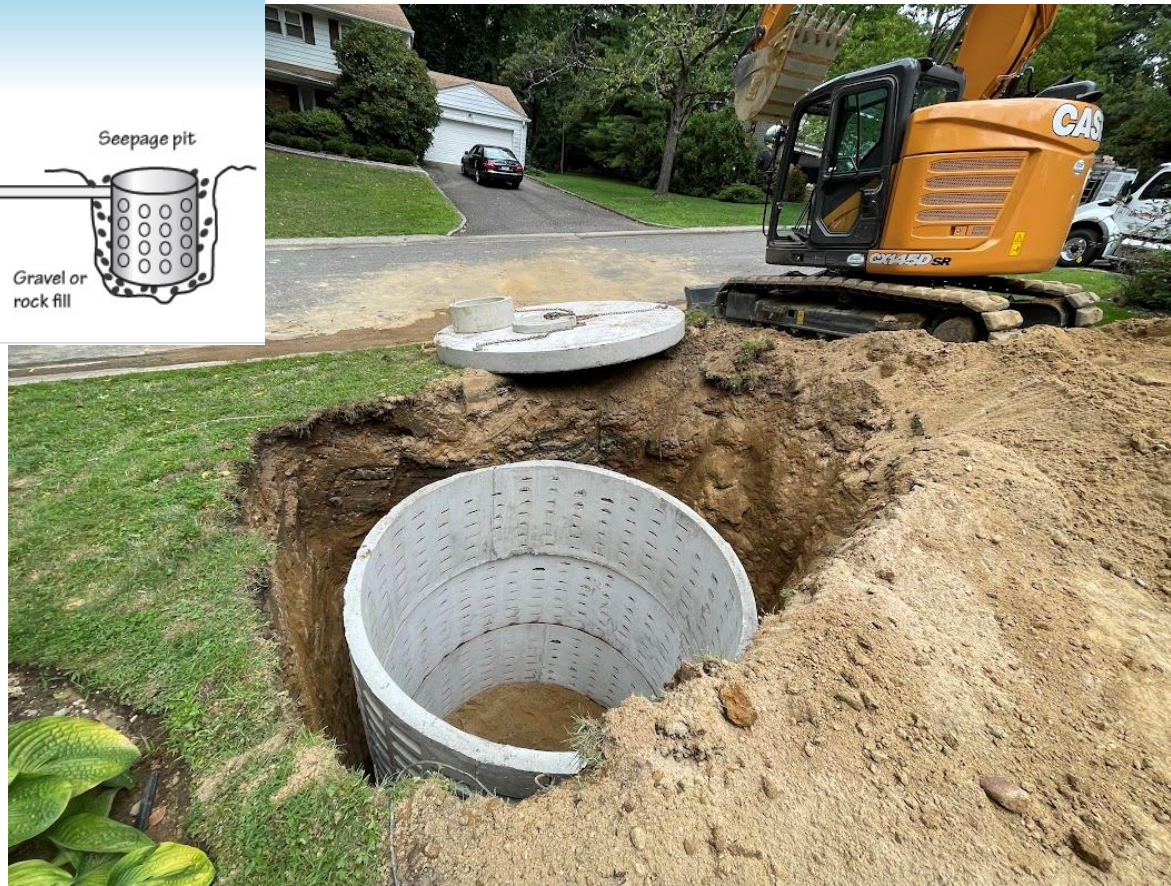
DISCLAIMER:

THE OPINIONS REPRESENTED IN THIS PRESENTATION BELONG SOLELY TO THE AUTHORS & DO NOT REFLECT THE OPINIONS OF NOWRA, OR ANY OTHER COMPANY OR ORGANIZATION.

