

NEW YORK CITY BEACH

2011

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 2011 New York City Beach Surveillance and Monitoring Program for permitted beaches. This law requires that the Commissioner of Health and Mental Hygiene, to “forward a combined report of the dates and results of all inspections of all bathing beaches and the dates and reasons for any 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 NYC Department of Health and Mental Hygiene (DOHMH or 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 to its eight public and fifteen private permitted beaches. For the 2011 bathing season, the New York City Parks Department added Cedar Grove a Public Beach in Staten Island. The Program includes: 1) collecting routine beach water quality monitoring; 2) conducting annual compliance inspections of beach facilities; and 3) regulatory surveillance.

In 2011, the Department maintained its robust Beach Surveillance and Monitoring Program and was positioned to respond to a major wastewater treatment plant bypass into the Hudson River, record breaking storms, and Hurricane Irene.

The North River Treatment Plant bypass was caused by a fire in the engine room of the plant at 11:45 AM on July 20th. This resulted in the shutdown of the plant’s five main sewage pumps and subsequent discharge of raw sewage into the Hudson River. Throughout the incident, the Department worked with DEP to monitor the results of samples collected throughout the Hudson and East Rivers and at city beaches, and performed water quality modeling to predict and evaluate water quality conditions. A number of factors were evaluated in determining the extent and length of the Recreational Use Advisory as well as other beach Advisories and Closures as they occurred throughout the event. These factors included estimates on the total volume and duration of sewage being discharged, DEP’s efforts to stabilize plant operations, results of samples collected by DEP and the Department within the harbor and at beaches, and modeling using the PATH Model. The model was used to predict the movement and flow of the plume between tidal cycles within the Harbor. The Department coordinated with other City Agencies to provide timely accurate information to the public regarding water quality conditions. Beach Closures and Advisory information related to this event are outlined in section 3.2 below.

On August 14th 7.72 inches of rainfall was recorded at JFK Airport, the most ever recorded in a single day, breaking the previous record of 6.3 inches of rainfall set in 1983. This resulted in many areas being inundated with flooding. The hardest hit areas were in Staten Island where residents were pumping out flooded basements in Oakwood, Bay Terrace, Richmond, Great Kills, Wolf's Pond and Dongan Hills. Breezy Point residents were also pumping out flooded basements for much of the rest of the week.

On the evening of August 26th, prior to the arrival of Hurricane Irene, permitted New York City beaches voluntarily shut down operations. On August 29th the Department conducted a post storm evaluation of each facility to verify water quality and sanitary health and safety. All beaches re-opened by August 31st with the exception of the Staten Island beaches. Hurricane Irene together with the August 14th event contributed to the wettest August on record for New York City with Central Park measuring 18.95 inches of rainfall, besting the previous record of 16.85 set back in 1882, and inevitably impacting the beaches.

As a result of these major anomalous weather and operational events, beaches were impacted for a total of 26 days. Over the course of the 2011 bathing season, DOHMH took an additional 250 monitoring samples compared to 2010.

Figure 1: LOCATION OF NEW YORK CITY PERMITTED BEACHES



SECTION 2

BACKGROUND INFORMATION

This chapter provides background information on the New York City Beach Surveillance and Monitoring Program. The topics of discussion include pathogen indicators, bacteriological quality standards, classification of beaches, procedures and protocols on sampling and surveillance, and public notification and risk communication.

New York City has miles of shoreline available for recreational activities like swimming, boating, and fishing, and also commercial activities like shipping and transportation (refer to Figure 1, page 3 for beach locations). The City’s beaches function as an important recreational resource for City residents and neighboring communities. A list of permitted beaches and their associated water body identification are shown in Table 1 below.

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

Borough	Sector	Beaches	Area	Water body
Brooklyn	Public	Coney Island Manhattan	From Norton’s Point to Sheepshead Bay	Lower New York Bay
	Private	Seagate , Kiddie Gerritsen Kingsborough		
Bronx	Public	Orchard	From the southeastern border of Westchester County to just below the Throgs Neck Bridge at Throgs Point	Eastchester Bay, Western Long Island Sound
	Private	American Turner Danish American Manheim White Cross Morris Yacht Schuyler Hill Trinity Danish Locust Point Yacht Club West Fordham Street		
Queens	Public	Rockaway	The southern side of Rockaway Peninsula; From Norton’s Point to Sheepshead Bay; Little Neck Bay	Western Long Island Sound; Atlantic Ocean Coastline
	Private	Breezy Point Douglaston Manor Whitestone Booster Civic Association		
Staten Island	Public	Midland, South Wolfe’s Pond Park Cedar Grove	From Page Avenue, east of Tottenville to Fort Wadsworth Reservation	Lower New York Bay, Raritan Bay

2.1 Bacteriological Quality Standards

Under both the New York State Sanitary Code §6-2.15 and Article §167.03 and as required by 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 saline recreational beach water. Under both regulations, Enterococci single sample results shall not exceed 104 Colony Forming Units (CFU's) per 100 mL, and the Enterococci geometric mean shall not exceed 35 CFU per 100 mL for a series of five or more samples collected during a 30-day period. The geometric mean is determined by analyzing a series of five or more samples collected during a thirty day period for the presence and quantification of Enterococci using EPA method 1600.

