

SUFFOLK COUNTY'S RECLAIM OUR WATER INITIATIVE OVERVIEW



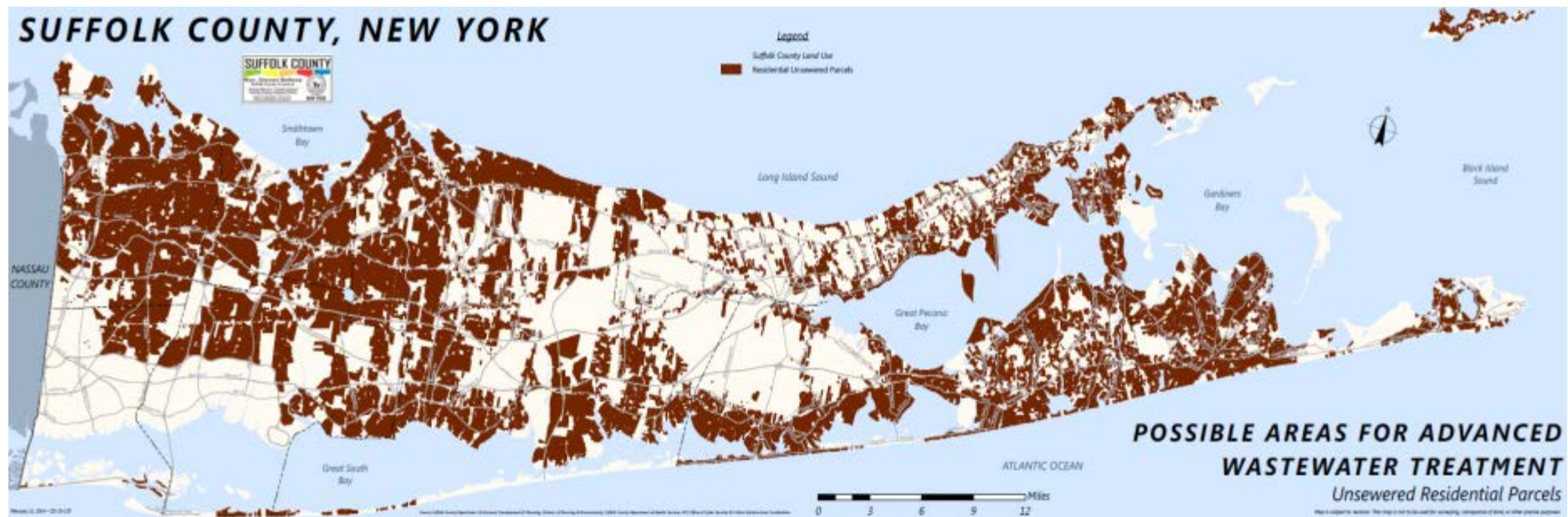
**JUSTIN JOBIN – ENVIRONMENTAL PROJECTS COORDINATOR
SUFFOLK COUNTY DEPARTMENT OF HEALTH SERVICES**

JUNE 28, 2018

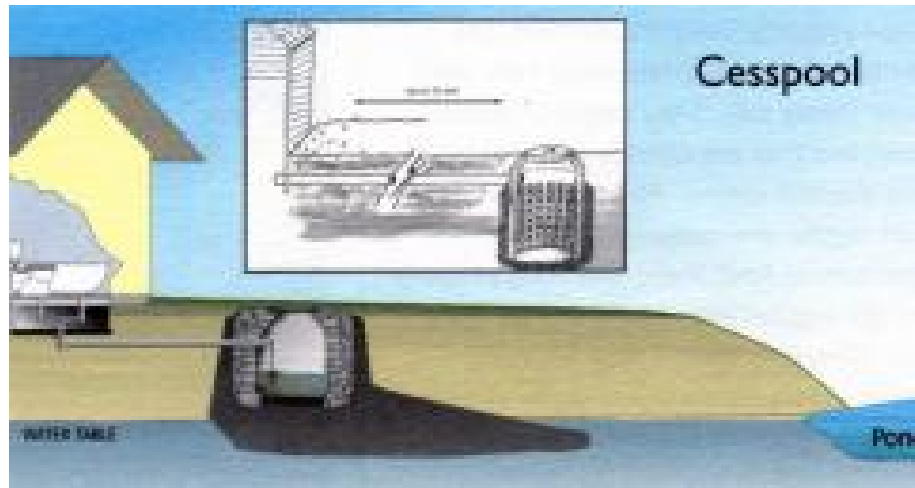


74% NON-PERFORMING WASTEWATER TREATMENT

- Approximately 360,000 onsite sewage disposal system
- 209,000 systems in priority areas
- Approximately 252,530 pre-date requirement for septic tank



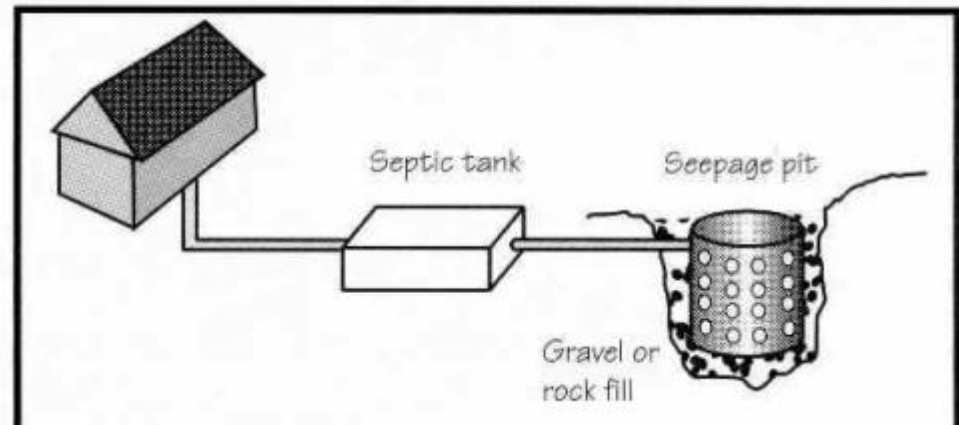
CESSPOOLS



Cesspools – ~250,000 in Suffolk County

- ✓ Cesspools are little more than holes in the ground that discharge raw, untreated human waste and can contaminate surface and groundwater sources and contributes to harmful algal blooms
- ✓ Untreated wastewater from cesspools contains pathogens such as bacteria, protozoa and viruses that can cause gastroenteritis, Hepatitis A, conjunctivitis, leptospirosis, salmonellosis and cholera
- ✓ EPA banned large capacity cesspools and strongly discourages use of small cesspools.
- ✓ Outlawed in Suffolk County for New Construction Since 1973
- ✓ Homeowners can currently replace failed cesspools in-kind
- ✓ Cesspool average installations range from \$2,000 - \$4,000

