

COUNTY OF SUFFOLK



Steve Levy  
SUFFOLK COUNTY EXECUTIVE

DEPARTMENT OF HEALTH SERVICES  
James L. Tomarken, MD, MSW, MPH, MBA, FRCPC, FACP  
Commissioner of Health Services

Office of Wastewater Management

**Report on the Sewage Treatment Plants of Suffolk County  
2008 Performance Evaluation**

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Walt Dawydiak, P.E.  
Chief Engineer ~ Division of Environmental Quality

Walter Hilbert, P.E.  
Principal Public Health Engineer



Prepared by: Isidore Doroski & Charles Olsen  
Senior Public Health Sanitarians

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## Executive Summary

In 2008, Suffolk County Department of Health Services (SCDHS) inspected all 184 of the sewage treatment plants (STP) under its jurisdiction four (4) times. The Department executed 736 inspections, performed over 800 sampling events and analyzed more than 3,600 sample parameters. This sample data and over 14,000 parameters that were reported on New York State Department of Environmental Conservation (NYSDEC) Discharge Monitoring Reports (DMR) were examined for compliance with NYSDEC discharge standards. The average total nitrogen concentration for the 136 tertiary (denitrification) treatment plants that operated under steady state conditions was 7.1 mg/l as compared to the discharge standard of 10 mg/l. The average Biological Oxygen Demand (BOD) and SS from the 29 secondary treatment plants was 20.1 and 17.5 respectively as compared to the discharge standard of 30 mg/l.

In 2005, SCDHS determined that a large number of its STPs were in need of major overhauls. Over 60 treatment plants were required to perform significant repairs. Well over half of those plants have been repaired and are now functioning properly. Nineteen nitrogen removal plants are in the upgrade/repair stage and 8 secondary plants now are in the planning stage for conversion to new, nitrogen removal plants. All these facilities should be fully functional before the end of 2011.

SCDHS has been actively requiring that older plants perform major renovations and/or to be replaced. There will always be a few plants under repair or in need of replacement, but this trend will diminish as the older plants are repaired. It must be noted that the life expectancy of a treatment plant is approximately 30 years. It can take up to 2 years to replace an ailing plant. Plants will be added to and removed from the repair/replace list on an ongoing basis, especially since many of the plants in Suffolk County are around the 25 to 40 year range. As a result of the data gathered, it is envisioned that 10 facilities will be required to begin the evaluation process with the next year.

Over the past two years, SCDHS has instituted new programs and procedures that have had the direct effect of lowering the average total nitrogen being discharged by the treatment plants. During that period, the average total nitrogen from steady-state plants went from 10.2 mg/l to 7.1 mg/l. A few of the new programs can be summarized as:

- 1) The Department created a separate STP section that has been staffed with 2 engineers, 3 inspectional staff, and 2 support staff. All functions of the program from plan review, to inspections, to enforcement are the responsibility of this section.
- 2) SCDHS mandated that all facilities maintain funds that can be used for maintenance and upkeep. SCDHS has been verifying that these funds are being maintained.
- 3) Mandatory fines are imposed for any items noted as unsatisfactory during inspections.
- 4) Meetings are occurring between SCDHS, the operators and owners to discuss problem plants.
- 5) An intense review of all Cromaglass design and operation parameters was conducted which had the effect of lowering the total nitrogen results from 11.7 mg/l in 2006 to 7.6 mg/l in 2008.
- 6) Increased legal actions are being pursued. In 2005, fifteen legal actions were initiated. In 2008, thirty-eight were issued.

In 2009-10, new initiatives are being instituted. These include:

- 1) The rewriting of the Operation and Maintenance Standard. The new standards will clearly define the responsibilities of the operators, the engineer of record and the owners of the treatment plants pertaining to the maintenance and effluent quality of the facilities.
- 2) If a treatment plant is not meeting discharge standards the plant is cited and the owner will be required to have a Professional Engineer evaluate the plant. An action plan is to be developed that outlines the criteria that must be followed for the facility to meet its discharge standards. Continued failure of the discharge standards will result in the plant owner being required to enter into a consent order and a possible fine.
- 3) Increased outreach to the companies that operate STPs to ensure they are performing their duties in a manner to facilitate compliance.
- 4) All Cromaglass plants are required to be evaluated by the manufacturer twice per year and all items noted as deficient must be corrected immediately.
- 5) Mandatory critical spare parts are being required to be on site. When a breakdown occurs, SCDHS must be notified immediately and all repairs are required to be performed in a timely manner.

It is anticipated that the trend towards increased compliance will continue into the future.

## **Background of Sewage Treatment Plants in Suffolk County**

### Introduction

Within Suffolk County, all residences depend upon groundwater for their drinking water needs. The groundwater is contained within a sole source aquifer that extends throughout Long Island. For this reason, it is extremely important that the quality of the aquifer remain pristine and pure.

Suffolk County has a population of about 1.5 million and much of the wastewater generated by this population is discharged back into the aquifer. One pollutant contained within the wastewater is nitrogen. The Suffolk County Sanitary Code limits building density throughout the region as one method to control the discharge of nitrogen. Another method to control nitrogen is through on-site sewage treatment plants that are mandated when development is in excess of the density requirements. Approximately 70-75 % of the population is served by conventional on-site sanitary systems consisting of septic tanks and leaching pools. The remaining 25-30% of the population is served by sewage treatment plants. 184 sewage treatment plants are located in Suffolk County out of the 610 facilities statewide. Suffolk County has approximately 30% of the treatment plants operating in New York State.

At present, 155 facilities in Suffolk County are designed to remove nitrogen from the wastewater stream and have a discharge limit of 10 mg/l total nitrogen (ammonia, nitrates, nitrites and organic nitrogen). The remaining 29 facilities are considered secondary facilities and are required to reduce the organic matter in their discharges to a limit of 30 mg/l BOD (biochemical oxygen demand) and 30 mg/l of suspended solids. Throughout 2008, all plants in Suffolk County were inspected and sampled 4 times. Approximately 736 inspections were performed and over 800 samples were collected and over 3624 sample parameters were analyzed from effluent and influent locations.

The facilities that discharge to groundwater have on site test wells which are monitored quarterly to determine if the groundwater is impacted by their effluent discharges. All of the 184 treatment plants have a discharge limitation which requires pH to be maintained between 5.5 to 8.5 S.U. Facilities that discharge to surface water also have a total and fecal coliform standard that varies by location but is generally no greater than 200 – 800 MPN/100 ml. There are 16 facilities that discharge to surface waters that must meet these coliform standards.

The average total nitrogen concentration for all samples procured by SCDHS and reported on Discharge Monitoring Reports (DMRs) was 7.1 mg/l for all tertiary treatment plants that were considered to be operating under steady state. It must be noted that 19 nitrogen removal plants are either under construction, under SCDHS and Engineer review with plans to perform major repairs and/or renovations in the near future or are not in steady state yet. SCDHS feels that it is prudent for plants under construction or under review to perform some treatment and remove some nitrogen from their effluent instead of being granted temporary BOD and SS standards which do not require nitrogen removal. If the results from these 19 plants are included in the calculation of the total nitrogen average, the average is then 9.8 mg/l of total nitrogen.

Some sewage treatment plants are required to achieve secondary effluent limitations. For these facilities, over 230 samples collected by SCDHS and 700 reported on DMRs were analyzed for

BOD and SS. The sampling found an average result of 17.5mg/l for suspended solids and 20.1 mg/l for BOD. Similarly, if a secondary plant is covered under a consent order that requires an upgrade to remove nitrogen, SCDHS requires them to meet the highest standards practicable. If the secondary plants that are slated for upgrade to nitrogen removal are included in total SS and BOD averages, the results are 20.0 mg/l for SS and 26.2 mg/l for BOD.

### History

The treatment plant technology utilized to treat sewage is varied and has evolved over the past several decades. Early sewage treatment systems in Suffolk County were primary treatment systems which physically settled the wastewater and disinfected it before discharge. Later, secondary treatment facilities were built. These systems often, but not always, incorporated primary settling and then used an aerobic biomass to remove organic matter from the wastewater and then further settled and disinfected the wastewater before discharge. In the late 60's and early 70's, the first denitrification treatment systems utilizing denitrification filters and suspended growth were employed to remove nitrogen from the waste stream. Today, all new wastewater treatment systems that are built utilize denitrification technology.

Over the past decade, the denitrification process most commonly used is the SBR (sequence batch reactor). This technology utilizes an aerobic/anoxic process that first oxidizes organic matter in the influent and nitrifies the ammonia during an aerobic phase. Later, during the anoxic phase, denitrification occurs. Next, a settling phase followed by a decant, provides an effluent generally below the required 10 mg/l total nitrogen. The SBR plants in Suffolk County operating at steady state conditions discharge an average of 6.7mg/l total nitrogen. Other denitrification technologies that employ an aerobic/anoxic process are used with success. These include the oxidation ditch, modular aeration, the BESST process (Biologically Engineered Single Sludge Treatment) and others.

All sewage treatment plants in the county generate sludge from the settling processes. This sludge is typically removed by a tanker truck and hauled to a sludge processing plant known as a scavenger waste facility. Some plants process and dewater sludge on-site using special automated sludge presses and have their sludge removed in a more solid form. The Bergen Point treatment plant has a large scavenger waste processing facility that processes sludge obtained from the sewage treatment plants throughout Suffolk County. This facility also processes septic system pump out waste from residential and commercial septic systems located in Suffolk County. There are 3 other scavenger treatment plants in the county that receive exclusively septic system waste from residential and commercial facilities.

The scavenger waste treatment facilities in Suffolk County ultimately generate concentrated biosolids from the processing of sludge. The biosolids are hauled away by a container truck and taken to one of several receiving facilities located throughout the United States for landfill disposal or further processing.

Prior to 1985, all sewage treatment plants in Suffolk County disinfected their effluent with chlorine until it was discovered that chlorination formed toxic byproducts that can make their way into drinking water and the environment. Currently, the only sewage treatment plants that disinfect are plants that discharge to surface water. These facilities disinfect to prevent high

levels of coliform bacteria and other microorganisms from impacting the marine and fresh water environments that they discharge into. Also, bathing beaches can be affected by high coliform organisms and are sometimes closed due to high coliform levels. The Suffolk County Department of Health Services monitors the coliform levels from facilities that discharge to surface waters and takes swift enforcement action if violations are noted. These actions include requiring immediate corrective response from the discharging facility and notifying all other enforcement agencies of the excursion.

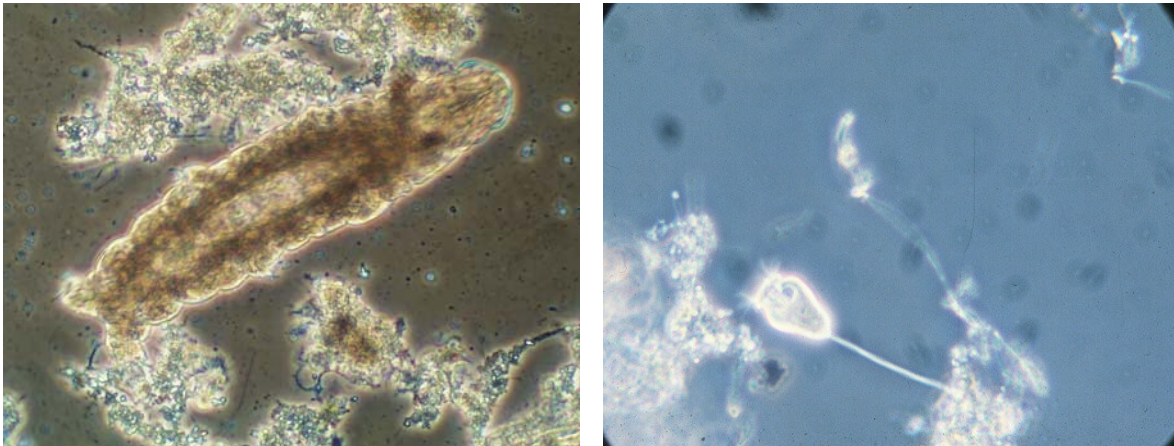
Currently, two methods of disinfection are utilized by treatment plants in Suffolk County: chlorination and ultraviolet radiation (UV). UV disinfection is replacing chlorination because of the environmental problems associated with chlorination noted above and because they offer economic and potential safety advantages.



UV Disinfection at SCSD #1 Port Jefferson NY

### Factors affecting Plant Performance

There are many conditions that can affect plant performance. One condition that can influence performance is influent flow. Inspection and sampling of the facilities mostly takes place during the morning hours. This is the time of the day in which the flow from the facilities is usually the highest resulting in less treatment efficiency. During storm events, the influent flow at the treatment plants increases and this can cause a surge condition. Surge conditions usually reduce the efficiency of the treatment and result in diminished effluent quality. Weather can also impact plant performance. Cold weather can reduce the performance of the treatment facilities because the plants utilize biochemical activity. During cold weather biochemical activity is slowed down and treatment action is reduced. This should be kept in mind when the report values are noted.



Typical microorganisms found in process tank mixed liquor

The most important factor affecting the plant performance is the mechanical operation of the facility. Treatment plants are complex systems with many pumps and electrical systems that can fail. Some facilities have over 30 pumps. Over the past decade, many plants have installed computer controls to run the treatment systems and all new facilities now have some computer controls. It is very likely to observe a CRT screen at a treatment plant that is the heart of the operator's control of the facility. Failure of any one of the plants electro-mechanical systems can adversely affect the biochemical systems and can lead to an episode of reduced performance and may result in longer lasting negative effluent events.

The SCDHS inspection program focuses on the condition of the effluent quality of the plant and on the state of the electro-mechanical systems of the facility. SCDHS require many facilities to have backup equipment on site that can be used to repair breakdowns and eliminate back orders of equipment that can be in the 16 to 20 week range. Having spare parts can mean a down time of only a couple hours instead of a couple of months.

On site generators may be required when the flow through the plant cannot entirely pass through by gravity. All generators are required to have transfer switches that sense when the electrical load to the plant is insufficient and automatically activate the generator to provide power to the necessary plant equipment. Routine testing of the generator and transfer switch is required and noted in the plant records. If a facility is required to under go extensive repairs, they are mandated to provide for emergency power to ensure that plant performance will not be affected during a power outage.

Proper operation of the treatment facility is vital. The plant operators must constantly make decisions and adjustments to achieve an effluent quality that meets permit limits. During SCDHS inspections, the operations of the plant are reviewed. Inspection reports note improper operations and work with operators to improve plant operations.



Influent & Effluent Samples at Brookhaven National Lab, Upton NY

When operators fail to perform their required duties properly or when the treatment plants have several inspections that note repeat violations, the owner, the operator and the engineer of record are required to attend a compliance meeting. During the meeting, a review of the plant deficiencies is made and certain required operational corrections are made compulsory. Reinspections of the treatment plant are performed to determine if the deficiencies have been corrected. In extreme instances of operator malfeasances, the NYSDEC can revoke an operator's certification. This has happened to an operator in Suffolk County.

Article 7 of the Suffolk County Sanitary Code, requires that every plant perform preventative maintenance and maintain specific financial assurances in the form of two funds that are designed to ensure that facilities have enough reserve to operate and maintain the treatment plant. An operating fund is required to ensure that enough funding is present to cover routine operation and maintenance expenses of the sewage facilities for a one year period of time. A second fund, typically called a "sinking fund", must be maintained at a sufficient level to provide for repair or replacement of mechanical equipment.

SCDHS inspections also observe for tank and structure corrosion and degradation which can lead to process tank problems and failures. The Department routinely require that metal tanks be temporarily shut down, bypassed and completely refurbished. This refurbishing requires the tank to be cleaned out, sandblasted and several coats of primer and paint be applied to the surface. Frequently it is noted that metal welding must be done to repair the structure. During the repair work, the plant performance may be reduced and the effluent quality can be impacted. This structured work is a necessary requirement because, over the lifetime of a treatment plant, preventative maintenance produces a facility that will provide a high quality effluent.

### Certification

The NYSDEC issues sewage treatment plant operator certificates to candidates that complete an extensive training program and internship at a sewage treatment plant and pass certification exams. The program includes several plant operation classes, a management training class and a laboratory class. There are several classes of certifications issued. A 1A certification is for smaller, less complex, plants. 2A and 3A certifications are issued to operators that run sewage

treatment plants that are of medium complexity and flow. A 4A certification is for larger more complex sewage treatment plants. The design flow for sewage treatment plants can range from less than 5000 gallons per day, to many millions of gallons per day depending on the size of the sewer community. There are some treatment plants that have actual effluent flow well below their permitted flow. This is typically due to low occupancy of the communities they serve. Low flow into the plant does cause difficulty in meeting SPDES discharge standards.

### Inspection Program

The Suffolk County Department of Health Services currently employs 3 fulltime NYS certified Public Health Sanitarians who inspect the 184 treatment plants operating in the county. Two of the inspectors are Grade 3A certified sewage treatment plant operators that had extremely valuable experience operating plants earlier in their careers. The third sanitarian has past experience as an environmental chemist prior to working for this unit.

The construction of new sewage treatment plants and the rebuilding and improvement of existing facilities is ongoing. Since 1999, 60 new treatment plants were built in Suffolk and presently 23 new facilities are in the planning stage or are under construction

By contract, Suffolk County receives reimbursement from the NYSDEC for inspections of sewage treatment plants. The NYSDEC is responsible for inspections and legal actions involving municipal facilities and the SCDHS is responsible for inspections and legal actions involving private facilities. There are 36 municipal treatment plants and 148 private plants in Suffolk County.

