

Winter 2023 NEWSLETTER

- **Sewers & Suffolk County**
- **Nassau County DPW Priority Resurfacing Program**
- **NYWEA Annual Meeting**
- **2nd Annual Ugly Sweater Contest**
- **Long Island Business News Best Places to Work**



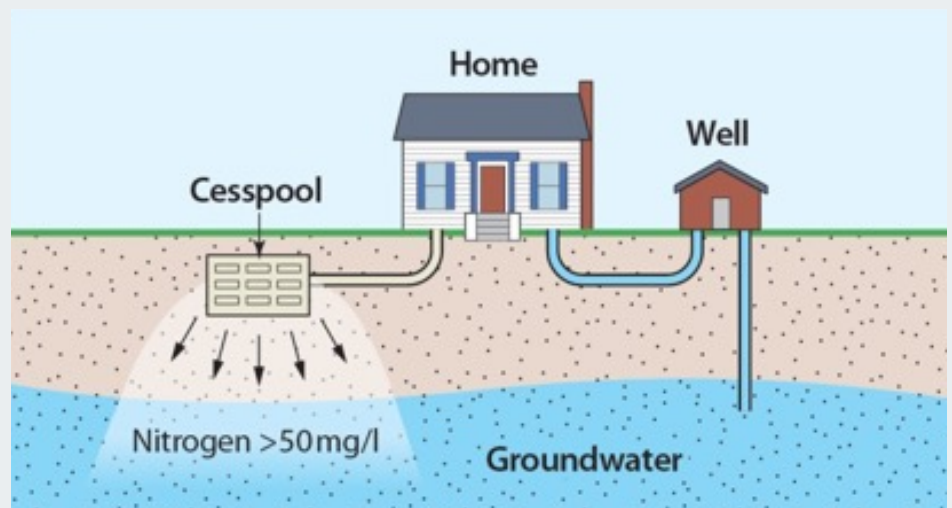
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Sewers & Suffolk County

► There are currently over 201 wastewater treatment plants in Suffolk County, approximately 36 of which are municipally owned and operated sewer districts, and over 165 that are privately owned and operated facilities. Despite the large quantity of wastewater treatment facilities, more than 75% of Suffolk County is currently unsewered. Most residences and businesses rely on antiquated individual septic systems or failing cesspools for wastewater discharge which are

inadequate and do not provide treatment of the wastewater.

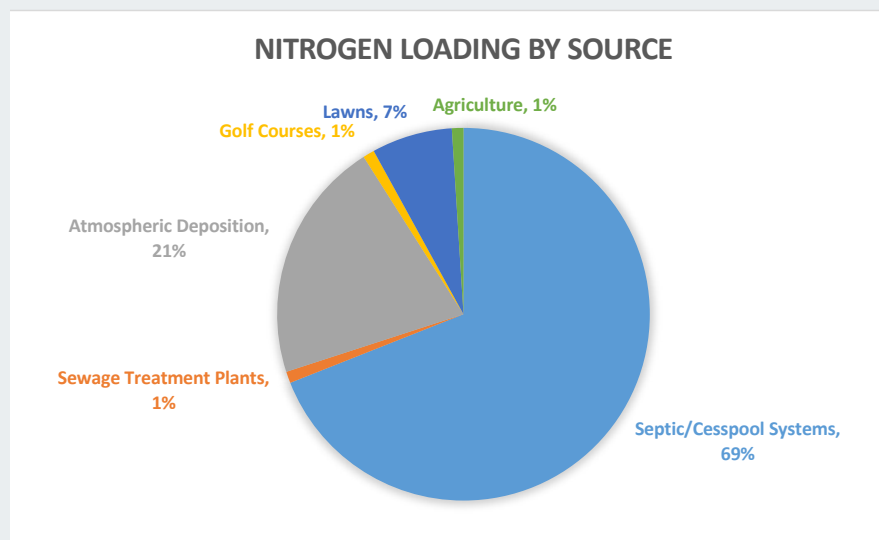
Septic systems and cesspools are considered to be the largest contributor of nitrogen pollution to our groundwater aquifers (Suffolk County's drinking water source) and surface waters, which has led to the current water quality issues and degradation of the shell fishing industry in Suffolk County. The following chart, based on figures provided by Nature Conservancy



Typical outdated cesspool configuration - Image source: New York State Center for Clean Water Technology

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studies performed in three (3) separate coastal study areas on Long Island in 2016, shows the distribution of nitrogen loading by source:



In addition, the lack of wastewater treatment and public sewers greatly inhibits development or redevelopment of property within the County which also impacts the local economy. Under current conditions, if a developer is seeking to construct a multi-family residential project outside the boundaries of a sewer district, the developer would likely need to construct an individual wastewater treatment plant specifically to service that project which is costly and

ultimately results in higher housing costs. This has been the primary contributor to the proliferation of wastewater treatment plants in the region.

Several years ago Suffolk County embarked on the “Reclaim Our Water Initiative” to address these issues which includes three (3) key components:

1. Providing Innovative/ Alternative Onsite Wastewater Treatment Systems (I/A OWTS) to replace septic systems;
2. Promoting neighborhood cluster type systems;
3. Implementing large scale sewer projects.