CONVENTIONAL SEPTIC SYSTEMS

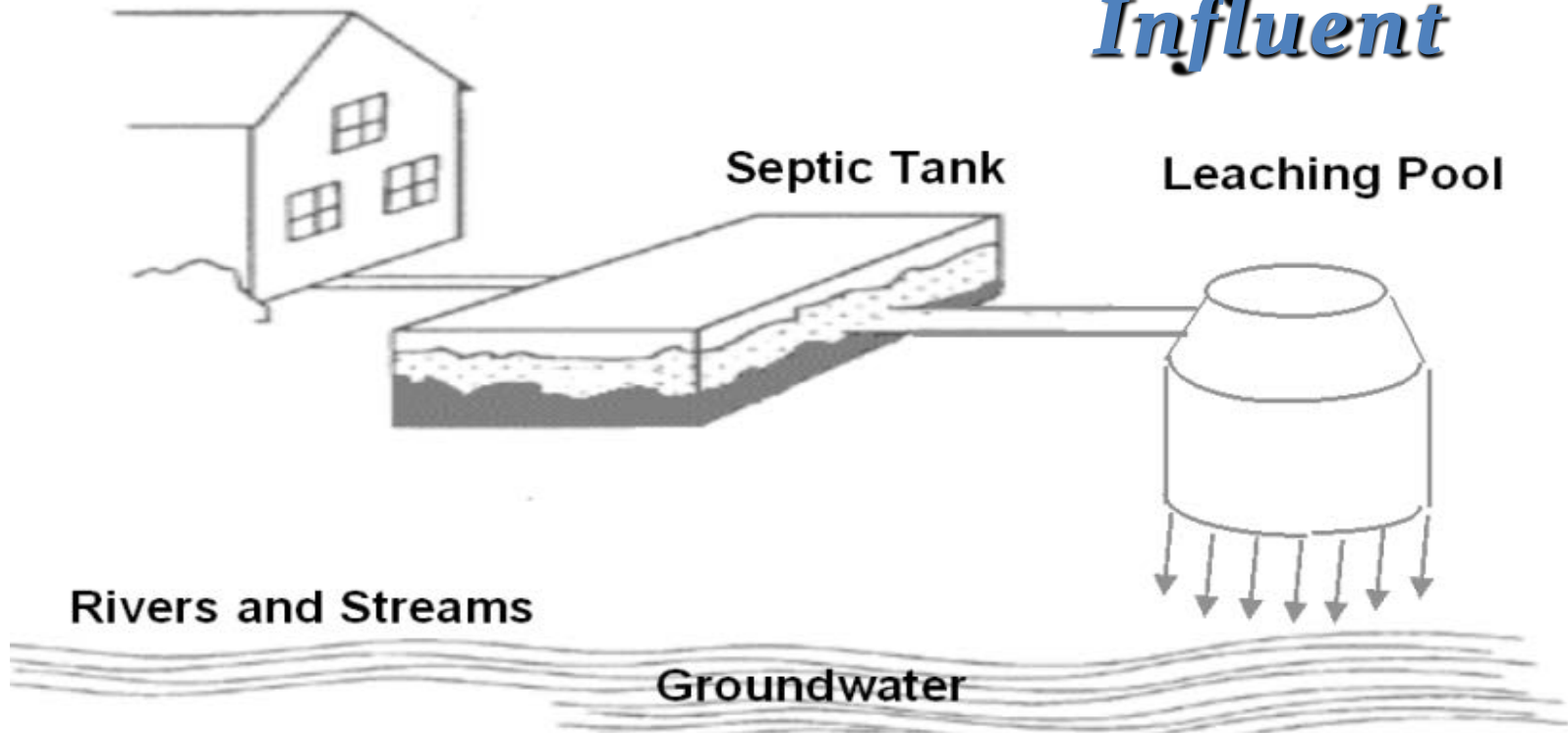


Conventional Septic Systems – ~110,000 in Suffolk County

- ✓ Conventional systems consist of a septic tank before leaching structure (In most cases a leaching pool)
- ✓ Tanks collect solids, reduce BOD, TSS, other contaminants and protect leaching structure from excessive solids and clogging
- ✓ Conventional system installations typically range from \$6,000 - \$8,000
- ✓ **This is the minimum code compliant system required**
- ✓ **Permitted when a site meets Article 6 Density**