In 2008, all plants in Suffolk County were inspected and sampled 4 times. Approximately 736 inspections were performed and over 3624 sample parameters were analyzed from effluent and influent locations. The parameters include total nitrogen, BOD, SS, total and fecal coliform and pH. Some additional samples were taken from plant effluent for organic and metal analysis from municipal sewer districts. All of the treatment plants that discharge to groundwater have on site test wells; these are monitored quarterly by the plant owners to determine if the groundwater is impacted by their effluent discharges.

Complaints made against sewage treatment plants are acted upon by SCDHS inspectors immediately. Throughout 2008, a total of 29 complaints were received and investigated. Most complaints addressed concerned odors and sewage or effluent overflows.

### Enforcement Program

To ensure that all sewage treatment plants located within Suffolk County are working efficiently, Suffolk County (in accordance with the Environmental Protection Agency and the State Department of Environmental Conservation (NYSDEC)) has adopted the State Pollutant Discharge Elimination System ("SPDES") Permit Program. This program has been operating for the past 30+ years and has proven to be effective in monitoring and overseeing sewage treatment plants. Every sewage treatment plant must obtain a SPDES Permit in order to operate within the county. In accordance with the terms and conditions of the permit, facilities are to be under the responsible supervision of a certified New York State operator and meet certain effluent

discharge standards. Also facilities are subject to inspections and samplings performed through the Suffolk County Department of Health Services and other agencies.

Suffolk County also promulgated Article 7 of the Suffolk County Sanitary Code which regulates sewage and industrial waste treatment plants. This health code regulates facility operation and maintenance and is effective as an enforcement tool in keeping the wastewater facilities well managed and compliant.

All operators of sewage treatment plants in New York State are required by the SPDES permit to complete tests on the influent, effluent, process tank mixture and to test wells and record the results in a Discharge Monitoring Report (DMR). The DMR is required to be submitted to the SCDHS and NYSDEC monthly for review and any permit excursions are to be explained within the reports. Any DMR excursions are evaluated by the NYSDEC and SCDHS for possible legal action.

When inspections of the plants indicate violations, especially on a follow up basis, legal action is taken against the owner of the facility. Legal action is enforced through fines and consent orders (CO). There have been a total of 38 legal actions for minor violations and 6 consent orders for facility replacements/upgrades issued against sewage treatment plants in 2008.

The SCDHS inspection and enforcement program has been beneficial in identifying secondary plants that must be converted to denitrification due to groundwater impact, flow concerns or plant condition. Since 1999, seven plants have been converted to denitrification and eight more are presently scheduled to be converted.

There have been approximately 62 plants that have had major reconstruction as required by our enforcement activity and 7 plants are currently scheduled for rebuilding.

### Education Outreach

The Suffolk Department of Health Services acknowledges the impact education has on maintaining the high quality of drinking water for all residents throughout the county. The Department has taught courses to sewage treatment plant operators, engineers and members of the community concerning treatment plant issues and technologies.

The Department has given 4 training seminars and sponsored 3 training courses within the past 8 years and has also conducted a training presentation at the 2004 New York Rural Water Association Annual Conference. In August of 2004, the department held a training class on sewage treatment science for high school participants at the Brookhaven National Lab. In 2008 and 2009, the department participated in a parent's group education seminar given to several east end schools called Environmental Heroes that lectured on environmental education.

As the attendance and feedback have been very positive, The Suffolk County Department of Health is looking forward to participating in several upcoming training courses scheduled to take place this year. The Department will continue to play an active role in educating the community with much enthusiasm and expectations for a continuance of our high standards of drinking water now and for the future.

## Review of the Data

Data from sewage treatment plants effluent sampling results was reviewed to determine compliance with the effluent standards. The data was from samples collected from January 1, 2008 to December 31, 2008. The results are displayed in the **Appendix**. It should be noted that the average values reported can be skewed significantly by equipment failures and operational transients. This can increase the averages to values which are well above normal steady state operational conditions. This should be kept in mind while reviewing the averages.

All of the data used in this report is from grab samples taken by inspectors of the Health Department and by the treatment plant representative as reported on DMR's. Most samples were taken during the morning hours but some were taken in the early afternoon. All of the samples taken were from the treatment plant effluent prior to discharge into the receiving groundwater or surface water.

For plants that are required by their SPDES permits to denitrify, the limit for total nitrogen is 10 mg/l. The limit for the plants that have secondary standards in their SPDES permits is 30 mg/l SS (suspended solids) and 30 mg/l BOD (biochemical oxygen demand). The plants that discharge to surface water have a fecal coliform action level of >800 MPN/100 ml. It must be noted that the secondary plants have within their SPDES Permits varying limitations for SS and BOD depending on different calculated averages; 7 day, 30 day or 6 hr. For our enforcement work we use the 30 day monthly average of 30 mg/l of SS and BOD. Also the surface water discharge plants SPDES Permits have varying limitations for fecal coliform also depending on different calculated averages; 7 day, 30 day or 6 hr, geometric mean. For our enforcement work we use the action level of >800 MPN/100 ml usually listed in the permits for any grab sample. Note that some plants required to remove nitrogen must also test for SS and BOD in their effluent.

It is important to note that regulations limiting nitrogen loading from sewage treatment plants are more restrictive than those permitted for residential housing units per acre of development. Sewage treatment plants that service communities in Suffolk County typically contribute less nitrogen loading per unit to groundwater than does a typical residential housing unit per acre. Typically even when a STP discharges a Total Nitrogen of 20mg/l it discharges less nitrogen per unit than residential homes built on a ½ acre lot. Treatment plants are more effective in protecting the drinking water of Suffolk County than on site sanitary systems for single family homes.

When evaluating the sampling data and the effluent report tables please note that all the sewage treatment plants that are marked with an asterisk were removed from the average and percent calculations. The reason for this is that these facilities are under consent orders and or rebuilding requirements that require the facilities to have some or most of their treatment systems shut down. In addition a few facilities have a discharge standard for total nitrogen higher than 10 mg/l.

## Effluent Sampling Data for Sewage Treatment Plants

Total Nitrogen  
(Standard 10 mg/l)

Number of samples collected and analyzed-----2176  
Average concentration for total nitrogen of steady state samples-----7.1 mg/l

Suspended Solids  
(Standard 30 mg/l)

Number of samples collected and analyzed-----464  
Average concentration for suspended solids of steady state samples-----17.5 mg/l

Biochemical Oxygen Demand  
(Standard 30 mg/l)

Number of samples collected and analyzed-----464  
Average concentration for BOD of steady state samples-----20.1 mg/l

Fecal Coliform  
(Standard 800 MPN/100 ml)

Number of samples collected and analyzed-----224  
Average concentration for fecal coliform of effluent samples-----371 MPN/100 ml

## Test Well Sampling Data

SCDHS did not sample any monitoring wells in 2008 but the ground water monitoring data that was reported on DMRs was analyzed.

Average concentration of total nitrogen of all upstream samples Suffolk County received from DMR reports-----3.3 mg/l

Average concentration for total nitrogen of all downstream samples Suffolk County received from DMR reports-----6.0 mg/l

## Cromaglass Treatment Plants

Cromaglass is a trade name for a specialized sewage treatment plant. Its design is based on the same technology as the SBR except it utilizes venturic pumps instead of aeration blowers for aeration. The process is designed to meet the needs of small communities and must have a design flow of less than 15,000 gallons per day. All Cromaglass systems installed in Suffolk County have an equalization pumping station and a splitter box located prior to the treatment trains. Currently there are 28 Cromaglass plants on line in Suffolk County and approximately another 12 either are under construction or are under review by SCDHS. Just like the SBR, Cromaglass has proven to be a viable technology. When designed and operated properly it consistently puts out an effluent less than 10 mg/l total nitrogen.



Cromaglass Treatment Plant at Greenview Court Oakdale NY

There have been some design and operational problems associated with these plants, most of which have been addressed by SCDHS. Throughout 2007 and 2008, SCDHS initiated an aggressive program to correct all design and operational problems associated with the Cromaglass system. All Cromaglass plants must now have a mandatory system diagnostics inspection performed by a certified Cromaglass repair service technician twice per year and all problems must be corrected. A report of this service is sent to SCDHS office for reference. Meetings were held with all the operators of the facilities. The design and operational problems were outlined and a comprehensive plan was made to have all problems corrected utilizing consent orders or voluntary compliance. These corrective actions have proven to be effective as the average total nitrogen concentration over the last year has dropped significantly over the past averages. SCDHS will continue to watch these systems closely to ensure that they continue to operate as designed.

**Cromaglass Effluent Data**  
(Standard 10 mg/l)

Number of samples collected and analyzed 2008-----448  
Average concentration for total nitrogen of effluent samples 2008-----7.6 mg/l  
Average concentration for total nitrogen for 2006-----11.0mg/l  
Average concentration for total nitrogen prior to 2006-----11.7mg/l

New Initiates

Since April 2008, a new policy of stepped up enforcement has started. This new policy requires a legal action for any violations noted during an inspection. This legal action involves a fine of \$1000 for first violations and fines are doubled for each repeated violation.

Consent Orders are being issued for large expensive repairs that involve considerable time and expense. Consent Orders require that specific work be performed by a certain date and involve a fine of up to \$1000/day if the work is not completed as agreed upon in the Consent Order. The Consent Order is signed by the plant owner and an up-front fine is usually required but is sometimes applied to the construction work.

If a treatment plant is not meeting discharge standards, the plant is cited and the owner is required to have a Professional Engineer evaluate the plant. An action plan is developed that outlines the criteria that must be followed for the facility to meet the required discharge standards. Continued violation of the discharge standards will subject the owner of the facility to the issuance of a Consent Order and a possible fine.

Currently, the Sewage or Industrial Waste Treatment Facilities Operation and Maintenance Standards of Article 7 are being revised. The new revision will increase and enhance the requirements and standards that must be met by the operators and owners of the treatment plants and will improve the effluent quality of all plants. The new standards will clearly define the responsibilities of the operators, the engineer of record and the owners of the treatment plants.

## Conclusion

The SCDHS evaluation of the sewage treatment plants that are presently operating in the county has shown that the technologies that are currently employed have the capability to protect the drinking water of Suffolk County. This assessment is based upon data collected in 2008 and includes samples collected during 700 inspections performed by SCDHS personnel and the collection of over 800 samples and the analysis of over 3600 parameters conducted by the Department and private laboratories. The laboratory results show a continuing downward trend in effluent results. This increase in compliance with plants meeting their effluent limits is a direct result of the Department's continued efforts and enhanced enforcement program. SCDHS understands that the Department must remain diligent in the future to ensure that these trends continue and the Department's high standards continue to be met.

At present, 155 treatment plants are required to remove total nitrogen to a limit of 10 mg/l. There are 19 denitrification plants that are currently either not under steady state or are required by a Consent Order to do major repairs. Samples in 2008 have found that the average total nitrogen of all facilities, including those that are not operating as designed, was 9.8 mg/l and the average Total Nitrogen of all facilities not covered under an Order on Consent and in steady state averaged 7.1 mg/l. Typically, plants that have portions of their treatment process bypassed for repair discharge at an average of about 30 mg/l of total nitrogen. Considering that the typical influent nitrogen concentration that enters a facility is between 50-70 mg/l, it is clear that these facilities are providing treatment even when not operating as designed and are providing a high degree of treatment when operating correctly.

The plants that are required to perform secondary treatment are performing within allowable limits. Sampling has shown that effluent concentrations for suspended solids were 17.5 mg/l and BOD 20.1 mg/l. The discharge limit for both suspended solids and BOD is 30 mg/l. In addition, all 16 treatment plants that discharge to surface waters have met the required fecal coliform effluent guideline of <800 MPN/100 ml.

The newer technology plants including SBR, oxidation ditch, modular aeration and BESST have improved efficiency in removing nitrogen compared to older denitrification plants. As the older denitrification plants age and are upgraded it is expected that the overall effluent results for meeting nitrogen standards will improve.

These results show that the surface waters and groundwater of Suffolk County are receiving treatment plant discharges that are well treated and are, on average meeting effluent limitations. The results also note that the average of last year's effluent samples have improved over the past years. This improvement is most probably due to SCDHS enhanced inspection and enforcement program that has focused on plant operations, facility maintenance and plant structure rebuilding. The Department's inspection and sampling program has had a significant effect on improving the wastewater discharge quality and ultimately the quality of the drinking water.

## **Appendix**

### **Sewage Treatment Plant Data**

# **Sewage Treatment Plant Effluent Results Overview**

## Effluent Results Overview Legend

Facilities listed with this \*C\* symbol have ongoing consent orders.

Facilities listed with this \*E\* symbol show total nitrogen results greater than permit limits and are under review by SCDHS.

Facilities listed with this \*O\* symbol have been omitted from the total nitrogen average because they are under repair or not in steady state.

Facilities listed with this \*L\* symbol had recent legal action taken with fine. A number listed with symbol \*L2\* indicates # of legal actions.

Treatment plant effluent results that have Total Nitrogen values greater than 10 mg/l are considered to exceed the New York State SPDES discharge standard although effluent levels less than 15 mg/l are considered to be in a reasonably good quality range.

Treatment plant effluent results that have Suspended Solids (SS) values greater than 30 mg/l are considered to exceed the New York State SPDES discharge standard.

Treatment plant effluent results that have Biochemical Oxygen Demand (BOD) values greater than 30 mg/l are considered to exceed the New York State SPDES discharge standard.

Treatment plant effluent results that have Fecal Coliform numbers greater than 2400 MPN/100 ml are considered to exceed the New York State SPDES discharge standard.

Please note however that some treatment plant facilities do have SPDES (State Pollution Discharge Elimination System) permits that may vary from the limits listed above. The limits listed above are the general limitations for treatment plants in Suffolk County.

## Sewage Treatment Plants in Suffolk County Effluent Results Overview

| STP Name                                   | BOD/SS<br>mg/l<br>Average<br>-----<br>Fecal<br>Bacteria<br>MPN/100ml<br>Average | TN<br>Average<br>mg/l<br>For All<br>samples<br>Analyzed in<br>2008 | STP Address                | STP City           | Treatment<br>Type             |
|--------------------------------------------|---------------------------------------------------------------------------------|--------------------------------------------------------------------|----------------------------|--------------------|-------------------------------|
| Artist Lake<br>*C* *L* *O*                 | ---                                                                             | 37.3                                                               | Artist Lake Dr.            | Middle Island      | Ex Aeration-<br>Denite Filter |
| Avery Village *L*                          | ---                                                                             | 3.1                                                                | Hewlett Ave.               | East<br>Patchogue  | SBR                           |
| Bal Moral (Strathmore<br>on the Green) *E* | ---                                                                             | 9                                                                  | Bartlett Rd.               | Middle Island      | Ex Aeration-<br>Denite Filter |
| Bellhaven Nursing<br>Center                | ---                                                                             | 8.7                                                                | 110 Beaver Dam<br>Rd.      | Brookhaven         | SBR                           |
| Birchwood @ Spring<br>Lake                 | ---                                                                             | 12                                                                 | Rt. 25                     | Middle Island      | Ex Aeration-<br>Denite Filter |
| Birchwood Glen                             | ---                                                                             | 7.5                                                                | Buckley Rd.                | Holtsville         | Ex Aeration-<br>Denite Filter |
| Birchwood Nursing<br>Home                  | ---                                                                             | 4.6                                                                | 78 Birchwood Dr.           | Huntington<br>Sta. | SBR                           |
| Birchwood On The<br>Green *C* *O*          | ---                                                                             | 21.1                                                               | 2800 Wilshire<br>Blvd      | Oakdale            | Ex Aeration-<br>Denite Filter |
| Blue Ridge                                 | ---                                                                             | 4.4                                                                | 899 Golf Lane              | Medford            | SBR                           |
| Bretton Woods                              | ---                                                                             | 2.6                                                                | 1027 Clubhouse<br>Ct.      | Coram              | SBR                           |
| Bristol Estates                            | ---                                                                             | 9                                                                  | Route 51                   | Eastport           | SBR                           |
| Broadway Knolls<br>*C* *O*                 | ---                                                                             | 16.6                                                               | Vets Highway               | Bay Port           | SBR                           |
| Broadway West                              | ---                                                                             | 3.4                                                                | 2 <sup>nd</sup> Ave        | Brentwood          | Cromaglass                    |
| Brookhaven Hospital<br>*C* *O*             | ---                                                                             | 15.4                                                               | 101 Hospital Rd.           | East<br>Patchogue  | SBR                           |
| Brookhaven National<br>Lab                 | ---                                                                             | 6                                                                  | Brookhaven<br>National Lab | Upton              | Modular<br>Aeration           |
| Brookhaven Town<br>Offices                 | 39.5/36                                                                         | ---                                                                | 1 Independence<br>Hill     | Farmingville       | Ex Aeration-<br>Denite Filter |
| Brookwood on the Lake                      | ---                                                                             | 10.4                                                               | Hans Blvd.                 | Lake<br>Ronkonkoma | Bio-disk<br>Denite Filter     |
| Calverton Enterprise<br>Park               | 9.3/24.3<br><2                                                                  | ---                                                                | Swan Pond Rd.              | Calverton          | Ex Aeration                   |
| Calverton Hills<br>*L* *C*                 | 56.8/50.4                                                                       | ---                                                                | 301 Wooded<br>Way          | Calverton          | Ex Aeration                   |
| Cedar Lodge *L2*                           | 10.6/30.1                                                                       | ---                                                                | 6 Frowein Rd               | Center<br>Moriches | Ex Aeration                   |
| Chelmsford Weald                           | ---                                                                             | New Facility                                                       | Granny Rd                  | Gordon<br>Heights  | Cromaglass                    |
| Cenacle Manor                              | ---                                                                             | 4.7                                                                | Smith Road                 | Lake<br>Ronkonkoma | SBR                           |
| Country Pointe *L*                         | ---                                                                             | 9.9                                                                | Route 347 & Rt.<br>25      | Smithtown          | SBR                           |

