

### **Septic Improvement Program FAQs**

#### **Where does our waste go after we flush the toilet?**

Thanks to the simple push of a lever, waste remains out of sight and out of mind. According to the US EPA, about one-third of Americans have an on-site septic system to dispose of the waste in their homes. If your home is not connected to a sewage treatment plant, the wastewater from your toilet, shower, sinks and washing machine leave your house and is deposited into an underground septic tank or cesspool. The heaviest particulate matter in the waste, called sludge, sinks to the bottom. At the top of the tank, fats, oils and proteins form the floating scum layer. In the middle is the comparatively clear liquid layer called effluent or gray water. Combined, these components are called septage. Septic systems are designed so that only the effluent is discharged from the tank into the drain field (also called the leach field) or in most cases in Suffolk County, a leaching pool. A conventional onsite septic system was never designed to remove nitrogen. The average residential septic system discharges approximately 40 pounds of nitrogen per year.

#### **Where does our drinking water come from?**

All the drinking water in Suffolk County is withdrawn from porous underground sand and gravel formations known as aquifers. There are three major aquifers found beneath Suffolk County. The deepest aquifer is the **Lloyd Aquifer**, and it contains water that is up to several thousand years old. The middle aquifer is called the **Magothy Aquifer**, and it contains water that is up to 1,000 years old in its deepest layers underlying the south shore. The shallowest aquifer is called the **Upper Glacial Aquifer**. Most of the wells that draw from this aquifer serve individual households.

#### **Why the concern? Has water quality diminished significantly in Suffolk?**

While our water is safe to drink, nitrogen has adversely affected groundwater, and has caused impairments of all three major estuaries and numerous freshwater lakes and streams, resulting in eutrophication, hypoxia, and harmful algal blooms. The result has been fish kills and the demise of a once nationally significant shellfish industry. Nitrogen has also decimated submerged aquatic vegetation and fragile wetland ecosystems diminishing coastal resiliency in the face of storm events. This is largely due to the fact that 74% of Suffolk County residents rely on antiquated cesspools and septic systems to dispose of their household waste which were never designed to remove nitrogen. The average residential septic system discharges approximately 40 pounds of nitrogen per year which, for homeowners close to surface waters, rapidly reaches surface waters. Even inland, nitrogen from septic systems will eventually reach and have detrimental impacts on the groundwater and surface waters.

#### **What is a cesspool?**

Cesspools are antiquated structures that receive raw waste from the house and allow the untreated household effluent to leach into the surrounding soil, ultimately leading into ground and surface waters. Some older cesspools are made out of cement blocks or bricks. The solid portion is contained in the cesspool interior that requires intermittent pump-outs.

### **What is a conventional septic system?**

Conventional septic systems on Long Island consist of a septic tank and leaching structure(s) such as a leaching pool. Household waste enters the septic tank where wastewater is stored while solids settle to the bottom and fats, oils, and greases float to the top, forming a “clear zone” of effluent in the middle of the tank. This “clear effluent” is what is discharged to the leaching pool for final disposal, providing minimal treatment of nutrients such as nitrogen, pharmaceuticals, personal care products, and volatile organic compounds.

### **What conditions should be considered in replacing the existing system?**

Has there been a history of trouble? Do you experience slow-draining, gurgling toilet and occasional rank odors? Does your system need to get pumped out two times or more per year? When was the last time it was pumped? How old is the system and when was it permitted? Is the existing system constructed of blocks or bricks?

### **Why opt for Innovative and Alternative Systems?**

When properly designed, sited, installed, managed, and maintained, Innovative and Alternative Onsite Wastewater Treatment Systems (I/A OWTS) provide a cost-effective and environmentally sound alternative to sewers in portions of Suffolk County that are outside designated sewer areas. These systems significantly reduce nitrogen and, in many instances, reduce or eliminate levels of other contaminants of concern such as pharmaceuticals, personal care products, and volatile organic compounds found in traditional cesspools and septic systems. I/A OWTS can provide greater reliability for performance and reduce the number of pump outs for homeowners that currently pump out their wastewater systems more than once a year.