Conventional Sanitary Systems

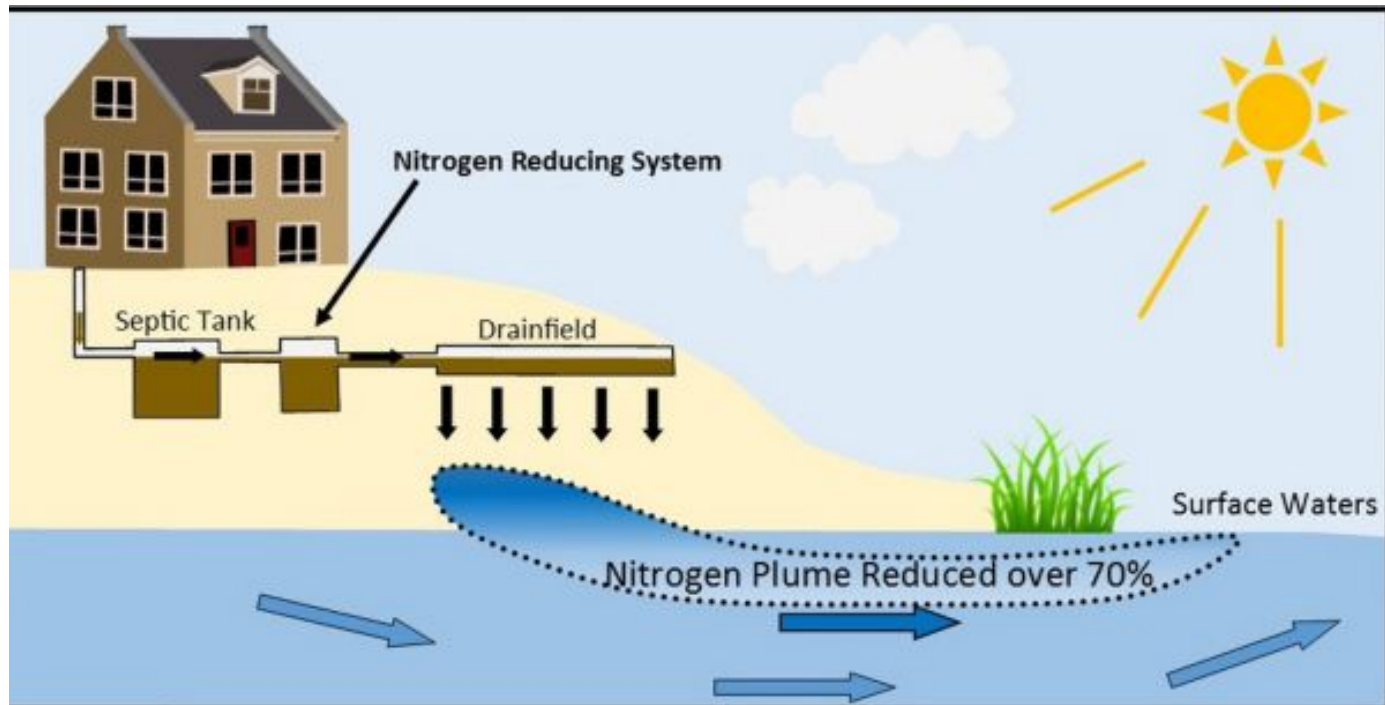
***~60-80 mg/l TN
Influent***



****INNOVATIVE & ALTERNATIVE ONSITE WASTEWATER TREATMENT SYSTEM (I/A OWTS)WILL REMOVE ~50 -70% OF TOTAL NITROGEN COMPARED TO CONVENTIONAL SYSTEM**



I/A OWTS



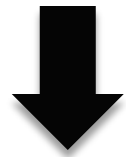
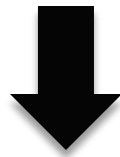
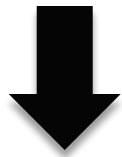
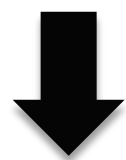
I/A OWTS ~300 Approved in Suffolk County

- ✓ Advanced treatment systems that reduce BOD, TSS and remove up to 70% of Total nitrogen.
- ✓ Allowed on Voluntary basis in SC since 2016
- ✓ I/A OWTS designs & installations have an average cost of \$19,500
- ✓ **THESE CHANGES DO NOT REQUIRE I/A OWTS**



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



SEPTIC DEMONSTRATION PROGRAM (I/A OWTs)

➤ Phase 1 - Septic Demo Program

o Manufacturer Selection

- 4 manufacturers 6 systems for a total of 19 systems
 - Hydroaction AN series
 - Norweco Singulair TNT
 - Norweco Hydro-Kinetic
 - Orenco Advantex RT Series
 - Orenco Advantex AX Series
 - BUSSE MBR



➤ Phase 2 - Septic Demo Program

o 6 manufacturers, 7 types of systems at 19 sites

- o Biomicrobics
 - o BioBarrier and SeptiTech
- o Amphidrome
- o Ecoflo Cocofilter
- o Pugo System
- o Fuji System
- o Waterloo Biofilter



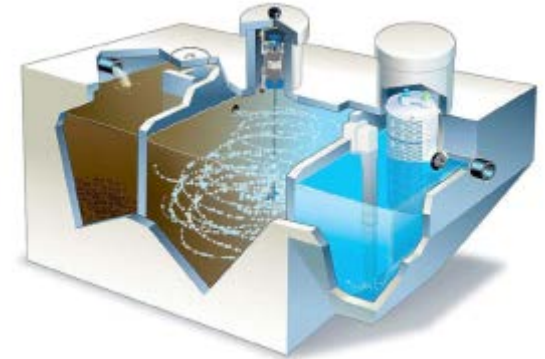
PROVISIONALLY APPROVED I/A OWTs



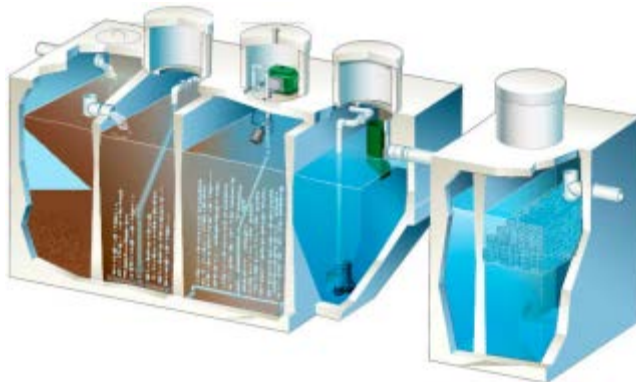
Hydro-Action



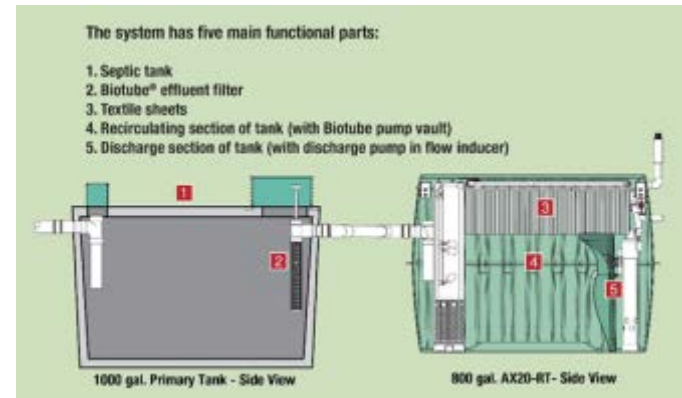
**Fuji Clean
System**



**Norweco
Singlair TNT**



**Norweco
Hydrokinetic**



Orenco Advantex AX-RT

Performance Summary of I/A OWTs Demonstrated in Suffolk County and Approved for Provisional Use

Technology	AVG (Mg/L)*	Provisional Approval
Hydro-Action AN Series	11.6 mg/L	Approved in September 2016
Norweco – Singlair TNT	18.3 mg/L	Approved in October 2016
Orenco Advantex – RT	18.8 mg/L	Approved in March 2017
Norweco – Hydro-Kinetic	17.4 mg/L	Approved in April 2017
Fuji Clean System	16.6 mg/L	Approved in January 2018