2.2 Beach Classification and Status Updates

Beach classification and status updates are determined by evaluating water quality data, sanitary and safety surveys, site conditions, and/or historical information. Beachfront areas except those specifically restricted under Article §167.05 are classified as follows:

Class A: Open for Swimming and Bathing. All of the following conditions are considered in order for a beach to be classified as open and approved for swimming and bathing:

1. Bathing 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 bathing beaches.

Class B: Under Advisory – Not Recommended for Swimming and Bathing. When any of the following conditions are present, the Department may place the beach/facility under advisory, notifying the public of the likelihood of polluted water conditions, and recommend to the public to avoid swimming in the affected water body:

1. Rainfall events exceed the preemptive standards/threshold of New York City Wet Weather Advisories, as issued by the Department at the beginning of each bathing season.
2. A sanitary and safety survey or investigation reveals the presence of floatable debris, medical/infectious waste, toxic contaminants, petroleum products, and/or other contamination on the beach or evidence of sewage and wastewater discharge, which may constitute a potential public health hazard.

Swimming or bathing is not recommended in any areas placed under an Advisory by the Department, 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.

Under "Class B" beach classification, there are two advisories, Wet Weather Advisory and Pollution Advisory, and they are as follows:

Wet Weather Advisory: This is preemptive standard is defined as a threshold level of precipitation that, when exceeded, can lead to elevated levels of bacteria due to Combined Sewer Overflow (CSO) and Stormwater runoff. Untreated sewage bypasses and excess Stormwater runoff can potentially pose a public health threat in nearby bathing beach water bodies. The Wet Weather Advisories for the City beaches are shown in Table 2 below:

Table 2: NEW YORK CITY WET WEATHER ADVISORY PROTOCOL

Beach (Borough)	Rainfall Event Limit	Duration of Advisory
South Beach, Midland Beach, Cedar Grove (SI), Manhattan Beach, Kingsborough CC (BK)	1.5 – 2.5 inches	12 hours
	> 2.5 inches	24 hours
Orchard Beach (BX)	> 2.5 inches	24 hours
Coney Island (BK)	> 2.5 inches	12 hours
Gerritsen Beach (BK), Whitestone Booster (QNs)	0.3 - 0.6 inches	18 hours
	> 0.6 inches	40 hours
All Bronx Private Beaches (BX): American Turner Danish American , Manheim, White Cross, Morris Yacht, Schuyler Hill, Trinity Danish, Locust Point Yacht Club, West Fordham Street Assoc.	0.6 – 2.5 inches	36 hours
	> 2.5 inches	48 hours
Douglaston Manor (QNs)	0.3 – 0.6 inches	30 hours
	0.6 – 2.5 inches	60 hours
	> 2.5 inches	72 hours

Pollution Advisory: A Pollution Advisory is issued to warn the public to avoid recreational water contact when bacteria levels or other conditions that may contribute to possible illness are present. A pollution advisory is issued under the following conditions: (1) 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 sanitary and safety 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 (3) when there is evidence of sewage and wastewater discharge.

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

1. Confirmed samples show that bathing beach water quality exceeds 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.

2.3 Routine Monitoring and Surveillance Procedures

The routine beach monitoring and surveillance procedures consist of the following three major components: (1) routine beach water quality monitoring; (2) compliance inspections; and (3) regulatory surveillance.

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. Additional samples may be collected when necessary. 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.

Prior to sample collection, a visual inspection is performed to identify any existing and/or potential sources of pollution that are likely to affect beach water quality. During a sample event, three samples are collected at each beach. At larger beaches, such as Coney Island and Rockaway, additional samples are taken at multiple locations to ensure adequate representation and reliable data results. Water samples are collected at knee-depth (18 inches) in three feet of water, at the middle of a typical or most highly used area of the beach, or near a potential source of pollution. The collected samples are delivered to the Department's Office of Public Health Laboratories (PHL) for analysis. The analytical turnaround time for Enterococci is 24 hours.

The 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: (1) conduct immediate re-sampling; (2) issue a pollution advisory and conduct re-sampling; and/or (3) close the beach and conduct re-sampling.

Beach sanitary surveys are performed during the season at each permitted facility; direct observations of conditions are supplemented by interviews with lifeguards and other personnel. 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.

2.4 Public Notification and Risk Communication

Upon evaluation and assessment of beach water quality as specified above, when beach status changes occur, the Department notifies the public by on-site postings, website postings, through 311 (non-emergency government service hotline), via Notify NYC, Twitter, RSS, e-mail, SMS and through Department press releases (when necessary). This notification system proved invaluable when providing timely accurate information to the public as water quality conditions changed during the North River Treatment Plant incident and after Hurricane Irene. Beach operators are also notified by phone and/or email for onsite postings.