Typical Conventional Septic Systems Found on Long Island

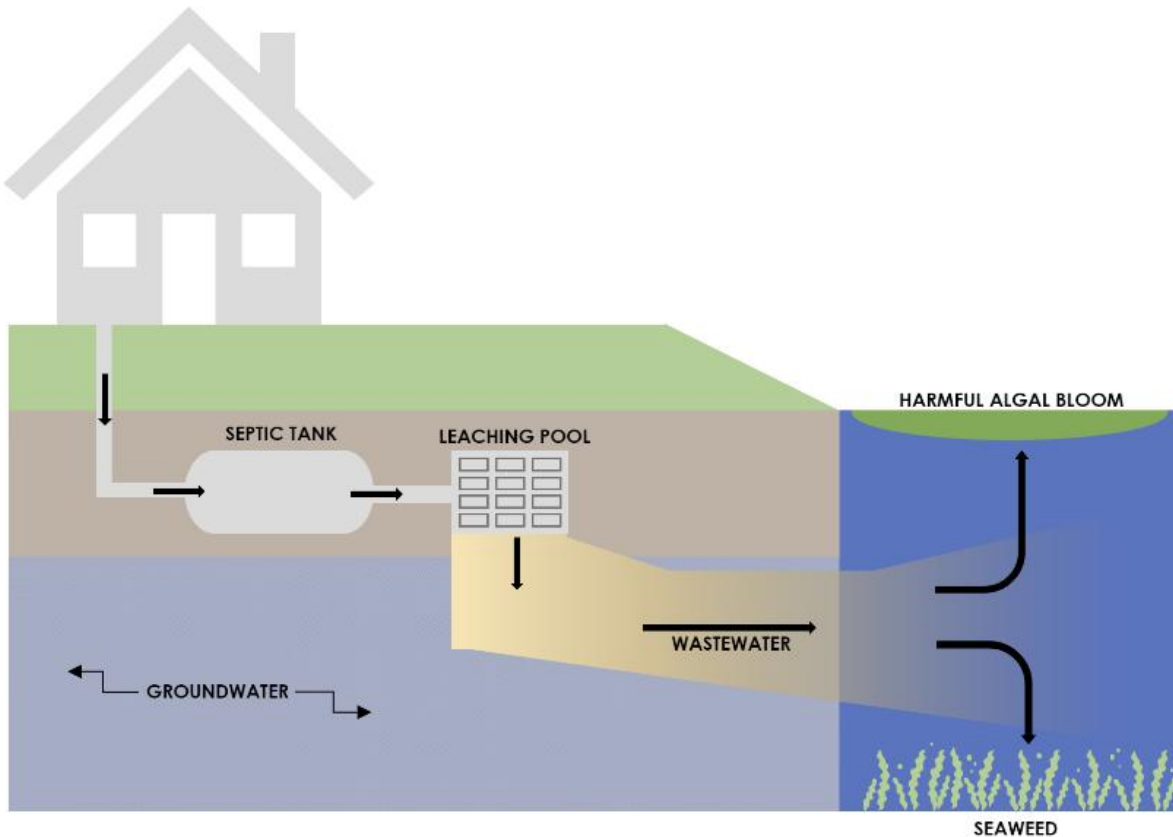


Conventional Septic System

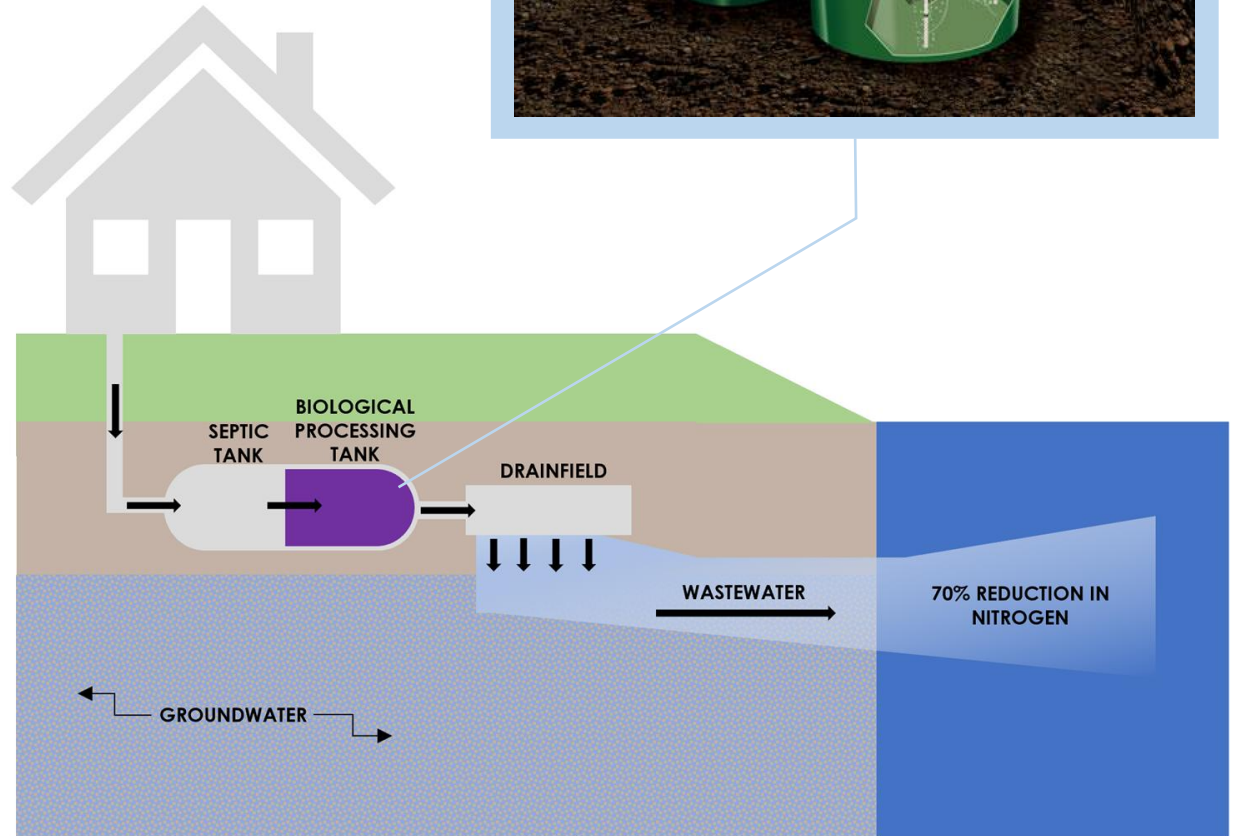


- Over 425,000 On-Site Systems on LI, Hundreds of thousands of cesspools
- 74% of Suffolk County is unsewered, 90 % of Nassau's North Shore is Unsewered
- HAB's, Shellfishing Impacts, Coastal Resiliency, Public Bathing Beaches

“Innovative Advanced (I/A) OWTS” can reduce nitrogen outputs into groundwater by up to 70%.

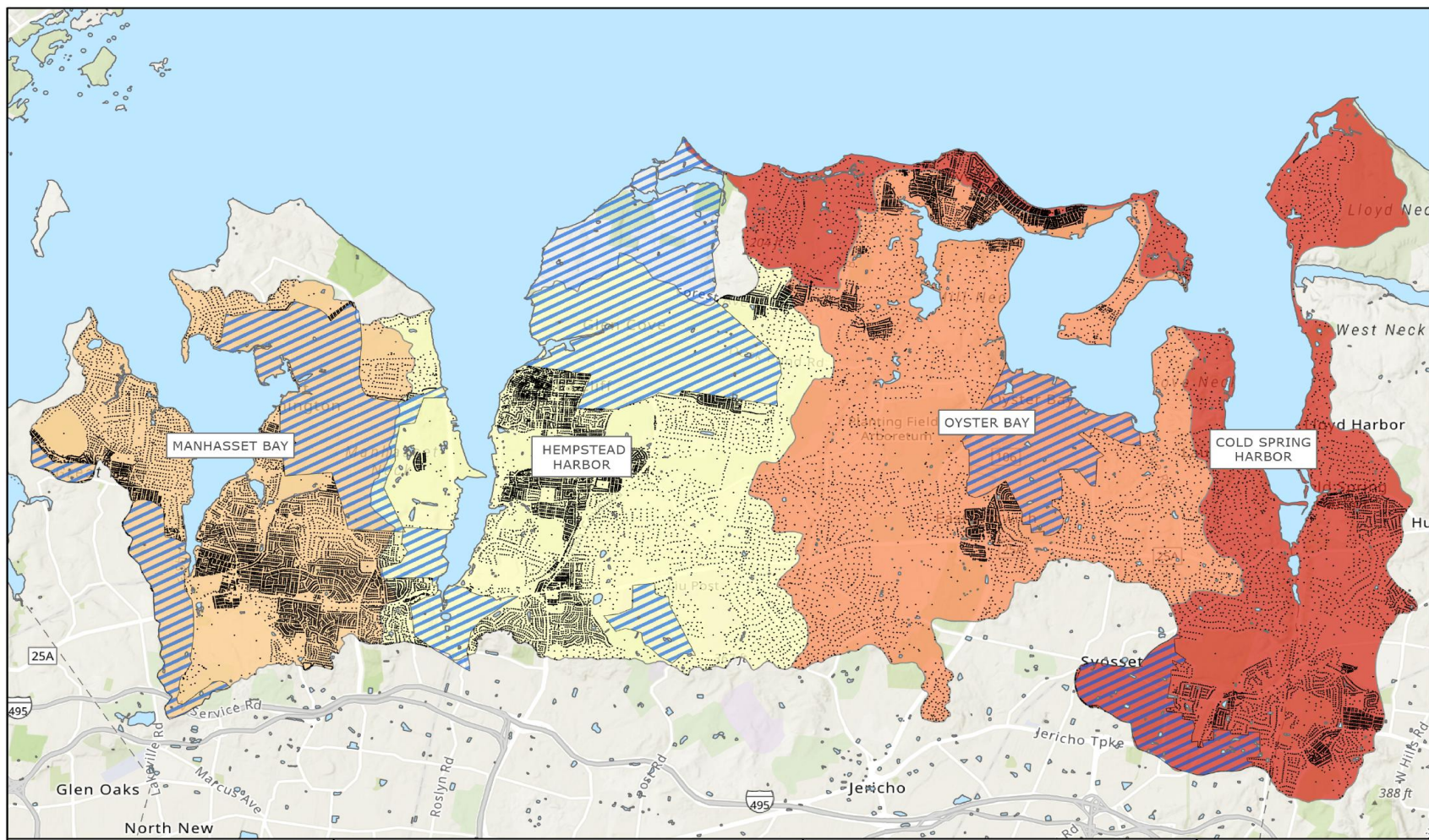
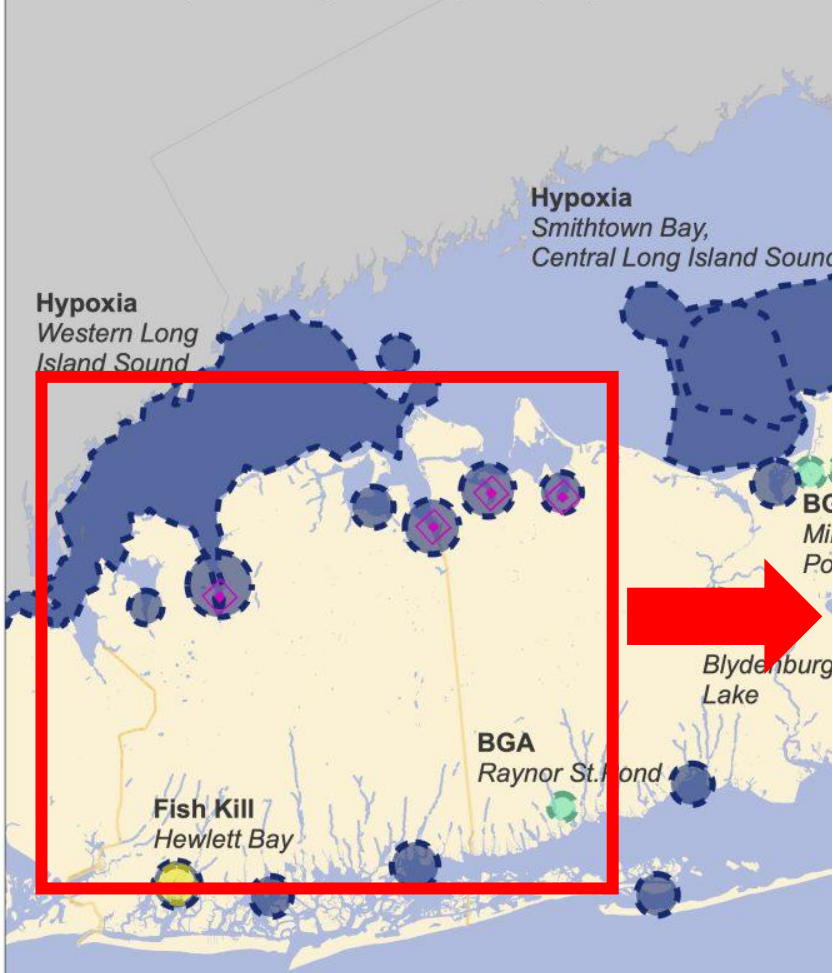


