2015 Report Card on Beaches

NEW YORKERS FOR PARKS

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Introduction to the *Report Card on Beaches*

The *Report Card on Beaches* is the only independent, citywide evaluation of the maintenance and conditions of New York City's public swimming beaches.

The *Report Card on Beaches*, modeled after New Yorkers for Parks' award-winning *Report Card on Parks*, is a comparative analysis of New York City's eight municipal swimming beaches. The *Report Card* was designed to be an easy-to-use tool for communities and public officials to assess their local beaches, both in comparison to each other and to past conditions.

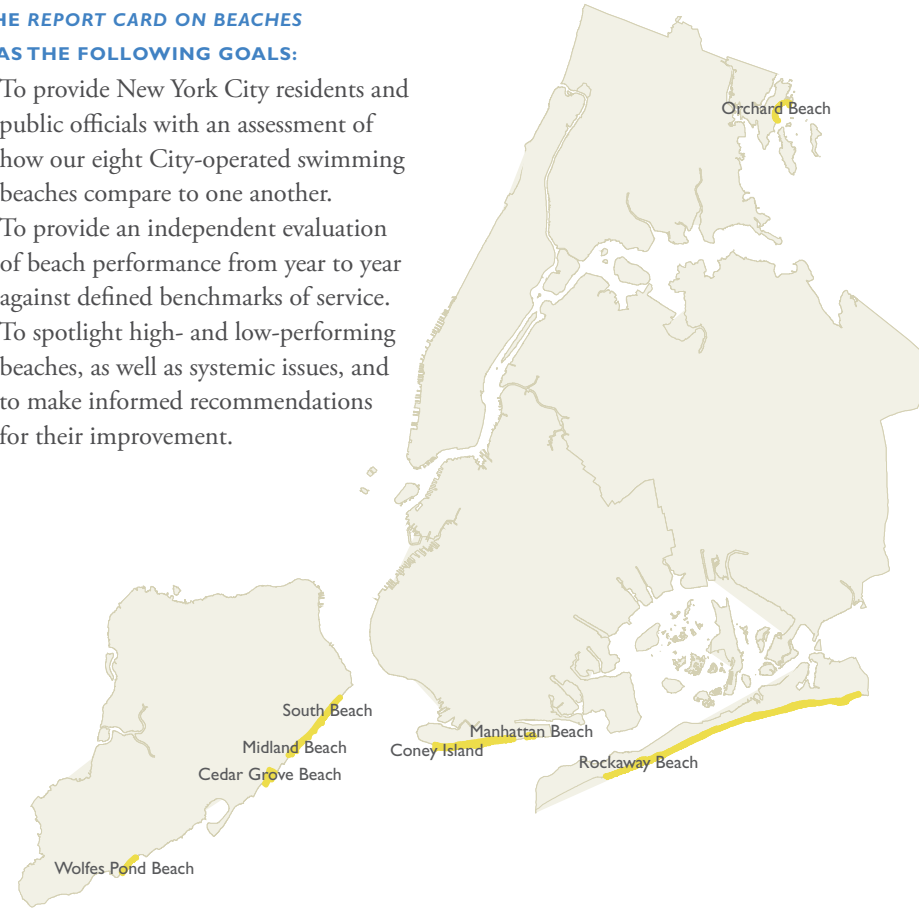
NY4P released its first *Report Card on Beaches*, designed to highlight successes, identify challenges, and make recommendations about beaches, in 2007. In 2009 and 2011, NY4P released follow-up *Report Cards* that examined the same features surveyed in 2007. This, the fourth *Report Card on Beaches*, considers nine years of data trends at the city's municipal swimming beaches.

Over the four *Report Cards*, NY4P witnessed a steady upward trend in scores. Average beach scores improved from 59 in 2009 to 87 in 2011, and reached 74 in 2015. The new scores represent the successful ongoing recovery efforts to date on the part of NYC Parks in the aftermath of devastating storms.

Typically, the *Report Card on Beaches* would have been updated for a 2013 release, however, the events of Hurricanes Irene and Sandy affected the city's shoreline severely. We believed that the 2014 summer season was the first appropriate time to re-evaluate maintenance and conditions under normal operations. NY4P has, for this report, collected both the traditional *Report Card* data and specific information about the effects of the hurricanes, accounting for actions the city has taken to recover from the events and to improve resiliency in the face of future storms. As New York City and the world continue to witness more tangible effects of the reality of climate change, our shoreline resources become more and more important to consider, and protect.

THE *REPORT CARD ON BEACHES* HAS THE FOLLOWING GOALS:

- To provide New York City residents and public officials with an assessment of how our eight City-operated swimming beaches compare to one another.
- To provide an independent evaluation of beach performance from year to year against defined benchmarks of service.
- To spotlight high- and low-performing beaches, as well as systemic issues, and to make informed recommendations for their improvement.



Hurricane Sandy and NYC's Beaches

None of New York City's fourteen miles of beaches escaped the damaging effects of Hurricane Sandy.