| STP Name                                       | BOD/SS<br>mg/l<br>Average<br>-----<br>Fecal<br>Bacteria<br>MPN/100ml<br>Average | TN<br>Average<br>mg/l<br>For All<br>samples<br>Analyzed in<br>2008 | STP Address                                  | STP City               | Treatment<br>Type             |
|------------------------------------------------|---------------------------------------------------------------------------------|--------------------------------------------------------------------|----------------------------------------------|------------------------|-------------------------------|
| Country View Estates<br>*C* *L* *O*            | ---                                                                             | 28.3                                                               | Swezeytown<br>Road                           | Middle Island          | SBR                           |
| Country View Estates<br>of Smithtown           | ---                                                                             | 5.7                                                                | Landing Avenue                               | Smithtown              | Cromaglass                    |
| Courtyards @<br>Southampton                    | ---                                                                             | 10.4                                                               | Majors Path                                  | Southampton            | Cromaglass                    |
| Dowling College                                | ---                                                                             | 2.6                                                                | Idle Hour Blvd                               | Oakdale                | RBC-Denite<br>Filter          |
| Eagle Walk                                     | ---                                                                             | 4.8                                                                | Old Country<br>Road                          | East Quogue            | Cromaglass                    |
| Easthampton<br>Scavenger Site                  | ---                                                                             | 6.2                                                                | 262 Springs<br>Fireplace Road                | East<br>Hampton        | RBC-Denite<br>Filter          |
| Emanon Group<br>*C* *O*                        | ---                                                                             | 58                                                                 | LIE S Service Rd<br>& Horseblock Rd          | Medford                | Cromaglass                    |
| Emerald Green Apts.<br>*E*                     | ---                                                                             | 19.4                                                               | Broadway Ave.                                | Holbrook               | SBR                           |
| Exit 63 Development<br>*L*                     | ---                                                                             | 6.6                                                                | NW Corner of CR<br>83 & LIE N<br>Service Rd. | Farmingville           | SBR                           |
| Fairfield @<br>Ronkonkoma                      | ---                                                                             | 6.2                                                                | Union Avenue                                 | Ronkonkoma             | Cromaglass                    |
| Fairfield at Selden                            | ---                                                                             | 7.9                                                                | Horizon View<br>Drive                        | Selden                 | SBR                           |
| Fairfield Inn @ Medford                        | ---                                                                             | New Facility                                                       | Route 112                                    | Medford                | Cromaglass                    |
| Fairfield Village Garden<br>Apts. (Groton) *C* | 19.3/10.4                                                                       | ---                                                                | Commack Rd                                   | Commack                | Ex Aeration                   |
| Fairhaven Apts. @<br>Nesconset                 | 11.0/7.7                                                                        | ---                                                                | Rte 347 and<br>Browns Rd.                    | Smithtown              | Ex Aeration                   |
| Fairway Manor<br>*C* *L* *O*                   | ---                                                                             | 21.5                                                               | Sunrise Highway<br>& Nicolls Road            | Patchogue              | Ex Aeration-<br>Denite Filter |
| Fox Meadow<br>*C* *O*                          | ---                                                                             | 22.5                                                               | Route 347                                    | Port<br>Jefferson Sta. | Ex Aeration-<br>Denite Filter |
| Greenport Village *E*                          | 16.6/23.7<br>941                                                                | ---                                                                | Moores Ln.                                   | Greenport              | Lagoons-<br>Clarifier         |
| Greenview Commons<br>*L*                       | ---                                                                             | 4.2                                                                | Sunrise Hwy                                  | Oakdale                | SBR                           |
| Greenview Court PRC<br>*L*                     | ---                                                                             | 8.9                                                                | Oakdale-<br>Bohemia Rd                       | Oakdale                | Cromaglass                    |
| Greenwood @ Oakdale<br>*C* *L* *O*             | ---                                                                             | 29.1                                                               | Locust Ave                                   | Oakdale                | Ex Aeration-<br>Denite Filter |
| Greenwood Village                              | ---                                                                             | 6.3                                                                | Chapman Blvd.                                | Manorville             | Ex Aeration-<br>Denite Filter |
| Gurwin Jewish<br>Assisted Living               | ---                                                                             | 5.8                                                                | 68 Hauppauge<br>Rd.                          | Commack                | SBR                           |
| Gurwin Jewish<br>Geriatric Center              | ---                                                                             | 4.8                                                                | 68 Hauppauge<br>Rd.                          | Commack                | SBR                           |

| STP Name                                        | BOD/SS<br>mg/l<br>Average<br>-----<br>Fecal<br>Bacteria<br>MPN/100ml<br>Average | TN<br>Average<br>mg/l<br>For All<br>samples<br>Analyzed in<br>2008 | STP Address                               | STP City        | Treatment<br>Type                |
|-------------------------------------------------|---------------------------------------------------------------------------------|--------------------------------------------------------------------|-------------------------------------------|-----------------|----------------------------------|
| Hampton Rehab Center (Payton Lane Nursing Home) | ---                                                                             | 2.8                                                                | County Rd., 39                            | Southampton     | SBR                              |
| Hawthorne Village *C*                           | ---                                                                             | 6.3                                                                | Hawthorne Ave.                            | Central Islip   | SBR                              |
| Heatherwood House @ Lake Ronkonkoma             | 25.4/21.4                                                                       | ---                                                                | 147 Lake Shore Rd.                        | Lake Ronkonkoma | Ex Aeration                      |
| Heatherwood @ Holbrook (Hillcrest)              | ---                                                                             | 9.4                                                                | 865 Broadway Ave                          | Holbrook        | BESST                            |
| Heatherwood @ Lakeland (Colony Park)            | ---                                                                             | 12.5                                                               | 500 Peconic St.                           | Ronkonkoma      | Ex Aeration-Denite Filter        |
| Heritage Gardens At Brentwood *C* *L*           | 28.6/22.6                                                                       | ---                                                                | 2 <sup>nd</sup> Ave & 8 <sup>th</sup> St. | Brentwood       | Ex Aeration                      |
| Hidden Ponds @ Smithtown                        | ---                                                                             | 6.2                                                                | Rte 347 and Mt. Pleasant Rd.              | Smithtown       | Ex Aeration-Denite Filter        |
| Hilton Gardens                                  | ---                                                                             | 9.9                                                                | Vets Memorial Highway                     | Ronkonkoma      | SBR                              |
| Holiday Inn Express                             | ---                                                                             | 9.2                                                                | LIE South Service Rd.                     | Hauppauge       | Cromaglass                       |
| Holiday Inn                                     | ---                                                                             | 7.5                                                                | Veterans Hwy.                             | Ronkonkoma      | Ex Aeration-Denite Filter        |
| Holt Hotel *L*                                  | ---                                                                             | 6.2                                                                | Middle Avenue                             | Holtsville      | SBR                              |
| Homestead Village *E*                           | ---                                                                             | 16.6                                                               | Homestead Dr.                             | Coram           | Aeration-Suspended Growth Denite |
| Huntington Town                                 | ---/---<br>259                                                                  | 5.9                                                                | Creek Rd.                                 | Huntington      | SBR                              |
| IRS                                             | ---                                                                             | 4.9                                                                | 1040 Waverly Ave.                         | Holtsville      | SBR                              |
| Island View *L3*                                | ---                                                                             | 9.9                                                                | Vista View Dr.                            | Farmingville    | SBR                              |
| Islandia Center                                 | ---                                                                             | 5.8                                                                | Blydenburgh Rd.                           | Islandia        | Ex Aeration-Denite Filter        |
| La Bonne Vie                                    | 37.0/10.3                                                                       | ---                                                                | 44 County Club Drive                      | Coram           | Ex Aeration                      |
| Lake Grove Apts.                                | ---                                                                             | 6.6                                                                | 23 Williams Blvd.                         | Lake Grove      | SBR                              |
| Lake Pointe *C* *O*                             | ---                                                                             | 42.1                                                               | Picasso Way                               | Middle Island   | Ex Aeration-Denite Filter        |
| Lakes @ Setauket                                | ---                                                                             | 10.6                                                               | Old Town Road                             | Setauket        | RBC-Denite Filter                |
| Lakeview Woods @ Bayport                        | ---                                                                             | 6.2                                                                | Lakeview Avenue                           | Bayport         | Cromaglass                       |
| LaQuinta Inn                                    | ---                                                                             | 9.6                                                                | Johnson Avenue                            | Bohemia         | Cromaglass                       |
| Larkfield Gardens                               | ---                                                                             | 5.6                                                                | 10 Cheshire Place                         | East Northport  | SBR                              |
| Leisure Village                                 | ---                                                                             | 4                                                                  | Whiskey Rd.                               | Ridge           | SBR                              |
| Lexington Village *L* *C*                       | 41.2/38.5                                                                       | ---                                                                | Hemlock Dr.                               | Bayshore        | Ex Aeration                      |

| STP Name                                | BOD/SS<br>mg/l<br>Average<br>-----<br>Fecal<br>Bacteria<br>MPN/100ml<br>Average | TN<br>Average<br>mg/l<br>For All<br>samples<br>Analyzed in<br>2008 | STP Address            | STP City        | Treatment<br>Type                |
|-----------------------------------------|---------------------------------------------------------------------------------|--------------------------------------------------------------------|------------------------|-----------------|----------------------------------|
| Loehmann's Plaza                        | ---                                                                             | 6.7                                                                | 87 Loehmann's Plaza    | Lake Grove      | RBC-Denite Filter                |
| Mac Arthur Plaza<br>*C* *O*             | ---                                                                             | Under construction<br>no samples                                   | 4250 Veterans Hwy.     | Bohemia         | Ex Aeration-Denite Filter        |
| Marriott Courtyard / Browning Hotel     | ---                                                                             | 3.8                                                                | Expressway Dive. South | Ronkonkoma      | SBR                              |
| Medford Hamlet Assisted Living          | ---                                                                             | 5.5                                                                | North Ocean Avenue     | Medford         | SBR                              |
| Medford Ponds *E*                       | ---                                                                             | 14                                                                 | Route 112              | Medford         | BESST                            |
| Medford Multicare Center for Living *L* | ---                                                                             | 11.8                                                               | 3115 Horseblock Road   | Medford         | SBR                              |
| Melville Mall<br>*L* *C* *O*            | ---                                                                             | 48.2                                                               | Walt Whitman Rd.       | Melville        | Bio-disc Denite Filter           |
| Memorial Sloan-Kettering                | 69.5/28.7                                                                       | ---                                                                | Commack Rd.            | Commack         | Cromaglass                       |
| Middle Island Co-Op Apt *L*             | 74.0/45.6                                                                       | ---                                                                | Bailey Rd.             | Middle Island   | Ex Aeration                      |
| Mirror Pond                             | ---                                                                             | 5.2                                                                | Jerusalem Hollow Road  | Center Moriches | SBR                              |
| Montauk Manor                           | 8.1/5.1                                                                         | 8.6                                                                | Edgemere St.           | Montauk         | Oxidation Ditch                  |
| Nesconset Nursing Center *C* *L* *O*    | ---                                                                             | 31.8                                                               | 100 Southern Blvd.     | Nesconset       | Ex Aeration-Denite Filter        |
| Newsday                                 | ---                                                                             | 1.9                                                                | Pinelawn Rd            | Melville        | Aerorotor-Denite filter          |
| North Isle Village<br>*C* *L* *O*       | ---                                                                             | 29.1                                                               | 50 Gibbs Rd.           | Coram           | Ex Aeration-Denite Filter        |
| Northport Veterans Hospital             | ---                                                                             | 3                                                                  | 79 Middleville Rd.     | Northport       | Aeration-Suspended Growth Denite |
| Northport Village                       | ---/---<br>11.8                                                                 | 7.3                                                                | Scudder Park           | Northport       | Aeration-Suspended Growth Denite |
| Oak Hollow Nursing Center               | ---                                                                             | 10.6                                                               | Church Ln.             | Middle Island   | Ex Aeration Upflow Denite Filter |
| Oakwood Care Center                     | ---                                                                             | 10.1                                                               | 305 Locust Avenue      | Oakdale         | SBR                              |
| Ocean Beach                             | 4.4/4.7<br>2                                                                    | ---                                                                | 940 Surf Ave.          | Ocean Beach     | Primary-Chemical-Carbon Filter   |
| Patchogue Nursing Home *C*              | ---                                                                             | 11.4                                                               | 25 Schoenfeld Blvd     | Patchogue       | Ex Aeration-Denite Filter        |
| Patchogue Senior Apartments *L2*        | ---                                                                             | 8.1                                                                | Patchogue Yaphank Road | East Patchogue  | SBR                              |

| <b>STP Name</b>                      | <b>BOD/SS<br/>mg/l<br/>Average<br/>-----<br/>Fecal<br/>Bacteria<br/>MPN/100ml<br/>Average</b> | <b>TN<br/>Average<br/>mg/l<br/>For All<br/>samples<br/>Analyzed in<br/>2008</b> | <b>STP Address</b>              | <b>STP City</b>      | <b>Treatment<br/>Type</b>               |
|--------------------------------------|-----------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------|---------------------------------|----------------------|-----------------------------------------|
| Patchogue Village                    | <b>26.0/22.9<br/>113</b>                                                                      | ---                                                                             | Hammond St.                     | Patchogue            | RBC                                     |
| Paumanack Village                    | ---                                                                                           | <b>8.4</b>                                                                      | Pulaski Rd.                     | Greenlawn            | Ex Aeration-<br>Denite Filter           |
| Petite Fleur                         | ---                                                                                           | <b>3.4</b>                                                                      | Broadway Ave                    | Sayville             | SBR                                     |
| Pine Hills                           | ---                                                                                           | <b>9.1</b>                                                                      | Wading River Rd.                | Manorville           | Ex Aeration-<br>Denite Filter           |
| Plum Island Sewage                   | <b>4.6/14.3<br/>13.5</b>                                                                      | ---                                                                             | Plum Island                     | Plum Island          | Ex Aeration                             |
| Quail Run                            | ---                                                                                           | <b>3.6</b>                                                                      | Commack Rd                      | Deer Park            | SBR                                     |
| Radisson Hotel<br>*C* *L* *O*        | ---                                                                                           | <b>27.1</b>                                                                     | N. Ocean Ave                    | Medford              | Ex Aeration<br>Denite Filter            |
| Residence Inn by<br>Marriott         | ---                                                                                           | <b>7.3</b>                                                                      | 850 Veterans<br>Hwy.            | Hauppauge            | Cromaglass                              |
| Riverhead Town &<br>Scavenger        | <b>6.3/9.0<br/>1986</b>                                                                       | <b>11</b>                                                                       | River Ave.                      | Riverhead            | SBR                                     |
| Rocky Point Apts.                    | <b>22.7/25.4</b>                                                                              | ---                                                                             | Cnty. Rd. 21 &<br>Rocky Pt. Rd. | Rocky Pt.            | Ex Aeration                             |
| Ross Health Care<br>Center *C*       | <b>156.0/117.5</b>                                                                            | ---                                                                             | 839 Suffolk<br>Avenue           | Brentwood            | Ex Aeration                             |
| Rough Riders Landing                 | <b>11.1/15.5</b>                                                                              | <b>13.4</b>                                                                     | 23 Fort Pond<br>Road            | Montauk              | Oxidation<br>Ditch                      |
| S.C.S.D. Gabreski<br>Airport         | ---                                                                                           | <b>5.1</b>                                                                      | County Rd. 31                   | Westhampton<br>Beach | SBR                                     |
| S.C.S.D. Yaphank<br>County Ctr.      | ---                                                                                           | <b>6.6</b>                                                                      | Yaphank Ave                     | Yaphank              | RBC-Denite<br>Filter                    |
| S.C.S.D. #1 Port<br>Jefferson        | <b>5.0/3.5<br/>&lt;20</b>                                                                     | <b>2.8</b>                                                                      | Beach Street                    | Port<br>Jefferson    | SBR                                     |
| S.C.S.D. #3 Bergen<br>Point          | <b>8.4/11.7<br/>29.9</b>                                                                      | ---                                                                             | 600 Bergen Ave                  | Babylon              | Ex Aeration                             |
| S.C.S.D. #5 Strathmore<br>Huntington | ---                                                                                           | <b>3.2</b>                                                                      | Truxton Rd.                     | Dix Hills            | SBR                                     |
| S.C.S.D. #6 Kings Park               | <b>7.5/8.1<br/>1781</b>                                                                       | ---                                                                             | St. Johnland Rd.                | Kings Park           | Primary, Ex<br>Aeration                 |
| S.C.S.C. #7 Twelve<br>Pines          | ---                                                                                           | <b>3.3</b>                                                                      | Woodside Ave                    | Medford              | Aeration-<br>Suspended<br>Growth Denite |
| S.C.S.D. #7 Woodside                 | ---                                                                                           | <b>6.6</b>                                                                      | Harrison Ave &<br>Sills         | Medford              | Ex Aeration-<br>Denite Filter           |
| S.C.S.D. #9 College<br>Park          | ---                                                                                           | <b>1.5</b>                                                                      | Roberta Ave                     | Selden               | Aeration-<br>Suspended<br>Growth Denite |
| S.C.S.D. #11 Selden                  | ---                                                                                           | <b>3.4</b>                                                                      | 969 Old Town<br>Rd.             | Centereach           | SBR                                     |
| S.C.S.D. #12<br>Holbrook/Birchwood   | ---                                                                                           | <b>4</b>                                                                        | Essex Ave                       | Farmingville         | Aeration-<br>Suspended<br>Growth Denite |

