

NEW YORK CITY

BEACH

2014

**SURVEILLANCE AND
MONITORING PROGRAM**



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SECTION 1

INTRODUCTION

In accordance with the New York City Administrative Code §18-131 (c) (4), this annual report summarizes the 2014 New York City Beach Surveillance and Monitoring Program for beaches permitted by the Department of Health and Mental Hygiene (DOHMH or the “Department”). This law requires that the Commissioner of Health and Mental Hygiene “forward a combined report of the dates and results of all inspections of all beaches and the dates and reasons for any warning (previously referred to as Advisory) or closure, and such other information deemed appropriate by the Commissioner of Health and Mental Hygiene, for the Friday proceeding the last Monday of May until the Friday after the first Monday of September of each year, to the Mayor, the Public Advocate and the Speaker of the Council.

”Under both Article 167 of the New York City Health Code (Article 167) and Subpart 6-2 of the New York State Sanitary Code (Subpart 6-2), the Department is required to monitor and conduct surveillance of permitted beaches in the City of New York. In order to meet requirements under Article 167, the Department administers the Beach Surveillance and Monitoring Program for all beaches operating within the city limits and with a permit issued by the Department. The Program responsibilities include: 1) beach monitoring and surveillance; 2) public notification and communication, and 3) conducting annual safety inspections.

The City’s beaches function as an important recreational and quality-of-life resource for City residents and neighboring communities. As shown in Table 1 (page 3) and Figure 1 (page 4) there are eight public and sixteen private permitted beaches within New York City limits.

TABLE 1: NEW YORK CITY PERMITTED BEACHES AND WATER BODY IDENTIFICATION

| Borough | Beaches | Water Body |
|---------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------|
| Brooklyn | <i>Public:</i> Coney Island, Manhattan <i>Private:</i> Seagate, Kiddie Gerritsen, Kingsborough | Lower New York Harbor |
| Bronx | <i>Public:</i> Orchard Beach <i>Private:</i> American Turner, Danish American, Manheim, Whitecross Fishing, Morris Yacht Club, Schuyler Hill, Trinity Danish, Locust Point Yacht Club, West Fordham Street | Eastchester Bay, Western Long Island Sound |
| Queens | <i>Public:</i> Rockaway <i>Private:</i> Breezy Point | Atlantic Ocean Coastline |
| | <i>Private:</i> Douglaston Manor, Whitestone Booster Civic Association | Western Long Island Sound |
| Staten Island | <i>Public:</i> South Beach, Midland, Cedar Grove, Wolfe’s Pond Park <i>Private:</i> Staten Island YMCA | Lower New York Bay |

FIGURE 1: NEW YORK CITY PERMITTED BEACHES



1.1 New Initiatives 2014

This beach year, the Department completed a comprehensive upgrade to the Program's Public Notification and Risk Communication efforts. New user friendly, easy to read signs were developed and implemented and The Department rolled out a new free texting service called "Know Before You Go" for the 2014 beach season. These new initiatives were highlighted in EPA's National Beach Guidance and Required Performance Criteria for Grants, 2014 Edition where case study examples of the Departments revised notification signage, and digital and mobile notification systems were included.

1.1.1 New Public Risk Communication Signs

This season, the Department developed user friendly, easy to read public notification signs for closures and warnings as shown in Figure 2 (page 6). The new sign design was informed by a substantial effort during the 2013 season to improve risk communication to the public when beach water quality exceeds or is expected to exceed acceptable standards.

In 2013, the Department initiated a study amongst NYC beachgoers to assess public awareness and the effectiveness of the then current beach notification methods for reporting water quality conditions at New York City beaches. Participants in intercept surveys and focus groups provided baseline data on how warning messages in beach advisories and closures influenced public perception and understanding of water quality risks and the impact of advisories on beach attendance and swimming behaviors.

Upon completion of the study, the "Wet Weather" and "Pollution Advisories" were combined to a new "Warning" status which encompasses any condition which would warrant a Warning notification including preemptive rain events. Based on study results, the new signage was re-named and posted in 2014 using the language "Warning" instead of "Advisory" to foster public understanding of notifications and risk communication. The signs communicate the core recommendations clearly and directly and provide supplemental information on the basis for the Warning or Closure.

FIGURE 2: NEW BEACH WARNING AND CLOSED SIGNS

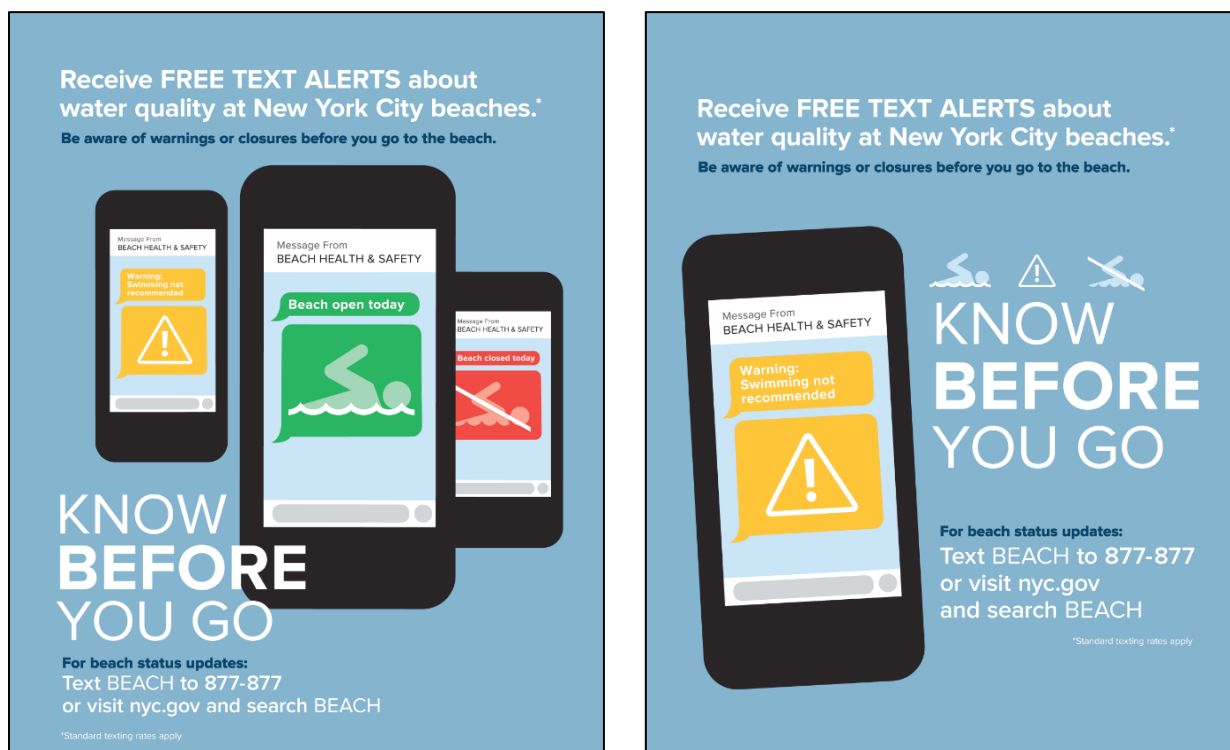


1.1.2 Know Before You Go

The texting service enabled subscribers to make informed decisions before they went to the beach by checking if the beach was open or closed or if there were any warnings due to wet weather conditions or water quality concerns. Subscribers simply text “BEACH” to 877-877 to get updates on the beach status of any of the eight public beaches in New York City. Prior to the texting roll-out, the DOHMH initiated an extensive outreach advertising campaign using MTA Bus shelters and the Staten Island Ferry LED advertising display as shown in Figure 3 (page 7). Throughout the season in addition to providing information on beach status the Department also used this tool to broadcast safety related messages including a warning for high RIP currents and when beaches opened and closed for the season.

By the close of the beach season, there were over 3000 subscribers to “Know Before You Go.” Most subscribers indicated a specific beach for which they would like information. Coney Island and Rockaway Beach were the most popular beach-specific subscriptions. Based on an instant poll results from subscribers at the end of the season, more than half (67%) found the texting service to be “very useful”.