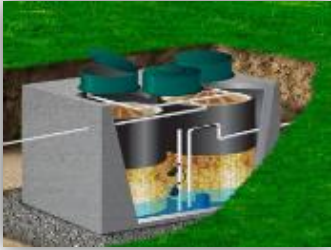
*Standard is 19mg/L

Provisional Sampling Results

Technology	AVG (Mg/L)*	Provisional Approval
Hydro-Action AN Series	16.4 mg/L	Approved in September 2016
Norweco – Singulair TNT	39.6 mg/L	Approved in October 2016
Orenco Advantex – RT	33.1 mg/L	Approved in March 2017
Norweco – Hydro-Kinetic	28.2 mg/L	Approved in April 2017
Fuji Clean System	16.7 mg/L	Approved in January 2018

*Standard is 19mg/L

I/A OWTs BEING EVALUATED BY SUFFOLK COUNTY



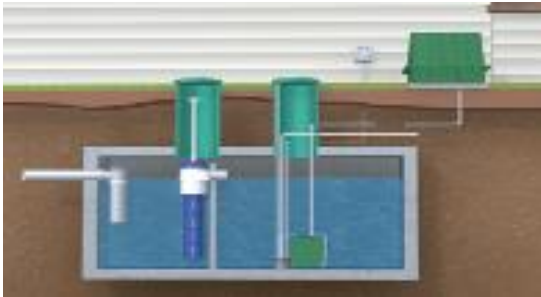
**Waterloo
BioFilter**



**PUGO
Systems**



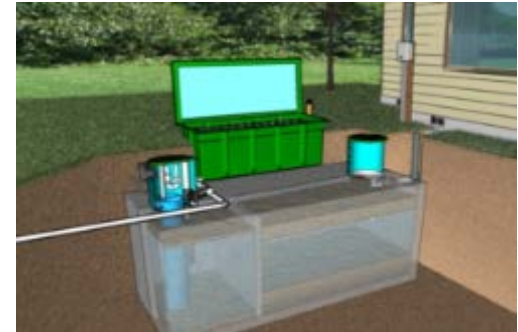
**BioMicrobics
SeptiTech STAAR**



**BioMicrobics
BioBarrier MBR**



BUSSE MBR



**Orencia Advantex
AX-20**

SUFFOLK COUNTY DEPARTMENT OF HEALTH SERVICES

SEPTIC DEMO PERFORMANCE DATA

Technology	Projected Approval Data	Treatment Performance *	# of Systems Being Sampled	% Completed
Orenco Advantex – AX20	Summer 2018	17 mg/l	3	77%
Amphidrome	Spring 2019	18.3 mg/L	2	50%
Ecoflow + Denite	Summer 2018	18.8mg/L	2	99%
SepticTech	Summer 2018	13.25 mg/L		58%
Pugo	Cannot Project	33.2 mg/L	4	Manufacturer to make adjustments in 2018
Ecoflow	Cannot project	30.9 mg/L	2	Manufacturer to make adjustments in 2018
Waterloo	Cannot Project	48.0 mg/L	2	Manufacturer to make adjustments in 2018
BioBarrier	Cannot Project	54.0 mg/L	2	Manufacturer to make adjustments in 2018
BUSSE - MF	Cannot Project	83.1mg/l	2	Systems offline. Manufacturer to make adjustments in 2018
*Standard is 19mg/L				

LIST OF APPROVED I/A OWTs



➤ *Updated periodically (last update 1/19/18)*

➤ *Experimental Systems:*

- *Nitrex System (with Orenco, Waterloo Biofilter, or SeptiTech)*
 - ✓ *Nitrex w/ Orenco installed at Scully Estates*
- *Nitrogen Reducing Biofilter (lined, unlined, or Denite Tank)*
- *Vegetated Gravel Recirculating Filter (AKA Constructed Wetlands)*

➤ *Pilot Systems*

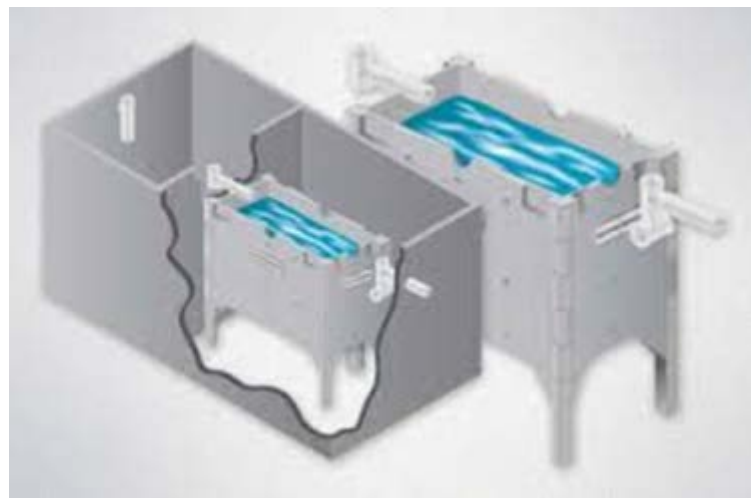
- *ECOPOD-N Series*

➤ *Provisional Systems*

- *Hydro-Action AN Series*
- *Norweco Singulair TNT*
- *Norweco Hydro-Kinetic*
- *Orenco AX-RT*
- *Fuji Clean CEN Series*

➤ *Septic Demo Pilot Systems*

- *System currently installed as part of septic demo are not on the list since they cannot be sold until approved for Provisional Use*





Suffolk County Septic Improvement Program (SIP)



SEPTIC IMPROVEMENT PROGRAM (SIP)



GRANT PROGRAM DETAILS:

- Individual homeowners may be eligible for a grant up to \$11,000.
- \$10,000 will be provided toward the purchase and installation of an approved I/A OWTS and leaching structure, as well as for attendant engineering and design services.
- An additional \$1,000 may be available for installation of Pressurized Shallow Drainfield for a maximum grant of up to \$11,000.

INCOME CRITERIA:

- Adjusted Gross Income less than or equal to \$300,000/year is eligible for 100% of grant
- Adjusted Gross Income between \$300,000/year - \$500,000/year is eligible for 50% of grant
- Adjusted Gross Income of \$500,000 or more will not be eligible for a grant (consistent with NYS Star Property Tax Rebate).



Septic Replacement Loan Program

To further CDCLI's mission of increasing investment in neighborhoods, protecting the assets of homeowners, and protecting the environment, a low interest rate loan product is now available to assist with the installation of a Suffolk County approved replacement septic system!