These procedures have three aims: (1) provide timely public notification and risk communication that allows the public to find out if a particular beach area is closed or poses a potential health risk and make informed decisions about which beaches to frequent; (2) promote public education and participation in keeping beaches cleaner and improving public health and safety; and (3) serve as a communication link between the public, environmental advocates and related agencies to provide an efficient means for reporting of bathing related illnesses, chemical spills, or other incidents.

The specific notification procedures and requirements for each of the above conditions are as follows:

On-Site Postings: When notified by the Department, the permittee is required to post or remove the advisory 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.

Website Postings: The Department has developed an easily accessible, multi-functional website www.nyc.gov/health/beach. The website contains background and public education information summarizing the beach program, explains the causes and sources of surface water pollution, and summarizes the beach classification system, including different types of advisories. The website also provides an electronic form titled “The Illness Complaint Form” for reporting illnesses suspected of being related to swimming and bathing. A list of City beaches by borough, along with their respective status (Open, Closed, or Under Advisory) and sample results are updated on the website. Additionally, beach advisories or closures are also posted under the “NYC Right Now” link on the City website, www.nyc.gov, during the bathing season.

311: The 311 telephone operators are updated by the Department via email with advisory or closure information, as described above. In addition to reporting swimming related illnesses via the website, the public can also report an illness via 311.

NYC Press Release: Press releases are formatted in a way that various types of media (newspaper, radio, website, television) can obtain and disseminate information.

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, E-Mail and SMS.

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. As shown in Attachment A (page 11), approximately 1,750 samples were collected and analyzed from these beaches between April and September compared with 1,500 the previous season. The additional samples were collected as part of the Department's response to the North River Treatment Plant bypass and reopening of beaches after the voluntary citywide closure prior to the arrival of Hurricane Irene. No illness complaints were received during this bathing season.

3.2 Advisories and Closures

The Department provided public information about beach quality and safety through on-going communication with beach operators, updating of the beach water quality website, and by providing information through 311, nyc.gov and Notify NYC via Twitter, RSS, e-mail and SMS. During the 2011 bathing season, several significant anomalous events directly impacted water quality and resulted in an increase in beach advisories and closures compared to previous years. A major fire at the North River Treatment Plant bypass resulted in a discharge of approximately 200 million gallons of sewage into the Hudson River, a major storm on August 14th, and Hurricane Irene resulted in significant rain and tidal surges. During and immediately following these events, several beaches were placed under advisory or closed.

As part of the response effort to the North River Treatment Plant bypass, a recreational advisory was issued on July 20th against recreational activities such as swimming, canoeing, kayaking, windsurfing or any other water activities that entailed possible direct contact with waters in the Hudson River, the Harlem River, parts of the East River, and parts of the Kill Van Kull to the Goethals Bridge. On July 21st, the Department initiated daily collection of samples at Seagate Beach in Brooklyn and at three Staten Island beaches, South, Midland and Cedar Grove. These beaches were placed under Advisory on July 22nd and closed on July 26th based on water quality monitoring and hydrological modeling. Seagate Beach was placed back into Advisory July 28th and the remainder of beach closures were lifted the evening of July 28th. The nearly 8 inch rain event on August 14th also resulted in extended Advisories and Closure for the Breezy Point 219th Street Beach Club in Queens and at South, Midland Cedar Grove and Wolfe's Pond beaches in Staten Island.

Extensive flooding brought about by the Hurricane resulted in many streams and bays becoming sediment laden including the Hudson River which spills into New York Harbor. The extensive sediment loadings to the Hudson River together with localized property and infrastructure flooding may have contributed the elevated Enterococcus concentrations at

these Staten Island beaches. These beaches were re-opened on September 1st except South beach which remained closed for the remainder of the bathing season.

Douglaston Manor Beach in Queens was closed a total of 81 days and had Pollution Advisories posted for a further 23 days during the season because of localized elevated bacteria levels, likely due to failing septic systems in the area. The specific Advisory and Closure dates for each beach, are shown in Attachment B-2011 Advisories & Closures (page 15).

3.3 Compliance Inspections

During the 2011 bathing season, a total of 115 inspections were conducted by the Department at permitted beaches. As shown in Attachment C-2011 Non-Compliance Summary (page 24), both general violations and public health hazard violations were observed at both public and private beaches.