FIGURE 3: KNOW BEFORE YOU GO TEXTING PROGRAM



1.2 Clean Streets=Clean Beaches

In a continued effort to prevent floating debris and trash from reaching NYC area beaches, through a multi-Departmental effort, the City launched the “Clean Streets=Clean Beaches” campaign on July 8th from the MCU Park in Coney Island, home of the Brooklyn Cyclones. At the event, “Clean Streets=Clean Beaches” flyer toys were handed out to approximately 5,000 children attending the Cyclones game from area day camps and the City’s Summer Youth Employment Program. In partnership with the Department of Environmental Protection (DEP) and the Department of Sanitation more than 200 participants in the SYEP were involved in removing litter and debris from waterfront properties throughout the five boroughs. As part of the campaign’s education and outreach initiatives, Clean Streets=Clean Beaches posters were displayed on over 2,000 sanitation vehicles throughout the 5 boroughs and at area beaches and thousands of reusable tote bags were handed out at New York City beaches throughout the season.

In order to control floatable debris from entering area waterways, especially when Combined Sewer Overflows (CSO’s) discharge into the New York City harbor during wet weather events, DEP employs several pollution prevention and control programs. Hooded catch basins help reduce the discharge of street litter to sewers, targeted neighborhood street cleaning, skimmer vessels fitted with nets that collect floating debris, floating booms that trap debris and sewer-system improvements all help to maximize the ability to retain floating debris before they enter

the ocean. DEP maintains 24 floatable containment facilities and 4 CSO retention facilities that significantly reduce CSO overflows and control floatables. DEP has also completed the installation of three litter control devices located within sewer outfalls along the Bronx River that use hydraulic bar screens and nylon netting systems to capture litter before it reaches the river. This is the first time this type of technology is being used in New York City, and a similar facility is slated to be completed at the head of the Gowanus Canal.

1.3 Post Super Storm Sandy Re-construction

Rehabilitation work to area beaches as a result of the destruction caused by Super Storm Sandy continued during the off-season and into the 2014 beach season. Ongoing work included the implementation of emergency protective measures to serve as erosion and coastal flooding protection during potentially high surf conditions. Temporary barriers were set up which included the construction of a berm along the shoreline and installing sand-filled geotextile bags in Rockaway Beach, Cedar Grove Beach, South Beach and Midland Beach.

In Rockaway new concrete baffle walls were erected from 129th to 149th Streets and reconstruction of the boardwalk which included removing the existing concrete pylons from the old boardwalk was underway between 87th and 105th Streets. The new boardwalk will be made of steel and will incorporate a sea wall on one side for protection. The elevation of the new boardwalk will be on the 100 year flood plan level. This segment of the boardwalk reconstruction project is expected to be completed in 2015. As shown in Figure 4 (page 9) Mobi-mats were installed at most beach access ramps to facilitate beach accessibility.

FIGURE 4: ROCKAWAY BEACH 108TH STREET, MAY 2014



SECTION 2

BACKGROUND INFORMATION

This chapter provides background information on the New York City Beach Surveillance and Monitoring Program. The topics of discussion include, bacteriological water quality criteria, pre-emptive rainfall thresholds, beach classifications, procedures and protocols for monitoring and surveillance, public notification and risk communication and safety inspections.

2.1 Water Quality Criteria

Under the New York State Sanitary Code §6-2.15, Article §167.13 of the New York City Health Code and the Federal Beaches Environmental Assessment and Coastal Health Act of 2000 (BEACH) Act, Enterococci is the indicator organism mandated for evaluating the microbiological quality of marine (saline) recreational beach water. Under the New York State Sanitary Code and the New York City Health Code, Enterococci concentrations for a single sample shall not exceed 104 Colony Forming Units (CFU's) per 100 mL (61 CFU's per 100 ml for fresh water), and the Enterococci geometric mean shall not exceed 35 CFU's per 100 mL (33 CFU's per 100 ml for fresh water) for a series of five or more samples collected during a 30-day period. The geometric mean and single sample maximum is determined by analyzing samples for the presence and quantification of Enterococci using EPA method 1600.

2.2 Rainfall Events

Pre-emptive rainfall thresholds have been developed for New York City Beaches through statistical modeling of historical data. These preemptive thresholds are used as a management tool to provide a quick and reliable indication of water quality conditions. When threshold levels of precipitation have been exceeded there is very a high probability for elevated levels of harmful bacteria due to CSO's and stormwater runoff. Untreated sewage bypasses and excess stormwater runoff can potentially pose a public health threat in nearby beach water bodies. When rainfall intensities meet the pre-emptive thresholds, as defined in Table 2 (page 10) a public notification or a warning will take effect for the predetermined duration.

TABLE 2: NEW YORK CITY PRE-EMPTIVE RAINFALL THRESHOLDS

| Beach (Borough) | Rainfall Event Limit | Duration of Warning |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------|---------------------|
| South Beach, Midland Beach, Cedar Grove, Staten Island YMCA (Staten Island), Manhattan Beach, Kingsborough Community College (Brooklyn) | 1.5 – 2.5 inches | 12 hours |
| | > 2.5 inches | 24 hours |
| Orchard Beach (Brooklyn) | > 2.5 inches | 24 hours |
| Coney Island (Brooklyn) | > 2.5 inches | 12 hours |
| Gerritsen Beach (Brooklyn) Whitestone Booster (Queens) | 0.3 - 0.6 inches | 18 hours |
| | > 0.6 inches | 40 hours |
| American Turner, Danish American , Manheim, White Cross, Morris Yacht, Schuyler Hill, Trinity Danish, Locust Point Yacht Club, West Fordham Street Association (Bronx) | 0.6 – 2.5 inches | 36 hours |
| | > 2.5 inches | 48 hours |
| Douglaston Manor (Queens) | 0.3 – 0.6 inches | 30 hours |
| | 0.6 – 2.5 inches | 60 hours |
| | > 2.5 inches | 72 hours |

2.3 Beach Classifications

There are three classifications for New York City beaches which are determined by assessing water quality monitoring data and surveillance, rainfall and pollution events, on-site sanitary surveys, and/or historical information. Warnings (Class B) are issued to the public to avoid recreational water contact when bacteria levels or other conditions that may contribute to possible illness are present. Swimming or wading are not recommended in any area placed under a Warning especially for people with underlying medical conditions and for young and elderly people who may be at a greater risk of contracting swimming related illnesses. Additionally swimming or wading is temporarily not permitted in any area placed under a Closure. Beaches except those specifically restricted under Article §167.05 are classified as follows:

Class A: Open for Swimming and Wading. Beaches may be classified as open and approved for swimming and wading when all of the following conditions are met:

1. Beach water quality is in accordance with standards defined under Article §167.13.
2. Sanitary and safety surveys are satisfactory in accordance with Article §167.25.

3. The epidemiological history is satisfactory to the Department. No repeated complaints/reports of illness/injury received from the public or from owners/operators of city beaches.

Class B: Warning – Not Recommended for Swimming and Wading. Beaches may be classified as “Not Recommended for Swimming and Wading” when one or more of the following conditions exists:

1. When rainfall events exceed the pre-emptive rainfall thresholds, when naturally occurring organisms or human influences may cause a continuous or reoccurring degradation of water quality that would put public health at risk;
2. When a water quality sample exceeds the water quality standard or a beach notification threshold. The notification should remain in effect until resampling indicates that the beach water quality standard and/or notification thresholds are being met.
3. When an on-site sanitary survey or investigation reveals the presence of floatable debris, medical/infectious waste or toxic contaminants, petroleum products and/or other contamination on the beach; or
4. When there is evidence of sewage and wastewater discharge.

Class C: Closed – Temporarily Restricted for Swimming and Wading: Beaches may be classified as “Temporarily Restricted for Swimming and Wading” when one or more of the following conditions exists:

1. Sampling by bacteriological testing that finds beach water quality exceeding the statutory water quality standard for marine water beaches;
2. Epidemiological data indicates a significant incidence of related illnesses or repeated complaints/reports of illness/injury received from beach patrons;
3. A sanitary and safety survey or an investigation reveals the presence of potentially hazardous amounts of floatable debris, medical/infectious waste, toxic contaminants, petroleum products or other contaminants on the beach, or there is evidence of sewage and wastewater discharges in sufficient quantities that will adversely affect the quality of the beach water; or
4. Any other environmental factors determined to be a public health or safety hazard by the Department.