CONVENTIONAL SEPTIC TANK



NITROGEN-REDUCING IA SEPTIC TANK

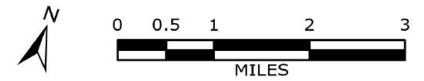
Please note that the locations digitized are approximate and a lack of area highlighted is not confirmation that an impairment is absent. The Nature Conservancy makes no warranty as to the accuracy or reliability of any content.



© The Nature Conservancy, October 2023
Data sources: Gobler Laboratory at Stony Brook University, NYS DEC, CT DEEP, and

**NORTH SHORE OF LONG ISLAND
WATERSHED NITROGEN-REDUCTION
TARGETS**

- LEGEND:**
- APPROXIMATE SEPTIC TANK LOCATION
 - ▨ SEWAGE SERVICE AREA WITHIN WATERSHED BOUNDARY
 - ▨ WATERSHED BOUNDARY AND % NITROGEN REDUCTION TARGET
 - 19.5% HEMPSTEAD HARBOR
 - 42.2% MANHASSET BAY
 - 48.7% OYSTER BAY
 - 63.3% COLD SPRING HARBOR

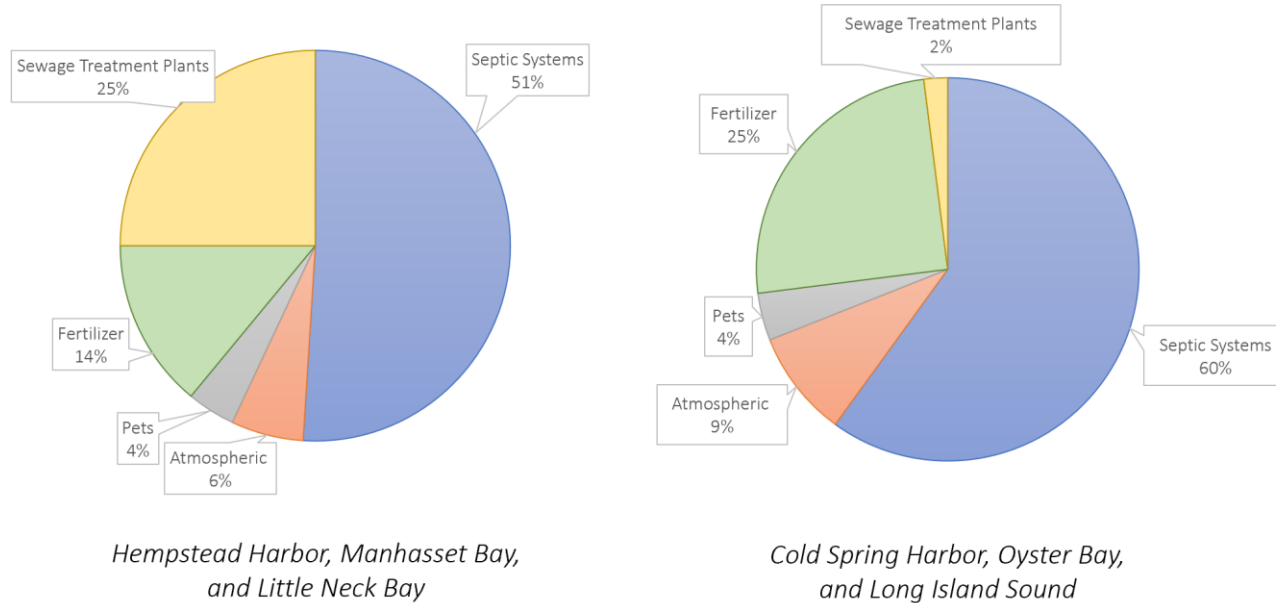


Data Sources:
Nassau County GIS
Nitrogen Loading Modeling for Nassau County Watersheds prepared by Stony Brook University, School of Marine and Atmospheric Sciences (2020)
National Hydrography Dataset



LINAP & 9 Key Element Watershed Plan

Distribution of Nitrogen to North Shore of Long Island



Data from Stony Brook University's Nitrogen-Loading Modeling for Nassau County Subwatersheds.