APPENDIX A: 2011 WATER QUALITY RESULTS

**TABLE A-1: Brooklyn Beaches Water Quality Results
Enterococci Geometric Mean (Count/100ml)**

Water Quality Standards: 30 day limit: 35cfu/100ml, Single(1) Day 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
5/28/2011	7	8	6	7	16	9	10	4	13	5	19	12
6/4/2011	5	8	5	4	9	18	7	4	5	4	8	4
6/11/2011	5	4	5	4	10	18	7	4	5	4	8	4
6/18/2011	5	5	6	13	15	44	7	5	5	5	6	6
6/25/2011	5	4	6	4	24	62	4	6	5	5	5	4
7/2/2011	5	4	5	4	23	7	4	4	4	4	4	4
7/9/2011	5	5	6	9	21	12	4	4	4	4	5	5
7/16/2011	4	4	6	4	17	6	5	5	5	6	5	4
7/23/2011	5	12	5	5	11	5	4	4	6	4	4	4
7/30/2011	5	6	8	39	18	18	5	11	10	6	4	4
8/6/2011	5	8	9	10	31	189	6	10	9	4	5	13
8/13/2011	5	5	8	4	30	11	6	4	9	7	5	4
8/20/2011	7	41	12	4	38	23	11	7	11	36	9	93
8/27/2011	8	5	14	11	41	4	15	23	11	10	15	4
9/3/2011	9	5	11	15	29	15	18	24	13	15	19	12

TABLE A-2 Bronx Beaches Water Quality Results
Enterococci Geometric Mean (Count/100ml)

Water Quality Standards: 30 day limit: 35cfu/100ml, Single(1) Day 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
5/28/2011	5	4	109	36	20	4	25	5	24	7	11	9	18	4	38	39	13	8	25	27
6/4/2011	5	4	37	5	19	4	22	20	24	5	21	106	20	9	20	6	17	20	20	5
6/11/2011	5	4	25	6	17	4	23	24	17	5	21	4	19	12	16	4	19	7	22	7
6/18/2011	8	26	28	37	23	67	32	38	32	181	34	46	19	8	28	67	25	19	33	60
6/25/2011	6	4	15	17	9	13	17	16	13	13	16	6	11	52	15	10	16	45	19	38
7/2/2011	6	4	12	11	12	19	18	6	17	23	26	110	11	4	10	6	15	6	20	41
7/9/2011	6	4	15	20	13	5	21	51	20	12	14	5	14	32	11	8	13	10	30	35
7/16/2011	8	15	20	22	14	7	16	5	23	10	23	43	12	4	11	6	12	6	57	187
7/23/2011	5	4	13	5	8	4	9	4	11	4	14	4	10	4	6	4	10	6	33	4
7/30/2011	5	4	17	65	9	28	8	4	11	18	21	41	6	4	12	193	7	6	37	64
8/6/2011	5	4	21	28	8	10	15	169	9	8	12	6	10	59	14	15	6	4	33	25
8/13/2011	5	4	17	7	8	5	9	4	7	4	21	87	7	4	16	16	6	6	25	8
8/20/2011	4	5	13	6	8	6	9	6	6	4	23	81	7	4	15	4	9	64	11	4
8/27/2011	4	4	14	7	8	4	10	7	6	4	31	17	7	4	15	4	8	4	11	4
9/3/2011	6	7	14	6	13	47	14	8	11	54	29	35	15	14	31	44	9	13	15	37
9/10/2011			18	120	17	58			16	97			14	40			9	5	20	163
9/17/2011																	9	6		

TABLE A-3 Queens Beaches Water Quality Results
Enterococci Geometric Mean (Count/100ml)

Water Quality Standards- 30 day limit: 35cfu/100ml, Single(1) Day limit: 104cfu/100ml

Date of Week Ending	ROCKAWAY BEACH*		WHITESTONE BOOSTER CIVIC ASSOCIATION		DOUGLASTON MANOR ASSOCIATION		BREEZY POINT* 219		BREEZY POINT* Reid Ave	
	30 Day	Daily	30 Day	Daily	30 Day	Daily	30 Day	Daily	30 Day	Daily
5/28/2011	4	4	33	16	99	15	4	4	4	4
6/4/2011			35	9	132	34				
6/11/2011	4	4	26	11	95	218	4	4	4	4
6/18/2011			34	13	146	89				
6/25/2011	4	4	11	9	61	85	4	4	4	4
7/2/2011			9	4	47	4				
7/9/2011	4	4	8	9	54	74	6	12	5	8
7/16/2011			8	8	66	570				
7/23/2011	5	7	7	6	36	4	14	56	6	8
7/30/2011			9	31	46	300				
8/6/2011	5	4	17	120	187	4577	90	1100	6	4
8/13/2011			17	9	220	163	19	4		
8/20/2011	5	6	19	12	111	19	54	2100	5	4
8/27/2011			19	4	212	102	25	4		
9/3/2011	6	5	13	7	61	7	35	79	6	8
9/10/2011			10	28	38	179				
9/17/2011			10	8	23	4				

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

TABLE A-4 Staten Island Beaches Water Quality Results
Enterococci Geometric Mean (Count/100ml)

Water Quality Standards- 30 day limit: 35cfu/100ml, Single(1) Day limit: 104cfu/100ml