2.4 Beach Monitoring and Surveillance

Starting a month before the beach season, the Department monitors and samples each beach on a weekly basis with the exception of the Rockaway and Breezy Point beaches, which are sampled bi-weekly. In addition to routine water quality monitoring, the Department monitors on a daily basis the regional wet weather conditions and occasional Waste Water Treatment

Plant (WWTP) bypasses, operational upsets and spills through interagency communication and cooperation. This information can be used to assess and make beach status determinations.

During a sample event, a routine on-site sanitary survey inspection is performed to identify any existing and/or potential sources of pollution that are likely to affect beach water quality. Water samples are collected at knee-depth (18 inches) in three feet of water, from the center left and right of the beach. At larger beaches, such as Coney Island and Rockaway, samples are taken from multiple locations to ensure adequate representation and reliable results. The collected samples are delivered to the Department's Public Health Laboratory for analysis. The analytical turnaround time for Enterococci is 24 hours.

The water quality of the samples analyzed is reviewed and assessed based on conformance or non-conformance to applicable standards. If the regulatory limit for Enterococci is exceeded or conditions exist which may pose a threat to the health and/or safety of the public, the Department will initiate one of the following actions: conduct immediate re-sampling; issue a warning and conduct re-sampling; and/or close the beach and conduct re-sampling. The determining factors for additional sampling may include: (1) proximity to suspected pollution sources; (2) extent of pollution; (3) beach use; (4) historical water quality data; and (5) other health risk factors.

2.5 Public Notification and Risk Communication

When beach status changes based upon evaluation and assessment of beach water quality as specified above, the Department notifies the public through on-site beach signage, website postings, 311 non-emergency government service hotline, Notify NYC (via Twitter, RSS feed, e-mail, and SMS), "Know Before You Go" texting service, and Department press releases when necessary. Beach operators are notified by phone, email and/or text as to the necessary on-site postings. The specific notification procedures and requirements for each of the above conditions are as follows:

On-Site Signage: When notified by the Department, the permittee is required to post or remove the warning or closure signs in designated areas visible to beach users such as beach entrances, bulletin boards, or the general vicinity of the common swimming areas.

"Know Before You Go" Texting Service: Subscribers simply send a text using "BEACH" to 877-877 to get updates on beach status for any of the eight public beaches in New York City.

Website Postings: The Department has developed an easily accessible website updated with location and information for all permitted beaches: www.nyc.gov/health/beach. The website contains background information on the beach program, explains the causes and sources of surface water pollution, and summarizes the beach classification system, including the different

types of warnings. A list of City beaches by borough, along with their respective status (Open, Closed, or Warning) and sample results are promptly updated on the website. Beach warnings or closures are also posted under the “NYC Right Now” link on the City website, www.nyc.gov, during the beach season. The public can report swimming related illnesses through the website.

Notify NYC: When notified by the Department of status changes relating to public beaches the Office of Emergency Management will send members of the public who have signed up to Notify NYC status information via Twitter, RSS feed, e-mail and SMS.

311: The 311 telephone operators monitor the Department’s website for updates on warning or closure information, as described above, and convey that information to 311 callers. The public can also report a swimming related illness via 311.

NYC Press Release: Press releases are disseminated to various types of media (newspaper, radio, website, television) as well as elected officials.

2.6 Safety Inspections

To reduce substantial health hazards and other risk factors that lead to illness or injury, the Department conducts annual safety inspections and complaint inspections at bathing beaches to assure that (1) all staff, especially lifeguards and supervisors, have proper certificates and coverage including CPR certification, (2) all required life-saving equipment is available, including rescue tubes, spine boards, first aid kits, and resuscitation equipment, (3) there is proper signage posted on site. Direct observations of conditions are supplemented by interviews with lifeguards and other personnel.

SECTION 3

FINDINGS

3.1 Water Quality and Illness Reporting

Routine water quality monitoring and sample collection was performed at all twenty-three permitted beaches. Approximately 1570 samples were collected and analyzed from these beaches between April and September 2014, 360 of which were collected prior to the start of the beach season which begins Memorial Day weekend. There was no recreational water illness complaints reported to the Department during the season.

Water quality sample results showing the 30-Day geometric mean and daily averages are listed in Appendix A, Table A1-1 to Table A1-4 2014 Water Quality Results (pages 16 to 19), and exceedances are listed in Appendix A (Table A2-1, Table A2-2 and Table A2-3): 2014 Sample Results and Exceedances (pages 20 to 22). During the 2014 beach season Cedar Grove beach in Staten Island had the highest percentage exceedance rate for all public beaches (11.8%) while Rockaway Beach and Orchard Beach had no exceedances. Extremely heavy rainfall events due to passing thunderstorms resulted in a high amount of surface runoff and subsequent sporadic water quality exceedances in Staten Island, especially at Cedar Grove Beach and Brooklyn in July.

For private beaches, Douglaston Manor had the highest exceedance rate (18.3%), while Morris Yacht Club, West Fordham Civic Association and Breezy Point had no exceedances. The repetitive North Easterly track of summer thunderstorm activity has an impact on private beaches in the Bronx which are susceptible to runoff resulting in elevated bacteriological levels. Bronx private beaches are located in the western terminus of the Long Island Sound which has a complex hydrodynamic system. Long retention times, complex water circulation and mixing patterns and seasonal tidal variations can produce poor mixing in these waters and may contribute to deteriorated water quality. Deteriorated water quality and associated bacteriological contamination as a result of rainfall events as indicated by the number of notification days at susceptible beaches are shown in Appendix B: 2014 Warnings and Closures (pages 23 to 26).

3.2 Public Notification and Risk Communication

Public Beaches had no closure days and a total of 13 warning days, 5 of which were as a result of wet weather conditions where the pre-emptive rainfall threshold was exceeded. Private beaches had 294 warning days (168 of which were as a result of wet weather conditions) and 62 closure days. Kiddie Gerritsen Beach was voluntarily closed for 2 days in July after a fuel slick

was observed on the water in the swimming area. The beach was re-opened after water quality testing and on-site observations confirmed that water quality conditions were acceptable. The specific warning and closure dates for each beach are shown in Appendix B: 2014 Warnings and Closures (pages 23 to 26).

3.3 Inspections

During the 2014 beach season, a total of 24 inspections were conducted by the Department at permitted beaches. Both general violations and public health hazards observed during the inspections are outlined in Table C, Appendix C: 2014 Inspection Non-compliance Summary (page 27).

APPENDIX A: 2014 WATER QUALITY RESULTS AND EXCEEDANCE

Table A1-1: Brooklyn Beaches Water Quality Results

Enterococci 30 Day Geometric Mean/Daily Average (Count/100ml)

Water Quality Standards: 30 day geomean limit: 35cfu/100ml, Daily average limit: 104cfu/100ml

