

# NEW YORK CITY 2023

BEACH 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 2023 New York City Beach Surveillance and Monitoring Program for beaches permitted by the Department of Health and Mental Hygiene (the "Department"). This law requires that the Health Commissioner "forward a combined report of the dates and results of all inspections of all 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."

With the principal goal of protecting ocean beachgoers from potential health and safety hazards, the Department closely monitors and conducts surveillance of permitted beaches in New York City. Under the regulatory directive and authority of 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 administers the Beach Surveillance and Monitoring Program for all beaches operating within the City and with a permit issued by the Department. Program responsibilities include beach monitoring and surveillance, public notification and communication, and safety inspections.

The City's beaches function as an important recreational resource for residents and visitors. As shown in Figure 1 (page 2) and Table 1 (page 3), there are eight public beaches operated by the New York City Department of Parks and Recreation (NYC Parks) and 17 privately operated beaches and one privately operated freshwater lake within New York City.

FIGURE 1: NEW YORK CITY PERMITTED BEACHES

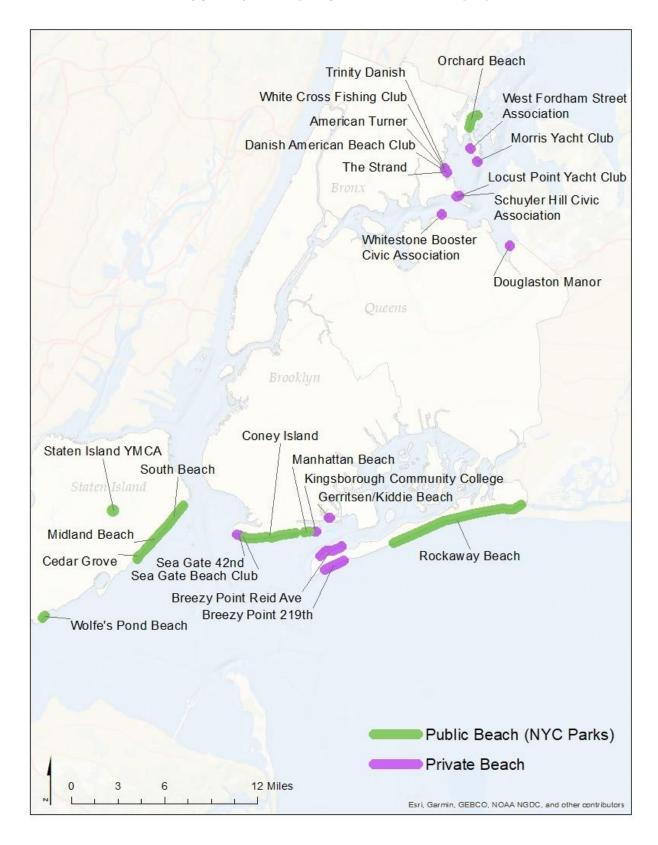


TABLE 1: New York City Permitted Beaches and Waterbody Identification

Borough	Beaches	Water body
Brooklyn	Public: Coney Island, Manhattan Beach Private: Sea Gate 42 <sup>nd*</sup> , Sea Gate Beach Club*, Gerritsen/Kiddie Beach, Kingsborough Community College	Lower New York Harbor
Bronx	Public: Orchard Beach Private: American Turner, Danish American Beach Club, The Strand, White Cross Fishing Club, Morris Yacht Club, Schuyler Hill Civic Association, Trinity Danish, Locust Point Yacht Club, West Fordham Street Association	Eastchester Bay, Western Long Island Sound
0	Public: Rockaway Beach Private: Breezy Point 219**, Breezy Point Reid**	Atlantic Ocean
Queens	Private: Douglaston Manor, Whitestone Booster Civic Association	Western Long Island Sound
Ctaton Island	Public: South Beach, Midland Beach, Cedar Grove Beach, Wolfe's Pond Beach	Lower New York Bay
Staten Island	Private: Staten Island YMCA	Freshwater Lake

<sup>\*</sup>Sea Gate 42nd and Sea Gate Beach Club operate under one permit; the Department performs water quality sampling at both locations.

# 1.1 Public Risk Communication

The Department continued public notification and risk communication during the beach season, using easy-to-interpret signs shown in Figure 2 for beach closures and advsories in 2023.

FIGURE 2: BEACH ADVISORY AND CLOSURE SIGNS





<sup>\*\*</sup>Breezy Point 219 and Breezy Point Reid operate under one permit; the Department performs water quality sampling at both locations.

"Know Before You Go," a free texting service introduced in 2014, was continued for the 2023 beach season. The service enables subscribers to make informed decisions before they go to a public beach. Through this service, users can check whether the beach is open or closed or if there are any advisories due to wet weather conditions or water quality concerns. Subscribers simply text "BEACH" to 55676 to learn the status of any of the eight public beaches in New York City. This tool also can be used by the Department to deliver notifications of high priority water quality advisories or closures, as well as safety-related messages, such as warnings for high rip currents, closures for extreme weather, and whether beaches are open or closed for the season. For example, the Department issued the following notification to all enrolled users:

NYC Beach: Beaches open for swimming May 27! For beach status, reply with a beach name or with "LOOK" to find a beach near you, or go to maps.nyc.gov/beach.

At the end of the 2022 season, the texting service had 14,240 English-language subscribers and 626 Spanish-language subscribers. By the close of the 2023 beach season, there were 14,907 English-language subscribers and 626 Spanish-language subscribers.