- The Nassau County's Nine Key Element Watershed Plan for Nitrogen sets a goal of providing financial incentives of \$20,000 to upgrade 2,000 eligible properties by 12/31/2032.
- The Program has been allocated \$8,060,000 million through to the end of 2024, with an additional \$8,000,000 expected for years 2025 – 2026, totaling \$16,060,000 of the \$40,000,000 10-year goal.
- In 2023 the District published a 10-year implementation plan that will allow us to leverage existing funds and pursue additional funding sources to achieve this aggressive but feasible goal.



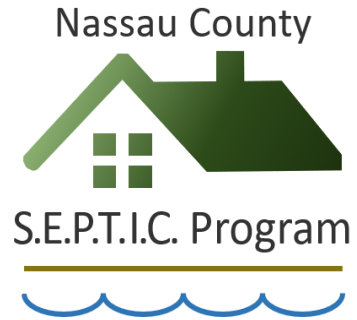
NASSAU COUNTY
NINE KEY ELEMENT WATERSHED PLAN
FOR NITROGEN
September 2022

By
Dan Fucci, Nassau County
Christopher J. Gobler, Stony Brook University



Stony Brook University
School of Marine and
Atmospheric Sciences

Nassau's S.E.P.T.I.C. Program – Overview



- Administered by the District on behalf of Nassau County
- Launched in May of 2021
- Provides State and County financial incentives of up to \$20,000 to applicants looking to existing onsite systems with nitrogen-reducing technologies

Join the Nassau County Septic Replacement Program

Help keep Long Island waterways clean by replacing your conventional or failing septic system with a new innovative advanced onsite wastewater treatment system. Eligible Applicants will receive a **\$20,000** reimbursement for installing a nitrogen reducing septic system on their property.

[Click here to learn more about the program](#)



Funding

- The NY Clean Water Infrastructure Act of 2017 established the “State Septic System Replacement Fund” and allocated \$75 million to support a multi-year program.
 - \$6,000,000 has been awarded to Nassau to date
- Nassau County has provided \$4,030,000 through ARPA, to provide a combined grant of up to \$20,000



Taxability of Grants on L.I.

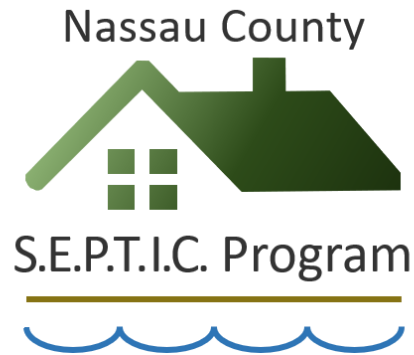
- U.S. Senator Chuck Schumer announced Nov. 22 that **the U.S. Department of Agriculture had ruled that Suffolk County taxpayers should not receive 1099s.**
- Per IRS announcement 2022-26, **Nitrogen-reducing septic system grants payments do not have to be included in the gross income** of the payment recipients for Federal income tax purposes.



DISTRICT'S RESPONSIBILITIES & 5-PRONGED APPROACH

to the Evolution to IA Septic Systems, as outlined in 9 Element Plan

1. Develop Capacity to Evaluate, Approve, Permit, and Regulate Technologies
2. Train, Inform, and Prepare the Industry and Public on Nutrient Reducing Technologies
3. Update Outdated Regulations (Code, Ordinances, Guidance Documents and Memos)
4. Promote Implementation of Advanced Treatment in Priority Areas
5. Public Funding to Incentivize Large Number of Installations & Eventually the Development of Long-Term Funding Sources



Nassau's S.E.P.T.I.C. Program – Qualifying Properties

- Single family or two-family homes, not-for profit organizations, municipalities, and small businesses.
- Sanitary design flow less than 1,000 gallons per day.
- Replacement of an existing septic system or cesspool with IA OWTS.
- Must have been approved by the local permitting authority.
- Property has no tax liens or active foreclosure actions.
- Have a valid certificate of occupancy of existing use issued by city, town or village.
- Not be located within an existing or proposed sewer district.
 - If the property is located in an existing sewer district but is unable to connect due to site constraints documented by the Sewer District in question, the property may be eligible.



Nassau's S.E.P.T.I.C. Program – Eligible Costs

Costs must be reasonable and necessary, and include but are not limited to:

- Site Evaluation and Design
 - Soil Borings
 - Perc Tests
 - Engineering Plans
- I/A OWTS materials and necessary components
- Electrician costs
- Labor for installation, excavation, backfilling and leaching structures
- Three-year warranty for the I/A OWTS



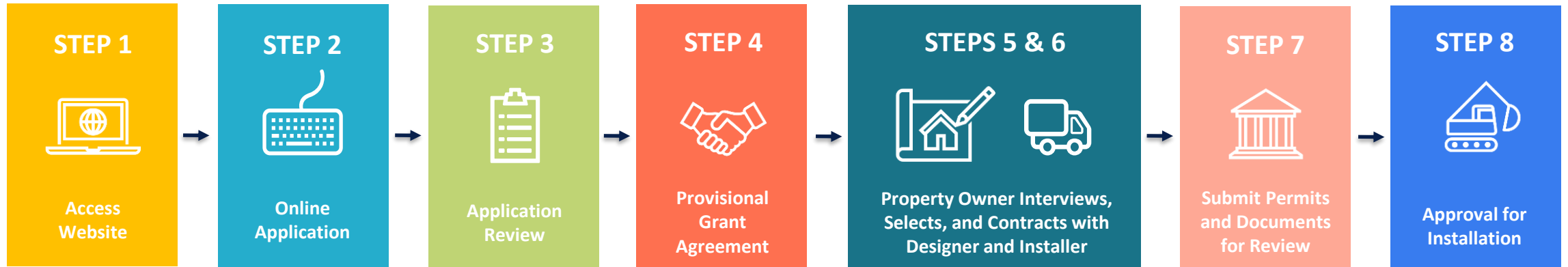
Nassau's S.E.P.T.I.C. Program – Ineligible Costs

- Irrigation repairs & beautification
- Fees, fines, or penalties (includes permit fees)
- Pumping, decommissioning, and abandonment
- Inspection, operation, and maintenance expenses
- Any expenses that are not appropriately documented or exceed the \$20K grant award

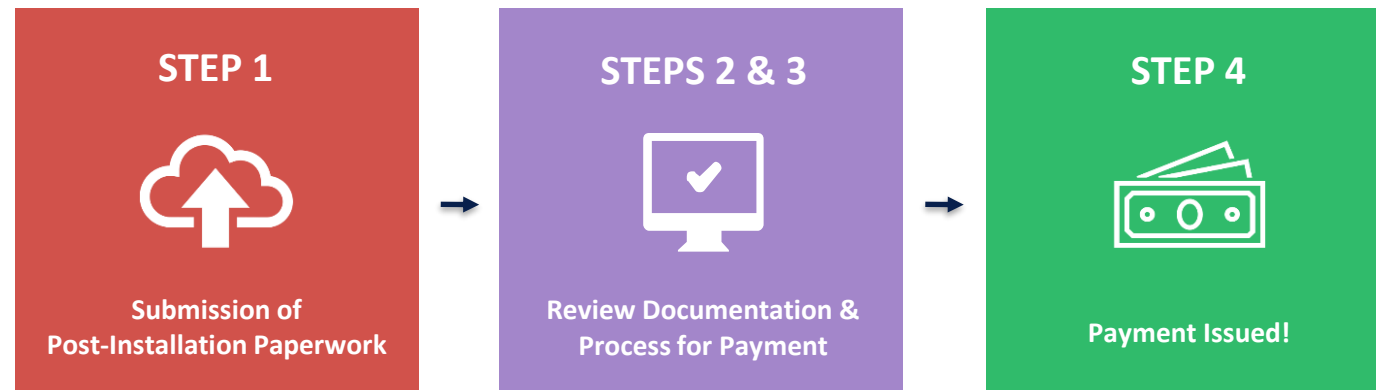


Nassau's S.E.P.T.I.C. Program – Streamlined Workflow

Part 1: Electronic Application Process



Part 2: Payment Process



Types of Payment:

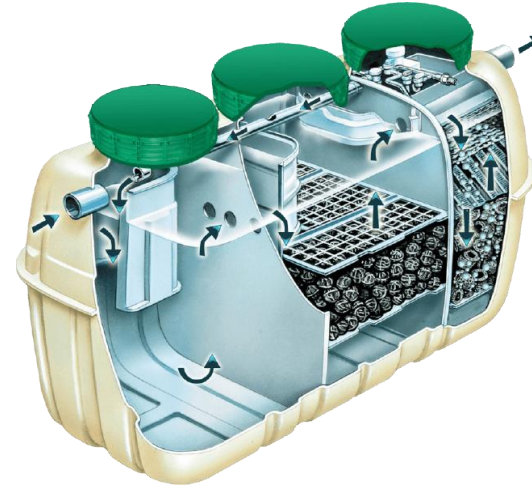
1. Reimbursement
2. Two-Party-Authorization

Nassau's S.E.P.T.I.C. Program – Technologies with General Use Acceptance



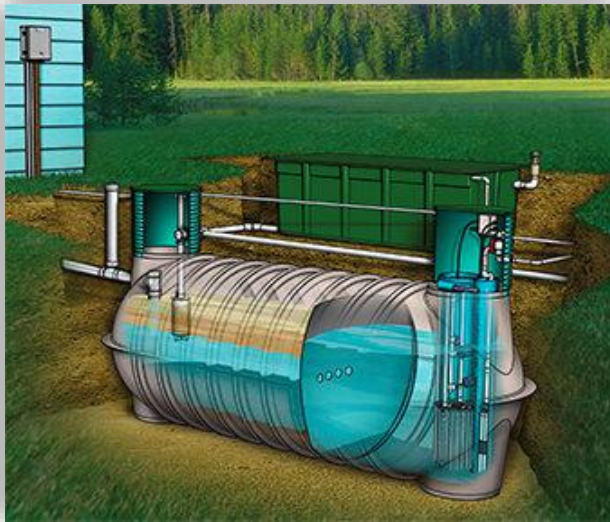
Hydro-Action AN Series

Joe Densieski
Wastewater Works Inc.
139 Reeves Avenue
Riverhead, NY 11901
www.wastewaterworksinc.com
wastewaterworks@gmail.com



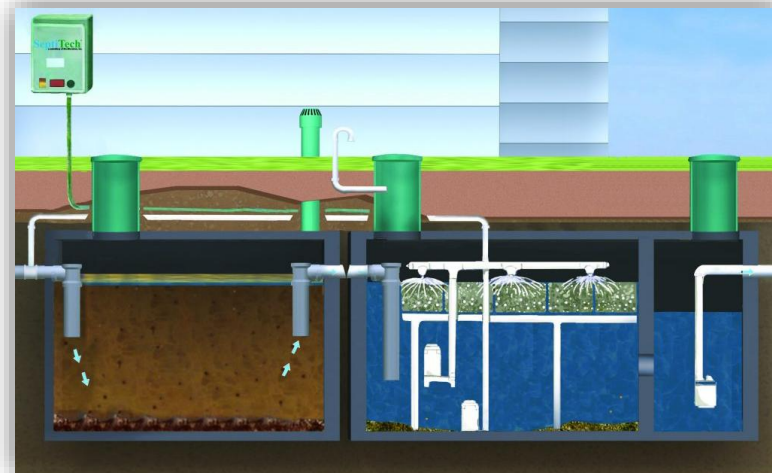
Fuji Clean CEN Series

Bryan McGowin
Advanced Wastewater Solutions, LLC
PO Box 1622 Southampton, NY 11969
(631) 259-3353
<https://www.awsli.com>
bmcgowin@gmail.com



Orenco Advantex AX-20

Lee Essay
Nugent & Potter
1557 County Road 39
Southampton, NY 11968
Lee@nugentpotter.com
<http://nugentpotter.com>
(631) 283-1103

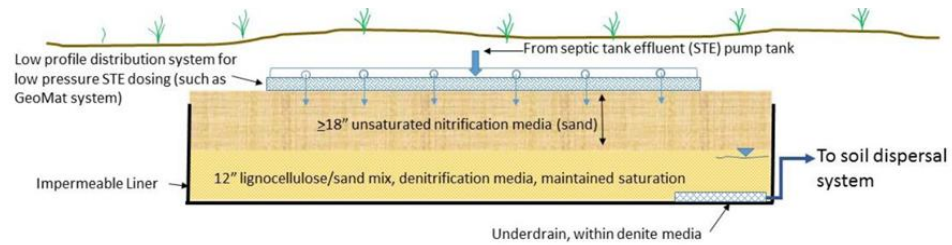


SeptiTech STAAR

John Lindahl
SeptiTech Long Island
27 Service Rd A
Calverton, NY 11933
(631-)284-9893
jlindahl@clearriver.us
<https://septitechli.com>

Nassau's S.E.P.T.I.C. Program – Accepted Technologies

Provisional Acceptance *(can be installed with no limits or restrictions)*



Nitrogen Reducing Biofilter

Frank M. Russo, P.E.

Associate Director for Wastewater Initiatives

NYS Center for Clean Water Technology at Stony Brook University

<https://www.stonybrook.edu/commcms/cleanwater>



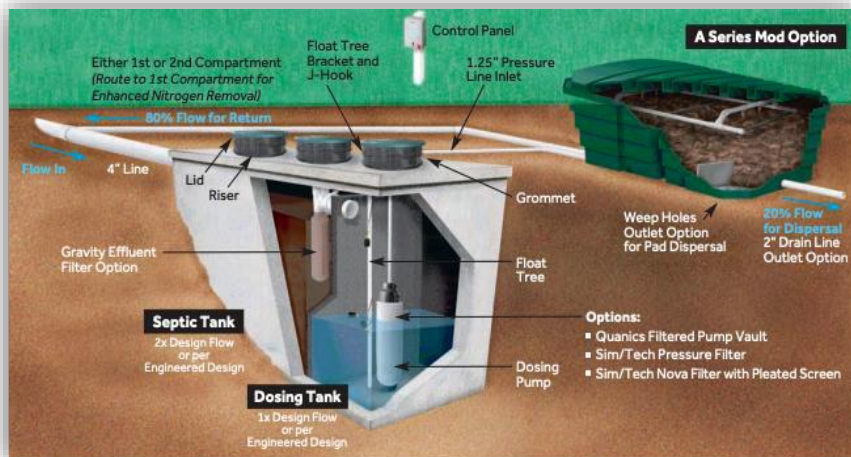
Norweco HydroKinetic

Norweco of New York

norwecony@gmail.com

(516) 710-7967

Piloting Acceptance *(Limited to 12 Installations)*



Anua - BioCoir Coconut Fiber Biofilter
(A Series & IM Series)

Colin Bishop, CEO

Anua

www.anua-us.org

T: 928.433.3220

colin.bishop@anua-us.com



A Series



IM Series

Average S.E.P.T.I.C. Installation Costs

Note: these numbers are representative of all installations completed within our program to date.