This new loan from CDCLI is made available in conjunction with the Suffolk County Septic Improvement Program. Under the Suffolk County Septic Improvement Program, homeowners may apply for a grant from Suffolk County to assist with the cost of replacing outdated and failing septic systems with state-of-the-art nitrogen reducing systems designed to reverse decades of damaging nitrogen pollution of ground and surface waters.

[LEARN MORE](#)

LOAN PROGRAM DETAILS:

- Administered by CDCLI Funding Corporation
- Individual homeowners may be eligible for low cost financing up to \$10,000
- Competitive 3% interest rate
- Repayment term of up to 15 years
- The loan program will be administered by CDCLI Funding Corp, with financial support from Bridgehampton National Bank



REGISTER ONLINE AND ACTIVATE YOUR ACCOUNT

Reclaim Our Water

Sign up now for the Septic Improvement Program

WWW.RECLAIMOURWATER.INFO

Homeowners



Industry



Regulatory



Technical



Infrastructure



Contact



Septic Improvement Program



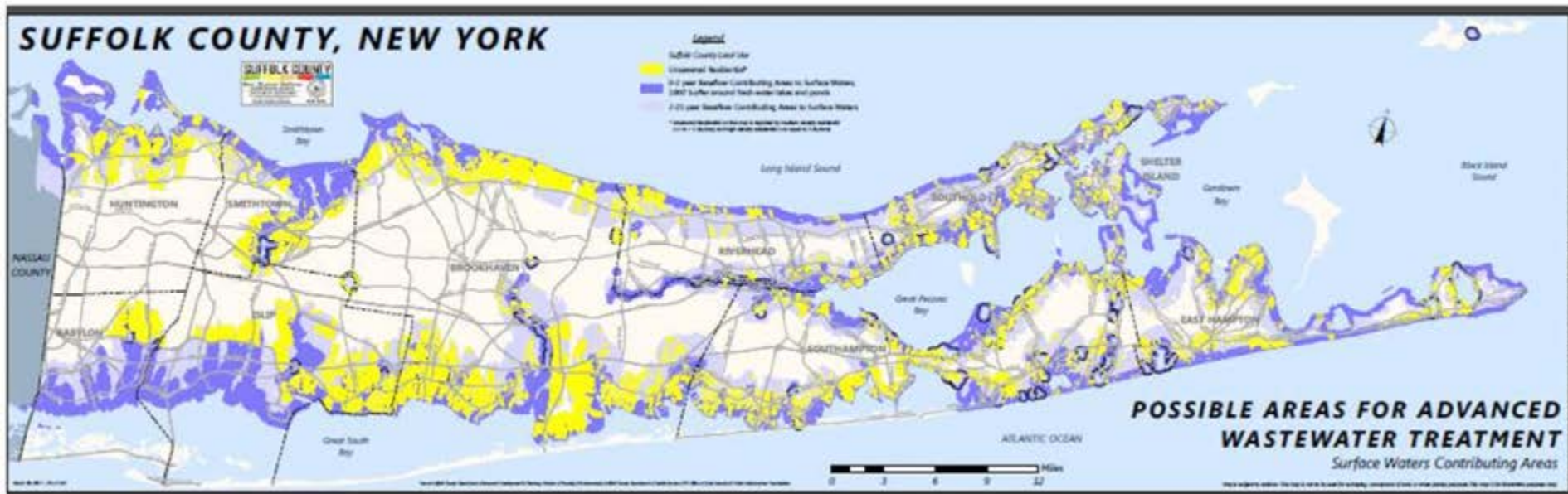
GRANT ELIGIBILITY CRITERIA

- ✓ The residence must be single family, owner-occupied year round and the owner's primary residence.
- ✓ The residence must be served by a septic system or cesspool and is not connected to a public sewer or located in any sewer district or any proposed sewer district.
- ✓ Property is not a rental property.
- ✓ New construction is not eligible; however construction projects on existing residences may be eligible.
- ✓ No in-home business (other than a personal home office that does not require additional kitchen use or customer access).
- ✓ **No resident is an elected official or office holder of any political party (including official political party committee members).**
- ✓ Availability of valid Certificates of Occupancy (CO) or Certificate of Zoning Compliance for the residence.
- ✓ Income verification (Provide a copy of owner (s) most recently filed federal income tax return).

PRIORITY AREAS:



- 1) Parcels located within the Priority Critical Areas (high or medium density parcels within the 0-2 year groundwater travel time or high or medium density residential parcels within 1,000 feet of enclosed water bodies in Suffolk County)
- 2) Parcels located within Critical Areas (high or medium density parcels within the 2-25 year groundwater travel time)
- 3) Parcels located outside Critical Areas





Septic Improvement Program - Homeowner Process Overview

For More Information visit www.ReclaimOurWater.info
Call the Suffolk County Department of Health Services at (631) 852-5811

How Does the Septic Improvement (SIP) Grant / Loan Program Work?

Important Information Before You Apply for the Septic Improvement Grant

Online Applications are available at www.ReclaimOurWater.info. Homeowners should gather the following required documents prior to beginning the application process:

- Copy of property deed
- Proof of Homeowner's Insurance
- Copy of most recent property tax bill

Reclaim Our Water

Suffolk County's Septic Improvement Program Understanding the Installation Process

1) Pre-installation photo of home on Shinnecock Bay with failing cesspool susceptible to overflows



2) Installation photo of new Orenco AX20-RT unit to a pressurized shallow drainfield.

Note: There will be extensive site disruption during installation

3) Completed installation photo



Note: the lids to finished grade as this is a requirement for these systems.

Note: It is recommended to give the soil time to settle before the contractor does final grading of site

Reclaim

SEPTIC IMPROVEMENT

What I/A OWTS Have

Covers to Grade:

Covers provide access to your septic system and must remain fully accessible.

Control Panels:

Control Panels are the brains of the I/A OWTS. They should be protected from weather and operation and maintenance providers.

Annual Operation & Maintenance:

The first three years are covered as part of the grant. Homeowners will need to sign a contract responsible for maintenance costs anticipated that O&M will cost approximately \$500 per year.

Increased Annual Electrical Cost:

Depending on the treatment process either runs continuously or on-demand, the systems that are not on-demand have annual electric costs ranging from \$50 to \$200.

Repair and Replacement Costs:

Homeowners should be aware that although I/A OWTS have a long track record of use in the USA, they do contain components such as pumps, floats, air compressors, and controls that may need to be replaced at some point during the useful life of the system. These component repair and replacement costs could range from \$50 to \$200.