### **How do the approved technologies reduce Nitrogen?**

All of the General Use and Provisional Use Approved I/A OWTS technologies in Suffolk County rely on biological processes to treat wastewater and remove nitrogen. These systems use various methods to provide aerobic bacteria to convert nitrogen to nitrite and then apply an anaerobic (without oxygen) environment to denitrify by stripping the oxygen molecule off of the nitrate nitrogen, resulting in the release of gaseous nitrogen into the atmosphere. The nitrogen cycle is one of Earth’s most important biological processes, second only to photosynthesis.

### **How does an I/A OWTS benefit the homeowner?**

In addition to providing environmental benefits and reducing the nitrogen load to ground and surface waters, homeowners receive many other benefits from these state-of-the-art technologies. I/A OWTS can be more cost effective than conventional systems on lots with significant site constraints such as high groundwater, poor soils, small restrictive lot size, and coastal area. In addition, I/A OWTS consist of separate components, all of which are replaceable if something goes wrong. A homeowner may have to replace a pump or blower after 10 years, but they should not have to dig up and replace the system as is common with conventional systems. See the Septic Improvement Program website on information related to costs associated with owning an I/A OWTS. Replacing an old block cesspool with an advanced treatment system reduces the uncertainty of if and when the block cesspool will collapse. In some jurisdictions, I/A systems

have been shown to increase property value.

### **What are the Septic Improvement Program eligibility criteria?**

In order for an application to be considered for a grant(s) the following preliminary criteria must be met:

- An eligible property must consist of an existing dwelling unit that is constructed on a residential parcel and designed for single-family occupancy, two-family occupancy, or single-family occupancy with one accessory apartment.
- The residence must be served by a septic system or cesspool and not connected to a sewer system or located within a proposed sewer district.
- New construction is not eligible; however construction projects for existing residences may be eligible.
- Availability of valid Certificates of Occupancy (CO) or equivalent for the residence issued by the applicable town or village.
- The Property cannot have tax liens or be in foreclosure. Must be current on payment of property tax.
- Must provide Proof of Homeowner's Insurance Policy
- Must have Property Deed recorded with the Suffolk County Clerk.
- If property is owned by Trust, LLC, or Corporation, additional documentation is required.
- If applying for the additional \$5,000 Low to Moderate Income: the first two pages of property owner(s)' most recent filed federal income tax return along with signature page. (Form 1040, 1040A or 1040EZ). Please be sure to redact your social security number.
- Must provide proof of sanitary system failure (photos, service receipts, etc.) if being considered for Catastrophic or Non-Catastrophic Failure.
- Audit and Control will not process grant payments unless there is a W-9 from the applicant(s) on file.

### **How is grant issuance prioritized?**

Preferential consideration will be given to properties in environmentally sensitive areas. See Map of Priority Areas on the Septic Improvement Program website.