# SECTION 2

#### **BACKGROUND INFORMATION**

# 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), enterococci, bacteria that live in the intestinal tracks of warm-blooded animals, are 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 of saline water may not exceed 104 enterococci per 100 milliliter (mL) (61 enterococci per 100 mL for freshwater), and the geometric mean of five or more samples during a 30-day period may not exceed 35 enterococci per 100 mL (33 enterococci per 100 mL for freshwater). The geometric mean and single sample maximum are determined by analyzing samples for the presence and quantification of enterococci using the IDEXX Enterolert test method, a New York State ELAP certified method, as described in Standard Methods for the Examination of Water and Wastewater SM-9230D-2013. Water quality is measured in most probable number per 100 mL of water (MPN/100mL), an estimate of the number of bacteria in a water sample.

In November 2012, the Environmental Protection Agency (EPA) released revised Recreational Water Quality Criteria (RWQC). The revised criteria use a geometric mean and a statistical threshold value to indicate whether waters designated for primary contact recreation use are protective of human health. The 2012 revised criteria for marine waters are a 30-day geometric mean of 35 enterococci per 100 mL and a statistical threshold value of 130 enterococci per 100 mL; the statistical threshold value is one where no more than 10% of samples within 30 days shall exceed the criteria. The EPA also introduced a Beach Action Value (BAV) of 70 enterococci per 100 mL to be used as a precautionary notification threshold for beach management, replacing earlier guidance that provided single sample maximum values. These water quality criteria have been adopted by the New York State Department of Environmental Conservation (DEC) and became effective November 1, 2019. The New York State Department of Health (NYSDOH), however, has not yet promulgated equivalent bathing beach water quality standards in the State Sanitary Code, which is required before local beach programs can implement them.

#### 2.2 Rainfall Events

Preemptive rainfall thresholds have been developed for New York City beaches through statistical modeling of historical precipitation and water quality data. These thresholds are used as a management tool to provide a quick and reliable indication of water quality conditions. Because the majority of the city has combined stormwater and sewer conveyance systems, high levels of precipitation, greater than the rainfall thresholds, cause an excess of stormwater, which combines with the wastewater in the sewage systems. This combination can bypass the treatment system and flow into local waterbodies. This process, known as Combined Sewer Overflow (CSO), poses a public health threat to nearby beaches. When preemptive rainfall thresholds are met, as defined in Table 2, a public notification or advisory takes effect for the predetermined duration.

TABLE 2: New York City Preemptive Rainfall Thresholds

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

# 2.3 **Beach Classifications**

There are three swimming classifications for New York City beaches, which are determined by assessing water quality, rainfall and pollution events; onsite sanitary surveys; and/or historical information. Beaches, except those specifically restricted under Article §167.05, are classified as follows:

<u>Class A: Open for Swimming and Wading.</u> 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, i.e., no repeated complaints or reports of illness/injury received from the public or from owners/operators of city beaches.

<u>Class B: Advisory – Not Recommended for Swimming and Wading</u>. Beaches may be classified as "Not Recommended for Swimming and Wading," resulting in notifications to the public that swimming should be avoided to prevent contracting a swimming-related illness, when *one or more* of the following conditions exists:

- 1. Rainfall events exceed the preemptive rainfall thresholds.
- 2. 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. An onsite sanitary survey or investigation reveals the presence of floatable debris, medical/infectious waste, toxic contaminants, petroleum products, other contamination, or evidence of sewage and wastewater discharge.

<u>Class C: Closed – Temporarily Restricted for Swimming and Wading</u>: 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.
- 4. Any other environmental factors determined to be a public health or safety hazard by the Department are present.

# 2.4 Beach Monitoring and Surveillance

Starting one month before the beach season, the Department monitors and samples each beach weekly, except for Rockaway and Breezy Point beaches which are sampled biweekly. In addition to routine water quality monitoring, the Department monitors daily regional wet weather conditions and occasional wastewater treatment plant 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 onsite 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 representative points on the beach by wading into the water to a point where water depth is three feet and submerging the bottle to 18 inches below the water surface. At larger beaches, such as Coney Island and Rockaway Beach, samples are taken at more locations to ensure adequate representation and reliable results. Sea Gate and Breezy Point are permitted beaches where samples are taken at two separate locations for representative results. The collected samples are delivered to the Department's Public Health Laboratory for analysis. The analytical and processing turnaround time for enterococci using the current Enterolert methods is at least 24 hours.

The water quality of the samples analyzed is reviewed and assessed for conformance to applicable standards. If the regulatory limit for enterococci is exceeded or conditions exist that may pose a threat to the health and/or safety of the public, the Department either conducts immediate re-sampling, issues an advisory and conducts re-sampling, or closes the beach and conducts re-sampling. The determining factors for additional sampling may include proximity to suspected pollution sources, the extent of pollution, beach use, historical water quality data, and 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, "Know Before You Go" texting service, and Department press releases when necessary. Beach operators are notified by phone, email or text as to the necessary onsite postings. The specific notification procedures and requirements are as follows:

<u>Onsite Signage:</u> 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, comfort stations or the general vicinity of the common swimming areas.

<u>"Know Before You Go" Texting Service:</u> The "Know Before You Go" texting service number was updated in 2023. Subscribers text "BEACH" to 55676 to learn the beach status for any of the eight public beaches in New York City.

<u>Website Postings:</u> The Department has developed an easily accessible website with up-to-date information for all permitted beaches: <u>www.nyc.gov/health/beach</u>. The website contains background information on the beach program, explains the causes and sources of surface water pollution, and summarizes the beach classification system. A map of all city beaches visually indicates the respective status (open, closed, or advisory) for all beaches and provides the most recent sample results, along with all year-to-date samples results for that beach.