Just fourteen months after Hurricane Irene affected New York City's shoreline in August 2011, Hurricane Sandy's October 2012 storm surge caused billions of dollars in damages and loss: it paralyzed regional transportation, destroyed homes and businesses in the five boroughs, and was responsible for the loss of over a hundred lives in the region. Additionally, it exposed the vulnerability of the city to future effects of climate change, including those of sea level rise. The storm's effects on New York City's municipal swimming beaches were staggering. In many cases, however, parks served as the first line of defense against the storm for the neighborhoods and infrastructure nearest them.

EFFECTS ON THE BEACHES

Across the city, NYC Parks officials recall miles of sand strewn through neighborhoods, damaged facilities, and storm-fed debris. Hardest hit were the four Staten Island beaches—South Beach, Midland Beach, Cedar Grove Beach, Wolfe's Pond Beach—and Rockaway Beach in Queens.

Miles of Rockaway Beach's famed boardwalk sheared from its foundation, leaving a pathway leading onto bare dunes and thin air. Flooding across the city's shoreline damaged beach equipment, imperiled maintenance and administrative facilities, and stripped the beaches of millions of cubic feet of sand.

NY4P RESPONSE

New Yorkers for Parks joined the relief effort immediately, providing survey staff who assessed the storm-damaged beaches and nearby parks for hazards that could hamper volunteer efforts, and spreading the word our citywide parks advocates looking for volunteer opportunities.

SHORT-TERM RECOVERY

As part of the storm recovery, NYC Parks faced the challenge of getting the beaches back into swimmable condition in just seven months. NYC Parks hired a small army of temporary workers to clear debris, remove sand from streets and neighborhoods, and ensure that infrastructure and facilities could be replaced. The agency also relied on volunteer help in all five boroughs to do this quick recovery work.

LONG-TERM RECOVERY & RESILIENCY

Recovery from the storm is still occurring. Vital facilities are in various stages of reconstruction, the resiliency effort will be a continual task. Some of the significant long-term recovery activities that NYC Parks has, and will, complete include:

- Sand replenishment at Queens and Brooklyn beaches in partnership with the U.S. Army Corps of Engineers
- Facility & infrastructure replacement at Brooklyn, Queens, and Staten Island beaches, including elevated comfort stations & lifeguard/maintenance facilities
- Boardwalk repairs & replacement, including a multi-year, multi-phase reconstruction project in the Rockaways

A damaged section of boardwalk at Rockaway Beach, Queens.

Report Card on Beaches Methods

The survey is designed to fairly rate the features that beach-goers care most about.

This report builds on New Yorkers for Parks' award-winning *Report Card on Parks* survey methodology, first implemented in 2003. In 2005, the *Report Card on Parks* received a Community Indicators Award from the Community Indicators Consortium, a program of the Brookings Institution's Urban Markets Initiative. A full discussion of the methodology can be found in the Detailed Methodology section of this report on page 28.

The Report Card on Beaches focuses on the eight municipal beach properties that are open to the public for swimming and where the Parks Department provides lifeguards and swimming-related facilities and programming. These sites also include adjacent shoreline areas where swimming is prohibited, but shoreline access is possible. The newest swimming beach, Cedar Grove, was opened in 2011, but because it was not a public swimming beach during the 2006, 2008, and 2010 survey periods, it was not included in previous beach surveys. Since beaches are too large to evaluate exhaustively, each beach property is divided into transects that are 50 yards wide, and 10% of these transects are randomly selected for inspection. For purposes of pre- and post-hurricane comparison, NY4P decided to replicate the 2010 selected survey transects for the 2014 survey period.

The survey examines four Major Service Areas (MSAs) at each beach: Shorelines, Pathways, Bathrooms, and Drinking Fountains. A focus group of park experts and community leaders helped to define the MSAs and associated weights for each. The four MSAs are evaluated for maintenance, cleanliness, safety, and structural integrity. The Shorelines and Pathways within the randomly selected transects are surveyed, and every Drinking Fountain and Bathroom at the eight beaches is evaluated whether or not it falls within a selected transect.

Each beach is assigned a numerical score from 0 to 100 for each applicable MSA. Letter grades and relative categories corresponding to these numerical scores comprise the final ratings, seen in the conversion table to the right.

Grading Categories

Category	*Raw Numerical Grade*	*Letter Grade*
EXCELLENT	97-100	A+
	93-96	A
	90-92	A-
VERY GOOD	87-89	B+
	83-86	B
	80-82	B-
SATISFACTORY	77-79	C+
	73-76	C
	70-72	C-
CHALLENGED	60-69	D
UNSATISFACTORY	59 and below	F