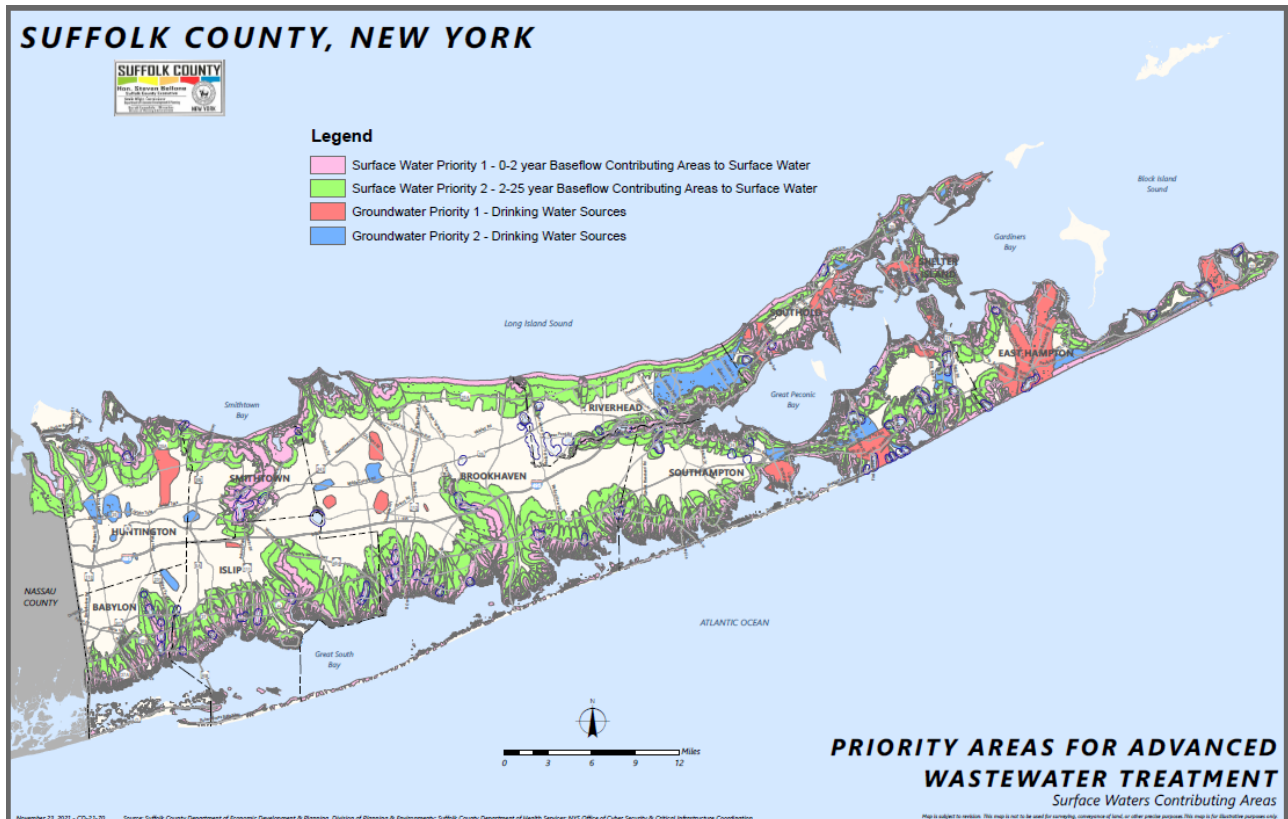
Applications will be received, scored, and ranked in the following order of priority:

1. A qualifying Residential Parcel with an application deemed to be a catastrophic failure, as defined in the SIP Rules and Regulations, which is located within Suffolk County.

2. A qualifying Residential Parcel with an application deemed to be a non-catastrophic failure, as defined in the SIP Rules and Regulations, which is located in Suffolk County.
3. A qualifying Residential Parcel with an existing sanitary system that is not a catastrophic failure, or non-catastrophic failure, and is located within the Priority Critical Areas (residential parcels within the 0 – 2 year groundwater travel time to surface waters or groundwater priority area 1 as defined in the Suffolk County Subwatershed Wastewater Plan or residential parcels within 1,000 feet of enclosed water bodies in Suffolk County);
4. A qualifying Residential Parcel with an existing sanitary system that is not a catastrophic failure, or non-catastrophic failure, and is located within Critical Areas (residential parcels located within the 2-25 year groundwater travel time to surface waters or groundwater priority area 2 as defined in the Suffolk County Subwatersheds Wastewater Plan).
5. A qualifying Residential Parcel with an existing sanitary system that is not a catastrophic failure, or non-catastrophic failure, and is located outside of a Priority Critical Area or outside of a Critical Area (residential parcels located outside of the 0-25 groundwater travel time to surface waters or groundwater priority area 3 as defined in the Suffolk County Subwatersheds Wastewater Plan)

**How do I find out if my home is in a priority area?**

View the full size Priority Area map on the Septic Improvement Program webpage.