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

<u>311:</u> The 311 telephone operators monitor the Department's website for updates on advisory 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 <u>Inspections</u>

The Department conducts annual safety inspections and complaint inspections at bathing beaches to assure there is adequate lifeguard coverage for open beaches; that all staff, especially lifeguards and supervisors, have proper certifications; all required life-saving equipment is available, including rescue tubes, spine boards, first aid kits, and resuscitation equipment; and proper signage is posted on site. The inspections also evaluate beach facility cleanliness and safety. 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 was performed at 25 permitted beaches. Between April and September 2023 over 1,400 samples were collected and analyzed from these beaches.

In 2023, the Department received a water quality and ecological complaint for Cedar Grove beach. Several dead seabirds were observed there by patrons and lifeguards, who reported a foul smell and brown water. Upon investigation by the Department, an unusual number of dead bottom-dwelling marine animals, such as large snails, crabs, mussels, and oysters, were found on shore. The issue was reported to the New York State Department of Environmental Conservation, as well as to the United States Coast Guard. The Department did not receive any specific illness complaints due to contaminated water quality.

Water quality sample results, including 30-day geometric mean and daily averages and any associated criteria exceedances can be found in Appendix A (pages 12 to 18). Advisories and closures issued by the Department throughout the season are summarized in Appendix B (pages 19 to 22).

All private beaches had an average exceedance rate of 15.3%. Among them, Douglaston Manor had the highest single sample exceedance rate (31.8%), followed by several beaches with exceedance rates between 20%-30% (Whitestone Booster Civic Association, White Cross Fishing Club, American Turner, and Gerritsen/Kiddie Beach). Public beaches had an average exceedance rate of 7.5%. Among public beaches, Cedar Grove had the highest single sample exceedance rate (16.7%).

# 3.2 Public Notification for Advisories and Closures

Six of the eight public beaches were issued at least one swimming advisory notice during the 2023 bathing season due to water quality exceedance. This resulted in a total of 69 advisory notices, which ranged in length from 1 to 33 days. There was a total of nine closure days due to air quality issues, or shark sightings. The length of each beach closure did not exceed more than one day.

Due to poor air quality and low visibility because of smoke from wildfires in Canada, all eight public beaches were closed for swimming on Thursday, June 8<sup>th</sup>. Rockaway Beach was closed for one day on Tuesday, August 8<sup>th</sup> following a shark attack on Beach 59<sup>th</sup> street. The beach reopened the following day, Wednesday, August 9<sup>th</sup>.

Of the seventeen private beaches in New York City, sixteen were open in 2023. Twelve private beaches were issued at least one swimming advisory notice during the bathing season. This resulted in a total of 554 advisory notices with lengths ranging from 1 to 74 days. White Cross Fishing Club had the largest total number of advisory days, with a total of 74. Across all private beaches, there were a total of 32 closure days due to water quality exceedances. Whitestone Booster Civic Association had the largest number of closure days with a total of 15. The length of each beach closure ranged from 2 to 15 days. Public notification details can be found in Appendix B (pages 19 to 22).

# 3.3 Inspections

During the 2023 beach season, inspections of all open 24 public and private beaches were successfully conducted by the Department. Three beaches were cited for violations at the time of inspection as indicated in Appendix C. Disrepair of parts of the boardwalk was observed during the inspection of Coney Island Beach. Additionally, some toilet facilities were not properly maintained at Rockaway Beach and Orchard Beach.

# APPENDIX A: 2023 WATER QUALITY RESULTS AND EXCEEDANCE

# **Table A1-1: Brooklyn Beaches Water Quality Results**

#### Enterococci 30 Day Geometric Mean/Daily Average (MPN/100mL)

Water Quality Standards: 30 day geomean limit: 35 MPN/100mL, Daily average limit: 104 MPN/100mL

Date of Week Ending	CONEY ISLAND BEACH (public)		MANHATTAN BEACH (public)		BEA	GERRITSEN/ KIDDIE BEACH (private)		KINGSBOROUGH COMMUNITY COLLEGE** (private)		SEA GATE 42 <sup>ND</sup> (private)		SEA GATE BEACH CLUB (private)	
	30 Day	Daily	30 Day	Daily	30 Day	Daily	30 Day	Daily	30 Day	Daily	30 Day	Daily	
4/29/2023	14	15	40	69	18	20			18	20	10	10	
5/6/2023	16	22	63	106	38	82			76	323	27	93	
5/13/2023	14	10	45	47	24	10	10	10	52	35	26	27	
5/20/2023	13	10	39	69	19	10	21	49	34.5	10	29	83	
5/27/2023	12	10	38	49	18	17	16	10	27	10	25	10	
6/3/2023	11	10	31	17	18	28	14	10	25	13	25	10	
6/10/2023	10	10	22	28	12	10			13	13	18	17	
6/17/2023	10	17	28	75	14	24			11	10	16	17	
6/24/2023	11	13	23	10	14	10			11	13	12	10	
7/1/2023	11	10	18	10	14	13			11	10	12	10	
7/8/2023	11	12	20	24	24	135			13	24	13	20	
7/15/2023*	13	29	19	17	45	305			12	10	12	10	
7/22/2023	16	42	13	10	38	20			16	41	14	34	
7/29/2023	19	76	13	10	38	10			16	13	15	13	
8/5/2023	19	10	15	20	37	10			17	13	15	10	
8/12/2023*	25	13	13	17	62	3153			17	24	18	52	
8/19/2023	25	64	13	13	45	38			17	10	19	13	
8/26/2023*	21	10	13	10	41	10			13	10	16	13	
9/2/2023	19	12	13	10	92	600			12	10	15	10	
9/9/2023	20	15	11	10	101	17							

<sup>\*</sup> Mid-week sample results the week of 7/15/2023 at Gerritsen/Kiddie Beach resulted in water quality concerns, see appendix B for description.