Pumping Costs:

Although these systems provide advanced treatment, they will still need to be occasionally pumped by a septic hauler. Depending on use of the system, it is estimated that the average system would need to be pumped out every 3-5 years. This increases the treatment and useful life of any sewage disposal system including I/A OWTS. A typical pump-out is estimated to cost \$300 - \$500.

Reclaim Our Water

Overview of Provisionally Approved Technologies

What is Provisional Approval?

The Department of Health Services promulgated standards under Article 19 of the Suffolk County Sanitary Code that outlines the Approval Process of I/A OWTS Technologies. Systems provisionally approved in Suffolk County have a proven track record in other Eastern States such as New Jersey, Massachusetts, Rhode Island and Maryland. In addition, these systems have been rigorously tested in Suffolk County to ensure that they function as advertised. Suffolk County is one of the few jurisdictions that requires long term monitoring of the systems to ensure that homeowners are getting the best performance out of their water quality investment.

How do the Provisionally Approved Technologies Reduce Nitrogen?

Currently, all of the four Provisionally Approved Technologies in Suffolk County rely on biological processes to treat wastewater and convert and remove nitrogen. These systems use various methods to provide aerobic bacteria to convert organic nitrogen to nitrite and then use an anaerobic (without oxygen) environment to denitrify by stripping the oxygen molecule off of the nitrate, resulting in the release of gaseous nitrogen into our atmosphere.



Standard I/A OWTS
Control Panel

Common Components on all I/A OWTS:

- Process tanks (including septic tank if required by the I/A manufacturer) with internal piping and valves
- Sewer piping between the dwelling and process tanks and between the process tanks and leaching structures
- Control Panel with electrical connection and high water alarms
- Conduit piping for electric wiring and junction boxes for electrical connections
- Active treatment component such as pumps, blowers, media or effluent filters.
- Risers/chimneys with covers to grade on all access openings
- Air vents with associated piping and carbon filter required

Suffolk County NY - Septic Improvement Program

Vendor Cost Ranking Sheet

Vendor Quotes: Scenario 1 – I/A OWTS with Reuse of Existing Leaching Structure

Vendor in Ascending Order	Technology	Cost of IA OWTS Installation with reuse of Existing Leaching Structure
Roman Stone Construction Co	Norweco Singulair TNT	\$13,584.64
Advanced Wastewater Solutions LLC	Fuji Clean CEN Series	\$13,750.00
Shelter Island Sand, Gravel & Contracting Inc.*	Fuji Clean CEN Series	\$14,180.00
Ecological Supply Company Inc.	Hydro-Action AN Series	\$15,233.13
Green Land Contracting	Orenco Advantex AX20-RT	\$17,163.00
Roman Stone Construction Co	Norweco Hydro-Kinetic	\$17,165.83

Vendor Quotes: Scenario 2 – I/A OWTS with New Gravity Leaching Structure

Vendor in Ascending Order	Technology	IA OWTS Installation with New Gravity Leaching Structure
Advanced Wastewater Solutions LLC	Fuji Clean CEN Series	\$15,650.00
Roman Stone Construction Co	Norweco Singulair TNT	\$16,240.64
Shelter Island Sand, Gravel & Contracting Inc.*	Fuji Clean CEN Series	\$16,730.00
Ecological Supply Company Inc.	Hydro-Action AN Series	\$17,633.13
Roman Stone Construction Co	Norweco Hydro-Kinetic	\$19,821.83
Green Land Contracting	Orenco Advantex AX20-RT	\$20,355.00

Vendor Quotes: Scenario 3 – I/A OWTS with Pressurized Shallow Drainfield (PSD)

Vendor in Ascending Order	Technology	IA OWTS Installation with Pressurized Shallow Drainfield
Advanced Wastewater Solutions LLC	Fuji Clean USA	\$19,003.60
Ecological Supply Company Inc.	Hydro-Action AN Series	\$19,633.13
Shelter Island Sand, Gravel & Contracting Inc.*	Fuji Clean CEN Series	\$20,183.00
Roman Stone Construction Co	Norweco Singulair TNT	\$20,240.64
Green Land Contracting	Orenco Advantex AX20-RT	\$22,209.00
Roman Stone Construction Co	Norweco Hydro-Kinetic	\$23,821.83

Notes:

- for scenario 1 all estimated costs would fall under the intended SIP funding limits when combined with \$2,500 in estimated design costs.
- for scenarios 2 and 3, costs above the red line would fall under the intended SIP funding limits when combined with Design costs. Costs below the red line would require out of pocket expense from Property Owner.
- PSD's can be a cost effective option where site conditions would otherwise trigger a mounded retaining wall system or deep excavations which have quoted costs greater than \$40,000.00.
- Shelter Island Sand, Gravel & Contracting Inc. prices apply only to installations on Shelter Island.

Manufacturer & Technology	Local Contact
Norweco Singulair & HydroKinetic	Tom Montalbine, President Roman Stone Construction Company 85 South Fourth Street - Bayshore, NY 11706 Web: www.romanstoneco.com Phone: 631-667-0566 Ext.114 Email: tmontalbine@romanstoneco.com
Hydroaction	Tom Foster, Ecological Supply Company PO Box 1035 - Cutchogue, NY 11935 Phone: 631-599-2457 Email: sales@ecosupplycompanyinc.com Joe Densieski, Wastewater Works Inc. 139 Reeves Ave - Riverhead, NY 11901 Phone: 631-831-2580 Web: www.wastewaterworksinc.com
Fuji Clean System	Bryan McGowin, Advanced Wastewater Solutions, LLC PO BOX 1622 - Southampton, NY 11969 Email: bmcgowin@gmail.com or bryan@awsli.com 631-405-0358 Peder Larsen, Shelter Island Sand, Gravel, & Contracting PO Box 2028 – Shelter Island, NY 11964 (631) 749-1040 sisandgravel@gmail.com
Orenco AX-RT	Lee Essay, Green Land Contracting 1557 County Rd. 39 - Southampton, NY 11968 Phone: 631-488-4466 Email: greenlandcontracting17@gmail.com

Projected 1-Year Electrical Costs

Technology	1 year electrical consumption (kWh/year)	Increased electrical costs per year (\$0.17/ kWh)
Orenco Advantex AX20-RT	335.8 kWh	\$57.00
Fuji Clean System	463.55 kWh	\$78.80
Hydro-Action AN	734.26 kWh	\$124.82
Norweco Singulair TNT	979.66 kWh	\$167.00
Norweco Hydro-Kinetic	1051.2 kWh	\$178.70

Note: the Hydro-Action unit utilizes a mixer pump during start-up. The pump use is discontinued after startup, and usage data will vary after the start-up period.