Average Cost - \$29,559.50

NOTE:

- This reflects only eligible reimbursable costs
- Grants are meant to offset and incentivize IA systems over conventional systems and cesspools
- Applicant should expect out-of-pocket expenses



Nassau's S.E.P.T.I.C. Program – Operating & Maintenance Costs

Maintenance Costs Associated with Clean-Water Septic Systems

ANNUAL SERVICE DETAILS

- ✓ \$300 - \$400.00 a year
- ✓ Site Visit every 6-months
- ✓ First 3-years included with Project Participation
- ✓ Check Controls and Panel Function
- ✓ Inspect and Clean filters, floats, and pump intake
- ✓ Inspect tank compartments and measure solids accumulations



SYSTEM MANUFACTURERS ARE RESPONSIBLE FOR IDENTIFYING, TRAINING, AND CERTIFYING SERVICE PROVIDERS IN NASSAU COUNTY, NY



Electric costs range from approximately \$60 - \$300 per year depending on the technology

Approximate Repair and Replacement Costs

Item	Cost	Life Expectancy
Blower / Aerator Replacement	\$400.00	10 years
Blower / Aerator Rebuild	\$150.00	10 years
Float Replacement	\$100.00	5 - 10 years
Recirculation Pump Replacement	\$700.00	10 years

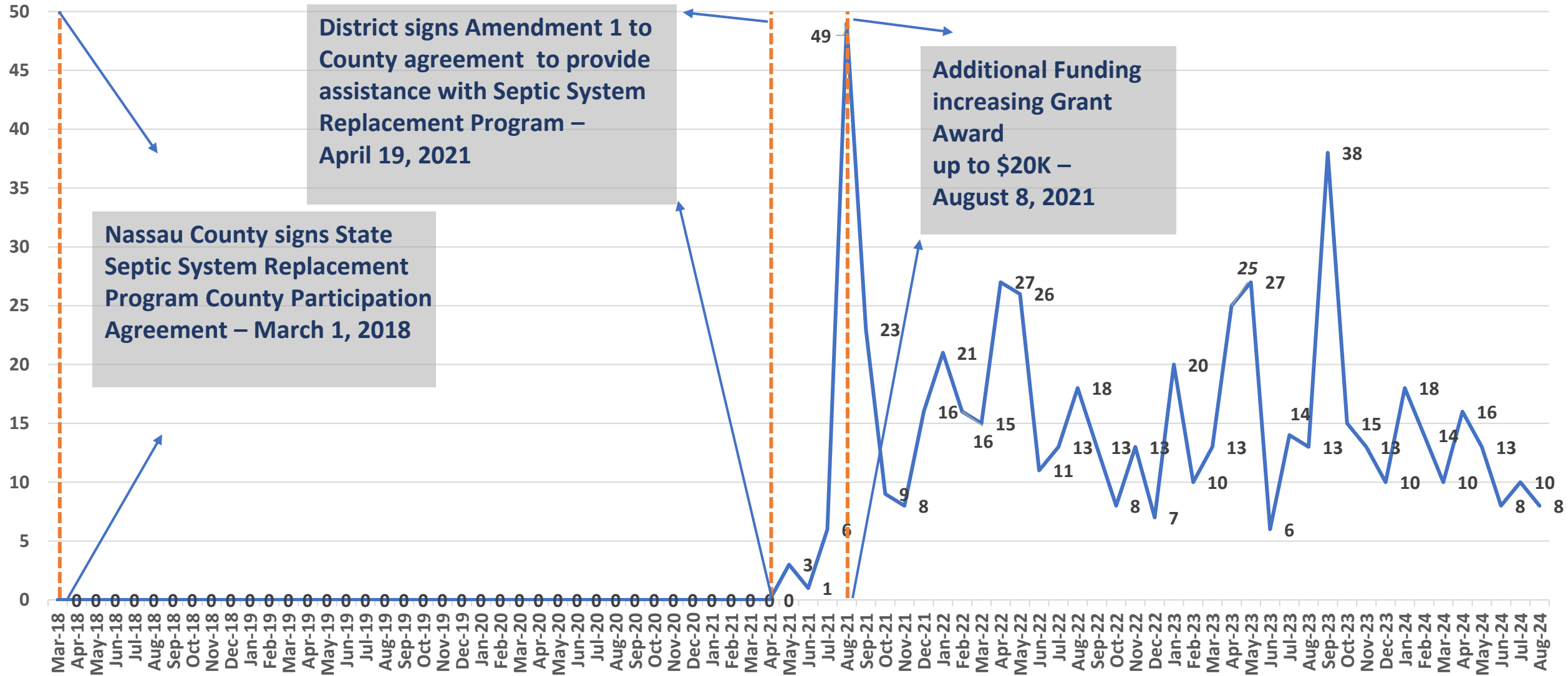
Site Constraints & Costs

- **Cost Range** -\$20,850.00 - \$69,990.00
- Individual costs are subject to site-specific challenges such as:
 - Deep Line Systems
 - Type of Leaching System
 - High Groundwater
 - Site Access
 - Plumbing, Electrical, or Utility Upgrades & Relocation
 - Town or Village Permitting Requirements
 - Driveway or Traffic Bearing Installations