<sup>\*</sup> Mid-week sample results the weeks of 8/12/2023 and 8/26/2023 at Coney Island Beach resulted in water quality concerns, see appendix B for description.

<sup>\*\*</sup> Kingsborough Community College did not open for the 2023 season.

# **Table A1-2: Bronx Beaches Water Quality Results**

#### Enterococci 30 Day Geometric Mean/Daily Average (MPN/100mL)

Water Quality Standards: 30 day geomean limit: 35 MPN/100mL, Daily average limit: 104 MPN/100mLmL

Date of Week Ending	ORCHARD BEACH (public)		TUR	RICAN NER vate)	AMEF BEACH	NISH RICAN I CLUB vate)	LOC POINT CLI (priv	UB		rRAND /ate)	YACH BEACH	RRIS T AND I CLUB vate)	HILL ASS	JYLER CIVIC GOC. vate)	DA	INITY ANISH rivate)	FORD STR	EST PHAM EET OC. vate)	FISHIN	E CROSS NG CLUB ivate)
	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
4/29/2023	10	10	16	20	10	10	10	10	14	17	10	10	10	10	16	20	10	10	10	10
5/6/2023	30	90	20	27	21	44	24	60	31	70	30	98	33	115	24	41	51	267	13	17
5/13/2023	22	13	23	38	31	66	19	13	34.9	45	21	10	22	10	22	28	30	10	14	27
5/20/2023	18	10	18	10	24	13	20	51	26	10	17	10	38	598	18	10	22	10	13	10
5/27/2023	16	10	19	24	23	24	18	13	22	13	16	10	29	10	16	10	19	10	14	24
6/3/2023	16	10	19	20	23	10	18	10	21	10	16	10	29	10	15	10	20	13	14	10
6/10/2023	10	10	17	17	22	42	15	24	16	24	10	10	19	13	13	24	10	10	14	13
6/17/2023	10	13	17	50	22	67	19	45	13	17	10	10	20	13	12	20	10	10	18	94
6/24/2023	11	13	32	221	27	46	23	82	21	104	10	13	11	10	20	122	11	17	32	152
7/1/2023	12	17	34	35	32	53	26	35	21	17	11	17	12	20	29	68	12	17	42	97
7/8/2023	13	17	36	10	36	20	30	20	29	34	12	10	15	20	43	42	12	10	56	10
7/15/2023*	13	10	28	10	30	17	28	20	25	17	15	169	14	10	62	35	14	27	49	34
7/22/2023	14	20	30	48	28	61	29	49	32	64	16	17	17	49	49	17	15	13	53	296
7/29/2023	15	39	18	24	22	13	20	10	20	10	15	10	17	10	33	13	14	10	37	27
8/5/2023	16	20	36	1575	34	419	18	13	26	55	16	27	17	24	32	104	13	10	55	766
8/12/2023	15	10	36	10	32	17	20	27	25	35	20	38	17	20	30	20	15	34	61	20
8/19/2023	17	28	119	4335	96	3678	39	667	73	3323	21	65	42	1128	58	3964	17	41	158	3389
8/26/2023	15	10	97	17	99	61	33	20	83	95	20	10	31	10	67	38	17	17	108	20
9/2/2023*	20	13	173	311	169	194	36	17	130	99	21	13	40	38	104	250	18	17	163	193
9/9/2023	20	10			93	17					18	10	35	10	75	10	18	10		
9/16/2023					155	277					21	91	47	93			23	86		
9/23/2023																	18	10		

<sup>\*</sup> Mid-week sample result on 7/15/2023 at Trinity Danish Beach resulted in a water quality exceedance, see appendix B for description.

<sup>\*</sup> Mid-week sample result on 9/2/2023 at Orchard Beach resulted in a water quality exceedance, see appendix B for description. Values highlighted in red indicate exceedance of recreational water quality criteria.

# **Table A1-3: Queens Beaches Water Quality Results**

#### Enterococci 30 Day Geometric Mean/Daily Average (MPN/100mL)

Water Quality Standards: 30 day geomean limit: 35 MPN/100mL, Daily Average limit: 104 MPN/100mL

Date of Week Ending	ROCKAW	AY BEACH blic)		BREEZY POINT 219 (Private)		NT REID AVE vate)	CIVIC ASS	NE BOOSTER OCIATION vate)	DOUGLASTON MANOR ASSOCIATION (Private)	
	30 Day	Daily	30 Day	Daily	30 Day	Daily	30 Day	Daily	30 Day	Daily
4/29/2023							10	10	10	10
5/6/2023	11	11	10	10	20	20	70	500	38	153
5/13/2023							56	152	25	10
5/20/2023	10	10	10	10	14	10	36	10	21	13
5/27/2023							28	10	26	67
6/3/2023	10	10	10	10	13	10	31	20	26	10
6/10/2023							20	64	30	293
6/17/2023	10	10	10	10	10	10	25	113	55	215
6/24/2023							41	158	55	13
7/1/2023	10	10	10	10	10	10	65	191	47	38
7/8/2023							93	64	30	10
7/15/2023*	10	10	10	10	10	10	67	10	58	1095
7/22/2023							62	45	31	10
7/29/2023	12	26	10	10	13	20	49	42	30	10
8/5/2023							41	49	34	59
8/12/2023	12	10	10	10	13	10	44	82	62	200
8/19/2023*							68	2468	105	31
8/26/2023	12	10	19	74	13	10	104	67	98	74
9/2/2023							133	137	148	207
9/9/2023	11	14							110	10
9/16/2023									97	104

<sup>\*</sup> Mid-week sample result the week of 7/15/2023 at Whitestone Booster resulted in a water quality exceedance, see appendix B for description.

<sup>\*</sup> Mid-week sample result the week of 8/19/2023 at Douglaston Manor resulted in a water quality exceedance, see appendix B for description. Values highlighted in red indicate exceedance of recreational water quality criteria.