| Date of Week Ending | CONEY ISLAND BEACH | | MANHATTAN BEACH | | GERRITSEN/ KIDDIE BEACH | | KINGSBOROUGH COMMUNITY COLLEGE | | SEA GATE 42ND | | SEA GATE BEACH CLUB | |
|---------------------|--------------------|-------|-----------------|-------|-------------------------|-------|--------------------------------|-------|---------------|-------|---------------------|-------|
| | 30 Day | Daily | 30 Day | Daily | 30 Day | Daily | 30 Day | Daily | 30 Day | Daily | 30 Day | Daily |
| 5/24/2014 | 7 | 5 | 5 | 4 | 12 | 49 | 6 | 5 | 6 | 4 | 9 | 13 |
| 5/31/2014 | 6 | 4 | 4 | 5 | 13 | 9 | 5 | 4 | 5 | 4 | 8 | 4 |
| 6/7/2014 | 5 | 4 | 4 | 5 | 10 | 4 | 7 | 41 | 5 | 4 | 7 | 4 |
| 6/14/2014 | 5 | 14 | 6 | 17 | 14 | 36 | 10 | 36 | 4 | 5 | 5 | 4 |
| 6/21/2014 | 5 | 4 | 6 | 5 | 14 | 13 | 10 | 4 | 4 | 4 | 5 | 5 |
| 6/28/2014 | 5 | 5 | 6 | 4 | 9 | 5 | 10 | 4 | 4 | 4 | 5 | 23 |
| 7/5/2014 | 5 | 5 | 6 | 5 | 8 | 4 | 23 | 5 | 4 | 5 | 6 | 7 |
| 7/12/2014 | 5 | 4 | 6 | 5 | 8 | 4 | 16 | 5 | 4 | 4 | 6 | 4 |
| 7/19/2014 | 7 | 4 | 8 | 4 | 7 | 15 | 22 | 25 | 8 | 5 | 10 | 8 |
| 7/26/2014 | 7 | 4 | 8 | 5 | 8 | 33 | 28 | 25 | 8 | 4 | 10 | 4 |
| 8/2/2014 | 9 | 26 | 9 | 7 | 13 | 4 | 28 | 4 | 8 | 4 | 8 | 4 |
| 8/9/2014 | 9 | 5 | 9 | 4 | 13 | 4 | 14 | 4 | 7 | 4 | 9 | 9 |
| 8/16/2014 | 11 | 26 | 13 | 71 | 14 | 8 | 23 | 101 | 7 | 4 | 12 | 35 |
| 8/23/2014 | 7 | 4 | 8 | 4 | 12 | 4 | 13 | 16 | 4 | 4 | 7 | 4 |
| 8/30/2014 | 7 | 15 | 8 | 5 | 9 | 5 | 10 | 5 | 4 | 4 | 7 | 4 |

Table A1-2: Bronx Beaches Water Quality Results

Enterococci 30 Day Geometric Mean/Daily Average (Count/100ml)

Water Quality Standards: 30 day geomean limit: 35cfu/100ml, Daily average limit: 104cfu/100ml

| Date of Week Ending | ORCHARD BEACH | | AMERICAN TURNER | | DANISH AMERICAN BEACH CLUB | | LOCUST POINT YACHT CLUB | | MANHEM CLUB | | MORRIS YACHT AND BEACH CLUB | | SCHUYLER HILL CIVIC ASSOCIATION | | TRINITY DANISH | | WEST FORDHAM STREET ASSOCIATION | | WHITE CROSS FISHING CLUB | |
|---------------------|---------------|-------|-----------------|-------------|----------------------------|-------------|-------------------------|------------|-------------|-------------|-----------------------------|-------|---------------------------------|------------|----------------|------------|---------------------------------|-------|--------------------------|-------------|
| | 30 Day | Daily | 30 Day | Daily | 30 Day | Daily | 30 Day | Daily | 30 Day | Daily | 30 Day | Daily | 30 Day | Daily | 30 Day | Daily | 30 Day | Daily | 30 Day | Daily |
| 5/24/2014 | 6 | 4 | 15 | 8 | 12 | 8 | 5 | 5 | 11 | 7 | 7 | 4 | 8 | 7 | 12 | 4 | 11 | 9 | 27 | 5 |
| 5/31/2014 | 8 | 27 | 45 | 1267 | 36 | 1500 | 8 | 52 | 35 | 1133 | 7 | 4 | 14 | 59 | 35 | 733 | 14 | 13 | 87 | 2440 |
| 6/7/2014 | 6 | 4 | 39 | 5 | 30 | 4 | 8 | 5 | 27 | 4 | 6 | 4 | 12 | 4 | 23 | 5 | 14 | 5 | 55 | 13 |
| 6/14/2014 | 7 | 16 | 95 | 440 | 65 | 283 | 14 | 144 | 49 | 77 | 7 | 35 | 21 | 149 | 51 | 413 | 17 | 11 | 133 | 1160 |
| 6/21/2014 | 7 | 4 | 46 | 15 | 51 | 37 | 16 | 7 | 29 | 12 | 7 | 15 | 20 | 23 | 37 | 21 | 7 | 4 | 66 | 23 |
| 6/28/2014 | 7 | 4 | 42 | 5 | 45 | 4 | 17 | 13 | 26 | 4 | 7 | 4 | 18 | 4 | 38 | 5 | 7 | 7 | 66 | 5 |
| 7/5/2014 | 5 | 4 | 13 | 4 | 14 | 4 | 10 | 4 | 9 | 4 | 7 | 4 | 11 | 4 | 15 | 7 | 6 | 8 | 21 | 4 |
| 7/12/2014 | 5 | 5 | 21 | 79 | 19 | 23 | 10 | 4 | 12 | 20 | 10 | 44 | 11 | 4 | 19 | 23 | 8 | 20 | 28 | 48 |
| 7/19/2014 | 4 | 4 | 14 | 75 | 10 | 11 | 5 | 4 | 6 | 4 | 8 | 5 | 5 | 4 | 9 | 8 | 6 | 4 | 12 | 15 |
| 7/26/2014 | 4 | 4 | 12 | 5 | 7 | 4 | 5 | 4 | 5 | 4 | 6 | 4 | 4 | 4 | 7 | 4 | 7 | 7 | 12 | 36 |
| 8/2/2014 | 4 | 4 | 13 | 9 | 7 | 4 | 4 | 4 | 5 | 4 | 6 | 4 | 4 | 4 | 6 | 4 | 7 | 4 | 11 | 4 |
| 8/9/2014 | 4 | 4 | 13 | 4 | 7 | 4 | 4 | 4 | 5 | 4 | 6 | 4 | 4 | 4 | 6 | 4 | 6 | 4 | 13 | 28 |
| 8/16/2014 | 5 | 11 | 12 | 43 | 7 | 31 | 4 | 4 | 6 | 23 | 6 | 20 | 4 | 7 | 7 | 47 | 4 | 4 | 11 | 17 |
| 8/23/2014 | 5 | 4 | 8 | 5 | 6 | 4 | 4 | 4 | 6 | 8 | 5 | 4 | 4 | 4 | 8 | 11 | 4 | 4 | 10 | 12 |
| 8/30/2014 | 5 | 4 | 7 | 4 | 6 | 4 | 4 | 4 | 6 | 4 | 5 | 4 | 4 | 4 | 8 | 8 | 4 | 4 | 9 | 23 |
| 9/6/2014 | | | 6 | 4 | 6 | 4 | | | 6 | 4 | 6 | 5 | | | | | 4 | 5 | 9 | 4 |
| 9/13/2014 | | | | | 16 | 1820 | | | | | 7 | 12 | | | | | 4 | 7 | | |
| 9/20/2014 | | | | | | | | | | | 5 | 4 | | | | | 4 | 4 | | |
| 9/27/2014 | | | | | | | | | | | 7 | 20 | | | | | 6 | 25 | | |

Table A1-3: Queens Beaches Water Quality Results

Enterococci 30 Day Geometric Mean/Daily Average (Count/100ml)

Water Quality Standards- 30 day geomean limit: 35cfu/100ml, Daily Average limit: 104cfu/100ml

| Date of Week Ending | ROCKAWAY BEACH* | | BREEZY POINT 219 | | BREEZY POINT Reid Ave | | WHITESTONE BOOSTER CIVIC ASSOCIATION | | DOUGLASTON MANOR ASSOCIATION | |
|---------------------|-----------------|-------|------------------|-------|--------------------------|-------|--------------------------------------------|-------|---------------------------------|------------|
| | 30 Day | Daily | 30 Day | Daily | 30 Day | Daily | 30 Day | Daily | 30 Day | Daily |
| 5/24/2014 | | | | | | | 10 | 20 | 24 | 16 |
| 5/31/2014 | 8 | 4 | 8 | 4 | 10 | 4 | 17 | 96 | 50 | 213 |
| 6/7/2014 | | | | | | | 18 | 12 | 53 | 27 |
| 6/14/2014 | 4 | 4 | 5 | 8 | 4 | 4 | 27 | 81 | 48 | 268 |
| 6/21/2014 | | | | | | | 20 | 5 | 40 | 20 |
| 6/28/2014 | 4 | 4 | 5 | 4 | 4 | 4 | 15 | 5 | 34 | 7 |
| 7/5/2014 | | | | | | | 10 | 9 | 15 | 4 |
| 7/12/2014 | 4 | 4 | 5 | 4 | 4 | 4 | 14 | 44 | 31 | 197 |
| 7/19/2014 | | | | | | | 13 | 52 | 28 | 121 |
| 7/26/2014 | 4 | 4 | 4 | 4 | 4 | 4 | 14 | 8 | 27 | 7 |
| 8/2/2014 | | | | | | | 14 | 5 | 31 | 19 |
| 8/9/2014 | 4 | 4 | 6 | 16 | 4 | 4 | 14 | 9 | 33 | 7 |
| 8/16/2014 | | | | | | | 11 | 16 | 17 | 24 |
| 8/23/2014 | 4 | 4 | 6 | 4 | 4 | 4 | 7 | 5 | 9 | 4 |
| 8/30/2014 | | | | | | | 7 | 12 | 11 | 19 |
| 9/6/2014 | | | | | | | 7 | 4 | 11 | 27 |
| 9/13/2014 | | | | | | | | | 15 | 25 |
| 9/20/2014 | | | | | | | | | 10 | 4 |
| 9/27/2014 | | | | | | | | | 16 | 32 |

*Note: Rockaway and Breezy Point Beaches are routinely sampled bi-weekly.