| STP Name                                      | BOD/SS<br>mg/l<br>Average<br>-----<br>Fecal<br>Bacteria<br>MPN/100ml<br>Average | TN<br>Average<br>mg/l<br>For All<br>samples<br>Analyzed in<br>2008 | STP Address                       | STP City                  | Treatment<br>Type                       |
|-----------------------------------------------|---------------------------------------------------------------------------------|--------------------------------------------------------------------|-----------------------------------|---------------------------|-----------------------------------------|
| S.C.S.D. #14 Parkland                         | ---                                                                             | 2.7                                                                | Joanne Dr.                        | Holbrook                  | Aeration-<br>Suspended<br>Growth Denite |
| S.C.S.D. #15 Nob Hill                         | ---                                                                             | 4.6                                                                | Nicolls Rd.                       | Hauppauge                 | Aeration-<br>Suspended<br>Growth Denite |
| S.C.S.D. #18N<br>Heartland STP                | ---                                                                             | 8.6                                                                | 180 Oser Ave                      | Hauppauge                 | Ex Aeration-<br>Denite Filter           |
| S.C.S.D. #18S<br>Hauppauge Industrial<br>Park | ---                                                                             | 10.2                                                               | Motor Parkway                     | Hauppauge                 | RBC-Denite<br>Filter                    |
| S.C.S.D. #20E<br>Ridgehaven                   | ---                                                                             | 4.4                                                                | Whiskey Rd.                       | Ridge                     | Ex Aeration-<br>Denite Filter           |
| S.C.S.D. #21 SUNY<br>Stony Brook              | 5.7/8.3<br>20                                                                   | 4.9                                                                | SUNY Stony<br>Brook Campus        | Stony Brook               | Oxidation<br>Ditch                      |
| S.C.S.D. #22<br>Hauppauge County<br>Center    | ---                                                                             | 1.5                                                                | Veterans Hwy.                     | Smithtown                 | Aeration-<br>Suspended<br>Growth Denite |
| S.C.S.D. #23 Coventry<br>Manor                | ---                                                                             | 5.1                                                                | Woodville Rd &<br>Short St        | Middle Island             | RBC-Denite<br>Filter                    |
| S.C.S.D. # 28 Fairfield<br>@ St. James        | ---                                                                             | 3.9                                                                | Moriches Rd.                      | Smithtown                 | Ex Aeration-<br>Denite Filter           |
| Saddle Brook<br>Apartments *L*                | ---                                                                             | 11.3                                                               | Johnson Avenue                    | Bohemia                   | Cromaglass                              |
| Sag Harbor                                    | 7.1/7.0<br>410                                                                  | 7                                                                  | Bay St.                           | Sag Harbor                | SBR                                     |
| Sagamore Hills                                | ---                                                                             | 6.8                                                                | Sagamore Hills<br>Dr.             | Port<br>Jefferson Sta.    | SBR                                     |
| Sayville Commons                              | ---                                                                             | 4.3                                                                | South Service<br>Rd., Sunrise Hwy | Sayville                  | SBR                                     |
| Setauket Meadows *E*                          | ---                                                                             | 23.4                                                               | Hulse Road                        | Setauket                  | SBR                                     |
| Shelter Island Heights                        | 8.0/10.2<br>2                                                                   | ---                                                                | Summerfield<br>Place              | Shelter Island<br>Heights | SBR                                     |
| Silver Ponds                                  | ---                                                                             | 6.9                                                                | Freeman Ave &<br>Ryerson Ave      | Manorville                | Bio Disc<br>Denite Filter               |
| Smithaven Mall *L2*                           | ---                                                                             | 4.5                                                                | Middle Country<br>Road            | Lake Grove                | SBR                                     |
| Smithtown Galleria                            | ---                                                                             | 8                                                                  | Terry Road                        | Smithtown                 | SBR                                     |
| Somerset Woods                                | 19.2/4.8                                                                        | ---                                                                | 1593 August Rd.                   | North<br>Babylon          | Ex Aeration                             |
| Southampton<br>Commons                        | ---                                                                             | 3.3                                                                | Hubbard St.                       | Southampton               | SBR                                     |
| Southampton Hospital                          | ---                                                                             | 2                                                                  | Meetinghouse<br>Lane              | Southampton               | RBC-Denite<br>Filter                    |
| Southern Meadows *L*                          | ---                                                                             | 4.3                                                                | Nicholls Rd & Rt.<br>27A          | Bayport                   | SBR                                     |

| STP Name                                | BOD/SS<br>mg/l<br>Average<br>-----<br>Fecal<br>Bacteria<br>MPN/100ml<br>Average | TN<br>Average<br>mg/l<br>For All<br>samples<br>Analyzed in<br>2008 | STP Address                    | STP City            | Treatment<br>Type             |
|-----------------------------------------|---------------------------------------------------------------------------------|--------------------------------------------------------------------|--------------------------------|---------------------|-------------------------------|
| Springhorn @Blue Point *C* *O*          | ---                                                                             | 21.1                                                               | Blue Point Avenue              | Blue Point          | Cromaglass                    |
| Spruce Ponds Garden Apts.               | ---                                                                             | 6.6                                                                | Spruce Pond Dr                 | Holbrook            | SBR                           |
| St. Anne's Gardens *E*                  | ---                                                                             | 15.3                                                               | 2 <sup>nd</sup> Avenue         | Brentwood           | Cromaglass                    |
| St. James Nursing Home                  | ---                                                                             | 9.2                                                                | 275 Moriches Rd.               | St. James           | Ex Aeration-Denite Filter     |
| Stone Ridge @ Dix Hills                 | ---                                                                             | 6.8                                                                | Deer Park Avenue               | Dix Hills           | Cromaglass                    |
| Stonehurst 3                            | ---                                                                             | 3.1                                                                | Old Town Rd                    | Coram               | SBR                           |
| Stonington @ Port Jeff                  | ---                                                                             | 7                                                                  | 475 Old Town Road              | Port Jefferson Sta. | SBR                           |
| Stony Hollow *E*                        | ---                                                                             | 13.3                                                               | 460 Old Town Rd.               | Port Jefferson Sta. | SBR                           |
| Stratford Greens *C*                    | ---                                                                             | 7                                                                  | Dorado Cir.                    | Hauppauge           | SBR                           |
| Suffolk CCC – East Campus               | ---                                                                             | 3.1                                                                | Speonk Riverhead Rd.           | Speonk              | SBR                           |
| Suffolk CCC – Selden Campus             | ---                                                                             | 2.5                                                                | 533 College Rd.                | Selden              | Ex Aeration RBC-Denite Filter |
| Sunrise @ Dix Hills                     | ---                                                                             | 4.6                                                                | Deer Park Avenue               | Dix Hills           | Cromaglass                    |
| Sunrise @ East Setauket                 | ---                                                                             | 5.2                                                                | Rt. 25A                        | East Setauket       | Cromaglass                    |
| Sunrise @ Holbrook                      | ---                                                                             | 3.2                                                                | County Rd. 19 & Waverly Avenue | Holbrook            | Cromaglass                    |
| Sunrise Assisted Living @ Smithtown *L* | ---                                                                             | 4.2                                                                | Rt. 111                        | Smithtown           | Cromaglass                    |
| Sunrise Garden Apts.                    | 29.9/17.8                                                                       | ---                                                                | Lakeland Ave                   | Bohemia             | Ex Aeration                   |
| Sunrise Village                         | ---                                                                             | 7.2                                                                | Lincoln Ave.                   | Sayville            | SBR                           |
| Tall Oaks                               | 43.8/32.1                                                                       | ---                                                                | 111 College Rd.                | Selden              | Ex Aeration                   |
| Tallmadge Woods                         | ---                                                                             | 4.4                                                                | 418 Route 25A                  | Miller Place        | SBR                           |
| The Greens @ Half Hollow                | ---                                                                             | 7.8                                                                | 133 Carman Rd.                 | Melville            | SBR                           |
| The Inn @ East Wind                     | ---                                                                             | 4.2                                                                | Sound Avenue                   | Wading River        | Cromaglass                    |
| The Preserve @ Connetquot               | ---                                                                             | 5.7                                                                | Pond Road                      | Oakdale             | Cromaglass                    |
| The Villas at Medford *C* *O*           | ---                                                                             | 15.4                                                               | 3373 Route 112                 | Medford             | Cromaglass                    |
| Towne House Village North *C*           | 7.6/6.6                                                                         | ---                                                                | Blydenburgh Rd.                | Hauppauge           | Ex Aeration                   |
| Towne House Village South *C*           | 18.9/20.4                                                                       | ---                                                                | Blydenburgh Rd                 | Hauppauge           | Ex Aeration                   |
| Valley Forge *C* *L*                    | ---                                                                             | 7.1                                                                | Church Street                  | Bohemia             | SBR                           |
| Victorian Gardens *L*                   | ---                                                                             | 6                                                                  | Furrows Rd. and Waverly Road   | Holtsville          | SBR                           |

| STP Name                                 | BOD/SS<br>mg/l<br>Average<br>-----<br>Fecal<br>Bacteria<br>MPN/100ml<br>Average | TN<br>Average<br>mg/l<br>For All<br>samples<br>Analyzed in<br>2008 | STP Address          | STP City            | Treatment<br>Type         |
|------------------------------------------|---------------------------------------------------------------------------------|--------------------------------------------------------------------|----------------------|---------------------|---------------------------|
| Victorian Homes<br>*C* *O*               | ---                                                                             | 36.7                                                               | South Service Rd.    | Medford             | SBR                       |
| Village in the Woods<br>*E*              | ---                                                                             | 24                                                                 | 46 Mooney Pond Rd.   | Selden              | Ex Aeration-Denite Filter |
| Villages at Lake Grove<br>*L*            | ---                                                                             | 8.9                                                                | New Moriches Road    | Lake Grove          | SBR                       |
| Vineyards @ Moriches                     | ---                                                                             | 14.6                                                               | 73 Toni Court        | Center Moriches     | Cromaglass                |
| Waldon Ponds                             | ---                                                                             | 6                                                                  | Frowein Road         | East Moriches       | SBR                       |
| Watergate Gardens (Fairfield on the Bay) | 20.2/29.8<br>< 20                                                               | ---                                                                | 33 Midship Ln.       | Patchogue           | Ex Aeration               |
| Waterways @ Bay Pointe                   | ---                                                                             | 7.9                                                                | 520 Bay Pointe Drive | Moriches            | Ex Aeration-Denite Filter |
| Waverly Park *C* *L*                     | 52.8/73.6                                                                       | ---                                                                | Furrows Rd.          | Holtsville          | Ex Aeration               |
| Westhampton Nursing Home                 | ---                                                                             | 4.1                                                                | Old Country Road     | Westhampton         | Ex Aeration-Denite Filter |
| Westhampton Pines                        | ---                                                                             | 12.8                                                               | Old Country Road     | Westhampton         | SBR                       |
| Whispering Pines<br>*C* *O*              | ---                                                                             | 21.4                                                               | William Floyd Pkwy.  | Yaphank             | Ex Aeration-Denite Filter |
| Willow Ponds                             | ---                                                                             | 6.3                                                                | Sound Avenue         | Riverhead           | SBR                       |
| Wind Watch Hotel                         | ---                                                                             | 2.8                                                                | Blydenburgh Road     | Hauppauge           | Ex Aeration-Denite Filter |
| Windbrooke Homes                         | ---                                                                             | 5.9                                                                | Hawthorne Ave.       | Central Islip       | SBR                       |
| Woodbridge @ Hampton Bays *L* *E*        | ---                                                                             | 13.4                                                               | Springville Road     | Hampton Bays        | Cromaglass                |
| Woodcrest Estates<br>*C* *O*             | ---                                                                             | 20.2                                                               | Route 347            | Port Jefferson      | SBR                       |
| Woodhaven Manor<br>*C* *L*               | 24.9/25.2                                                                       | ---                                                                | 1360 Route 112       | Port Jefferson Sta. | Ex Aeration               |
| Woodhull Garden Apts.                    | ---                                                                             | 6                                                                  | Blue Point Rd & LIE  | Holtsville          | BESST                     |
| Yardarm Condos                           | ---                                                                             | 4.1                                                                | Dune Road            | Westhampton Beach   | RBC-Denite Filter         |

## Sewage Treatment Plant Type Glossary

**Primary-Chemical-Carbon Filter** - A primary clarifier is utilized to remove some biological oxygen demand (BOD) and suspended solids (SS). The clarified effluent flows to mixing tanks where chemicals are added to flocculate most of the remaining BOD and SS. This effluent flows to carbon filters to remove even more BOD and SS and some remaining chemicals.

**Extended Aeration** - Aeration is utilized to break down BOD followed by clarification to separate the mixed liquor suspended solids (MLSS) from the clear water. No nitrification occurs.

**EQ Activated** - An equalization tank is utilized to equalize the sewage flow to an aeration tank so that the microorganisms living in the tanks are fed continuously throughout the day and so the clarifiers are not overloaded during peak flow times. Aeration is then utilized to break down BOD followed by clarification to separate the MLSS from the clear water.

**Extended Aeration Denite** - Aeration is utilized to break down biological oxygen demand and nitrify the existing Ammonia in the waste water followed by clarification to separate the MLSS from the nitrified clear water. The supernatant goes to a denitrification filter where the nitrates are removed by anaerobic bacteria that live in the filters.

**Lagoons - Clarifier** - Aeration lagoons are utilized to break down BOD followed by clarification to separate the MLSS from the clear water.

**Trickling Filter** - A trickling filter is utilized to breakdown BOD followed by clarification to separate the suspended solids from the clear water.

**RBC** - A rotating biological contactor is utilized to break down biological oxygen demand followed by clarification to separate suspended solids from the clear water.

**RBC Denite Filter** - A rotating biological contactor is utilized to break down BOD and nitrify the existing ammonia in the wastewater followed by clarification to separate suspended solids from the nitrified clear water. The supernatant goes to a denitrification filter where the nitrates are removed by anaerobic bacteria that live in the filters.

**Aeration Suspended Growth Denite** - Aeration is utilized to break down BOD and nitrify the existing ammonia in the waste water followed by clarification to separate the MLSS from the nitrified clear water. The supernatant goes to a suspended growth denite tank where the nitrated are removed by anaerobic bacteria.

**SBR** - BOD removal, nitrification and denitrification occur in the same tank. BOD removal and nitrification occur during an aeration phase and denitrification occurs under an anoxic phase.

**Cromaglass** - A very small version of the SBR process. Flows in the range of 3,000 gallons to 15,000 gallons per day are treated by this process.

**Oxidation Ditch** - A process where by BOD removal, nitrification and denitrification occur in the same tank. Sewage is treated in a tank similar to a lazy river at a water park. As the sewage flows through different stages of the tank it is aerated by rotating paddles to break down BOD and nitrify the water and then mixed without air for denitrification. The MLSS flows to a clarifier which separates the MLSS from the supernatant.