# Table A1-4: Staten Island Beaches and Lake Water Quality Results

#### Enterococci 30 Day Geometric Mean/Daily Average (MPN/100mL)

Water Quality Standards: 30 day Geomean limit: 35 MPN/100mL, Daily Average limit: 104 MPN/100mL

Date of Week		BEACH blic)	MIDLAND BEACH (Public)			OVE BEACH blic)		OND BEACH blic)		ICA** hwater Lake)
Ending	30 Day	Daily	30 Day	Daily	30 Day	Daily	30 Day	Daily	30 Day	Daily
4/29/2023	18	20	25	27	16	20	10	10		
5/6/2023	52	167	43	88	42	113	17	38		
5/13/2023	34	17	26	10	26	10	14	10		
5/20/2023	25	10	21	10	21	10	13	10		
5/27/2023	21	10	18	10	18	10	16	45		
6/3/2023	18	10	15	10	17	17	16	10		
6/10/2023	11	10	10	10	11	10	13	10		
6/17/2023	11	35	10	13	11	13	13	10		
6/24/2023	11	10	11	13	11	10	16	42		
7/1/2023	11	10	12	20	12	17	13	10		
7/8/2023*	23	70	20	88	19	71	18	72		
7/15/2023	21	20	21	23	24	90	20	46		
7/22/2023*	26	17	28	59	40	144	22	17		
7/29/2023	27	13	27	10	42	13	18	10		
8/5/2023*	21	10	26	17	33	10	22	34		
8/12/2023*	46	2737	31	10	29	10	23	48		
8/19/2023*	44	109	28	24	29	34	22	35		
8/26/2023	41	10	21	10	22	43	22	17		
9/2/2023	47	31	21	10	23	17	31	64		
9/9/2023	55	55	19	10	22	13	32	68		

<sup>\*</sup> Mid-week sample results the weeks of 7/8/2023, 7/22/2023, and 8/19/2023 at South Beach resulted in a water quality exceedance, see appendix B for description.

Values highlighted in red indicate exceedance of recreational water quality criteria.

<sup>\*</sup> Mid-week sample results the weeks of 8/5/2023 and 8/12/2023 at Cedar Grove Beach resulted in a water quality exceedance, see appendix B for description.

<sup>\*</sup> Mid-week sample results the week of 8/12/2023 at Midland Beach resulted in a water quality exceedance, see appendix B for description.

<sup>\*\*</sup> Staten Island YMCA did not open for the 2023 season.

Table A2-1: 2023 Summary of Beach Samples and Single-Sample Exceedances

Beach	Sample Location	Total # of Samples	# of Sample Exceed 104	% of Sample Exceed 104
	ALL Beaches TOTAL	1464	178	12.2%
	Public Beaches TOTAL	586	44	7.5%
	Private Beaches TOTAL	878	134	15.3%

Table A2-2: 2023 Public Beaches Samples and Single-Sample Exceedances

Beach	Sample Location		Total # of Samples	# of Sample Exceed 104	% of Sample Exceed 104 (Location)	% of Sample Exceed 104 (Beach)
CEDAR	CEDAR GROVE	Left	22	4	18.2%	
CEDAR GROVE	CEDAR GROVE	Center	22	4	18.2%	16.7%
GNOVE	CEDAR GROVE	Right	22	3	13.6%	
	CONEY ISLAND BR. 15TH - 6TH	Center	20	0	0.0%	
	CONEY ISLAND BR. 6TH - OCEAN PKWY	Center	20	0	0.0%	
CONEY	CONEY ISLAND OCEAN PKWY - WEST 8TH	Center	21	0	0.0%	4.00/
ISLAND	CONEY ISLAND WEST 8TH - PIER	Center	22	4	18.2%	4.0%
	CONEY ISLAND WEST 16TH - WEST 27TH	Center	22	1	4.5%	
	CONEY ISLAND WEST 28TH - WEST 37TH	Center	21	0	0.0%	
	MANHATTAN BEACH	Left	20	2	10.0%	
MANHATTAN BEACH	MANHATTAN BEACH	Center	20	3	15.0%	10.0%
DEACH	MANHATTAN BEACH	Right	20	1	5.0%	7
	MIDLAND BEACH	Left	21	3	14.3%	
MIDLAND BEACH	MIDLAND BEACH	Center	21	2	9.5%	9.5%
DEACH	MIDLAND BEACH	Right	21	1	4.8%	7
	ORCHARD BEACH	Left	21	1	4.8%	
ORCHARD BEACH	ORCHARD BEACH	Center	21	2	9.5%	4.8%
BEACH	ORCHARD BEACH	Right	21	0	0.0%	
	ROCKAWAY BEACH 9TH - 13TH	Center	10	0	0.0%	
	ROCKAWAY BEACH 15TH - 22TH	Center	10	0	0.0%	
	ROCKAWAY BEACH 23RD - 59TH	Center	10	0	0.0%	
ROCKAWAY	ROCKAWAY BEACH 59TH - 80TH	Center	10	0	0.0%	0.00/
BEACH	ROCKAWAY BEACH 80TH - 95TH	Center	10	0	0.0%	0.0%
	ROCKAWAY BEACH 95TH - 116TH	Center	10	0	0.0%	
	ROCKAWAY BEACH 116TH - 126TH	Center	9	0	0.0%	7
	ROCKAWAY BEACH 126TH - 149TH	Center	10	0	0.0%	7
	SOUTH BEACH	Left	23	1	4.3%	
SOUTH	SOUTH BEACH	Center	23	4	17.4%	15.9%
BEACH	SOUTH BEACH	Right	23	6	26.1%	
	WOLFE'S POND BEACH	Left	20	1	5.0%	
WOLFE'S	WOLFE'S POND BEACH	Center	20	1	5.0%	3.3%
POND BEACH	WOLFE'S POND BEACH	Right	20	0	0.0%	1
	Public Beaches (Locations) Total	•	586	44	7.59	%