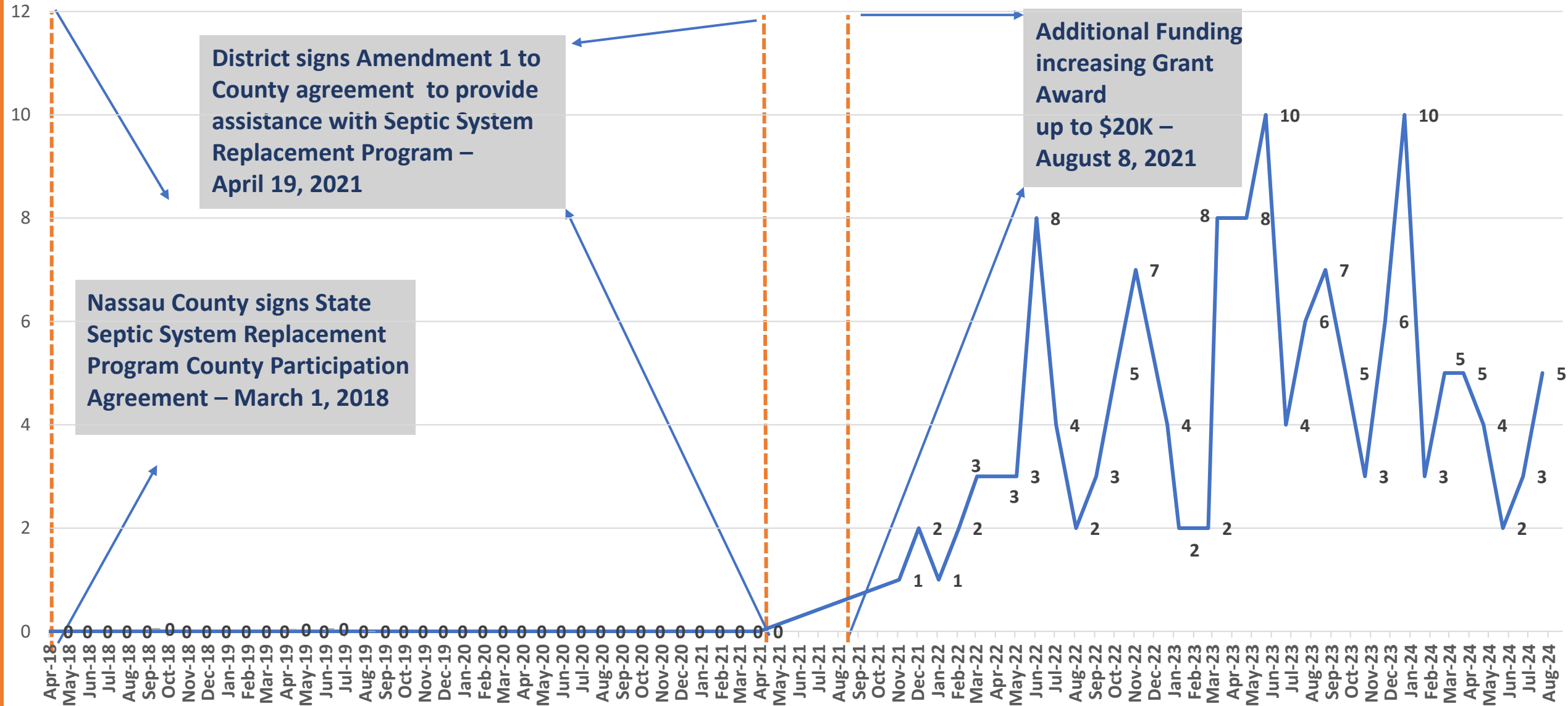
Nassau's S.E.P.T.I.C. Program – Program Statistics as of 8/23/24

Nassau S.E.P.T.I.C. Applicants per month to Date



Nassau's S.E.P.T.I.C. Program – Program Statistics as of 8/23/24

Nassau S.E.P.T.I.C. Installations per month to Date

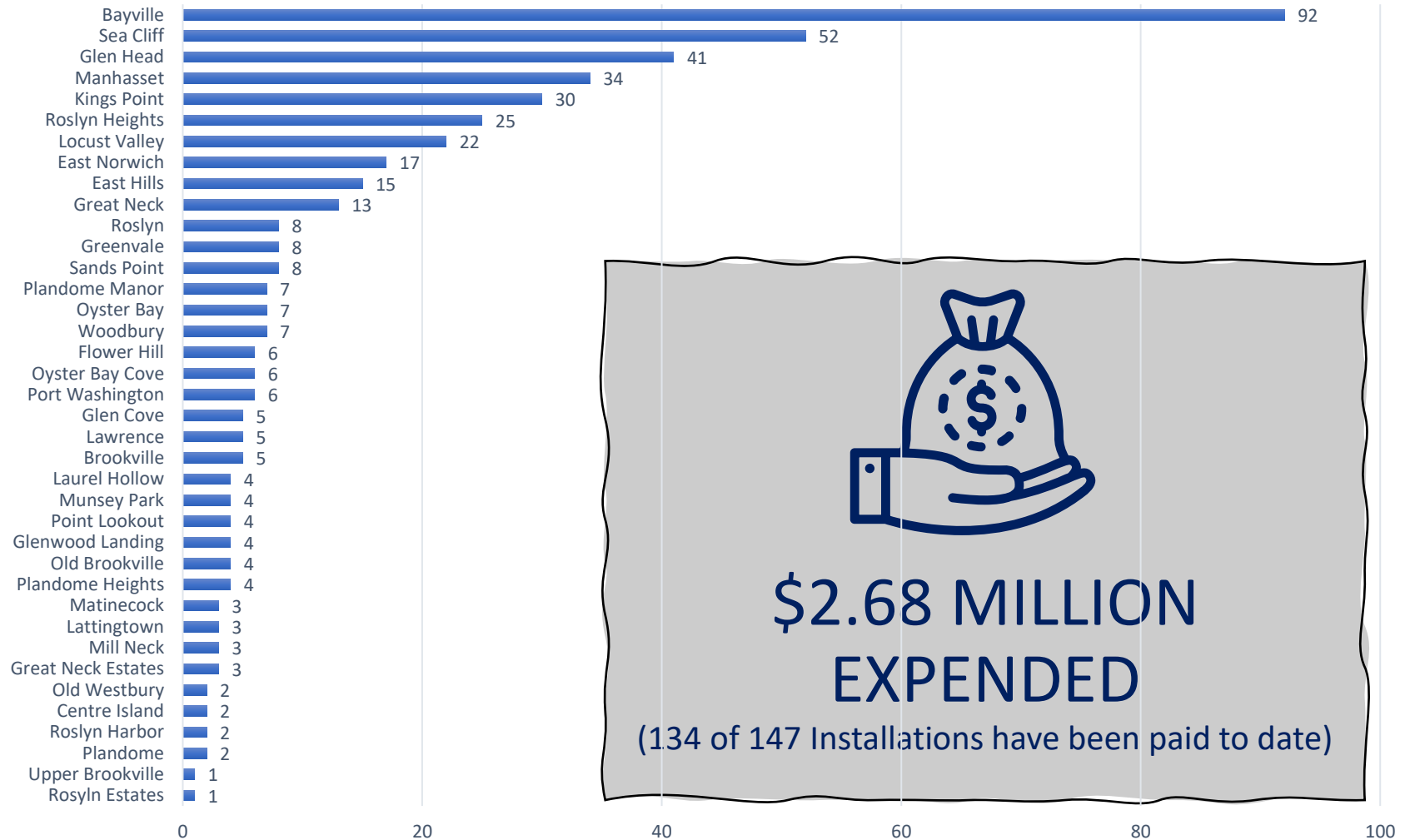


Nassau's S.E.P.T.I.C. Program – Program Statistics

NCSWCD started accepting applications in May 2021

- 668 Applications Received
- 331 Active Applicants
- 272 Grant Agreements Issued
- 147 Installations
- 22 Pending Installations