# **Sewage Treatment Plant**

## **Raw Nitrogen Data**

### **SCDHS & Operator**

## 2008 SCDHS Lab Results - Total Nitrogen (mg/l)

| STP NAME                 | Quarter 1          | Quarter 2        | Quarter 3 | Quarter 4            | Average |
|--------------------------|--------------------|------------------|-----------|----------------------|---------|
| Artist Lake              | 34.4               | 31.5             | 40.3      | 38.4                 | 36.1    |
| Avery                    | 2.6                | 5.9              | 4.3       | 2.1                  | 3.7     |
| Bellhaven                | 12.5               | 16.7             | 12.8      | 12.1                 | 13.5    |
| Best Western             | 25.1               | 32.7             | 38.5      | 23.2                 | 29.8    |
| Birchwood                | 2                  | 3.9              | 4.5       | 4.5                  | 3.7     |
| Birchwood @ S Lake       | 16                 | 6                | 13.9      | 2.7                  | 9.6     |
| Birchwood Glen           | 12.5               | 6.9              | 3.6       | 35.6 Filter bypassed | 7.6     |
| BWood NH                 | 1.7                | 7.1              | 3.5       | 3.1                  | 3.8     |
| BWood on the Green       | 38.1               | 8.2              | 18.1      | 14.8                 | 19.8    |
| Blue Ridge               | 4.3                | 5.1              | 4.3       | 4                    | 4.4     |
| Bretton Woods            | 1.9                | 2.3              | 2.7       | 1.6                  | 2.1     |
| Bristol Est.             | 8.6                | 15               | 10.5      | 1.3                  | 8.8     |
| Broadway Knolls          | 16                 | 12.7             | 6.4       | 31.5                 | 16.6    |
| Broadway West            | 2.2                | 7.2              | 2.6       | 1.6                  | 3.4     |
| Brookhaven Hospital      | 24.2               | 29.1             | 11.4      | 12.1                 | 16.1    |
| BNL                      | 5.8                | 3.1              | 4.3       | 2.7                  | 3.9     |
| Brookwood on the Lake    | 35.9 Disc Broken   | 27.0 Disc Broken | 8.9       | 6.9                  | 7.9     |
| Browning Hotel           | 10.2               | 6.9              | 2.9       | 5.3                  | 6.3     |
| Cenacle Manor            | 1.2                | 2.2              | 2.4       | 8.5                  | 3.5     |
| College Park             | 0.9                | 1.2              | 0.9       | 1.2                  | 1       |
| Colony Park              | 5.2                | 13.5             | 2.8       | 31.4                 | 13.2    |
| Concord                  | 9.7                | 11.1             | 6.3       | 6.5                  | 8.4     |
| Country Pointe           | 5.6                | N/D              | 12.6      | 16                   | 11.4    |
| Country View             | 2.2                | 48.9             | 1.7       | 0.7                  | 13.3    |
| Country View @ Smithtown | 12.6               | 6                | 5.8       | 8.1                  | 8.1     |
| Courtyards @ S. Hampton  | New Plant          | 7.7              | 17.9      | 9.4                  | 11.6    |
| Coventry Manor           | 3.3                | 3.9              | 5.6       | 3.1                  | 3.9     |
| Dowling                  | 38.1 Filter Repair | N/D              | 1.9       | 3                    | 2.5     |
| Eagles walk              | 11.4               |                  | 8.1       | 4.5                  | 8       |
| EH Scavenger             | 13.3               | 5.5              | 4.7       | 5.8                  | 7.3     |
| East Winds Catering      | 13.7               | N/D              | 4.4       | 1                    | 6.3     |
| Emanon                   | 64.4               | N/D              | 55.5      | 69.5                 | 63.1    |
| Emerald Greens           | 32.7               | 40.2             | 13        | 2.7                  | 22.1    |
| Exit 63                  | 6.2                | 9.7              | 6.9       | 6                    | 7.2     |
| Fairfield Lk Ronk        | 5.9                | 5.6              | 15.1      | 6.7                  | 8.3     |
| Fairfield St James       | 2.4                | 4.6              | 1.1       | 4.5                  | 3.1     |
| Fairfield Hills          | 8.2                | 11               | 6.5       | 6.1                  | 7.9     |
| Fairway Manor            | 42.2               | 30.8             | 25.1      | 26.5                 | 31.1    |

| STP NAME            | Quarter 1                                    | Quarter 2 | Quarter 3 | Quarter 4 | Average |
|---------------------|----------------------------------------------|-----------|-----------|-----------|---------|
| Fox Meadows         | 27.6                                         | 23.7      | 24.2      | 25.4      | 25.2    |
| Gabreski            | 3.6                                          | 17.6      | 4.7       | 3         | 7.2     |
| Greens              | 5.1                                          | 11.6      | 9.7       | 1.3       | 6.9     |
| Greenview Commons   | 8.7                                          | 2.2       | 10.7      | 3.3       | 6.2     |
| Greenview Court     | 17.3                                         | 19.3      | 20.7      | 19.6      | 19.2    |
| Greenwood @ Oakdale | STP Under Construction – Secondary Standards |           |           |           |         |
| Greenwood Village   | 8.1                                          | 2.5       | 8.8       | 16.2      | 8.9     |
| Gurwin Ass.         | 17.4                                         | Lab Error | 8.3       | 3.9       | 9.8     |
| Gurwin Geriatric    | 4.9                                          | 4.1       | 5         | 10.1      | 6       |
| Haup CC             | 0.7                                          | 0.9       | 0.7       | 0.9       | 0.8     |
| Heartland           | 17.3                                         | 3.8       | 4.2       | 10.6      | 8.9     |
| Hillcrest           | 13.6                                         | 13.2      | 10        | 11.8      | 12.1    |
| Hilton Gardens      | 8.8                                          | 9.6       | 10.3      | 8.9       | 9.4     |
| Hidden Ponds        | 3.6                                          | 3.3       | 3.3       | 2.8       | 3.2     |
| Holiday Inn         | 1.3                                          | 14.4      | 7.2       | 1.2       | 6       |
| HI Express          | 15.5                                         | 8.7       | 36.1      | 2.1       | 15.6    |
| Holt Hotel          | 1.7                                          | 1.8       | 5.2       | 3.1       | 2.5     |
| Homestead           | 13.9                                         | 10.9      | 13.8      | 30.9      | 17.3    |
| Huntington SCSD     | 1.8                                          | 1.4       | 2.6       | 2.4       | 2       |
| Huntington Town     | 8.9                                          | 1.8       | 2.5       | 3.3       | 4.1     |
| IRS                 | 6.5                                          | 1.5       | 5.7       | 4.8       | 4.6     |
| ITT                 | 26.4                                         | 2.4       | 2.6       | 8.6       | 10      |
| Island View         | 4.1                                          | 29.6      | 15.4      | 4.2       | 13.3    |
| Islandia Center     | 9                                            | 11.9      | 2.1       | 1.7       | 6.1     |
| La Quinta           | 5.5                                          | 1.5       | 9.6       | 20.2      | 9.7     |
| Lake Grove          | 19.9                                         | 13.3      | 5.2       | 9         | 11.8    |
| Lake Pointe         | 52.3                                         | 39.1      | 48.5      | 52.8      | 48.1    |
| Lakes @ Set         | 16.6                                         | 4.7       | 9.1       | 8.6       | 9.7     |
| Larkfield           | 10.3                                         | 8.6       | 7.8       | 6.6       | 8.3     |
| Leisure             | 3.2                                          | 4.6       | 5.3       | 6.5       | 4.9     |
| Loehmans            | 10.6                                         | 7.1       | 7.4       | 4.6       | 7.4     |
| Mac Plaza           | STP Under Construction – Secondary Standards |           |           |           |         |
| Medford NH          | 9                                            | 12.7      | 9         | 12        | 10.6    |
| Medford Ponds       | 7.9                                          | 23.8      | 16.5      | 20        | 17      |
| Melville Mall       | Low                                          | Flow      |           |           |         |
| Mirror Ponds        | 1.7                                          | 5.1       | 4.1       | 2.7       | 3.4     |
| Nesconset NH        | 17.3                                         | 23.2      | 32.6      | 34.3      | 26.8    |
| Newsday             | 1.3                                          | 1.5       | 0.9       | 1.1       | 1.2     |
| Nob Hill            | 8.6                                          | 2.4       | 2.6       | 11.1      | 6.1     |
| North Isle          | STP Under Construction – Secondary Standards |           |           |           |         |
| Northport VA        | 0.8                                          | 3.1       | 9.9       | 1.7       | 3.8     |
| Northport Village   | 10.7                                         | 6.4       | 7.7       | 10.1      | 8.7     |
| Oak Hollow          | 14.5                                         | N/D       | 17        | 20        | 17.1    |
| Oak Tree            | 31.5                                         | 9.2       | 61.8      | 46.7      | 37.3    |
| Oakwood NH          | 3.1                                          | 12.5      | 13.9      | 18.9      | 12.1    |
| Ocean Beach         | 0.5                                          | 2.6       | 0.3       | 0         | 0.9     |

| <b>STP NAME</b>     | <b>Quarter 1</b> | <b>Quarter 2</b> | <b>Quarter 3</b> | <b>Quarter 4</b> | <b>Average</b> |
|---------------------|------------------|------------------|------------------|------------------|----------------|
| Parkland            | 2.4              | 2.9              | 1.5              | 1.3              | 2              |
| Patch NH            | 16.3             | 11.2             | 7.4              | 10.4             | 11.3           |
| Patch Senior        | 8.6              | 7                | 4                | 4.9              | 6.1            |
| Paumanok            | 21.6             | 12.2             | 1                | 0.5              | 8.7            |
| Payton Lane         | 4.3              | 4.5              | 4.5              | 2.4              | 3.9            |
| Petite Fleur        | 5.7              | 5.7              | 1.3              | 0.2              | 3.2            |
| Pine Hills          | 7.4              | 5.1              | 15.3             | 4.4              | 8              |
| Port Jefferson      | 1.8              | 1.2              | 1                | 3                | 1.7            |
| Preserves           | 0.3              | 3.8              | 3.7              | 26.2             | 8.5            |
| Quail Run           | 2.5              | 2.2              | 5.5              | 3.7              | 3.4            |
| Residence Inn       | 6.3              | 7.8              | 8.6              | 2.3              | 6.2            |
| Ridgehaven          | 1.7              | 9.3              | 2.1              | 4.1              | 4.3            |
| Riverhead           | 4.4              | 8.7              | 15.2             | 15.8             | 11             |
| Saddle Brook        | 9.6              | 37.1             | 57               | 6.5              | 27.5           |
| Sag Harbor          | 4.6              | 16.7             | 3                | 3.8              | 7              |
| Sagamore Hills      | 4.4              | 5.6              | 20.9             | 10.7             | 10.4           |
| St Annes            | 33.9             | 30               | 20.5             | 29               | 28.3           |
| St James NH         | 6.9              | 11.4             | 15.5             | 19.3             | 13.2           |
| Sayville Commons    | 6.3              | 6.2              | 3.7              | 3.8              | 5              |
| Selden              | 2.9              | 2.6              | 3.2              | 6.3              | 3.7            |
| Setauket Meadows    | 12.8             | 12.4             | 45.1             | 30               | 25.1           |
| Silver Ponds        | 0.4              | 11               | 11.6             | 11.8             | 8.7            |
| Smithaven Mall      | 6.3              | 6.4              | 2.8              | 3.9              | 4.8            |
| Smithtown Galleria  | 3.5              | 20.9             | 3.6              | 17               | 11.2           |
| S-Hampton Commons   | 9                | 1.4              | 1.7              | 1.2              | 3.3            |
| SHampton Hospital   | 1.3              | 2.1              | 2                | 1.9              | 1.8            |
| Southern Meadows    | 8.7              | 4.4              | 3.9              | 5.8              | 5.7            |
| Springhorn          | 20.5             | 31.4             | 11.5             | 15.4             | 19.7           |
| Spruce Ponds        | 5.3              | 4.4              | 4.9              | 7.2              | 5.4            |
| Stonehurst          | 7.1              | 3.6              | 1.4              | 2.3              | 3.6            |
| Stonington          | 8.5              | 7.1              | 4.9              | 13.6             | 8.5            |
| SUNY                | 4.4              | 1.5              | 4.9              | 5.7              | 4.1            |
| Stony Hollow        | 6                | 1.5              | 5.9              | 8.9              | 6.9            |
| Bal Moral           | 29.7             | 32.7             | 25.6             | 9.9              | 24.4           |
| SCC East            | 5.2              | 3.4              | 1.8              | 4.2              | 3.6            |
| SCC Selden          | 1.4              | 4.7              | 1.8              | 2.9              | 2.7            |
| Sunrise Dix Hills   | 4.8              | 4.4              | 4.1              | 8.2              | 5.3            |
| Sunrise E. Setauket | 8.6              | 3.5              | 7                | 12.2             | 7.8            |
| Sunrise Holbrook    | 5.7              | 5.7              | 3.9              | 3.9              | 4.8            |
| Sunrise Smithtown   | 5.5              | 4.8              | 4                | 3.7              | 4.5            |
| Sunrise Village     | 9.3              | 3.9              | 1.8              | 6.7              | 5.4            |
| Tallmadge           | 2.7              | 3.7              | 5                | 2.7              | 3.5            |
| 12 Pines            | 2.1              | 2.9              | 2.1              | 2.7              | 3.5            |
| Valley Forge        | 9.3              | 23.3             | 10.2             | 4.7              | 11.8           |
| Victorian Gardens   | 3.9              | 7.1              | 2.5              | 24.4             | 9.4            |
| Victorian Homes     | 52               | 38.1             | 39.4             | 39.3             | 42.2           |

| <b>STP NAME</b>         | <b>Quarter 1</b> | <b>Quarter 2</b> | <b>Quarter 3</b> | <b>Quarter 4</b> | <b>Average</b> |
|-------------------------|------------------|------------------|------------------|------------------|----------------|
| Village in the Woods    | 19.1             | 22.2             | 43               | 30.9             | 28.8           |
| Villages @ Lake Grove   | 8.9              | 15               | 10.1             | N/D              | 11.3           |
| Villas @ Medford        | 4.7              | 12.3             | 45               | 42               | 26             |
| Vinyards @ E. Morriches | New facility     |                  |                  |                  |                |
| Walden Ponds            | 6.4              | 7.9              | 4.2              | 14.2             | 8.1            |
| Waterways               | 8.7              | N/D              | 7.3              | 22.7             | 12.9           |
| West Hampton NH         | 5.8              | 6.8              | 4.3              | 3.4              | 5              |
| Westhampton Pines       | 5.8              | 2.01             | 8.6              | 3.4              | 5              |
| Whispering Pines        | 9.9              | N/D              | 11.8             | 25.5             | 15.7           |
| Windbrooke              | 7                | 3.3              | 5.1              | 3.9              | 4.8            |
| Windsor                 | 7.9              | 11               | 6                | 14.8             | 9.9            |
| Windwatch               | 3.2              | 2.7              | 3.6              | 1.2              | 2.6            |
| Woodbridge              | 31.1             | 27.1             | 34.4             | 36.6             | 32.3           |
| Woodcrest               | 42.3             | 27.4             | 26.6             | 11.1             | 26.8           |
| Woodhull                | 4                | 4.6              | 5.4              | 14.1             | 7              |
| Woodside                | 6                | N/D              | 3.7              | 5.7              | 5.1            |
| Yaphank CC              | 4.9              | 7.5              | 3.8              | 5.2              | 5.3            |
| Yardarm                 | 10.2             | 6.9              | 3.7              | N/D              | 6.3            |