Table A2-3: 2023 Private Beaches Samples and Single-Sample Exceedances

Beach	Sample Location		Total # of Samples	# of Sample Exceed 104	% of Sample Exceed 104 (Location)	% of Sample Exceed 104 (Beach)
	AMERICAN TURNER	Left	19	4	21.1%	, , ,
AMERICAN TURNER	AMERICAN TURNER	Center	19	5	26.3%	22.8%
	AMERICAN TURNER	Right	19	4	21.1%	
BREEZY POINT 219	BREEZY POINT 219	Center	9	0	0.0%	0.0%
BREEZY POINT REID	BREEZY POINT REID AVE	Center	9	0	0.0%	0.0%
	DANISH AMERICAN BEACH CLUB	Left	21	3	14.3%	
DANISH AMERICAN BEACH CLUB	DANISH AMERICAN BEACH CLUB	Center	21	3	14.3%	19.0%
	DANISH AMERICAN BEACH CLUB	Right	21	6	28.6%	
	DOUGLASTON MANOR ASSOCIATION	Left	22	8	36.4%	
DOUGLASTON MANOR ASSOCIATION	DOUGLASTON MANOR ASSOCIATION	Center	22	6	27.3%	31.8%
	DOUGLASTON MANOR ASSOCIATION	Right	22	7	31.8%	
	GERRITSEN/KIDDIE BEACH	Left	21	5	23.8%	
GERRITSEN/KIDDIE BEACH	GERRITSEN/KIDDIE BEACH	Center	21	4	19.0%	22.2%
	GERRITSEN/KIDDIE BEACH	Right	21	5	23.8%	
	KINGSBOROUGH COMMUNITY COLLEGE	Left	4	0	0.0%	
KINGSBOROUGH COMMUNITY COLLEGE	KINGSBOROUGH COMMUNITY COLLEGE	Center	4	0	0.0%	0.0%
	KINGSBOROUGH COMMUNITY COLLEGE	Right	4	0	0.0%	
	LOCUST POINT YACHT CLUB	Left	19	1	5.3%	
LOCUST POINT YACHT CLUB	LOCUST POINT YACHT CLUB	Center	19	1	5.3%	8.8%
	LOCUST POINT YACHT CLUB	Right	19	3	15.8%	
	THE STRAND	Left	19	4	21.1%	
THE STRAND	THE STRAND	Center	19	1	5.3%	14.0%
	THE STRAND	Right	19	3	15.8%	
	MORRIS YACHT AND BEACH CLUB	Left	21	1	4.8%	
MORRIS YACHT AND BEACH CLUB	MORRIS YACHT AND BEACH CLUB	Center	21	1	4.8%	6.3%
	MORRIS YACHT AND BEACH CLUB	Right	21	2	9.5%	
	SCHUYLER HILL CIVIC ASSOCIATION	Left	21	1	4.8%	
SCHUYLER HILL CIVIC ASSOCIATION	SCHUYLER HILL CIVIC ASSOCIATION	Center	21	2	9.5%	9.5%
	SCHUYLER HILL CIVIC ASSOCIATION	Right	21	3	14.3%	
	SEA GATE 42 <sup>ND</sup>	Left	19	1	5.3%	
SEA GATE 42ND	SEA GATE 42 <sup>ND</sup>	Center	19	1	5.3%	5.3%
	SEA GATE 42 <sup>ND</sup>	Right	19	1	5.3%	
	SEA GATE BEACH CLUB	Left	19	0	0.0%	
SEA GATE BEACH CLUB	SEA GATE BEACH CLUB	Center	19	1	5.3%	3.6%
	SEA GATE BEACH CLUB	Right	18	1	5.6%	
	TRINITY DANISH	Left	21	3	14.3%	
TRINITY DANISH	TRINITY DANISH	Center	21	3	14.3%	17.5%
	TRINITY DANISH	Right	21	5	23.8%	
	WEST FORDHAM STREET ASSOCIATION	Left	22	1	4.5%	
WEST FORDHAM STREET ASSOCIATION	WEST FORDHAM STREET ASSOCIATION	Center	22	1	4.5%	4.5%
I GILDIN IIII GIRLEI AGGOLATION	WEST FORDHAM STREET ASSOCIATION	Right				7.5/0
	WEST TONDITAIN STREET ASSOCIATION	Ngiit	22	1	4.5%	

Beach	Sample Location		Total # of Samples	# of Sample Exceed 104	% of Sample Exceed 104 (Location)	% of Sample Exceed 104 (Beach)
	WHITE CROSS FISHING CLUB	Left	19	6	31.6%	
WHITE CROSS FISHING CLUB	WHITE CROSS FISHING CLUB	Center	19	4	21.1%	26.3%
	WHITE CROSS FISHING CLUB	Right	19	5	26.3%	
	WHITESTONE BOOSTER CIVIC ASSOCIATION Left 20 5				25.0%	
WHITESTONE BOOSTER CIVIC ASSOCIATION	WHITESTONE BOOSTER CIVIC ASSOCIATION	Center	20	5	25.0%	28.3%
	WHITESTONE BOOSTER CIVIC ASSOCIATION	Right	20	7	35.0%	
Private Bea	ches (Locations) Total	878	134	15.	3%	