Table A1-4: Staten Island Beaches Water Quality Results

Enterococci 30 Day Geometric Mean/Daily Average (Count/100ml)

Water Quality Standards- 30 day Geomean limit: 35cfu/100ml, Daily Average limit: 104cfu/100ml

Fresh Water Standards- 30 day Geomean limit: 33cfu/100ml, Daily Average limit: 61cfu/100ml

| Date of Week Ending | SOUTH BEACH | | MIDLAND BEACH | | CEDAR GROVE BEACH | | WOLFE'S POND BEACH | | STATEN ISLAND YMCA * | |
|------------------------|-------------|-------|---------------|-------|-------------------|-------|--------------------|-------|----------------------|-----------|
| | 30 Day | Daily | 30 Day | Daily | 30 Day | Daily | 30 Day | Daily | 30 Day | Daily |
| 5/24/2014 | 8 | 4 | 6 | 4 | 6 | 4 | 6 | 4 | 5 | 4 |
| 5/31/2014 | 6 | 5 | 6 | 4 | 6 | 4 | 6 | 4 | 6 | 13 |
| 6/7/2014 | 5 | 4 | 5 | 4 | 5 | 5 | 5 | 4 | 12 | 87 |
| 6/14/2014 | 18 | 80 | 12 | 15 | 20 | 87 | 14 | 91 | 36 | 56 |
| 6/21/2014 | 22 | 21 | 13 | 5 | 23 | 16 | 14 | 4 | 45 | 21 |
| 6/28/2014 | 22 | 4 | 13 | 4 | 23 | 4 | 14 | 4 | 47 | 5 |
| 7/5/2014 | 22 | 4 | 13 | 4 | 23 | 4 | 14 | 4 | 39 | 4 |
| 7/12/2014 | 21 | 4 | 13 | 4 | 22 | 4 | 14 | 4 | 25 | 8 |
| 7/19/2014 | 9 | 7 | 8 | 16 | 9 | 4 | 5 | 4 | 10 | 5 |
| 7/26/2014 | 7 | 4 | 7 | 4 | 7 | 4 | 5 | 4 | 7 | 4 |
| 8/2/2014 | 7 | 5 | 7 | 4 | 7 | 4 | 5 | 4 | 9 | 9 |
| 8/9/2014 | 9 | 17 | 7 | 4 | 9 | 28 | 5 | 4 | 10 | 12 |
| 8/16/2014 | 10 | 7 | 8 | 5 | 10 | 8 | 6 | 16 | 9 | 4 |
| 8/23/2014 | 6 | 5 | 4 | 4 | 6 | 4 | 5 | 4 | 6 | 4 |
| 8/30/2014 | 6 | 4 | 4 | 4 | 6 | 4 | 5 | 4 | 6 | 4 |

Table A2-1: 2014 Summary of Beach Samples and Exceedances

| Beach | Sample Location | Total # of Samples | # of Sample exceed 104 | % of Sample exceed 104 |
|------------------------------------------|-----------------|--------------------|------------------------|------------------------|
| ALL Beaches (Locations) TOTAL | | 1210 | 85 | 7.0% |
| Public Beaches (Locations) TOTAL | | 449 | 21 | 4.7% |
| Private Beaches (Locations) TOTAL | | 761 | 64 | 8.4% |

Table A2-2: 2014 Public Beaches Samples and Exceedances

| Beach | Sample Location | | Total # of Samples | # of Sample exceed 104 | % of Sample exceed 104 (Location) | % of Sample exceed 104 (Beach) |
|-----------------------------------------|------------------------------------|--------|--------------------|------------------------|-----------------------------------|--------------------------------|
| CEDAR GROVE | CEDAR GROVE | Left | 17 | 3 | 17.6% | 11.8% |
| | CEDAR GROVE | Center | 17 | 2 | 11.8% | |
| | CEDAR GROVE | Right | 17 | 1 | 5.9% | |
| CONEY ISLAND | CONEY ISLAND BR. 15TH - 6TH | Center | 16 | 1 | 6.3% | 3.1% |
| | CONEY ISLAND BR. 6TH - OCEAN PKWY | Center | 16 | 0 | 0.0% | |
| | CONEY ISLAND OCEAN PKWY - WEST 8TH | Center | 16 | 1 | 6.3% | |
| | CONEY ISLAND WEST 8TH - PIER | Center | 16 | 0 | 0.0% | |
| | CONEY ISLAND WEST 16TH - WEST 27TH | Center | 16 | 0 | 0.0% | |
| | CONEY ISLAND WEST 28TH - WEST 37TH | Center | 16 | 1 | 6.3% | |
| MANHATTAN BEACH | MANHATTAN BEACH | Left | 16 | 1 | 6.3% | 6.3% |
| | MANHATTAN BEACH | Center | 16 | 1 | 6.3% | |
| | MANHATTAN BEACH | Right | 16 | 1 | 6.3% | |
| MIDLAND BEACH | MIDLAND BEACH | Left | 17 | 1 | 5.9% | 5.9% |
| | MIDLAND BEACH | Center | 17 | 1 | 5.9% | |
| | MIDLAND BEACH | Right | 17 | 1 | 5.9% | |
| ORCHARD BEACH | ORCHARD BEACH | Left | 15 | 0 | 0.0% | 0.0% |
| | ORCHARD BEACH | Center | 15 | 0 | 0.0% | |
| | ORCHARD BEACH | Right | 15 | 0 | 0.0% | |
| ROCKAWAY BEACH | ROCKAWAY BEACH 9TH - 13TH | Center | 7 | 0 | 0.0% | 0.0% |
| | ROCKAWAY BEACH 15TH - 22TH | Center | 7 | 0 | 0.0% | |
| | ROCKAWAY BEACH 23RD - 59TH | Center | 7 | 0 | 0.0% | |
| | ROCKAWAY BEACH 59TH - 80TH | Center | 7 | 0 | 0.0% | |
| | ROCKAWAY BEACH 80TH - 95TH | Center | 7 | 0 | 0.0% | |
| | ROCKAWAY BEACH 95TH - 116TH | Center | 7 | 0 | 0.0% | |
| | ROCKAWAY BEACH 116TH - 126TH | Center | 7 | 0 | 0.0% | |
| | ROCKAWAY BEACH 126TH - 149TH | Center | 7 | 0 | 0.0% | |
| SOUTH BEACH | SOUTH BEACH | Left | 17 | 1 | 5.9% | 5.9% |
| | SOUTH BEACH | Center | 17 | 1 | 5.9% | |
| | SOUTH BEACH | Right | 17 | 1 | 5.9% | |
| WOLFE'S POND BEACH | WOLFE'S POND BEACH | Left | 17 | 1 | 5.9% | 5.9% |
| | WOLFE'S POND BEACH | Center | 17 | 1 | 5.9% | |
| | WOLFE'S POND BEACH | Right | 17 | 1 | 5.9% | |
| Public Beaches (Locations) Total | | | 449 | 21 | 4.7% | |