## 2008 Operator Lab Results - Total Nitrogen (mg/l)

| STP NAME                   | Jan     | Feb  | Mar  | Apr  | May  | Jun  | Jul  | Aug  | Sep  | Oct  | Nov  | Dec  | Avg  |
|----------------------------|---------|------|------|------|------|------|------|------|------|------|------|------|------|
| Artist Lake                | 3.8     | 33.8 | 18.3 | 24   | 28.5 | 43.2 | 109  | 48.8 | 37.8 | 35.2 | 34   | 38   | 37.8 |
| Avery                      | 1.4     | 4.1  | 2.8  | 3.5  | 2.7  | 2.2  | 2.3  | 5.5  | 2.3  | 2.6  | 3.8  | 3.8  | 3    |
| Bellhaven                  | 9.8     | 9.7  | 5.2  | 8.9  | 4.2  | N/D  | 6.5  | 7.5  | 5.7  | 7.8  | 6.4  | 6.9  | 7.1  |
| Best Western               | 26.4    | 26.2 | 21.3 | 25.8 | N/D  | 18.4 | 30.6 | 28.8 | 31.4 | 27   | 32.7 | 19.8 | 26.2 |
| Birchwood                  | 8.2     | 3.3  | 4.7  | 5.4  | 3.1  | 4.4  | 4.1  | 2.5  | 5.9  | 3.9  | 3    | 2.2  | 4.2  |
| Birchwood @ S Lake         | 3.9     | 4.2  | 8    | 4.9  | 2    | 11.4 | 1.8  | 24.4 | 39.2 | 25.6 | 14.9 | 14.9 | 12.9 |
| Birchwood Glen             | 12      | 8    | 12   | 9    | 6    | 6    | 3    | 10   | 41   | N/D  | 27   | 15.3 | 8.2  |
| BWood NH                   | 3.6     | 2.5  | 1.8  | 5.2  | 3.2  | 11.2 | 11.3 | N/D  | 4.8  | 3.7  | 3.7  | 3.2  | 4.9  |
| BWood on the Green         | 28.5    | N/D  | 20.3 | 20.2 | 7.3  | 19.3 | 37.6 | N/D  | 34.5 | 17.9 | 16.3 | 15.3 | 21.7 |
| Blue Ridge                 | 4       | 6    | 5    | 5    | 5    | 3    | 5    | 5    | 2    | 3    | 6    | 6    | 4.5  |
| Bretton Woods              | 2.1     | 5.6  | 2    | 1    | 1.4  | 2.9  | 6.9  | 4.7  | 2    | 2.7  | 6.7  | 4.7  | 3.5  |
| Bristol Est.               | 2.9     | 14.2 | 9.5  | 10   | 3.3  | 6.2  | 4.2  | 2.6  | 14.4 | 12.8 | 18.1 | 11.7 | 9.1  |
| Broadway Knolls            | 17.9    | 21.6 | 13.5 | 17.2 | 9.7  | 14.6 | 20.7 | 18.1 | 17.7 | 13   | 21.5 | 13.9 | 16.6 |
| Broadway West              | 4       | 2    | 1    | 2    | 4    | 2    | 3    | 5    | 3    | 6    | 6    | 3.7  | 3.4  |
| Brookhaven Hospital        | 16.3    | 43.7 | 24.1 | 24.8 | 9.2  | 9.5  | 7.8  | 4.4  | 7.8  | N/D  | 16.2 | 4.4  | 15.2 |
| BNL                        | 11      | 9    | 11   | 4    | 8    | 5    | 5    | 5    | 5    | 5    | N/D  | N/D  | 6.8  |
| Brookwood on the Lake      | 7.2     | 23.9 | 1.8  | 6.3  | 15.7 | 5.4  | 4.6  | 2.3  | 49.8 | 4.7  | 5.9  | 3.6  | 10.9 |
| Browning Hotel             | 2.9     | 1.3  | 1.7  | 0.8  | 2.3  | 1    | 2.7  | 3    | 2.2  | 1.7  | 14.8 | 1.6  | 3    |
| Cenacle Manor              | 3.9     | 4    | 2.1  | 5.1  | 5.2  | 5.9  | 2.6  | 4.9  | 3.9  | 5    | 9.8  | 10   | 5.2  |
| College Park               | 1.9     | 1.6  | 1.7  | 2.3  | 1.4  | 3.2  | 3.8  | 2.4  | 2.2  | 1.9  | 1.8  | 1.5  | 2.1  |
| Colony Park                | 10      | 5    | 9    | 12   | 8    | 5    | 4    | 6    | 11   | 41   | 25   | 12   | 12.3 |
| Concord                    | 6.9     | 5.1  | 5.7  | 4    | 4.3  | 3.7  | 7.8  | 7.7  | 6.1  | N/D  | 6.6  | 3.8  | 5.6  |
| Country Pointe             | 4.7     | 5    | 3.9  | 8.2  | 9.4  | 14.4 | 11.6 | 10.7 | 17.7 | 8.6  | 8    | 13.6 | 9.6  |
| Country View               | 43.3    | 38   | 2.2  | 2.1  | 1.5  | 65.2 | 40.2 | 42   | 38.6 | 41.4 | 46   | 40.4 | 33.4 |
| Cty View @ Smithtown       | 1       | 7    | 10   | 7    | 6    | 4    | 1    | 4    | 3    | 6    | 6    | 5.4  | 5    |
| Courtyards @ S Hampton     | NEW STP |      | 9.6  | 19.4 | 20.9 | 3.4  | 12.6 | 3.7  | 9.5  | 2.9  | 3    | 15.6 | 10   |
| Coventry Manor             | 7.8     | 5.3  | 4.6  | 6.3  | 5.7  | 4.4  | 5.2  | 6.2  | 6.2  | 6.4  | 4    | 5.2  | 5.6  |
| Dowling                    | 1.5     | 5    | 7.6  | 1.5  | 0.2  | 2    | 3.1  | 1.8  | 3.9  | 3.5  | 3.7  | 1.9  | 2.9  |
| Eagles walk                | 8       | 1    | 2    | 1    | 3    | 1    | 7    | 7.3  | 7    | 6    | 3    | 2.5  | 4    |
| EH Scavenger               | 5.7     | 7.5  | 6.3  | 8.5  | 5.7  | 3.7  | 4.5  | 6.7  | 7.9  | 5.9  | 3.5  | N/D  | 5.9  |
| Emanon                     | 53.1    | N/D  | 49.9 | 77.2 | >10  | 34.1 | 68.5 | 51.2 | 75.1 | 91.1 | 69.7 | 44.2 | 56.7 |
| Emerald Greens             | 7       | 11   | 39   | 41   | 30   | 29   | 22   | 7    | 13   | 7    | 4    | 23   | 18.5 |
| Exit 63                    | 5.8     | 11.8 | 4.4  | 3.2  | 2.7  | 3    | 11.3 | 9.6  | 9.7  | 4.9  | 1.8  | 9.1  | 6.4  |
| Fairfield Lk Ronk          | 2.8     | 3.5  | 1.7  | 6    | 4.8  | 20.2 | 4.9  | 4.6  | 8.5  | 4.8  | 3.4  | 2    | 5.6  |
| Fairfield @ Saint James    | 4.6     | 7.2  | 5.6  | 6.3  | 4.6  | 3.7  | 4.3  | 2    | 2.3  | 3.3  | 3.8  | 4.5  | 4.3  |
| Fairfield @ Selden (Hills) | 16      | 7.8  | 2.6  | 10   | 18.9 | 5.9  | 2.4  | 5.9  | 9.7  | 5.4  | 5.1  | 6.1  | 7.9  |
| Fairway Manor              | 5.1     | 83.1 | 1.6  | 14.7 | 13.4 | 6.9  | 30.4 | 13.7 | 13.9 | 14.4 | 8.9  | 14.5 | 18.3 |
| Fox Meadows                | 26.3    | 3.4  | 34.4 | 18.5 | 15   | 13.5 | 24.3 | 28.1 | 23.7 | 26   | 25.7 | 20.5 | 21.6 |
| Gabreski                   | 3       | 4.8  | 4.5  | 6.6  | 3    | 5.1  | 3.5  | 2.9  | 3.8  | 7.4  | 3.6  | 3.1  | 4.2  |
| Greens                     | 3.5     | 6.8  | 5.4  | 8.3  | 10   | 14.9 | 11.4 | 11.4 | 6.3  | 10.3 | 10.4 | 5    | 8.2  |
| Greenview Commons          | 2.8     | 3.6  | 2.6  | 4.7  | 2.4  | 2.6  | 4.4  | 2.7  | 3.6  | 9.2  | 1.6  | 3.4  | 3.6  |

| STP NAME             | Jan             | Feb                | Mar  | Apr  | May  | Jun  | Jul  | Aug  | Sep  | Oct  | Nov  | Dec  | Avg  |  |
|----------------------|-----------------|--------------------|------|------|------|------|------|------|------|------|------|------|------|--|
| Greenview Court      | 5               | 1.5                | 6.2  | 5.3  | 2.9  | 2.3  | 5.6  | 4.3  | 8.3  | 15.3 | 2.9  | 7    | 5.5  |  |
| Greenwood @ Oakdale  | 28.5            | 27.8               | 28.4 | 25.4 | 12.7 | 26.3 | 9    | 29   | 22.1 | 51.4 | 42   | 47.4 | 29.1 |  |
| Greenwood Village    | 3               | 6                  | 11.9 | 5.4  | 3    | 2.8  | 5.5  | 3.2  | 6.9  | 4    | 13.2 | 2.2  | 5.5  |  |
| Gurwin Assisted Liv. | 4.2             | 8.2                | 2.4  | 1.7  | 3.6  | 7.8  | 5.1  | 7    | 4.5  | 2.4  | 5.4  | 6.2  | 4.8  |  |
| Gurwin Geriatric     | 4.7             | 6.1                | 7.5  | 2.9  | 1.4  | 6    | 3.1  | 4.4  | 4.3  | 4.7  | 1.4  | 7    | 4.5  |  |
| Haup CC              | 1.6             | 2.3                | 1.5  | 1.5  | 1.7  | 2.8  | 1.3  | 1.8  | 2.4  | 1.8  | 2    | 1.5  | 1.8  |  |
| Heartland            | 12.4            | 13                 | 12   | 12.7 | 10.9 | 5.3  | 8.1  | 3.9  | 4.8  | 9.2  | 5.5  | 6.4  | 8.6  |  |
| Hillcrest            | 2.5             | 5                  | 7    | 9    | 9    | 9    | 12   | 6    | 13   | 14   | 5    | 12   | 8.6  |  |
| Hilton Gardens       | 4               | 27.4               | 25   | 1.4  | 4    | 2.9  | 2.8  | 2.4  | 7.3  | 15.8 | 25.4 | 3.7  | 10.1 |  |
| Hidden Ponds         | 10              | 6.4                | 10   | 5    | 8    | 6    | 11   | 6    | 4    | 9    | 7    | 6    | 7.3  |  |
| Holiday Inn          | 1.9             | 14                 | 14   | 11   | 7    | 13   | 8    | 2    | 2    | 6    | 12   | 6    | 8    |  |
| HI Express           | 7.7             | N/D                | 11.8 | 2.8  | 3.4  | 6.9  | 0.9  | 5.3  | 3.9  | 5.5  | 1.7  | 20.7 | 6.4  |  |
| Holt Hotel           | 9               | 3.4                | 4.6  | 3.2  | 9.7  | 1.2  | 1.8  | 1.9  | 6.4  | 24.7 | 13.8 | 10.7 | 7.5  |  |
| Homestead            | 12              | 14                 | 6    | 8    | 19   | 18   | 12   | 7    | 16   | 34   | 31   | 20   | 16.4 |  |
| Huntington Vil       | N/D             | 15.7               | 10   | 9.7  | 8.5  | 3.5  | 4.1  | 4    | 3.5  | 4.4  | 4.3  | 5.7  | 6.6  |  |
| Hunt SCSD            | 2.8             | 2                  | 1.9  | 3.7  | 7.1  | 2    | 4.5  | 6    | 3.5  | 3.1  | 3.5  | 4.3  | 3.7  |  |
| IRS                  | 1.7             | 2.7                | 12.8 | 1.4  | 1.9  | 8.5  | 10.1 | 10.8 | 5.2  | 2.3  | 4.4  | 0.5  | 5.1  |  |
| ITT                  | 31.7            | 12.4               | 18.7 | 20.9 | 5.5  | 9    | 4.5  | 4.9  | 5    | 4.5  | 4.4  | 2.8  | 10.3 |  |
| Inn @ East Winds     | 4               | 10                 | 6    | 1    | 1    | 2    | 2    | 2    | 4    | 4.1  | 2    | 4.1  | 3.5  |  |
| Island View          | 4.6             | 12.3               | 11.2 | 24.7 | 4.7  | 6.4  | 9.3  | N/D  | 8.2  | 3.6  | 6.2  | 5.7  | 8.8  |  |
| Islandia Center      | 2.5             | 15                 | 10   | 4    | 8    | 6    | 4    | 4    | 6    | 3    | 2    | 2    | 5.7  |  |
| La Quinta            | 15.4            | N/D                | 1.9  | 1.8  | 2.4  | 0.7  | 1.2  | 4.1  | 9.5  | 14.7 | 21.2 | 32.8 | 9.6  |  |
| Lake Grove           | 5.1             | 8                  | 2.4  | 2.8  | 1.6  | 10   | N/D  | 6.2  | 5    | N/D  | 3.6  | 2    | 4.6  |  |
| Lake Pointe          | 70.6            | 24.4               | 29.6 | 33.4 | 30   | 51.2 | 45.5 | 56.1 | 35.4 | 38.5 | 42   | 25   | 40.1 |  |
| Lakes @ Set          | 18              | 7.1                | 15   | 22   | 4    | 3    | 6    | 6    | 2    | 9    | 13   | 27   | 11   |  |
| Lakeview Woods       | New STP         |                    |      |      |      |      | 46.1 | 22.4 | 28.4 | 5.7  | 10.9 | 2.1  | 6.2  |  |
| Larkfield            | 3.1             | 2.3                | 3.2  | 4.7  | 3.1  | 4.7  | 4.4  | 3.4  | 5.5  | 5.4  | 8.5  | 9.6  | 4.8  |  |
| Leisure              | 2.3             | 2.6                | 2.6  | 3.6  | 3.6  | 3.1  | 4.7  | 4.7  | 4.7  | 6.4  | 4.6  | 2.9  | 3.8  |  |
| Loehmans             | 16              | 6.8                | 6.7  | 4.1  | 6.6  | 8    | 5.3  | 5.5  | 5.9  | 3.9  | 3.7  | 5.8  | 6.5  |  |
| Mac Plaza            | 60.2            | Under Construction |      |      |      |      |      |      |      |      |      |      |      |  |
| Medford Hamlet       | New             | STP                |      |      |      | 5.7  | 8.2  | 8.2  | 3.4  | 5.1  | 4.6  | 3.7  | 5.5  |  |
| Medford NH           | 3.8             | 2.6                | 7.5  | 2.1  | 1    | 8.7  | 3.7  | 59.4 | 13   | 22.2 | 12.4 | 10.3 | 12.2 |  |
| Medford Ponds        | 13              | 7                  | 16   | 14   | 12   | 6    | 10   | 14   | 6    | 6    | 24   | 30   | 13.1 |  |
| Melville Mall        | 18.4            | 56.7               | 46.8 | 39.4 | N/D  | 34.2 | 69   | 28.3 | 7.3  | 40   | N/D  | 48   | 38.8 |  |
| Montauk Manor        | Seasonal Limits |                    |      |      | 10   | 5.8  | 1.6  | 11   | 19   |      |      |      | 9.4  |  |
| Nesconset NH         | 28.2            | 18.1               | 15.3 | 31.7 | 29.4 | 39.4 | 39   | 34.2 | 32.5 | 33.2 | 82   | 19   | 33.5 |  |
| Newsday              | 1.8             | 2.4                | 5.4  | 4.2  | 2.3  | N/D  | 1.8  | 1    | 1.4  | 1    | 1.8  | N/D  | 2.3  |  |
| Nob Hill             | 14.4            | 2.7                | 3.5  | 2.9  | 3.9  | 5    | 1.5  | 1.7  | 4.8  | 3.2  | 4.1  | 3.8  | 4.2  |  |
| North Isle           | 20.7            | 53.2               | 23   | 26.2 | 25.8 | 30.4 | 39   | 34.9 | 31   | 25.3 | 22.1 | 18.8 | 29.1 |  |
| Northport VA         | 2.5             | 2.6                | 3    | 4.9  | 2.6  | 0.7  | 1.6  | 1.6  | 6.3  | 1.3  | N/D  | 5.7  | 2.8  |  |
| Northport Village    | 7.2             | 8.1                | 8.2  | 6.2  | 6.5  | 6.2  | 7.6  | 7.7  | 6.5  | 4.9  | 6.8  | 7.7  | 6.9  |  |
| Oak Hollow           | 12.6            | 25.3               | N/D  | 7.9  | 10.4 | 1.6  | 17.9 | 27.1 | 6.1  | 3.2  | 1.9  | 3.7  | 9.8  |  |
| Oak Tree             | 11              | 26                 | 25   | 28   | 19   | 55   | 65   | 39   | 28   | 6    | 31   | 41   | 31.1 |  |
| Oakwood NH           | N/D             | 5.8                | 18.1 | 11.1 | 8.4  | 7.9  | 8.3  | N/D  | 7.1  | 12.3 | 6.4  | 9.3  | 9.4  |  |
| Parkland             | 3.7             | 2.7                | 3.2  | 3.8  | 3    | 2.9  | 4.8  | 3.2  | 2.1  | 2.6  | 2.2  | 2.6  | 3    |  |
| Patch NH             | 2.5             | 18.6               | 10.2 | 5.8  | N/D  | 5.5  | 9.4  | 11.9 | 5.1  | 13   | 31.2 | 13.9 | 11.5 |  |
| Patch Senior         | 3.7             | 13.8               | 16.2 | 10.6 | N/D  | 4.7  | 3.2  | 4    | 3    | 3.8  | 28.2 | 7.5  | 8.9  |  |