Table A2-4: 2023 Private Freshwater Lake Samples and Single-Sample Exceedances

Beach	Sample Location	Total # of Samples	# of Sample Exceed 61	% of Sample Exceed 61 (Location)	% of Sample Exceed 61 (Lake)	
	Staten Island YMCA	Left	0	0	0.00%	
Staten Island YMCA	Staten Island YMCA	Center	0	0	0.00%	0.00%
	Staten Island YMCA Rig		0	0	0.00%	
Private Freshwater Lake (Locations) Total			0	0	0.00	0%

# APPENDIX B: 2023 ADVISORIES AND CLOSURES

Table B-1: Summary of Beach Advisories and Closure

Beach	Types	Reason	Start Date	End Date**	Beach Open Days	Open Days Specific (Seach Specific Bays			
						Days	Advisory	Closure	Total
NYC ALL Beaches (N=25)*	Advisory or Closure	Enterococci Exceedance, Rainfall Event, Air Quality, Shark Sighting	5/27/2023	9/10/2023	1,850	664	623	41	664

<sup>\*</sup>One private beach did not open for 2023 season.

**Table B-2: Public Beaches Advisories and Closures** 

Beach	Types	Reason	Start Date	End Date	Beach Open	# of Beach- Specific Days	Notification (Beach Specific Days)		
	7,,				Days		Advisory	Closure	Total
	Closure	Other - Air Quality	06/08/2023	06/08/2023		1			
CEDAR GROVE	Advisory	Enterococci Exceedance	07/19/2023	08/04/2023	87	17	19	1	20
	Advisory	Enterococci Exceedance	08/09/2023	08/10/2023		2			
	Closure	Other - Air Quality	06/08/2023	06/08/2023	102	1			
CONEY ISLAND	Advisory	Enterococci Exceedance	08/09/2023	08/10/2023		2	4	1	5
	Advisory	Enterococci Exceedance	08/23/2023	08/24/2023		2			
MANHATTAN	Advisory	Enterococci Exceedance	05/27/2023	05/31/2023	101	5	5	1	6
BEACH	Closure	Other - Air Quality	06/08/2023	06/08/2023		1			0
MIDLAND	Closure	Other - Air Quality	06/08/2023	06/08/2023	104	1	2	1	3
BEACH	Advisory	Enterococci Exceedance	08/09/2023	08/10/2023	104	2			3
ROCKAWAY	Closure	Other - Air Quality	06/08/2023	06/08/2023	105	1	- 0	2	2
BEACH	Closure	Other – Shark Sighting	08/08/2023	08/08/2023	105	1			2
ORCHARD	Closure	Other - Air Quality	06/08/2023	06/08/2023	104	1			3
BEACH	Advisory	Enterococci Exceedance	08/31/2023	09/01/2023	104	2	2	1	3
	Closure	Other - Air Quality	06/08/2023	06/08/2023		1			
COLUTIL DE ACLI	Advisory	Enterococci Exceedance	07/07/2023	07/08/2023	69	2	27	1	20
SOUTH BEACH	Advisory	Enterococci Exceedance	07/19/2023	07/20/2023		2	37	1	38
	Advisory	Enterococci Exceedance	08/09/2023	09/10/2023		33			
WOLFE'S POND PARK	Closure	Other - Air Quality	06/08/2023	06/08/2023	106	1	0	1	1
	F	778	78	69	9	78			

<sup>\*\*</sup> Several private beaches closed for the season on 9/4/2023.

**Table B-3: Private Beaches Advisories and Closures** 

Beach	Types	Reason	Start Date	End Date	Beach Open Days	# of Beach- Specific Days	Notification (Beach Specific Days)		
	,,						Warning	Closure	Total
	Advisory	Enterococci Exceedance	06/23/2023	06/28/2023		6			
	Advisory	Rainfall Event	07/03/2023	07/04/2023		2			
AMERICAN TURNER	Warning	Enterococci Exceedance	07/08/2023	07/12/2023	53	5	48	0	48
TOMMEN	Warning	Rainfall Event	07/16/2023	07/17/2023		2			
	Warning	Enterococci Exceedance	08/03/2023	09/04/2023		33			
BREEZY POINT 219					101	0	0	0	0
BREEZY POINT REID					101	0	0	0	0
	Warning	Rainfall Event	07/03/2023	07/04/2023		2			
	Warning	Enterococci Exceedance	07/08/2023	07/12/2023		5		0	
DANISH AMERICAN BEACH	Warning	Rainfall Event	07/16/2023	07/17/2023	62	2	45		45
CLUB	Warning	Enterococci Exceedance	08/03/2023	08/09/2023	62	7	- -		45
	Warning	Rainfall Event	08/13/2023	08/16/2023		4			
	Warning	Enterococci Exceedance	08/17/2023	09/10/2023		25			
	Closure	Enterococci Exceedance	06/08/2023	06/14/2023		7	- 66	10	
	Warning	Enterococci Exceedance	06/15/2023	06/22/2023		8			
	Warning	Enterococci Exceedance	06/23/2023	07/07/2023		15			
	Warning	Rainfall Event	07/10/2023	07/11/2023		2			
DOUGLASTON MANOR	Warning	Enterococci Exceedance	07/13/2023	07/19/2023	31	7			76
ASSOCIATION	Warning	Rainfall Event	07/26/2023	07/26/2023	31	1	00		76
	Warning	Rainfall Event	07/28/2023	07/28/2023		1			
	Warning	Rainfall Event	08/07/2023	08/09/2023		3			
	Warning	Enterococci Exceedance	08/10/2023	08/16/2023		7			
	Closure	Enterococci Exceedance	08/17/2023	08/18/2023	]	2			
	Warning	Enterococci Exceedance	08/19/2023	09/10/2023		23			
	Warning	Rainfall Event	07/04/2023	07/04/2023	40	1			
GERRITSEN/KIDDIE BEACH	Warning	Enterococci Exceedance	07/07/2023	07/11/2023		5	60	7	67
	Closure	Enterococci Exceedance	07/12/2023	07/18/2023	40	7			07
	Warning	Enterococci Exceedance	07/19/2023	09/10/2023		54			
KINGSBOROUGH COMMUNITY COLLEGE					0	0	0	0	0