Table A2-3: 2014 Private Beaches Samples and Exceedances

| Beach | Sample Location | | Total # of Samples | # of Sample exceed 104 | % of Sample exceed 104 (Location) | % of Sample exceed 104 (Beach) |
|--------------------------------------|--------------------------------------|--------|--------------------|------------------------|-----------------------------------|--------------------------------|
| AMERICAN TURNER | AMERICAN TURNER | Left | 16 | 2 | 12.5% | 16.7% |
| | AMERICAN TURNER | Center | 16 | 4 | 25.0% | |
| | AMERICAN TURNER | Right | 16 | 2 | 12.5% | |
| BREEZY POINT 219 | BREEZY POINT 219 | Center | 7 | 0 | 0.0% | 0.0% |
| BREEZY POINT Reid Ave | BREEZY POINT Reid Ave | Center | 7 | 0 | 0.0% | 0.0% |
| DANISH AMERICAN BEACH CLUB | DANISH AMERICAN BEACH CLUB | Left | 17 | 3 | 17.6% | 17.6% |
| | DANISH AMERICAN BEACH CLUB | Center | 17 | 3 | 17.6% | |
| | DANISH AMERICAN BEACH CLUB | Right | 17 | 3 | 17.6% | |
| DOUGLSTON MANOR ASSOCIATION | DOUGLSTON MANOR ASSOCIATION | Left | 20 | 5 | 25.0% | 18.3% |
| | DOUGLSTON MANOR ASSOCIATION | Center | 20 | 4 | 20.0% | |
| | DOUGLSTON MANOR ASSOCIATION | Right | 20 | 2 | 10.0% | |
| GERRITSEN/KIDDIE BEACH | GERRITSEN/KIDDIE BEACH | Left | 16 | 1 | 6.3% | 6.3% |
| | GERRITSEN/KIDDIE BEACH | Center | 16 | 1 | 6.3% | |
| | GERRITSEN/KIDDIE BEACH | Right | 16 | 1 | 6.3% | |
| KINGSBOROUGH COMMUNITY COLLEGE | KINGSBOROUGH COMMUNITY COLLEGE | Left | 17 | 2 | 11.8% | 13.7% |
| | KINGSBOROUGH COMMUNITY COLLEGE | Center | 17 | 2 | 11.8% | |
| | KINGSBOROUGH COMMUNITY COLLEGE | Right | 17 | 3 | 17.6% | |
| LOCUST POINT YACHT CLUB | LOCUST POINT YACHT CLUB | Left | 15 | 1 | 6.7% | 4.4% |
| | LOCUST POINT YACHT CLUB | Center | 15 | 0 | 0.0% | |
| | LOCUST POINT YACHT CLUB | Right | 15 | 1 | 6.7% | |
| MANHEM CLUB | MANHEM CLUB | Left | 16 | 1 | 6.3% | 6.3% |
| | MANHEM CLUB | Center | 16 | 1 | 6.3% | |
| | MANHEM CLUB | Right | 16 | 1 | 6.3% | |
| MORRIS YACHT AND BEACH CLUB | MORRIS YACHT AND BEACH CLUB | Left | 19 | 0 | 0.0% | 0.0% |
| | MORRIS YACHT AND BEACH CLUB | Center | 19 | 0 | 0.0% | |
| | MORRIS YACHT AND BEACH CLUB | Right | 19 | 0 | 0.0% | |
| SCHUYLER HILL CIVIC ASSOCIATION | SCHUYLER HILL CIVIC ASSOCIATION | Left | 15 | 0 | 0.0% | 4.4% |
| | SCHUYLER HILL CIVIC ASSOCIATION | Center | 15 | 1 | 6.7% | |
| | SCHUYLER HILL CIVIC ASSOCIATION | Right | 15 | 1 | 6.7% | |
| SEA GATE 42ND | SEA GATE 42ND | Left | 16 | 1 | 6.3% | 4.2% |
| | SEA GATE 42ND | Center | 16 | 0 | 0.0% | |
| | SEA GATE 42ND | Right | 16 | 1 | 6.3% | |
| SEA GATE BEACH CLUB | SEA GATE BEACH CLUB | Left | 16 | 1 | 6.3% | 6.3% |
| | SEA GATE BEACH CLUB | Center | 16 | 1 | 6.3% | |
| | SEA GATE BEACH CLUB | Right | 16 | 1 | 6.3% | |
| TRINITY DANISH | TRINITY DANISH | Left | 15 | 2 | 13.3% | 13.3% |
| | TRINITY DANISH | Center | 15 | 2 | 13.3% | |
| | TRINITY DANISH | Right | 15 | 2 | 13.3% | |
| WEST FORDHAM STREET ASSOCIATION | WEST FORDHAM STREET ASSOCIATION | Left | 19 | 0 | 0.0% | 0.0% |
| | WEST FORDHAM STREET ASSOCIATION | Center | 19 | 0 | 0.0% | |
| | WEST FORDHAM STREET ASSOCIATION | Right | 19 | 0 | 0.0% | |
| WHITE CROSS FISHING CLUB | WHITE CROSS FISHING CLUB | Left | 16 | 2 | 12.5% | 12.5% |
| | WHITE CROSS FISHING CLUB | Center | 16 | 2 | 12.5% | |
| | WHITE CROSS FISHING CLUB | Right | 16 | 2 | 12.5% | |
| WHITESTONE BOOSTER CIVIC ASSOCIATION | WHITESTONE BOOSTER CIVIC ASSOCIATION | Left | 16 | 0 | 0.0% | 4.2% |
| | WHITESTONE BOOSTER CIVIC ASSOCIATION | Center | 16 | 2 | 12.5% | |
| | WHITESTONE BOOSTER CIVIC ASSOCIATION | Right | 16 | 0 | 0.0% | |
| Private Beaches (Locations) Total | | | 761 | 64 | 8.4% | |

Table A2-4: 2014 Private Beach (Fresh Water) Samples and Exceedances *

| Beach | Sample Location | | Total # of Samples | # of Sample exceed 61 | % of Sample exceed 61 (Location) * | % of Sample exceed 61 (Beach) |
|---------------------------------------------|--------------------|--------|--------------------|-----------------------|------------------------------------|-------------------------------|
| Staten Island YMCA | Staten Island YMCA | Left | 17 | 3 | 17.6% | 17.6% |
| | Staten Island YMCA | Center | 17 | 3 | 17.6% | |
| | Staten Island YMCA | Right | 17 | 3 | 17.6% | |
| Private Fresh Water Beach (Locations) Total | | | 51 | 9 | 17.6% | |

* Water Quality Standard for fresh water: 61cfu/100ml

APPENDIX B: 2014 WARNINGS AND CLOSURES

Table B-1: Summary of Beach Warnings and Closure

| Beach | Types | Reason | Start Date | End Date | Beach Days | # of Beach-Specific Days | Notification (Beach Specific Days) | | |
|-----------------|--------------------|------------------------------------------|------------|----------|------------|--------------------------|------------------------------------|---------|-------|
| | | | | | | | Warning | Closure | Total |
| NYC ALL Beaches | Warning or Closure | Enterococci Exceedance or Rainfall Event | 5/24/14 | 9/1/14 | 2229 | 397 | 333 | 64 | 397 |

Table B-2: Public Beaches Warnings and Closures

| Beach | Types | Reason | Start Date | End Date | Beach Days | # of Beach-Specific Days | Notification (Beach Specific Days) | | |
|----------------------|---------|------------------------|------------|----------|------------|--------------------------|------------------------------------|---------|-------|
| | | | | | | | Warning | Closure | Total |
| CEDAR GROVE* | Warning | Enterococci Exceedance | 6/11/14 | 6/12/14 | 98 | 2 | 3 | 0 | 3 |
| | Warning | Rainfall Event | 8/13/14 | 8/13/14 | | 1 | | | |
| CONEY ISLAND | Warning | Rainfall Event | 8/13/14 | 8/13/14 | 100 | 1 | 1 | 0 | 1 |
| MANHATTAN BEACH | Warning | Rainfall Event | 8/13/14 | 8/13/14 | 100 | 1 | 1 | 0 | 1 |
| MIDLAND BEACH | Warning | Enterococci Exceedance | 6/11/14 | 6/12/14 | 98 | 2 | 3 | 0 | 3 |
| | Warning | Rainfall Event | 8/13/14 | 8/13/14 | | 1 | | | |
| ORCHARD BEACH | | | | | 101 | 0 | 0 | 0 | 0 |
| ROCKAWAY BEACH | | | | | 101 | 0 | 0 | 0 | 0 |
| SOUTH BEACH | Warning | Enterococci Exceedance | 6/11/14 | 6/12/14 | 98 | 2 | 3 | 0 | 3 |
| | Warning | Rainfall Event | 8/13/14 | 8/13/14 | | 1 | | | |
| WOLFE'S POND PARK | Warning | Enterococci Exceedance | 6/11/14 | 6/12/14 | 99 | 2 | 2 | 0 | 2 |
| Public Beaches TOTAL | | | | | 795 | 13 | 13 | 0 | 13 |