### **How does the grant funding work?**

The Septic Improvement Program grant is not designed as a reimbursement program. Although the Grant Awardee is the recipient of the grant award certificate, the grant funds are assigned to the Grant Awardee's selected Vendor, and the grant funds are paid directly to the Vendor after the I/A OWTS installation is complete. Grant Awardees must select a Vendor on the County's Approved List, established through a SOQ Process.

### **Who can I have install the I/A OWTS at my home?**

In order to utilize the grant funding awarded to you, you must select a Vendor from the SIP Approved Installer List, found on the Septic Improvement Program website. The Vendors on this list not only have the proper Liquid Waste License, but have also applied to be on the SIP Approved Installer List through the County's Solicitation of Quotes process.

### **How do I apply for the NYS Septic System Replacement Program grant?**

The Suffolk County Department of Health Services administers both the Suffolk County Septic Improvement Program as well as the NYS Septic System Replacement Program grants. By submitted an application through the Septic Improvement Program website, you are officially applying to both County and State grants.

### **What are the tax implications of the grant?**

Grant Awardee understands that the Grant Award may be subject to federal and/or state taxes. Grant Awardee should consult his/her own tax, legal and accounting advisor(s) regarding tax implications, if any.

### **If I have an I/A OWTS installed with a grant from the Suffolk County Septic Improvement Program, can I remove the unit or make it inoperable?**

No, the conditions of funding do not allow for removal or deactivation.

### **How will Suffolk County ensure that I properly maintain my system?**

The adopted Article 19 of the Suffolk County Sanitary Code establishes a framework for the Department of Health Services to act as the Responsible Management Entity with the responsibility to evaluate, approve, register, oversee, and facilitate the use of I/A OWTS.

### **Must a homeowner maintain service in perpetuity of the grant-funded I/A OWTS?**

Yes, the homeowner is responsible for ensuring that their system is maintained at least once per year by a licensed service provider.

### **If I have a problem with my service provider who can I call?**

You can call the Suffolk County Department of Health Services at 631-852-5811 or send an email to [SepticDemo@SuffolkCountyNY.gov](mailto:SepticDemo@SuffolkCountyNY.gov).

**Does the process require any approvals at the Town level? Does the Town Code play a role?**

Design professionals (engineer or architect) should help homeowners understand if permits other than Suffolk County Department of Health Services permits would be required for electric, plumbing, wetlands, or dewatering.

It is recommended that a homeowner's selected design professional check with the local town/village building department to verify if a permit is required for the I/A OWTS electrical work or for any internal plumbing modifications if required.

For homeowners in close proximity to surface waters and/or wetlands, their selected design professional should check with the NYS DEC and/or Town/Village to determine if a permit is required for the installation of and I/A OWTS due to setbacks to surface waters or wetlands.

**What are the electrical demands? Does the system run on demand, or continuously?**

I/A OWTS electrical consumption vary from system to system due to different treatment processes with different pumps and blowers required to treat the wastewater.

Depending on the treatment process and manufacturer, the system either runs continuously or on-demand. Of the systems that have been approved, annual electric costs range from \$74 to \$228 per year.

**What happens if power is lost?**

The system will still work like a conventional septic system, unless there is a back-up generator.

**Can the systems operate on solar?**

The Suffolk County Department of Health Services would be open to exploring the use of solar to operate the I/A OWTS in conjunction with the main PSEG power feed.

**Which pollutants, other than nitrogen, does the system treat for, if any?**

I/A OWTS are designed to reduce wastewater nitrogen, biochemical oxygen demand (BOD), and total suspended solids before being discharged below grade to leaching structures. Studies have shown that certain types of I/A OWTS treatment processes and leaching structures have the ability to reduce bacteria, viruses, and contaminants of emerging concern such as certain types of compounds/chemicals found in pharmaceuticals and personal care products that are present in wastewater. The Suffolk County Comprehensive Water Resources Management Plan Chapter 8 has a section dedicated to contaminants of emerging concern and wastewater treatment for further information.