Beach	Types	Reason	Start Date	End Date	Beach Open	# of Beach-	Notification (Beach Specific Days)		
					Days	Specific Days	Warning	Closure	Total
	Warning	Rainfall Event	07/03/2023	07/04/2023		2			
	Warning	Rainfall Event	07/10/2023	07/10/2023		1			
	Warning	Rainfall Event	07/16/2023	07/17/2023		2			
LOCUST POINT	Warning	Rainfall Event	08/07/2023	08/08/2023	76	2	25	0	25
YACHT CLUB	Warning	Rainfall Event	08/13/2023	08/16/2023		4	25	U	23
	Warning	Enterococci Exceedance	08/17/2023	08/23/2023		7			
	Warning	Rainfall Event	08/26/2023	08/27/2023		2			
	Warning	Enterococci Exceedance	08/31/2023	09/04/2023		5			
	Warning	Enterococci Exceedance	06/23/2023	06/28/2023		6			
	Warning	Rainfall Event	07/03/2023	07/04/2023		2		0	
	Warning	Rainfall Event	07/10/2023	07/10/2023	65	1	36		
THE STRAND	Warning	Rainfall Event	07/16/2023	07/17/2023		2			36
	Warning	Rainfall Event	08/07/2023	08/08/2023		2			
	Warning	Rainfall Event	08/13/2023	08/16/2023		4			
	Warning	Enterococci Exceedance	08/17/2023	09/04/2023		19			
	Warning	Rainfall Event	07/03/2023	07/04/2023		2	22	0	
	Warning	Rainfall Event	07/10/2023	07/10/2023		1			
	Warning	Enterococci Exceedance	07/13/2023	07/19/2023		7			
MORRIS YACHT AND BEACH CLUB	Warning	Rainfall Event	08/07/2023	08/08/2023	85	2			22
AND BLACH CLOB	Warning	Rainfall Event	08/13/2023	08/19/2023		7			
	Warning	Rainfall Event	08/26/2023	08/27/2023		2			
	Warning	Rainfall Event	09/10/2023	09/10/2023		1			
	Warning	Rainfall Event	07/03/2023	07/04/2023		2			
	Warning	Rainfall Event	07/10/2023	07/10/2023		1			
	Warning	Rainfall Event	07/16/2023	07/17/2023		2			
SCHUYLER HILL CIVIC	Warning	Rainfall Event	08/07/2023	08/08/2023	70	2	24	0	24
ASSOCIATION	Warning	Rainfall Event	08/13/2023	08/16/2023	76	4	31	0	31
	Warning	Enterococci Exceedance	08/17/2023	08/23/2023		7			
	Warning	Rainfall Event	08/26/2023	08/27/2023		2			
	Warning	Enterococci Exceedance	08/31/2023	09/10/2023		11			
SEAGATE 42nd	_				101	0	0	0	0
SEAGATE BEACH CLUB					101	0	0	0	0

Beach	Types Rea	Reason	Reason Start Date	End Date	Beach Open	# of Beach- Specific Days	Notification (Beach Specific Days)		
					Days		Warning	Closure	Total
	Warning	Enterococci Exceedance	06/23/2023	06/28/2023		6			
	Warning	Rainfall Event	07/03/2023	07/04/2023		2			
TRINITY DANISH YOUNG PEOPLE'S	Warning	Enterococci Exceedance	07/08/2023	07/26/2023	44	19	63	0	63
SOCIETY	Warning	Enterococci Exceedance	08/03/2023	08/09/2023		7			
	Warning	Rainfall Event	08/13/2023	08/16/2023		4			
	Warning	Enterococci Exceedance	08/17/2023	09/10/2023		25			
	Warning	Rainfall Event	07/03/2023	07/04/2023	-	2	17	0	
	Warning	Rainfall Event	07/10/2023	07/10/2023		1			
WEST FORDHAM	Warning	Rainfall Event	07/16/2023	07/17/2023		2			
STREET	Warning	Rainfall Event	08/07/2023	08/08/2023	90	2			17
ASSOCIATION	Warning	Rainfall Event	08/13/2023	08/19/2023		7			
	Warning	Rainfall Event	08/26/2023	08/27/2023		2			
	Warning	Rainfall Event	09/10/2023	09/10/2023		1			
WHITE CROSS FISHING CLUB	Warning	Enterococci Exceedance	06/23/2023	09/04/2023	27	74	74	0	74
WHITESTONE	Warning	Enterococci Exceedance	06/15/2023	06/22/2023	19	8			
BOOSTER CIVIC	Closure	Enterococci Exceedance	06/23/2023	07/07/2023		15	67	15	82
ASSOCIATION	Warning	Enterococci Exceedance	07/08/2023	09/04/2023		59			
	Private Beaches TOTAL						554	32	586

# **APPENDIX C: 2023 INSPECTION SUMMARY**

Table C-1: Inspection Non-Compliance Summary\*

Beach Name	General Violations**					
	167.31(a)	167.09(a)(13)				
CONEY ISLAND BEACH		٧				
ROCKAWAY BEACH	٧					
ORCHARD BEACH	V					

<sup>\*</sup>All other beaches were in full compliance of the regulations at the time of inspection.

#### \*\*\* General Violations:

§167.09(a)(13) Numerous areas of boardwalk in disrepair (broken planks/nails).

§167.31(a) Toilet facility not properly maintained