Date of Week Ending	SOUTH BEACH		MIDLAND BEACH		CEDAR GROVE BEACH		WOLFE'S POND BEACH	
	30 Day	Daily	30 Day	Daily	30 Day	Daily	30 Day	Daily
5/28/2011	17	72	17	28	10	48	12	9
6/4/2011	12	4	11	5	7	4	11	8
6/11/2011	14	9	9	4	7	4	8	4
6/18/2011	14	8	11	8	7	4	11	16
6/25/2011	11	7	7	4	7	5	9	18
7/2/2011	6	4	5	4	4	4	8	4
7/9/2011	6	4	5	4	5	7	7	4
7/16/2011	6	10	5	4	5	4	7	4
7/23/2011	7	16	4	4	5	4	6	5
7/30/2011	7	8	4	4	5	6	5	15
8/6/2011	9	41	5	11	5	5	6	6
8/13/2011	9	5	5	4	5	17	6	5
8/20/2011	12	17	9	72	8	20	15	6
8/27/2011	14	6	10	5	10	21	14	4
9/3/2011	54	93	26	8	26	18	25	13

APPENDIX B: 2011 ADVISORIES AND CLOSURES

TABLE B-1 Advisory and Closure Summary for Public Beaches

Name	Status	Start Date	End Date	Reason
Cedar Grove	Pollution Advisory	7/22/2011	7/25/2011	North River Treatment Plant Bypass
	Closure	7/26/2011	7/28/2011	North River Treatment Plant Bypass
	Wet Weather Advisory	8/14/2011	8/14/2011	August 14 th Rainfall Event
	Pollution Advisory	8/17/2011	8/18/2011	August 14 th Rainfall Event
	Preemptive Closure	8/27/2011	9/1/2011	Hurricane Irene
Coney Island	Wet Weather Advisory	8/14/2011	8/14/2011	August 14 th Rainfall Event
	Preemptive Closure	8/27/2011	8/30/2011	Hurricane Irene
Manhattan Beach	Wet Weather Advisory	8/14/2011	8/14/2011	August 14 th Rainfall Event
	Pollution Advisory	8/17/2011	8/18/2011	August 14 th Rainfall Event
	Preemptive Closure	8/27/2011	8/30/2011	Hurricane Irene
Midland Beach	Pollution Advisory	7/22/2011	7/25/2011	North River Treatment Plant Bypass
	Closure	7/26/2011	7/28/2011	North River Treatment Plant Bypass
	Wet Weather Advisory	8/14/2011	8/14/2011	August 14 th Rainfall Event
	Pollution Advisory	8/17/2011	8/18/2011	August 14 th Rainfall Event
	Preemptive Closure	8/27/2011	9/1/2011	Hurricane Irene
Orchard Beach	Wet Weather Advisory	8/14/2011	8/14/2011	August 14 th Rainfall Event
	Preemptive Closure	8/27/2011	8/30/2011	Hurricane Irene

TABLE B-1 Advisory and Closure Summary for Public Beaches (continued)

Name	Status	Start Date	End Date	Reason
Rockaway Beach	Preemptive Closure	8/27/2011	8/30/2011	Hurricane Irene
South Beach	Pollution Advisory	7/22/2011	7/25/2011	North River Treatment Plant Bypass
	Closure	7/26/2011	7/28/2011	North River Treatment Plant Bypass
	Wet Weather Advisory	8/14/2011	8/14/2011	August 14th Rainfall Event
	Pollution Advisory	8/17/2011	8/18/2011	August 14 th Rainfall Event
	Preemptive Closure	8/27/2011	9/1/2011	Hurricane Irene
	Closure	9/1/2011	9/5/2011	Confirmed Enterococci Exceedance Hurricane Irene
Wolfe's Pond	Pollution Advisory	8/17/2011	8/18/2011	August 14 th Rainfall Event
	Preemptive Closure	8/27/2011	9/1/2011	Hurricane Irene

TABLE B-2 Advisory and Closure Summary for Private Beaches

Name	Status	Start Date	End Date	Reason
American Turner	Pollution Advisory	5/28/2011	6/2/2011	Enterococci Exceedance
	Wet Weather Advisory	6/17/2011	6/17/2011	Preemptive Advisory
	Wet Weather Advisory	7/3/2011	7/4/2011	Preemptive Advisory
	Wet Weather Advisory	7/29/2011	7/30/2011	Preemptive Advisory
	Wet Weather Advisory	8/4/2011	8/4/2011	Preemptive Advisory
	Wet Weather Advisory	8/10/2011	8/10/2011	Preemptive Advisory
	Wet Weather Advisory	8/14/2011	8/15/2011	August 14 th Rainfall Event
	Wet Weather Advisory	8/20/2011	8/20/2011	Preemptive Advisory
	Wet Weather Advisory	8/22/2011	8/22/2011	Preemptive Advisory
	Preemptive Closure	8/27/2011	9/1/2011	Hurricane Irene
	Pollution Advisory	9/8/2011	9/11/2011	Enterococci Exceedance
Breezy Point 219 th Street	Pollution Advisory	8/18/2011	8/19/2011	August 14 th Rainfall Event
	Closure	8/20/2011	8/23/2011	August 14 th Rainfall Event
	Preemptive Closure	8/27/2011	8/30/2011	Hurricane Irene
Breezy Point Reid Ave	Preemptive Closure	8/27/2011	8/30/2011	Hurricane Irene
Danish American Beach Club	Wet Weather Advisory	6/17/2011	6/17/2011	Preemptive Advisory
	Wet Weather Advisory	7/3/2011	7/4/2011	Preemptive Advisory
	Wet Weather Advisory	7/30/2011	7/30/2011	Preemptive Advisory
	Wet Weather Advisory	8/4/2011	8/4/2011	Preemptive Advisory
	Wet Weather Advisory	8/10/2011	8/10/2011	Preemptive Advisory