| STP NAME                 | Jan     | Feb  | Mar  | Apr  | May  | Jun  | Jul  | Aug  | Sep  | Oct  | Nov  | Dec  | Avg  |
|--------------------------|---------|------|------|------|------|------|------|------|------|------|------|------|------|
| Paumanok                 | 0.8     | 5.8  | 18   | 13   | N/D  | 3.7  | 8    | 19.2 | 1    | 11.7 | 11.6 | 0.5  | 8.4  |
| Payton Lane              | 2.8     | 2.3  | 3.5  | 2.8  | 2.5  | 1.1  | 2.9  | 3.1  | 3.6  | N/D  | 1.9  | 1.8  | 2.5  |
| Petite Fleur             | 11.8    | 1    | N/D  | 2    | 6.6  | 1.6  | 3.2  | 0.9  | 5    | 2.5  | 3.5  | 1.1  | 3.5  |
| Pine Hills               | 19      | 2    | 12   | 5    | 11   | 13   | 5    | 10   | 4    | 7    | 17   | 10   | 9.5  |
| Pine Hills South         | 7       | 8    | 15   | 4    | 9    | 4    | 8    | 2    | 4    | 2    | 4    | 5    | 5.8  |
| Port Jeff                | 3       | 1.9  | 8.4  | 2    | 2    | 2.04 | 2    | 1.5  | 4    | 4    | 4    | 4.1  | 3.2  |
| Preserves                | 4.6     | 3.1  | 1.5  | 7.2  | 7.5  | 5    | 7.3  | 2.9  | 2.4  | N/D  | 8.6  | 3.2  | 4.8  |
| Quail Run                | 2.2     | 2.1  | 3.1  | 0.05 | N/D  | 6.3  | 4.2  | 7.5  | 5.6  | 3.9  | 4.1  | 2.6  | 3.7  |
| Residence Inn            | 14.1    | N/D  | 3.4  | 2.3  | 2    | 8.3  | 6.2  | 6.1  | 8.7  | 14.9 | 2.5  | 18.1 | 7.8  |
| Ridgehaven               | 9.2     | 3.6  | 3    | 3.4  | 3.7  | 4.6  | 4.8  | 6.9  | 5.1  | 3.5  | 3.4  | 3    | 4.5  |
| Rough Riders             | N/D     | N/D  | N/D  | N/D  | 5.7  | 12   | 32   | 18   | 6.9  | 17   | N/D  | N/D  | 15.2 |
| Saddle Brook             | 3.7     | 3.5  | 6.2  | 9.5  | 1.7  | 9.7  | 5    | 4.1  | 4.4  | 11.3 | 4.8  | 7    | 5.9  |
| Sag Harbor               | 5       | 5    | 9    | 9    | 12   | 15   | 14   | 4    | 3    | 2    | 2    | 4    | 7    |
| Sagamore Hills           | 5.2     | 7.4  | 5.8  | 2.2  | 2.2  | 3.8  | 16.3 | 4.5  | 3.9  | 5.2  | 4.7  | 7.5  | 5.7  |
| St Annes                 | 8.9     | 6.5  | 8.7  | 8.5  | 3.7  | 17.3 | 27.6 | 12.3 | 4.8  | 1.5  | 16   | 17   | 11   |
| St James NH              | 0.8     | 8.3  | 1.3  | 6.2  | 0.4  | 13.4 | 8.1  | 12.6 | 19.6 | 10.1 | 3.8  | 11.3 | 7.9  |
| Sayville Commons         | 5.5     | 5    | 7.4  | 4.7  | 5    | 2.8  | N/D  | 2.7  | 1.5  | 3    | 5.5  | 2.3  | 4.1  |
| Selden                   | 5.2     | 2.9  | 2.6  | 3.1  | 2.7  | 3.2  | 3    | 2.8  | 3.3  | 3.6  | 5.1  | 2.9  | 3.3  |
| Setauket Meadows         | 1.8     | 1.8  | 5.6  | 5.5  | 10.6 | 25.6 | 39.2 | 58   | 43.6 | 30   | 27.2 | 25.9 | 22.9 |
| Silver Ponds             | 5.6     | 9.9  | 8.5  | 4.3  | 6    | 4.2  | 7.8  | 1    | 6.3  | 4    | 12.5 | 5.9  | 6.3  |
| Smithaven Mall           | 3.5     | 6.8  | 2.5  | 5.4  | 3.6  | 6.2  | 3.8  | 5.3  | 3.5  | 4.2  | 6    | 3    | 4.4  |
| Smithtown Galleria       | 8.9     | 13.5 | 11   | 4.5  | 3.1  | 4.7  | 4.4  | 5.5  | 4.9  | 4.9  | 9.4  | 9.8  | 7    |
| S-Hampton Commons        | 1.8     | 4.3  | 8.6  | 3.5  | 5.6  | 1.7  | 3.9  | 2    | 1.2  | 2.1  | 3.7  | 1.3  | 3.3  |
| SHampton Hospital        | 0.9     | 4.1  | 0.7  | 0.5  | 2.3  | 2.5  | 3.1  | 2.9  | 1.8  | 2.5  | 2    | N/D  | 2.1  |
| Southern Meadows         | 3.7     | 3.2  | 1.5  | 2.8  | 4.69 | 3.6  | N/D  | 4.6  | 4.4  | N/D  | 4.7  | 5.1  | 3.8  |
| Springhorn               | 12.1    | 8.5  | 27.2 | 17.6 | 7.4  | 42.2 | 32   | 27.9 | N/D  | N/D  | N/D  | 22.1 | 21.8 |
| Spruce Ponds             | 3       | 8    | 5    | 3    | 7    | 19   | 9    | 6    | 6    | 6    | 6    | 7    | 7    |
| Stonehurst               | 3.7     | 5.4  | 3.8  | 6.4  | 3.7  | 2.9  | 2.2  | 4.3  | 4.4  | 3    | 3.2  | 5.5  | 4    |
| Stoneridge @ Dix Hills   | New STP |      |      | 4.8  | 16.7 | 6.4  | 2.5  | 3.4  | 4.2  | 4.8  | 9.2  | 9.7  | 6.8  |
| Stonington               | 13.8    | 12.1 | 4    | 8.8  | 6    | 4.1  | 3.3  | 3.3  | 2.9  | 4.1  | 10   | N/D  | 6.5  |
| SUNY                     | 3.9     | 6.7  | 4.7  | 7.7  | 3.5  | 2.2  | 2.7  | 4.8  | 9    | 4.1  | 7.6  | 5.5  | 5.2  |
| Stony Hollow             | 19      | 28   | 9    | 20   | 5    | 7    | 8    | 24   | 3    | 17   | 13   | 27   | 15   |
| St the Green (Bal Moral) | 7.4     | 7.4  | 5.1  | 13.4 | 7.8  | 4.6  | 20.2 | 1.5  | 0.7  | 1.7  | 1.4  | 1.5  | 6    |
| SCC East                 | 1.4     | 4.6  | 2.7  | 2.1  | 0.8  | 4.1  | 6.3  | 1.8  | 6.3  | 3.2  | 2.5  | 0.5  | 3    |
| SCC Selden               | 1.4     | 2.8  | 0.8  | 2.2  | 3.6  | 1.5  | 5.8  | 3.3  | 1.1  | 2.8  | 1.6  | 4.2  | 2.5  |
| Sunrise Dix Hills        | 6       | 3    | 2    | 4    | 4    | 2    | 4    | 5    | 2    | 6    | 6    | 9.3  | 4.4  |
| Sunrise E. Setauket      | 4       | 4    | 6    | 5    | 3    | 2    | 3    | 4    | 5    | 6    | 5.5  | 6.2  | 4.4  |
| Sunrise Holbrook         | 5       | 3    | 3    | 2    | 1    | 2    | 4    | 3    | 3    | 3    | 3    | 3.5  | 2.7  |
| Sunrise Smithtown        | 3       | 2    | 4    | 1    | 2    | 3    | 2    | 3    | 17   | 4    | 3    | 6.8  | 4.2  |
| Sunrise Village          | 8.9     | 3.5  | 15.4 | 2.2  | 4.3  | 14.3 | 8.5  | 8.2  | 6.9  | 3.4  | 14.4 | 5.1  | 7.9  |
| Tallmadge                | 3.8     | 5.1  | 2.1  | 2.7  | 2.5  | 2.5  | 4.6  | 7.3  | 6.5  | 10.1 | 4.9  | 4.3  | 4.7  |
| 12 Pines                 | 2.8     |      |      | 3.8  | 5.1  | 5.3  | 4.7  | 2.8  | 0.5  | 6.4  | 5.9  | 3.1  | 3.8  |
| Valley Forge             | 5.3     | 3.4  | 2.1  | 6.6  | 11   | 3.4  | 4.3  | 8.5  | 10.2 | 5.3  | 2.8  | 5.3  | 5.6  |
| Victorian Gardens        | 5.5     | 6.8  | 5.7  | 4.7  | 1.9  | 4.4  | 6.3  | 6.5  | 4    | 2.7  | 3.6  | 7.1  | 4.9  |
| Victorian Homes          | 30.4    | 27.4 | 14.6 | 23   | 30.4 | 54.3 | 36   | 90   | 40   | 11.3 | 8.9  | 53   | 34.9 |
| Village in Woods         | 22      | 27   | 12   | 27   | 12   | 39   | 41   | 6    | 7    | 27   | 30   | 20   | 22.5 |
| Villages @ Lake Grove    | 2.8     | 18.7 | 17   | 2.7  | 14   | 7.9  | 5.6  | 10.4 | 5    | 4.9  | 5.2  | 6.2  | 8.3  |

| STP NAME                     | Jan             | Feb  | Mar  | Apr  | May  | Jun  | Jul  | Aug  | Sep  | Oct  | Nov  | Dec  | Avg  |
|------------------------------|-----------------|------|------|------|------|------|------|------|------|------|------|------|------|
| VillasMedford                | 10.8            | 12   | 13   | 15.7 | 11   | 2.9  | 19.7 | 7.4  | 21.9 | 15.5 | 3.7  | 9.3  | 11.9 |
| Vinyards                     | new             |      |      | 12.8 | 15.4 | 7.3  | 10.8 | 3.5  | 18   | 13   | 25.6 | 14.7 | 14.6 |
| Walden Ponds                 | 3.9             | 6.3  | 8.4  | 5.2  | 5.4  | 2.1  | 4.2  | 5    | 7.1  | 3    | 12.6 | 1.8  | 5.4  |
| Waterways                    | 11.3            | 11.3 | 4.8  | 2.6  | 5.2  | 5.8  | 7.7  | 1    | 7.6  | 2.3  | 8.6  | 13.2 | 6.7  |
| Westhampton Pines            | 12.7            | 21.9 | 8.1  | 9    | 5.6  | 10   | 4.4  | 3.3  | 10.3 | 13.4 | 8.1  | 8    | 9.5  |
| WHampton NH                  | 5.9             | 5.9  | 1.4  | 1.3  | 6.2  | 3.1  | 3    | 8.3  | 1.9  | 4.3  | 2.7  | 3    | 3.9  |
| Whispering Pines             | 20.6            | 17   | 38.2 | 32.6 | 20.8 | 14.1 | 24.3 | 16.7 | 24.9 | 19.7 | 26.9 | 25.1 | 23.4 |
| Willow Ponds                 | 2.3             | 2.1  | 3    | 4    | 2.9  | 4    | 3.1  | 3.7  | 4.4  | 7.8  | 7.1  | 3.5  | 3.9  |
| Windbrooke                   | 10              | 2.5  | 6    | 6    | 11   | 4    | 12   | 6    | 4    | 5    | 5    | 5    | 6.3  |
| Windsor                      | 3.6             | 10.4 | 7.1  | 6.9  | 3.6  | 5.6  | N/D  | 6.2  | 5.9  | N/D  | 5.5  | 4.8  | 5.9  |
| Windwatch                    | 4.5             | N/D  | N/D  | 3    | 4    | 3.5  | 2.2  | 3    | 2.1  | 2.3  | 2.5  | 2.6  | 3    |
| Woodbridge @<br>Hampton Bays | 23.3            | 3.8  | 2.9  | 6.2  | 5.5  | 5.4  | 4.1  | 3.9  | 7.4  | 6    | 15.3 | 1.9  | 7.1  |
| Woodcrest                    | 26.2            | 23.4 | 26.4 | 2.9  | 3.8  | 26.5 | 37.6 | 28.1 | 5.2  | 2.4  | 14.6 | 20.6 | 18.1 |
| Woodhull                     | 3.8             | 5.9  | 2.7  | 4.8  | 6.7  | 6.3  | 4.9  | 6.5  | 4.5  | 6.4  | N/D  | 10.6 | 5.7  |
| Woodside                     | 8.4             | 9.3  | 10.6 | 2.8  | 6.6  | 6.6  | 5.4  | 6.9  | 6.2  | 8.2  | 6.9  | 7.8  | 7.1  |
| Yaphank CC                   | 8.6             | 9.1  | 8.8  | 10.5 | 6.3  | 5.2  | 6.3  | 4.2  | 6.9  | 6.1  | 8.4  | 4.9  | 7.1  |
| Yardarm                      | Seasonal Limits |      |      |      |      | 3.8  | 4.3  | 4.2  | 0.8  | 1.4  |      |      | 2.9  |

**Sewage Treatment Plant**  
**Raw BOD & Suspended Solids**  
**SCDHS & Operator**

## 2008 SCDHS Lab Results – BOD & Suspended Solids (mg/l)

| STP Name                       | First Quarter |     | Second Quarter |     | Third Quarter |     | Fourth Quarter |     | Average |      |
|--------------------------------|---------------|-----|----------------|-----|---------------|-----|----------------|-----|---------|------|
|                                | BOD           | SS  | BOD            | SS  | BOD           | SS  | BOD            | SS  | BOD     | SS   |
| Brookhaven Town Hall           | N/D           | N/D | N/D            | N/D | 31            | 27  | 48             | 45  | 39.5    | 36   |
| Calverton Enterprise Park      | 29            | 25  | N/D            | N/D | 1             | 4   | 8              | 10  | 2.6     | 6    |
| Calverton Hills                | 29            | 25  | N/D            | 24  | 79            | 24  | 51             | 47  | 53      | 30   |
| Cedar Lodge                    | 10            | 68  | 13             | 24  | 6             | 5   | 4              | 15  | 11      | 28   |
| Fairfield Village (Groton)     | 10            | <5  | 12             | <5  | 24            | 7   | 9              | <5  | 13.7    | 1.7  |
| Fairhaven Apts. @ Nesconset    | 16            | 21  | 8              | 7   | 20            | 5   | 17             | 10  | 15      | 10.7 |
| Greenport Village              | 4             | 37  | 8              | 39  | 56            | 25  | 53             | 18  | 30.2    | 29.7 |
| Heatherwood House @ Ronkonkoma | 29            | 26  | 29             | 47  | 39            | 30  | <1             | 45  | 24.2    | 37   |
| Heritage Gardens at Brentwood  | <1            | 12  | 49             | 44  | 16            | 17  | 10             | 8   | 18.7    | 20.2 |
| La Bonne Vie                   | 12            | 44  | 19             | <5  | 18            | <5  | 8              | 6   | 14.2    | 7.5  |
| Lexington Village              | 75            | 44  | 18             | 34  | 22            | 42  | 50             | 34  | 41.2    | 38.5 |
| Memorial Sloan Kettering       | 24            | 24  | 161            | 20  | 76            | 53  | 17             | 18  | 69.5    | 28.7 |
| Middle Island Co-op            | 30            | 28  | N/D            | 6   | 101           | 86  | 417            | 53  | 182     | 43.2 |
| Montauk Manor                  | 18            | 12  | 14             | 5   | SEA           | SO  | N              | AL  | 16      | 8.5  |
| Ocean Beach                    | <1            | 20  | 9              | 20  | <1            | 0   | <1             | 12  | 2.2     | 13   |
| Patchogue Village              | 30            | 20  | 37             | 22  | 31            | N/D | 89             | 29  | 46.7    | 23.6 |
| Plum Island                    | 1             | 5   | 1              | 124 | 1             | 5   | 1              | 5   | 1       | 34.7 |
| Riverhead Town                 | 1             | 17  | 9              | 11  | 4             | 1   | 3              | 7   | 4.2     | 9    |
| Rocky Point Apts.              | 35            | 46  | 16             | 46  | 14            | 35  | 70             | 42  | 33.7    | 42.2 |
| Ross Health Care               | 53            | 120 | 273            | 182 | 109           | 85  | 189            | 83  | 156     | 117  |
| Rough Riders Landing           | 3             | 7   | 12             | 18  | SEA           | SO  | N              | AL  | 7.5     | 12.5 |
| S.C.S.D. #3 Bergin Point       | 13            | 20  | 0              | 6   | 6             | 16  | 5              | 6   | 6       | 12   |
| S.C.S.D. #6 Kings Park         | 4             | 10  | 14             | 17  | <1            | <5  | <1             | <5  | 4.5     | 7.5  |
| Sag Harbor                     | 8.5           | 10  | 8.5            | 10  | 4             | 1   | 9.5            | N/D | 7.6     | 7    |
| Shelter Island Heights         | 5.5           | 5   | 6              | 7.6 | <5            | 7.8 | 5              | <5  | 4.1     | 5.1  |
| Somerset Woods                 | 40            | 13  | 11             | 12  | 24            | 12  | 36             | 9   | 27.7    | 11.5 |
| Sunrise Garden Apts.           | 16            | 13  | 11             | 8   | 11            | 5   | 37             | 199 | 18.7    | 11.2 |
| Tall Oaks                      | 1             | 24  | 33             | 39  | 62            | 88  | 59             | 12  | 38.7    | 40.7 |
| Towne House Village North      | 31            | <5  | 5              | 5   | 7             | <5  | 37             | 19  | 18.7    | 10   |
| Towne House Village South      | 21            | 7   | N/D            | 48  | 7             | <5  | 9.5            | 17  | 12.5    | 18   |
| Watergate Gardens              | 5.5           | 8   | 29             | 31  | <1            | 29  | <1             | 45  | 8.6     | 28   |
| Waverly Park                   | 81            | 36  | 61             | 45  | 66            | 69  | 19             | 27  | 56.7    | 44.2 |
| Woodhaven Manor                | 22            | 26  | 21             | 41  | 18            | 40  | 80             | 24  | 35.2    | 32.7 |