As of July 1, 2021, individual I/A OWTS systems are required to be installed for all new construction in Suffolk County, as well as in many other situations to upgrade existing systems. Untreated domestic wastewater discharge is typically estimated to contain about 45-65 milligrams per liter (mg/L) of Total Nitrogen. I/A systems are required to treat wastewater to a maximum discharge limit of 19 mg/L of Total Nitrogen, representing a significant environmental improvement. Hayduk Engineering (HE) has designed dozens of new I/A On-Site Wastewater Treatment

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**LONG ISLAND
BUSINESS NEWS**
**Best Places
to Work**

**Hayduk
Engineering has
made it onto
the Long Island
Business News
Best Places to
Work list once
again, for the 3rd
year in a row.**

Systems for both residential and commercial properties, ranging in design capacity from 300 gallons per day to over 10,000 gallons per day.

In addition, Hayduk Engineering has worked with Suffolk County Department of Public Works (SCDPW) on several of their large scale sewer infrastructure projects.

HE is currently working with SCDPW and elected officials to prepare a sewer feasibility study focused on a 5 mile portion of the unsewered commercial corridor of NYS Route 25 Middle Country Road in Centereach and Selden, NY. The study will evaluate different wastewater collection, conveyance, and treatment technologies that are available

to service the area, analyze potential environmental impacts associated with the project, and provide estimated costs to construct the project. If implemented, it is projected that the Centereach/Selden sewer project could provide significant environmental, social, and economic benefits to the region, in alignment with the community's vision plan. ■



I/A OWTS Installation in Mount Sinai, NY



Middle Country Road in Selden, NY

NYWEA Annual Meeting

Hayduk Engineering was a Waterfall Level Sponsor once again for this year's Annual Meeting. Members of our wastewater team enjoyed the technical seminars and exhibition hall.

Nassau County Department of Public Works Priority Resurfacing Program

► The Nassau County Department of Public Works (NCDPW) Capital Program continues to fund a very robust roadway preservation program. This program includes the condition assessment of over 1,600 lane miles of County-Owned roads to identify necessary repairs and improvements required to bring the highway system into a state of good repair and in compliance to applicable codes and standards. At a minimum, the scope of any one of these projects, involves the following tasks:

- The rehabilitation of existing roads to provide increased safety, extend their service life, and provide an acceptable pavement riding surface.
- Evaluating the condition of all existing curbs, curb ramps, and driveway aprons.
- Evaluating the need to provide sidewalk installation and/or upgrades in accordance to current ADA and NCDPW Public Rights-of-Way Accessibility Guidelines.
- Propose repairs/replacements of deteriorated cross-sectional elements.
- Address and propose remediation of all necessary drainage issues within the project corridor.
- Pavement marking and traffic sign design, pursuant to Federal Manual of Uniform Traffic Control Devices (MUTCD) and the NYS Supplement.

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...Resurfacing Program continued

Hayduk Engineering (HE) has taken part in providing highway engineering services on over ten of these pavement preservation projects over the past few years. Below is an example of the projects that we have successfully completed:

Old Jerusalem Road, Levittown, NY

HE prepared the preliminary and final design for the complete rehabilitation of this roadway, between Wantagh Avenue and Gardner's Avenue. This project included the engineering design for the milling/profiling of the existing asphalt pavement, removal and replacement of damaged concrete curbing and sidewalk, identification of ADA handicap ramps needing reconstruction, full depth asphalt pavement repair, drainage casting and grate adjustments, utility valve adjustments, resurfacing of the roadway, traffic detection loop replacement, and design of required pavement markings and signage. The final design package included construction

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plans, item specifications and a cost estimate of the project.

Stewart Avenue and Zeckendorf Boulevard, Hempstead, NY

HE prepared the preliminary and final design plans for the complete rehabilitation of these roadways, east and west of the Meadowbrook State Parkway, in the Town of Hempstead. This project included the development of the Technical Design Report (TDR), design for the milling/profiling

of the existing asphalt pavement, replacement of damaged concrete curbing and sidewalk, identification of ADA handicap ramps needing reconstruction, full depth asphalt pavement repair, drainage and utility casting and grate adjustments, resurfacing of the roadway, traffic detection loop replacement, design of required pavement markings and signage. The final design package included construction plans, typical sections, item specifications and a cost estimate of the project. ■

Hayduk Engineering held its 2nd Annual Ugly Sweater Contest!

Our employees showed up in their ugliest sweaters which were voted on at our weekly Bagel Friday.



Congrats to Nadgee González García for winning this year's contest!



► We're Hiring

Hayduk Engineering is seeking to fill a limited number of key management-level and senior engineering positions in our Civil/Site, Transportation, Wastewater Engineering Divisions, as well as several bridge and tunnel inspection and construction inspection positions. Please contact Stephen A. Hayduk, P.E. at sah@haydukengineering.com for more information.

► New Hires



Taylor Buckward
Marketing
Coordinator

► Recent Contract Designations

Prime

Eastport Meadows Sewage Treatment Plant Engineer of Record

Wastewater engineering services

Bicycle Path Planned Retirement Community Development

Civil/site engineering services, wastewater engineering services

Town of Smithtown – Callahans Beach Reconstruction

Construction administration services

NYS Office of General Services – NYSDOT Region 10 Fleet Maintenance Facility Parking Lot and Sidewalk Improvements

Civil/site engineering services

DASNY – Sagamore Children's Psychiatric Center Kitchen Ventilation Improvements

Mechanical engineering services

Sub

Battery Park City Authority-North/West Battery Park Resiliency Design-Build

Highway engineering services

Niagara Frontier Transportation Authority - Amherst to Buffalo Light Rail Extension

Highway engineering services

MTA C&D – Randall's Island Ramps Design-Build

Highway engineering services

MTA C&D – RFK Bridge Cleaning and Painting

Construction administration services



HaydukEngineering.com 631-476-0600