TABLE B-2 Advisory and Closure Summary for Private Beaches (continued)

Name	Status	Start Date	End Date	Reason
Danish American Beach Club	Wet Weather Advisory	8/14/2011	8/15/2011	August 14 th Rainfall Event
	Wet Weather Advisory	8/20/2011	8/20/2011	Preemptive Advisory
	Wet Weather Advisory	8/22/2011	8/22/2011	Preemptive Advisory
	Preemptive Closure	8/27/2011	8/31/2011	Hurricane Irene
	Wet Weather Advisory	9/7/2011	9/7/2011	Preemptive Advisory
Douglaston Manor	Closure	5/28/2011	6/2/2011	Confirmed Enterococci Exceedance
	Pollution Advisory	6/3/2011	6/4/2011	Enterococci Exceedance
	Closure	6/5/2011	6/29/2011	Confirmed Enterococci Exceedance
	Pollution Advisory	6/30/2011	7/13/2011	Enterococci Exceedance
	Closure	7/14/2011	7/19/2011	Confirmed Enterococci Exceedance
	Closure	7/29/2011	9/2/2011	Confirmed Enterococci Exceedance
	Pollution Advisory	9/3/2011	9/8/2011	Enterococci Exceedance
	Closure	9/8/2011	9/15/2011	Confirmed Enterococci Exceedance
	Pollution Advisory	9/16/2011	9/18/2011	Enterococci Exceedance
Gerritsen/Kiddie	Wet Weather Advisory	6/11/2011	6/11/2011	Preemptive Advisory
	Wet Weather Advisory	6/17/2011	6/18/2011	Preemptive Advisory
	Wet Weather Advisory	7/3/2011	7/4/2011	Preemptive Advisory
	Wet Weather Advisory	7/9/2011	7/9/2011	Preemptive Advisory
	Closure	7/27/2011	7/28/2011	Confirmed Enterococci Exceedance
	Wet Weather Advisory	7/29/2011	7/31/2011	Preemptive Advisory

TABLE B-2 Advisory and Closure Summary for Private Beaches (continued)

Name	Status	Start Date	End Date	Reason
Gerritsen/ Kiddie	Pollution Advisory	8/3/2011	8/9/2011	Enterococci Exceedance
	Wet Weather Advisory	8/10/2011	8/10/2011	Preemptive Advisory
	Wet Weather Advisory	8/14/2011	8/16/2011	August 14 th Rainfall Event
	Pollution Advisory	8/19/2011	8/26/2011	Enterococci Exceedance
	Preemptive Closure	8/27/2011	8/31/2011	Hurricane Irene
Kingsborough Community College	Wet Weather Advisory	8/14/2011	8/14/2011	August 14 th Rainfall Event
	Pollution Advisory	8/17/2011	8/18/2011	August 14 th Rainfall Event
	Preemptive Closure	8/27/2011	8/31/2011	Preemptive Closure Hurricane Irene
Locust Point Yacht Club	Wet Weather Advisory	6/17/2011	6/17/2011	Preemptive Advisory
	Wet Weather Advisory	7/3/2011	7/4/2011	Preemptive Advisory
	Wet Weather Advisory	7/29/2011	7/30/2011	Preemptive Advisory
	Pollution Advisory	8/4/2011	8/9/2011	Enterococci Exceedance
	Wet Weather Advisory	8/10/2011	8/10/2011	Preemptive Advisory
	Wet Weather Advisory	8/14/2011	8/15/2011	August 14 th Rainfall Event
	Wet Weather Advisory	8/20/2011	8/20/2011	Preemptive Advisory
	Wet Weather Advisory	8/22/2011	8/22/2011	Preemptive Advisory
	Preemptive Closure	8/27/2011	8/31/2011	Hurricane Irene
Manhem Club	Pollution Advisory	6/16/2011	6/22/2011	Enterococci Exceedance
	Wet Weather Advisory	7/3/2011	7/4/2011	Preemptive Advisory

TABLE B-2 Advisory and Closure Summary for Private Beaches (continued)