Septic Improvement Program Notes

- Please see Designer cost ranking document for estimates of I/A OWTS design and permitting costs.
- All prices are estimates from Vendor submitted quotes for 4-bedroom I/A OWTS. Sales tax is not included and is exempt for capital improvement projects.
- Actual costs may vary based on site constraints. Homeowners are urged to contact Vendors to discuss project specific costs for their Property.
- Grant funding will not exceed \$10,000 for I/A OWTS installed with gravity leaching or \$11,000 for I/A OWTS installed with PSD.

Use of Grant Funds is Not Allowed For:

- Irrigation repairs
- landscaping
- electrical improvements unrelated to the I/A OWTS



Suffolk County Septic Improvement Program

Designer Cost Ranking Sheet – Rev. January 19, 2018

For More Information visit www.ReclaimOurWater.info or call (631) 852-5811

Designer in Ascending Order	Contact	Location	Phone Number	E-mail	Base Price to Design an I/A OWTS for up to a 6 Bedroom Residence
3-Engineering, LLC	Bennette Burks	Virginia	(804) 873-5000	Burks@3-Eng.com	\$2,500
Barrett, Bonacci, & Van Weele, P.C	Joseph Marx, PE	Hauppague	(631) 435-1111	jmarx@bbvpc.com	\$2,500
Condon Engineering	John Condon Jr, PE	Mattituck	(631) 298-1986	condon77173@optonline.net	\$2,500.
Lombardo Associates, Inc.	Pio Lombardo, PE	Sag Harbor	(617) 964-2924	pio@lombardoassociates.com	\$2,500
Pacifico Engineering PC	Ralph Pacifico, PE	Bohemia	(631) 988-0000	engineer@pacificoengineering.com	\$2,500
RMS Engineering	Matthew Scheiner, PE	Huntington	(631) 271-0576	mscheiner@rmsengineering.com	\$2,500
Studio A/B Architects	Glynis Berry, A.I.A., LEED AP	Riverhead	(631) 591-2402	glynis@studioabarchitects.com	\$2,500
TF Engineering	David Rhoades, PE	Sag Harbor	(631) 740-7273	info@tfcivilengineering.com	\$2,500
J.R. Holzmacher P.R, LLC	Heather Sonnenberg, PE	Ronkonkoma	(631) 234-2220	heather@holzmacher.com	\$3,400
The Raynor Group, P.E, L.S, & PLLC	Vincent Gaudiello, PE	Watermill	(631) 726-7600	gaudiello@raynorgroup.net	\$5,200

Note: under this scenario all estimated costs above the red line would fall under the intended SIP funding limits when combined with I/A OWTS material and installation costs. Costs below the red line would require out of pocket expense from Property Owner.

Septic Improvement Program (SIP) Notes

- Please see Vendor cost ranking document for I/A OWTS material and installation costs.
- Base prices provided in the document do not include the cost of a site survey, soil borings, percolation test, or additional design parameters that if needed could increase costs and may be incurred at the homeowners expense.
- Actual costs may vary based on site constraints. Homeowners are urged to contact Designers to discuss project specific costs for their Property.
- Some designers may have geographic limits on their service area. Homeowners are urged to contact Designers to see if they fall within their service area.
- Grant funding allocated for I/A OWTS design services are anticipated not to exceed \$2,500. Any additional expenses associated with the design of the I/A OWTS would be the responsibility of the homeowner.

ONGOING COSTS FOR THE HOMEOWNER



- **~\$300 for annual Operations & Maintenance**

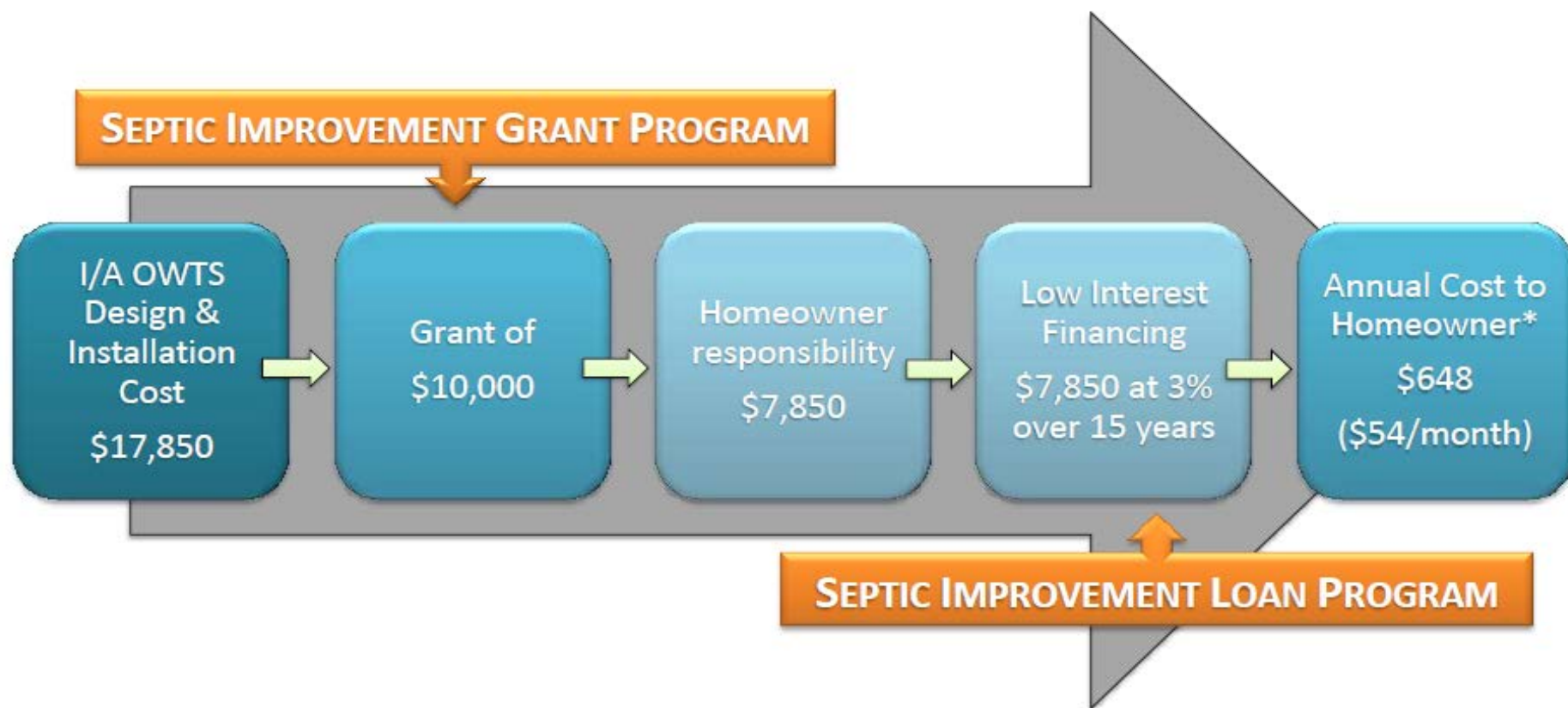
After 3 years, the homeowner will be responsible for O&M costs of approximately \$300 per year