*Cedar Grove beach was closed during 5/24/14-6/22/14 period for construction

Table B-3: Private Beaches Warnings and Closures

| Beach | Types | Reason | Start Date | End Date | Beach Days | # of Beach-Specific Days | Notification (Beach Specific Days) | | |
|-----------------------------------|---------|----------------------------------|------------|----------|------------|--------------------------|------------------------------------|---------|-------|
| | | | | | | | Warning | Closure | Total |
| AMERICAN TURNERS | Warning | Rainfall Event | 5/24/14 | 5/25/14 | 62 | 2 | 33 | 6 | 39 |
| | Closure | Confirmed Enterococci Exceedance | 5/30/14 | 6/4/14 | | 6 | | | |
| | Warning | Enterococci Exceedance | 6/5/14 | 6/12/14 | | 8 | | | |
| | Warning | Enterococci Exceedance | 6/19/14 | 7/2/14 | | 14 | | | |
| | Warning | Rainfall Event | 7/3/14 | 7/4/14 | | 2 | | | |
| | Warning | Rainfall Event | 7/15/14 | 7/16/14 | | 2 | | | |
| | Warning | Rainfall Event | 8/13/14 | 8/14/14 | | 2 | | | |
| | Warning | Rainfall Event | 8/22/14 | 8/23/14 | | 2 | | | |
| | Warning | Rainfall Event | 9/1/14 | 9/1/14 | | 1 | | | |
| BREEZY POINT 219 | | | | | 101 | 0 | 0 | 0 | 0 |
| BREEZY POINT REID | | | | | 101 | 0 | 0 | 0 | 0 |
| DANISH AMERICAN BEACH CLUB | Closure | Confirmed Enterococci Exceedance | 5/30/14 | 6/4/14 | 64 | 6 | 31 | 6 | 37 |
| | Warning | Rainfall Event | 6/9/14 | 6/10/14 | | 2 | | | |
| | Warning | Enterococci Exceedance | 6/13/14 | 7/2/14 | | 20 | | | |
| | Warning | Rainfall Event | 7/3/14 | 7/4/14 | | 2 | | | |
| | Warning | Rainfall Event | 7/15/14 | 7/16/14 | | 2 | | | |
| | Warning | Rainfall Event | 8/13/14 | 8/14/14 | | 2 | | | |
| | Warning | Rainfall Event | 8/22/14 | 8/23/14 | | 2 | | | |
| | Warning | Rainfall Event | 9/1/14 | 9/1/14 | | 1 | | | |
| DOUGLASTON HOMEOWNERS ASSOCIATION | Warning | Rainfall Event | 5/24/14 | 5/26/14 | 39 | 3 | 38 | 24 | 62 |
| | Closure | Confirmed Enterococci Exceedance | 5/30/14 | 6/4/14 | | 6 | | | |
| | Warning | Enterococci Exceedance | 6/5/14 | 6/12/14 | | 8 | | | |
| | Closure | Confirmed Enterococci Exceedance | 6/13/14 | 6/18/14 | | 6 | | | |
| | Warning | Enterococci Exceedance | 6/19/14 | 7/2/14 | | 14 | | | |
| | Warning | Rainfall Event | 7/3/14 | 7/5/14 | | 3 | | | |
| | Warning | Enterococci Exceedance | 7/10/14 | 7/11/14 | | 2 | | | |
| | Closure | Confirmed Enterococci Exceedance | 7/12/14 | 7/23/14 | | 12 | | | |
| | Warning | Rainfall Event | 8/2/14 | 8/3/14 | | 2 | | | |
| | Warning | Rainfall Event | 8/13/14 | 8/13/14 | | 1 | | | |
| | Warning | Rainfall Event | 8/22/14 | 8/24/14 | | 3 | | | |
| | Warning | Rainfall Event | 9/1/14 | 9/2/14 | | 2 | | | |
| GERRITSEN/KIDDIE BEACH | Warning | Rainfall Event | 5/24/14 | 5/25/14 | 78 | 2 | 21 | 2 | 23 |
| | Warning | Rainfall Event | 6/9/14 | 6/10/14 | | 2 | | | |
| | Warning | Rainfall Event | 6/13/14 | 6/15/14 | | 3 | | | |
| | Warning | Rainfall Event | 7/3/14 | 7/4/14 | | 2 | | | |
| | Warning | Rainfall Event | 7/15/14 | 7/17/14 | | 3 | | | |
| | Closure | Other Preemptive | 7/21/14 | 7/22/14 | | 2 | | | |
| | Warning | Rainfall Event | 7/28/14 | 7/28/14 | | 2 | | | |
| | Warning | Enterococci Exceedance | 7/30/14 | 7/31/14 | | 2 | | | |
| | Warning | Rainfall Event | 8/2/14 | 8/3/14 | | 2 | | | |
| | Warning | Rainfall Event | 8/13/14 | 8/13/14 | | 1 | | | |
| | Warning | Rainfall Event | 8/22/14 | 8/23/14 | | 2 | | | |
| | Warning | Rainfall Event | 9/1/14 | 9/1/14 | | 1 | | | |

Table B-3: Private Beaches Warnings and Closures (continued)