Name	Status	Start Date	End Date	Reason
Manhem Club	Wet Weather Advisory	7/29/2011	7/30/2011	Preemptive Advisory
	Wet Weather Advisory	8/4/2011	8/4/2011	Preemptive Advisory
	Wet Weather Advisory	8/10/2011	8/10/2011	Preemptive Advisory
	Wet Weather Advisory	8/14/2011	8/15/2011	August 14 th Rainfall Event
	Wet Weather Advisory	8/20/2011	8/20/2011	Preemptive Advisory
	Wet Weather Advisory	8/22/2011	8/22/2011	Preemptive Advisory
	Preemptive Closure	8/27/2011	8/31/2011	Hurricane Irene
	Wet Weather Advisory	9/7/2011	9/7/2011	Preemptive Advisory
Morris Yacht and Beach Club	Wet Weather Advisory	6/17/2011	6/17/2011	Preemptive Advisory
	Wet Weather Advisory	7/3/2011	7/4/2011	Preemptive Advisory
	Wet Weather Advisory	7/29/2011	7/30/2011	Preemptive Advisory
	Wet Weather Advisory	8/4/2011	8/4/2011	Preemptive Advisory
	Wet Weather Advisory	8/10/2011	8/10/2011	Preemptive Advisory
	Wet Weather Advisory	8/14/2011	8/15/2011	August 14 th Rainfall Event
	Wet Weather Advisory	8/20/2011	8/20/2011	Preemptive Advisory
	Wet Weather Advisory	8/22/2011	8/22/2011	Preemptive Advisory
	Preemptive Closure	8/27/2011	8/31/2011	Hurricane Irene
Schuyler Hill Civic Association	Wet Weather Advisory	6/17/2011	6/17/2011	Preemptive Advisory
	Wet Weather Advisory	7/3/2011	7/4/2011	Preemptive Advisory
	Wet Weather Advisory	7/29/2011	7/30/2011	Preemptive Advisory

TABLE B-2 Advisory and Closure Summary for Private Beaches (continued)

Name	Status	Start Date	End Date	Reason
Schuyler Hill Civic Association	Wet Weather Advisory	8/4/2011	8/4/2011	Preemptive Advisory
	Wet Weather Advisory	8/10/2011	8/10/2011	Preemptive Advisory
	Wet Weather Advisory	8/14/2011	8/15/2011	August 14 th Rainfall Event
	Wet Weather Advisory	8/20/2011	8/20/2011	Preemptive Advisory
	Wet Weather Advisory	8/22/2011	8/22/2011	Preemptive Advisory
	Preemptive Closure	8/27/2011	8/31/2011	Hurricane Irene
	Closure	9/1/2011	9/2/2011	Confirmed Enterococci Exceedance
	Wet Weather Advisory	9/7/2011	9/7/2011	Preemptive Advisory
Sea Gate 42nd Street	Pollution Advisory	7/22/2011	7/25/2011	North River Treatment Plant Bypass
	Closure	7/26/2011	7/27/2011	North River Treatment Plant Bypass
	Pollution Advisory	7/28/2011	7/28/2011	North River Treatment Plant Bypass
	Preemptive Closure	8/27/2011	8/31/2011	Hurricane Irene
Sea Gate Beach Club	Pollution Advisory	7/22/2011	7/25/2011	North River Treatment Plant Bypass
	Closure	7/26/2011	7/27/2011	North River Treatment Plant Bypass
	Pollution Advisory	7/28/2011	7/28/2011	North River Treatment Plant Bypass
	Preemptive Closure	8/27/2011	8/31/2011	Hurricane Irene
Trinity Danish	Pollution Advisory	5/28/2011	6/2/2011	Enterococci Exceedance
	Wet Weather Advisory	6/17/2011	6/17/2011	Preemptive Advisory
	Wet Weather Advisory	7/3/2011	7/4/2011	Preemptive Advisory
	Pollution Advisory	7/29/2011	8/3/2011	Enterococci Exceedance

TABLE B-2 Advisory and Closure Summary for Private Beaches (continued)

Name	Status	Start Date	End Date	Reason
Trinity Danish	Wet Weather Advisory	8/4/2011	8/4/2011	Preemptive Advisory
	Wet Weather Advisory	8/10/2011	8/10/2011	Preemptive Advisory
	Wet Weather Advisory	8/14/2011	8/15/2011	August 14 th Rainfall Event
	Wet Weather Advisory	8/20/2011	8/20/2011	Preemptive Advisory
	Wet Weather Advisory	8/22/2011	8/22/2011	Preemptive Advisory
	Preemptive Closure	8/27/2011	9/2/2011	Hurricane Irene
West Fordham Street Association	Wet Weather Advisory	6/17/2011	6/17/2011	Preemptive Advisory
	Wet Weather Advisory	7/3/2011	7/4/2011	Preemptive Advisory
	Wet Weather Advisory	7/29/2011	7/30/2011	Preemptive Advisory
	Wet Weather Advisory	8/4/2011	8/4/2011	Preemptive Advisory
	Wet Weather Advisory	8/10/2011	8/10/2011	Preemptive Advisory
	Wet Weather Advisory	8/14/2011	8/15/2011	August 14 th Rainfall Event
	Wet Weather Advisory	8/20/2011	8/20/2011	Preemptive Advisory
	Wet Weather Advisory	8/22/2011	8/22/2011	Preemptive Advisory
	Preemptive Closure	8/27/2011	8/31/2011	Hurricane Irene
	Wet Weather Advisory	9/7/2011	9/7/2011	Preemptive Advisory
White Cross Fishing Club	Wet Weather Advisory	6/17/2011	6/17/2011	Preemptive Advisory
	Wet Weather Advisory	7/3/2011	7/4/2011	Preemptive Advisory
	Wet Weather Advisory	7/29/2011	7/30/2011	Preemptive Advisory
	Wet Weather Advisory	8/4/2011	8/4/2011	Preemptive Advisory