- **\$57-\$140 for annual electrical costs**

Depending on the treatment process and manufacturer, the system either runs continuously or on-demand. Of the systems that have been provisionally approved, annual electric costs range from \$57 to \$140 per year

SUFFOLK COUNTY'S SEPTIC IMPROVEMENT PROGRAM

ESTIMATED ANNUAL COSTS TO THE AVERAGE HOMEOWNER



* Does not include estimated annual O&M cost of \$300



Reclaim Our Water with a state-of-the-art wastewater treatment system supported by a grant of up to \$11,000 from Suffolk County.

[Register](#)

SIP APPLICATION STATUS AS OF JUNE 21, 2018

➤ SCDHS started accepting applications July 3, 2017

- 1248 registrants
- 354 completed applications
- 243 issued grant certificates
- 81 total WWM Permit Applications
 - ✓ 15 pending installation
 - ✓ 26 completed installations
 - ✓ 40 applications currently under review
- 20 final approvals issued by WWM

AVERAGE COSTS UNDER SEPTIC IMPROVEMENT PROGRAM

I/A OWTS Installation Cost	Site Constraints	Leaching Field Type	Leaching Costs	Engineering Costs	Total Project Cost
\$15,733	2 leaching pools, shrubs in access way	Leaching Pools	2,107.00	\$2,500	20,340.00
\$18,789	Dewatering. Reroute plumbing. Removal of shrubs & Belgian block patio	Existing 5-Pool System	N/A	\$2,500	21,289.00
\$15,733	Existing System in Driveway.		3,217.00	\$2,500	21,450.00
\$13,584		New Leaching Pool Installed	3,261.00	\$2,500	19,345.00
\$16,395	High Groundwater, System in Driveway	Leaching Pools (5 pool system) Existing. Expansion Pools Installed.	6,325.00	\$2,500	25,220.00
\$17,274	Deep Excavation, Long Electrical Conduit Run, Cost includes removal of deck for access to yard	Leaching Pool	2,426.00	\$2,500	22,200.00
\$15,733		Leaching Galleys	1,476.00	\$2,500	19,709.00
\$16,276		Pressurized Shallow Drainfield	3,579.00	\$2,500	22,355.00
\$13,584	Tight Yard Access	Leaching Pool	2,511.00	\$2,500	18,595.00
\$19,044	6 bedroom; tree removal, reroute waterline	leaching pools	5,245.00	\$2,500	26,789.00
\$15,733		Infiltrator	2,643.25	\$2,500	20,876.25
\$16,095	Driveway Leaching Location	Leaching Pools	4,825	\$2,500	23,420.00
\$15,733		Eljen	4,243.25	N/A	19,976.25
\$15,733		Leaching Pool	2,643.25	\$2,500	20,876.25
\$15,733	Remove trees; raise wellhead; remove walkway; relocate water softener pipe	Leaching pool	4,030.13	\$2,500	22,263.13
\$13,584		Leaching Pools	5,346.00	\$2,500	21,430.00
\$16,095	H2O Traffic Loading tank and Leaching Pools	Leaching Pool	8,500	\$2,500	27,095.00
\$15,932.41			\$ 3,898.62	\$2,500.00	21,954.64



SIP GRANTS BY TOWN AS OF MAY 2, 2018

Town	# of Grant Certificates Issued
Brookhaven	56
Southampton	44
East Hampton	27
Huntington	20
Southold	10
Islip	13
Smithtown	10
Shelter Island	6
Riverhead	3
Babylon	1



Overview of I/A OWTS Installations and Pending Applications in Suffolk County, NY

Technology	# of Septic Demo Installs	# of SIP Jobs	Approval Status	Other Installations or Pending Applications
Hydroaction AN Series	5	28	Provisional	52
Norweco Singulair TNT	5	21	Provisional	78
<u>Orenco Advantex RT</u>	2	3	Provisional	13
Norweco Hydro-Kinetic	5	0	Provisional	1
Fuji Clean CEN Series	4	17	Provisional	46
<u>Orenco AX-20</u>	3	0	Demonstration	0
<u>Orenco AX-MAX</u>	1	0	Demonstration	0
BUSSE	2	0	Demonstration	0
<u>Pugo</u>	4	0	Demonstration	0
<u>Ecoflo Cocofilter</u>	2	0	Demonstration	0
<u>Waterloo BioFilter</u>	2	0	Demonstration	0
Amphidrome	2	0	Demonstration	0
<u>BioMicrobics BioBarrier</u>	2	0	Demonstration	0
<u>BioMicrobics SepticTech</u>	2	0	Demonstration	0
<u>BioMicrobics microFAST</u>	0	0	Demonstration	2
<u>Nitrogen Reducing BioFilters</u> (NRB's)	3	0	Experimental	2
Totals	46	69		194

Note: Total amount of Applications (Installed, Under Review, or Permitted) is **309**

Control Panels & Air Vents



Orenco RT Unit



NORWECO SINGULAIR TNT DURING INSTALLATION



Norweco Singlair TNT After Installation



NORWECO HYDROKINETIC DURING INSTALLATION



NORWECO HYDROKINETIC AFTER INSTALLATION



ORENCO AX-RT DURING INSTALLATION



ORENCO AX-RT AFTER INSTALLATION



FUJI CEN SERIES DURING INSTALLATION



FUJI CEN SERIES
AFTER INSTALLATION





www.reclaimourwater.info

Questions?

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