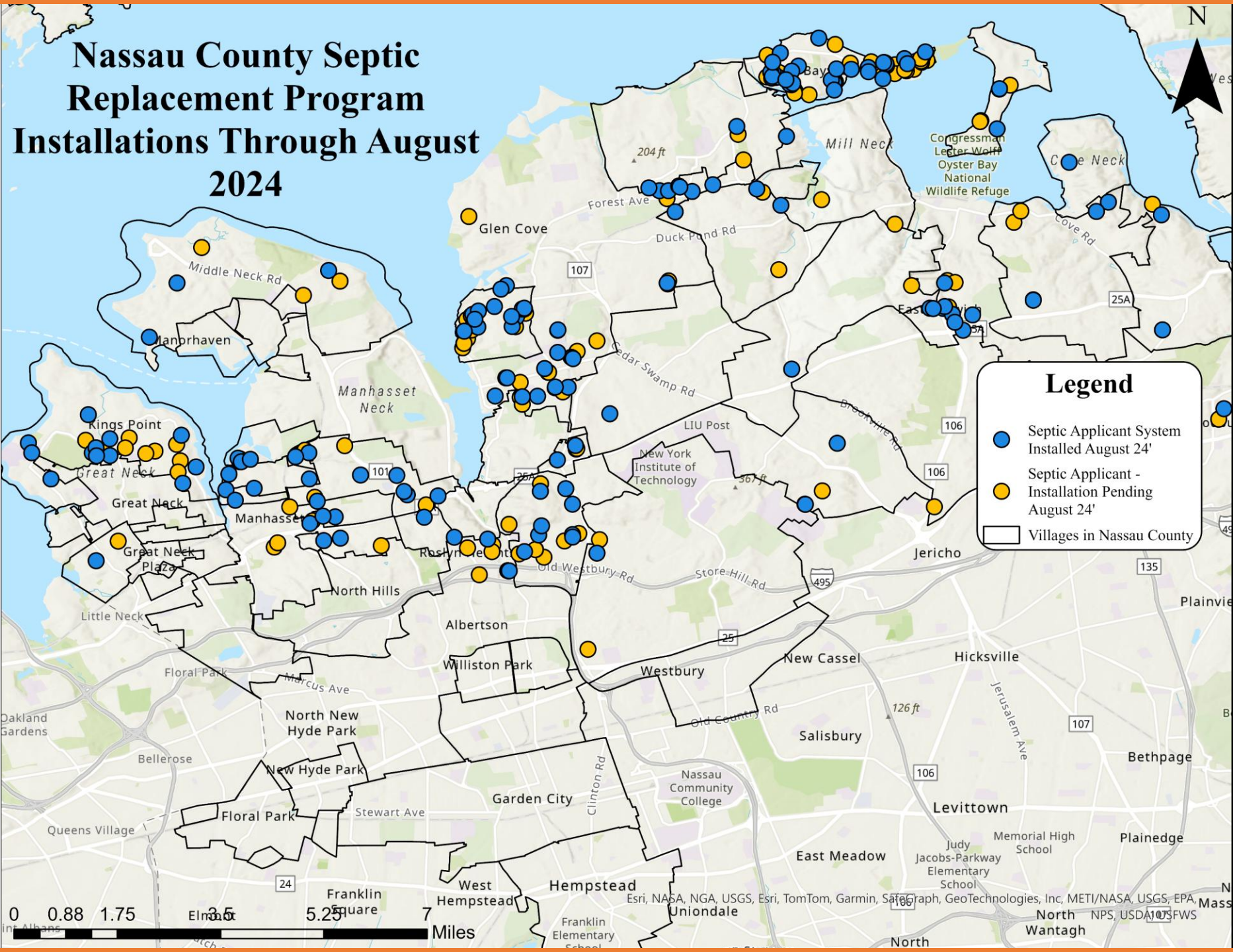
Nassau County S.E.P.T.I.C. Applicants per Town / Village - 08/23/2024



**\$2.68 MILLION
EXPENDED**

(134 of 147 Installations have been paid to date)

Nassau County Septic Replacement Program Installations Through August 2024



Legend

- Septic Applicant System Installed August 24'
- Septic Applicant - Installation Pending August 24'
- Villages in Nassau County

0 0.88 1.75 3.5 5.25 7 Miles

Esri, NASA, NGA, USGS, Esri, TomTom, Garmin, SafeGraph, GeoTechnologies, Inc, METI/NASA, USGS, EPA, NPS, USDA, NOAA, SFWWS

Nassau's S.E.P.T.I.C. Program – Lessons Learned

- ✓ Need to increase grant amount
- ✓ Simplified Program Administration
- ✓ Need management / RME component
- ✓ Focus on applicant assistance
- ✓ Manage expectations
- ✓ Minimized out-of-pocket expenses by revamping process for “Provisional Approval” and Two-Party Authorization Process
- ✓ Simplified the online application
- ✓ Consolidated into one online Grant Agreement for both grants
- ✓ Online Request for Expression of Interest (RFEI) Portal
- ✓ Streamlined Permitting Process



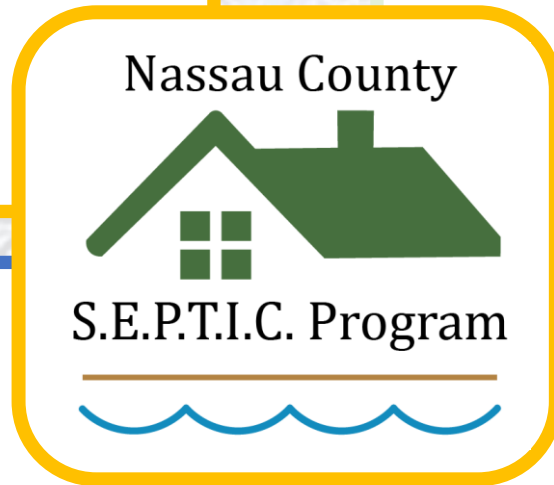
Improvements to Streamline Nassau's Program

**Simplified
Program
Administration**

**Targeted
Engagement
& Outreach**

**Technical
Assistance
& Training**

**Delineated Priority
Areas & Developed
a 10-Year Plan**



Nassau's S.E.P.T.I.C. Program – Testimonial

- Conventional septic system would have cost a minimum of \$16,000.00
- The total Design, Material, and Installation costs of the FujiClean CEN Series Clean-Water septic system was \$21,867.31.
- The Property Owner received \$20,000 in combined grants from Nassau County and New York State
- 'out-of-pocket' cost to Property Owner was \$1,867.31



Testimonial

'Our system is better than we could have hoped, and we have peace of mind knowing we are doing our part in keeping Bayville's water clean'

★★★★★



Next Steps

- Work towards goal of 2,000 installations and securing \$40 million in Program Funds
- Implement training for building officials and inspectors
- Continue targeted outreach in priority areas
- Implement additional management & tracking procedures
- Continue to work with permitting jurisdictions to:
 - Continue to streamline permitting & reduce overly burdensome permit requirements
 - Change outdated practices (stop allowing cesspools, focus on soil treatment areas over deep leaching)



Questions?

For more information, please contact

[\(516\) 364-5861](tel:5163645861)

NassauSeptic@iaowts.com