TABLE B-2 Advisory and Closure Summary for Private Beaches (continued)

Name	Status	Start Date	End Date	Reason
White Cross Fishing Club	Wet Weather Advisory	8/10/2011	8/10/2011	Preemptive Advisory
	Wet Weather Advisory	8/14/2011	8/15/2011	August 14 th Rainfall Event
	Wet Weather Advisory	8/20/2011	8/20/2011	Preemptive Advisory
	Wet Weather Advisory	8/22/2011	8/22/2011	Preemptive Advisory
	Preemptive Closure	8/27/2011	8/31/2011	Preemptive Closure Hurricane Irene
	Pollution Advisory	9/8/2011	9/15/2011	Enterococci Exceedance
Whitestone Booster Civic Association	Wet Weather Advisory	6/17/2011	6/18/2011	Preemptive Advisory
	Wet Weather Advisory	7/3/2011	7/4/2011	Preemptive Advisory
	Wet Weather Advisory	7/9/2011	7/9/2011	Preemptive Advisory
	Wet Weather Advisory	7/29/2011	7/30/2011	Preemptive Advisory
	Pollution Advisory	8/4/2011	8/9/2011	Enterococci Exceedance
	Wet Weather Advisory	8/10/2011	8/10/2011	Preemptive Advisory
	Wet Weather Advisory	8/14/2011	8/15/2011	August 14 th Rainfall Event
	Wet Weather Advisory	8/20/2011	8/20/2011	Preemptive Advisory
	Wet Weather Advisory	8/22/2011	8/22/2011	Preemptive Advisory
	Preemptive Closure	8/27/2011	8/31/2011	Preemptive Closure Hurricane Irene
	Wet Weather Advisory	9/7/2011	9/7/2011	Preemptive Advisory

APPENDIX C: 2011 INSPECTION SUMMARY

Table C 2011 Inspection Non-Compliance Summary

Beach Name	Public Health Hazard Violations *							General Violations **				
	167_09(13)	167_19(a)(1)	167_19(a)(4)	167_19(c)(1)	167_21(a)(1)	167_37(f)(1)	167_37(f)(2)(B)	167_31(a) & 167_39(b)	167_31(b) & 167_39(b)	167_31(c)	167_31(d) & 167_39(b)(2)	167_31(f) & 167_39(c)
CEDAR GROVE										1		
CONEY ISLAND	3							1			2	1
GERRITSEN/KIDDIE BEACH				1								
KINGSBOROUGH COM. COLLEGE								1				
LOCUST POINT YACHT CLUB				1								
MANHATTAN BEACH	1											
MIDLAND BEACH								2				
ORCHARD BEACH											1	
ROCKAWAY BEACH	2		2						1	1	1	
SOUTH BEACH								1			1	
WEST FORDHAM STREET ASSOC		1	1		1	1	1					

*** Public Health Hazard Violations:**

- §167.09(13) Any other condition determined to be a Public Health Hazard by the department (e.g. sewage/ wastewater, medical waste, petroleum or other hazardous materials in beach area).
- §167.19(a)(1) Failure to provide adequate number of lifeguard(s) or supervision
- §167.19(a)(4) Failure to post signs indicating "No Lifeguard on Duty - Bathing and Swimming Prohibited" at every entrance when lifeguard not on duty
- §167.19(c)(1) Failure to provide required qualifications and certificates
- §167.21(a)(1) 1 Pocket face mask/shield for each active lifeguard not provided
- §167.37(f)(1) Failure to post "No Diving" signs at all diving boards, platforms, piers, floats etc. in any area where the water depth is less than 8 feet
- §167.37(f)(2)(B) Failure to post signs indicating hours of operation for bathing

**** General Violations:**

- §167.31(a) & §167.39(b) Failure to properly maintain and operate in a safe, clean, and sanitary condition
- §167.31(b) & §167.39(b) Failure to provide adequate toilet and shower facilities
- §167.31(c) Failure to provide 50 feet of hosing with vacuum breaker
- §167.31(d) & §167.39(b)(2) Failure to provide liquid soap, paper towels or electric hand dryer
- §167.31(f) & §167.39(c) Failure to provide drinking water fountain or use of an unapproved or contaminated water supply source for potable water use.