| Beach | Types | Reason | Start Date | End Date | Beach Days | # of Beach-Specific Days | Notification (Beach Specific Days) | | |
|---------------------------------|---------|----------------------------------|------------|----------|------------|--------------------------|------------------------------------|---------|-------|
| | | | | | | | Warning | Closure | Total |
| KINGSBOROUGH COMMUNITY COLLEGE | Warning | Enterococci Exceedance | 7/2/14 | 7/3/14 | 96 | 2 | 5 | 0 | 5 |
| | Warning | Enterococci Exceedance | 7/17/14 | 7/18/14 | | 2 | | | |
| | Warning | Rainfall Event | 8/13/14 | 8/13/14 | | 1 | | | |
| LOCUST POINT YACHT CLUB | Warning | Rainfall Event | 5/24/14 | 5/25/14 | 82 | 2 | 19 | 0 | 19 |
| | Warning | Rainfall Event | 6/9/14 | 6/10/14 | | 2 | | | |
| | Warning | Enterococci Exceedance | 6/13/14 | 6/18/14 | | 6 | | | |
| | Warning | Rainfall Event | 7/3/14 | 7/4/14 | | 2 | | | |
| | Warning | Rainfall Event | 7/15/14 | 7/16/14 | | 2 | | | |
| | Warning | Rainfall Event | 8/13/14 | 8/14/14 | | 2 | | | |
| | Warning | Rainfall Event | 8/22/14 | 8/23/14 | | 2 | | | |
| | Warning | Rainfall Event | 9/1/14 | 9/1/14 | | 1 | | | |
| MANHEM BEACH CLUB | Warning | Rainfall Event | 5/24/14 | 5/25/14 | 76 | 2 | 19 | 6 | 25 |
| | Closure | Confirmed Enterococci Exceedance | 5/30/14 | 6/4/14 | | 6 | | | |
| | Warning | Rainfall Event | 6/9/14 | 6/10/14 | | 2 | | | |
| | Warning | Enterococci Exceedance | 6/13/14 | 6/18/14 | | 6 | | | |
| | Warning | Rainfall Event | 7/3/14 | 7/4/14 | | 2 | | | |
| | Warning | Rainfall Event | 7/15/14 | 7/16/14 | | 2 | | | |
| | Warning | Rainfall Event | 8/13/14 | 8/14/14 | | 2 | | | |
| | Warning | Rainfall Event | 8/22/14 | 8/23/14 | | 2 | | | |
| | Warning | Rainfall Event | 9/1/14 | 9/1/14 | | 1 | | | |
| MORRIS YACHT AND BEACH CLUB | Warning | Rainfall Event | 5/24/14 | 5/25/14 | 88 | 2 | 13 | 0 | 13 |
| | Warning | Rainfall Event | 6/9/14 | 6/10/14 | | 2 | | | |
| | Warning | Rainfall Event | 6/13/14 | 6/13/14 | | 1 | | | |
| | Warning | Rainfall Event | 7/3/14 | 7/4/14 | | 2 | | | |
| | Warning | Rainfall Event | 7/15/14 | 7/16/14 | | 2 | | | |
| | Warning | Rainfall Event | 8/13/14 | 8/13/14 | | 1 | | | |
| | Warning | Rainfall Event | 8/22/14 | 8/23/14 | | 2 | | | |
| | Warning | Rainfall Event | 9/1/14 | 9/1/14 | | 1 | | | |
| SCHUYLER HILL CIVIC ASSOCIATION | Warning | Rainfall Event | 5/24/14 | 5/25/14 | 82 | 2 | 19 | 0 | 19 |
| | Warning | Rainfall Event | 6/9/14 | 6/10/14 | | 2 | | | |
| | Warning | Enterococci Exceedance | 6/13/14 | 6/18/14 | | 6 | | | |
| | Warning | Rainfall Event | 7/3/14 | 7/4/14 | | 2 | | | |
| | Warning | Rainfall Event | 7/15/14 | 7/16/14 | | 2 | | | |
| | Warning | Rainfall Event | 8/13/14 | 8/14/14 | | 2 | | | |
| | Warning | Rainfall Event | 8/22/14 | 8/23/14 | | 2 | | | |
| | Warning | Rainfall Event | 9/1/14 | 9/1/14 | | 1 | | | |
| SEAGATE 42nd | | | | | 101 | 0 | 0 | 0 | 0 |
| SEAGATE BEACH CLUB | | | | | 101 | 0 | 0 | 0 | 0 |

Table B-3: Private Beaches Warnings and Closures (continued)

| Beach | Types | Reason | Start Date | End Date | Beach Days | # of Beach-Specific Days | Notification (Beach Specific Days) | | |
|---------------------------------------|---------|----------------------------------|------------|----------|------------|--------------------------|------------------------------------|---------|-------|
| | | | | | | | Warning | Closure | Total |
| TRINITY DANISH YOUNG PEOPLE'S SOCIETY | Warning | Rainfall Event | 5/24/14 | 5/25/14 | 61 | 2 | 28 | 12 | 40 |
| | Closure | Confirmed Enterococci Exceedance | 5/30/14 | 6/4/14 | | 6 | | | |
| | Warning | Rainfall Event | 6/9/14 | 6/10/14 | | 2 | | | |
| | Closure | Confirmed Enterococci Exceedance | 6/13/14 | 6/18/14 | | 6 | | | |
| | Warning | Enterococci Exceedance | 6/19/14 | 7/2/14 | | 14 | | | |
| | Warning | Rainfall Event | 7/3/14 | 7/4/14 | | 2 | | | |
| | Warning | Rainfall Event | 7/15/14 | 7/16/14 | | 2 | | | |
| | Warning | Rainfall Event | 8/13/14 | 8/15/14 | | 3 | | | |
| | Warning | Rainfall Event | 8/22/14 | 8/23/14 | | 2 | | | |
| | Warning | Rainfall Event | 9/1/14 | 9/1/14 | | 1 | | | |
| WEST FORDHAM STREET ASSOCIATION | Warning | Rainfall Event | 5/24/14 | 5/25/14 | 86 | 2 | 15 | 0 | 15 |
| | Warning | Rainfall Event | 6/9/14 | 6/10/14 | | 2 | | | |
| | Warning | Rainfall Event | 6/13/14 | 6/14/14 | | 2 | | | |
| | Warning | Rainfall Event | 7/3/14 | 7/4/14 | | 2 | | | |
| | Warning | Rainfall Event | 7/15/14 | 7/16/14 | | 2 | | | |
| | Warning | Rainfall Event | 8/13/14 | 8/14/14 | | 2 | | | |
| | Warning | Rainfall Event | 8/22/14 | 8/23/14 | | 2 | | | |
| | Warning | Rainfall Event | 9/1/14 | 9/1/14 | | 1 | | | |
| WHITE CROSS FISHING CLUB | Warning | Rainfall Event | 5/24/14 | 5/25/14 | 61 | 2 | 34 | 6 | 40 |
| | Warning | Enterococci Exceedance | 6/5/14 | 6/12/14 | | 8 | | | |
| | Closure | Confirmed Enterococci Exceedance | 6/13/14 | 6/18/14 | | 6 | | | |
| | Warning | Enterococci Exceedance | 6/19/14 | 7/2/14 | | 14 | | | |
| | Warning | Rainfall Event | 7/3/14 | 7/5/14 | | 3 | | | |
| | Warning | Rainfall Event | 7/15/14 | 7/16/14 | | 2 | | | |
| | Warning | Rainfall Event | 8/13/14 | 8/14/14 | | 2 | | | |
| | Warning | Rainfall Event | 8/22/14 | 8/23/14 | | 2 | | | |
| | Warning | Rainfall Event | 9/1/14 | 9/1/14 | | 1 | | | |
| WHITESTONE BOOSTER CIVIC ASSOCIATION | Warning | Rainfall Event | 5/24/14 | 5/25/14 | 83 | 2 | 18 | 0 | 18 |
| | Warning | Rainfall Event | 6/9/14 | 6/10/14 | | 2 | | | |
| | Warning | Rainfall Event | 6/13/14 | 6/14/14 | | 2 | | | |
| | Warning | Rainfall Event | 7/3/14 | 7/4/14 | | 2 | | | |
| | Warning | Rainfall Event | 7/14/14 | 7/14/14 | | 1 | | | |
| | Warning | Rainfall Event | 7/15/14 | 7/17/14 | | 3 | | | |
| | Warning | Rainfall Event | 8/2/14 | 8/3/14 | | 2 | | | |
| | Warning | Rainfall Event | 8/13/14 | 8/13/14 | | 1 | | | |
| | Warning | Rainfall Event | 8/22/14 | 8/23/14 | | 2 | | | |
| | Warning | Rainfall Event | 9/1/14 | 9/1/14 | | 1 | | | |
| Staten Island YMCA | Closure | Confirmed Enterococci Exceedance | 6/11/14 | 6/12/14 | 73 | 2 | 26 | 2 | 28 |
| | Warning | Enterococci Exceedance | 6/13/14 | 7/8/14 | | 26 | | | |
| Private Beaches TOTAL | | | | | 1434 | 384 | 320 | 64 | 384 |

APPENDIX C: 2014 INSPECTION SUMMARY

Table C-1: Inspection Non-Compliance Summary *

| Beach Name | Public Health Hazard Violations** | General Violations*** | | | |
|--------------------|-----------------------------------|-----------------------|-----------|-----------|-----------|
| | 167.21(a)(1) | 167.31(a) | 167.31(b) | 167.31(d) | 167.31(e) |
| CEDAR GROVE | √ | | | | |
| CONEY ISLAND BEACH | | | √ | √ | √ |
| MANHATTAN | | | | √ | |
| MIDLAND BEACH | | | √ | | |
| SOUTH BEACH | | √ | √ | | |

* All other beaches were in full compliance of the regulations at the time of inspection

**** Public Health Hazard Violations:**

§167.21(a)(1) 1 Pocket face mask/shield for each active lifeguard not available

***** General Violations:**

§167.31(a) Failure to properly maintain and operate in a safe, clean, and sanitary condition

§167.31(b) Failure to provide adequate toilet and shower facilities

§167.31(d) Failure to provide liquid soap, paper towels or electric hand dryer

§167.31(e) Failure to properly maintain the building structure free of cracks or open joints on the walls or floors