## 2008 Operator Lab Results – BOD (mg/l)

| STP Name                       | Jan                                                    | Feb  | Mar | Apr | May      | Jun | Jul   | Aug   | Sep  | Oct   | Nov  | Dec   | Avg  |
|--------------------------------|--------------------------------------------------------|------|-----|-----|----------|-----|-------|-------|------|-------|------|-------|------|
| Calverton Enterprise Park      | 1/1                                                    | 9/25 | 1/1 | 4/8 | 8/10     | 6/8 | 5/9.5 | 10/16 | 7/23 | 11/21 | 6/18 | 10/28 | 10.2 |
| Calverton Hills                | 48                                                     | 13   | 79  | 31  | 60       | 23  | 16    | 9     | 173  | 125   | 60   | N/D   | 57.9 |
| Cedar Lodge                    | 14                                                     | 19   | 20  | 5   | 10       | 9   | 13    | 4     | 6    | 7     | 9    | 10    | 10.5 |
| Fairfield Village (Groton)     | 41                                                     | 15   | 12  | 14  | 20       | 16  | 15    | 34    | 37   | 7.8   | 23   | 20    | 21.2 |
| Fairhaven Apts. @ Nesconset    | 29                                                     | 2    | 6.4 | 12  | 2        | 12  | 18    | 7.7   | 2    | 9     | 7    | 10    | 9.7  |
| Greenport Village              | 19                                                     | 17   | 10  | 13  | 11       | 7   | 11    | 11    | 13   | 9     | 11   | 14    | 12.1 |
| Heatherwood House @ Ronkonkoma | 2                                                      | 11   | 39  | 9   | 81       | 49  | 4     | 18    | 42   | 18    | 25   | 14    | 25.8 |
| Heritage Gardens at Brentwood  | 2                                                      | 9    | 51  | 54  | 90       | 25  | 37    | 11    | 35   | 25    | 11   | 35    | 32   |
| La Bonne Vie                   | 19                                                     | 9    | 24  | 27  | 45       | 26  | 28    | 87    | 33   | 80    | 75   | 79    | 44.7 |
| Lexington Village              | Permit requires Nitrogen removal but is a BOD/SS Plant |      |     |     |          |     |       |       |      |       |      |       |      |
| Memorial Sloan Kettering       | Permit changed to BOD/SS                               |      |     |     |          |     |       |       |      |       |      |       |      |
| Middle Island Co-op            | 12                                                     | 12   | 28  | 14  | 61       | 1   | 67    | 49    | 10   | 48    | 1    | 47    | 29.1 |
| Montauk Manor                  | 3.1                                                    | 14   | 5.7 | 4.3 | SE       | A   | S     | O     | N    | AL    | 3    | 3.4   | 5.5  |
| Ocean Beach                    | 2                                                      | 2    | 2   | 2   | 2        | 7   | 14    | 17    | 8    | 2     | 2    | 2     | 5.2  |
| Patchogue Village              | 22                                                     | 16   | 20  | 15  | 25       | 24  | 26    | 18    | 29   | 15    | 28   | 25    | 19.2 |
| Plum Island                    | 2                                                      | 2    | 2   | 2   | 2        | 2   | 3     | 4     | 2    | 44.9  | 2    | 2     | 5.8  |
| Riverhead Town                 | 8                                                      | 11   | 10  | 8   | 4        | 16  | 4     | 4     | 4    | 8     | 5    | 4     | 7.1  |
| Rocky Point Apts.              | 22                                                     | 22   | 31  | 9   | 29       | 26  | 14    | 1     | 2    | 27    | 20   | 23    | 17.7 |
| Ross Health Care               | No SPDES Permit                                        |      |     |     |          |     |       |       |      |       |      |       |      |
| Rough Riders Landing           | 8.1                                                    | 13   | 13  | 8.5 | SEASONAL |     |       |       |      |       | 18   | 14    | 12.4 |
| S.C.S.D. #1 Port Jefferson     | 5                                                      | 5    | 5   | 5   | 5        | 5   | 5     | 5     | 5    | 5     | 5    | 6     | 5    |
| S.C.S.D. #3 Bergin Point       | 14                                                     | 13   | 12  | 13  | 9        | 7   | 8     | 7     | 7    | 7     | 8    | 6     | 9.2  |
| S.C.S.D. #6 Kings Park         | 5/12                                                   | 7/42 | 6/7 | 6/6 | 5        | 7/7 | 5     | 5     | 6/10 | 5     | 6/9  | 6/8   | 8.5  |
| S.C.S.D. #21 SUNY              | 5                                                      | 5    | 6   | 5   | 5        | 5   | 12/6  | 5     | 5    | 5/6   | 5    | 6     | 5.7  |
| Sag Harbor                     | 4                                                      | 2    | 8   | 9   | 10       | 18  | 17    | 6     | 2    | 2     | 2    | 4     | 7    |
| Shelter Island Heights         | 16                                                     | 3    | 7   | 10  | 15       | 3   | 11    | 13    | 19   | 3     | 11   | 2     | 9.4  |
| Somerset Woods                 | 45                                                     | 1    | 1   | 3   | 4        | 6   | 6     | 10    | 28   | 39    | 28   | 26    | 16.4 |
| Sunrise Garden Apts.           | 23                                                     | 32   | 48  | 24  | 33       | 15  | 36    | 12    | 16   | 20    | 88   | 22    | 30.7 |
| Tall Oaks                      | 69                                                     | 67   | 72  | 95  | 45       | 26  | 19    | 14    | 16   | 21    | 61   | 41    | 45.5 |
| Towne House Village North      | 4                                                      | 4    | 7   | 4   | 10       | 6   | 4     | 1     | 2    | 2     | 2    | 3     | 4    |
| Towne House Village South      | 2                                                      | 16   | 6   | 19  | 37       | 5   | 24    | 12    | 29   | 29    | 22   | 47    | 20.6 |
| Watergate Gardens              | 2                                                      | 3.2  | 173 | 28  | 14       | 3   | 14    | 2     | 12   | 4     | 14   | 20    | 24.1 |
| Waverly Park                   | 5                                                      | 1    | 42  | 24  | 46       | 29  | 31    | 8     | 131  | 29    | 131  | 141   | 51.5 |
| Woodhaven Manor                | 2                                                      | 10   | 24  | 5   | 69       | 22  | 4     | 14    | 17   | 45    | 2    | 44    | 21.5 |

## Operator Lab Results – Suspended Solids (mg/l)

| STP Name                       | Jan                                                    | Feb  | Mar  | Apr  | May      | Jun   | Jul  | Aug  | Sep   | Oct  | Nov   | Dec   | Avg  |
|--------------------------------|--------------------------------------------------------|------|------|------|----------|-------|------|------|-------|------|-------|-------|------|
| Brookhaven Town Hall           |                                                        |      |      |      |          |       |      |      |       |      |       |       |      |
| Calverton Enterprise Park      | 21                                                     | 17   | 40   | 14   | 26       | 30    | 22   | 30   | 80    | 30   | 30    | N/D   | 31   |
| Calverton Hills                | 3/9                                                    | 9/22 | 6/12 | 3/5  | 7/12     | 20/30 | 5/9  | 6/9  | 14/45 | 8/15 | 15/27 | 18/11 | 13.3 |
| Cedar Lodge                    | 58                                                     | 40   | 44   | 35   | 30       | 21    | 47   | 10   | 16    | 21   | 30    | 18    | 30.9 |
| Fairfield Village (Groton)     | 10                                                     | 6    | 10   | 8    | 10       | 12    | 8    | 5    | 27    | 5    | 8     | 15    | 10.3 |
| Fairhaven Apts. @ Nesconset    | 15                                                     | 5    | 6    | 9    | 5        | 6     | 4    | 3    | 7     | 3.3  | 5     | 13    | 6.7  |
| Greenport Village              | 28                                                     | 25   | 27   | 20   | 27       | 18    | 21   | 22   | 17    | 15   | 16    | 26    | 21.8 |
| Heatherwood House @ Ronkonkoma | 5                                                      | 8    | 29   | 5    | 27       | 12    | 5    | 36   | 31    | 20   | 8     | 15    | 16.3 |
| Heritage Gardens at Brentwood  | 5                                                      | 16   | 42   | 71   | 30       | 9     | 41   | 11   | 25    | 7    | 5     | 19    | 23.4 |
| La Bonne Vie                   | 8                                                      | 5    | 4    | 5    | 1        | 26    | 20   | 11   | 1     | 13   | 10    | 36    | 11.3 |
| Lexington Village              | Permit requires Nitrogen removal but is a BOD/SS Plant |      |      |      |          |       |      |      |       |      |       |       |      |
| Memorial Sloan Kettering       | Permit changed to BOD/SS                               |      |      |      |          |       |      |      |       |      |       |       |      |
| Middle Island Co-op            | 3                                                      | 3    | 29   | 19   | 51       | 210   | 23   | 42   | 3     | 93   | 50    | 31    | 46.4 |
| Montauk Manor                  | 4                                                      | 3    | 9    | 3    | SE       | A     | S    | O    | N     | AL   | 2.5   | 3     | 4    |
| Ocean Beach                    | 2                                                      | 2    | 2    | 2    | 2        | 2     | 2    | 2    | 2     | 2    | 2     | 2     | 2    |
| Patchogue Village              | 25                                                     | 19   | 21   | 20   | 18       | 25    | 24   | 15   | 23    | 28   | 26    | 32    | 23   |
| P1um Island                    | 8/16                                                   | 5/7  | 5    | 5    | 7/13     | 5     | 5    | 6/8  | 6/8   | 5    | 9     | 6/8   | 7.5  |
| Riverhead Town                 | 9.2                                                    | 8    | 11   | 9.6  | 7        | 16    | 13   | 4    | 4     | 13   | 6.8   | 8     | 9.1  |
| Rocky Point Apts.              | 27                                                     | 27   | 32   | 28   | 14       | 18    | 18   | 14   | 15    | 12   | 20    | 13    | 19.8 |
| Ross Health Care               | No SPDES Permit                                        |      |      |      |          |       |      |      |       |      |       |       |      |
| Rough Riders Landing           | 29                                                     | 17   | 22   | 10   | SEASONAL |       |      |      |       |      | 16    | 9     | 17.1 |
| S.C.S.D. #1 Port Jefferson     | 2                                                      | 3    | 4    | 3    | 7        | 3     | 2    | 1    | 5     | 4    | 3     | 4     | 3.5  |
| S.C.S.D. #3 Bergin Point       | 14                                                     | 15   | 12   | 11   | 9        | 7     | 8    | 9    | 7     | 19   | 12    | 17    | 11.6 |
| S.C.S.D. #6 Kings Park         | 7/9                                                    | 4/8  | 9/12 | 5/8  | 7/13     | 5/7   | 6/16 | 5/10 | 11/11 | 6/15 | 4/12  | 5/7   | 8.4  |
| S.C.S.D. #21 SUNY              | 4/4                                                    | 7/11 | 6/13 | 8/16 | 3/6      | 3/5   | 4/4  | 2/2  | 4/10  | 6/6  | 9/20  | 20/27 | 8.3  |
| Sag Harbor                     | 5                                                      | 5    | 12   | 5    | 11       | 12    | 15   | 6    | 2.5   | 3    | 2.5   | 5     | 7    |
| Shelter Island Heights         | 22                                                     | 4    | 14   | 23   | 8        | 4     | 8    | 11   | 20    | 4    | 12    | 13    | 11.9 |
| Somerset Woods                 | 11                                                     | 2    | 1    | 6    | 1        | 1     | 1    | 1    | 1     | 4    | 0.5   | 2     | 2.6  |
| Sunrise Garden Apts.           | 11                                                     | 16   | 28   | 18   | 20       | 5     | 35   | 6    | 5     | 9    | 69    | 17    | 19.9 |
| Tall Oaks                      | 26                                                     | 34   | 44   | 48   | 46       | 16    | 24   | 23   | 17    | 13   | 30    | 30    | 29.3 |
| Towne House Village North      | 5                                                      | 8    | 7    | 5    | 6        | 5     | 5    | 5    | 5     | 5    | 5     | 5     | 5.5  |
| Towne House Village South      | 5                                                      | 5    | 9    | 11   | 48       | 10    | 47   | 12   | 36    | 25   | 18    | 29    | 21.2 |
| Watergate Gardens              | 11                                                     | 16   | 42   | 53   | 15       | 7     | 10   | 20   | 65    | 15   | 59    | 52    | 30.4 |
| Waverly Park                   | 17                                                     | 44   | 31   | 85   | 14       | 24    | 90   | 11   | 407   | 83   | 108   | 88    | 83.5 |
| Woodhaven Manor                | 5                                                      | 7    | 24   | 5    | 62       | 8     | 5    | 23   | 35    | 54   | 5     | 40    | 22.7 |

**Sewage Treatment Plant**  
**Groundwater Monitoring Data**

## Sewage Treatment Plant Groundwater Monitoring Well Results (mg/l)

| STP Name                  | MW1<br>Average<br>Up Gradient | MW2<br>Average<br>Down Gradient | MW3<br>Average<br>Down Gradient | Average All<br>Down Gradient<br>Results |
|---------------------------|-------------------------------|---------------------------------|---------------------------------|-----------------------------------------|
| Artist Lake               | 2.4                           | 29.0                            | 14.7                            | 14.7                                    |
| Avery                     | 10.2                          | 4.2                             | 5.2                             | 4.7                                     |
| Bal Moral                 | 2.7                           | 3.9                             | 4.0                             | 3.9                                     |
| Birchwood                 | 4.3                           | 2.1                             | 2.6                             | 2.3                                     |
| Birchwood on the<br>Green | 1.2                           | 2.4                             | 1.9                             | 2.1                                     |
| Broadway Knolls           | 4.5                           | 3.3                             | 16.1                            | 9.7                                     |
| Broadway West             | 2.1                           | 3.4                             | Only 2 wells                    | 3.4                                     |
| Brookhaven Hospital       | 1.4                           | 8.2                             | 13.3                            | 10.7                                    |
| Cenacle Manor             | 4.2                           | 4.1                             | 5.2                             | 4.6                                     |
| College Park              | 1.5                           | 1.6                             | 2.5                             | 2.0                                     |
| Exit 63                   | 2.8                           | 2.2                             | 3.7                             | 2.9                                     |
| Coventry Manor            | 0.6                           | 1.4                             | 1.0                             | 1.2                                     |
| Dowling                   | 4.4                           | 5.2                             | 7.0                             | 6.1                                     |
| Greenview Court           | 7.9                           | 7.0                             | 6.3                             | 6.6                                     |
| Hilton Garden             | 1.7                           | 6.6                             | 5.7                             | 6.1                                     |
| Holt Hotel                | 0.3                           | 7.0                             | 10.8                            | 8.9                                     |
| Huntington                | 6.8                           | 3.9                             | 3.9                             | 3.9                                     |
| Leisure Village           | 6.2                           | 5.2                             | 7.1                             | 6.1                                     |
| Lexington Village         | 9.0                           | 8.7                             | 9.3                             | 9.0                                     |
| Mac Arthur Plaza          | 1.1                           | 4.1                             | 6.3                             | 5.2                                     |
| Medford Hamlet            | 1.9                           | 2.3                             | 5.1                             | 3.7                                     |
| Melville Mall             | 5.3                           | 6.7                             | Only 2 wells                    | 6.7                                     |
| Montauk Manor             | 0.6                           | 3.2                             | 0.2                             | 1.7                                     |
| Nob Hill                  | 0.5                           | 0.5                             | 0.5                             | 0.5                                     |
| Oak Hollow NH             | 2.4                           | 4.3                             | 1.5                             | 2.9                                     |
| Park Meadow               | 1.5                           | 2.3                             | 2.0                             | 2.1                                     |
| Paumanack                 | 3.8                           | 9.7                             | 9.2                             | 9.4                                     |
| Quail Run                 | 2.8                           | Only 2 wells                    | 1.8                             | 1.8                                     |
| Ridgehaven                | 1.8                           | 1.0                             | 2.3                             | 1.6                                     |
| Saint Annes               | 4.6                           | 9.9                             | 11.3                            | 10.6                                    |
| Saint James NH            | 3.3                           | 15.4                            | 9.4                             | 12.4                                    |
| Setauket Meadows          | 7.1                           | 3.7                             | 4.1                             | 3.9                                     |
| Silver Ponds              | 1.8                           | 9.0                             | 15.6                            | 12.3                                    |
| SCCC Selden               | 5.3                           | 5.9                             | 3.8                             | 4.8                                     |
| SCCC Riverhead            | 0.7                           | 6.3                             | 4.1                             | 5.2                                     |
| S Hampton Commons         | 1.1                           | 7.7                             | 7.0                             | 7.3                                     |
| Stonington                | 3.7                           | 3.2                             | 2.2                             | 2.6                                     |
| Sunrise Dix Hills         | 0.1                           | 7.5                             | Only 2 wells                    | 7.5                                     |
| Sunrise E Setauket        | 4.5                           | 8.3                             | Only 2 wells                    | 8.3                                     |
| Sunrise Holbrook          | 0.3                           | 4.2                             | Only 2 wells                    | 4.2                                     |
| Sunrise Village           | 1.1                           | 9.7                             | 4.2                             | 6.9                                     |
| Tallmadge Woods           | 8.7                           | 6.9                             | 5.4                             | 6.1                                     |
| Twelve Pines              | 8.9                           | 1.7                             | 2.9                             | 2.3                                     |
| Victorian Gardens         | 4.4                           | 4.8                             | 4.5                             | 4.6                                     |
| Waterways                 | 4.9                           | 2.8                             | 30.0                            | 16.4                                    |

| <b>STP Name</b> | <b>MW1<br/>Average<br/>Up Gradient</b> | <b>MW2<br/>Average<br/>Down Gradient</b> | <b>MW3<br/>Average<br/>Down Gradient</b> | <b>Average All<br/>Down Gradient<br/>Results</b> |
|-----------------|----------------------------------------|------------------------------------------|------------------------------------------|--------------------------------------------------|
| WHampton NH     | 0.3                                    | 4.1                                      | 8.8                                      | 6.4                                              |
| Windwatch       | 2.2                                    | 2.5                                      | 4.2                                      | 3.3                                              |
| Woodcrest       | 1.3                                    | 20.3                                     | 28.8                                     | 24.5                                             |
| Woodside        | 6.1                                    | 11.0                                     | 4.4                                      | 7.7                                              |
| Yaphank CC      | 1.5                                    | 9.7                                      | 4.4                                      | 7.0                                              |
| Yardarm         | 1.4                                    | 1.5                                      | 2.6                                      | 2.0                                              |

**Average Total Nitrogen of all Up Gradient Wells ----- 3.3 mg/l Total Nitrogen**  
**Average Total Nitrogen of All Down Gradient Wells-----6.0 mg/l Total Nitrogen**