A NY4P surveyor at Coney Island/Brighton Beach in Brooklyn

2015 Scores

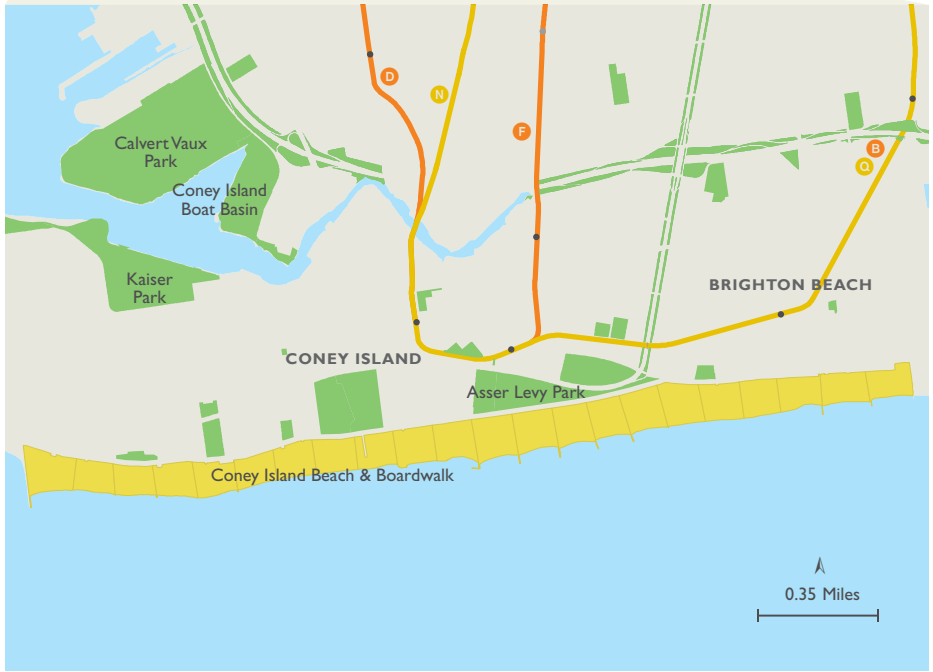
Coney Island / Brighton Beach: 76 – Satisfactory

After steady improvement over from 2007 to 2011, Coney Island/Brighton Beach fell in 2015 to a 78 (C+). The drop from Coney Island/Brighton Beach's 2011 score of 88 (B+) is attributable to a decline in Drinking Fountain, Pathway, and Shoreline scores. However, the 2015 result closely mirrors the beach's performance in 2009.

SUCCESSES

Bathrooms at Coney Island/Brighton Beach remained steadily Satisfactory since 2007. Generally, the bathrooms were well stocked and free of damage, however surveyors found non-locking stall doors in at least half of the bathrooms. The 2015 Bathroom score of 76 is the second highest score that the beach has received, the highest being a 78 in 2011.

Coney Island/Brighton Beach's shoreline scored fairly well: trash was excellently contained, and safety guidelines and signage was universally applied. However, whereas the shoreline in 2011 was found to be free of broken glass, 60% of surveyed areas in 2015 were affected by this hazard. The shoreline score of 82 is the second highest that Coney Island/Brighton Beach has been rated, following the 89 it received in 2011.



CHALLENGES

Drinking Fountains declined from high scores—86 in 2009 and 89 in 2011—to a 66 in 2015. Almost a third of fountains failed inspection: the top reasons for failure were insufficient pressure to take a drink, and algae, weeds, or other unsanitary substance in the basin or at the fountain's foot. Generally, the fountains were free of litter, vandalism, and structural deficits.

Pathway maintenance at Coney Island/Brighton Beach remains a challenge: pathways fell from a score of 99 in 2011 to a score of 78 in 2015. A third of surveyed areas on the Coney Island boardwalk suffered from trip hazards in the form of missing, raised or sunken sections. Additionally, a third of areas surveyed were affected by natural debris, including large sections of drifting sand.

The well-maintained shoreline at Coney Island/ Brighton Beach

New, raised facilities are safe from future storm events

A broken boardwalk plank and sand create a trip hazard on a pathway

Overall Scores

HISTORICAL OVERALL SCORES

2007	54 – UNSATISFACTORY
2009	76 – SATISFACTORY
2011	88 – VERY GOOD
2015	76 – SATISFACTORY

Feature Scores

BATHROOMS

2007	70 (C-)
2009	76 (C)
2011	78 (C+)
2015	76 (C)

DRINKING FOUNTAINS

2007	32 (F)
2009	86 (B)
2011	89 (B+)
2015	66 (D)

PATHWAYS

2007	81 (B-)
2009	73 (C)
2011	99 (A+)
2015	78 (C+)

SHORELINE

2007	39 (F)
2009	70 (C-)
2011	89 (B+)
2015	82 (B-)

EFFECTS OF HURRICANE SANDY

Coney Island/Brighton Beach suffered moderate damage from the Hurricane Sandy storm surge in October 2012. Facility electrical and infrastructure systems were the worst affected, and although the boardwalk stayed mostly intact, between two and five feet of sand was displaced from the beach onto nearby streets and sidewalks. By all accounts, the hurricane provided an opportunity to replace or renovate aging and deteriorating structures, and by summer 2014, all but one damaged building had been replaced, and sand replenishment had rejuvenated the beach. Coney Island/Brighton Beach's hodgepodge of facility styles now includes raised comfort stations and lifeguard rooms, a new design that is sensitive to rising seawaters and safe in the face of future storms.

Debris from Hurricane Sandy covers Coney Island/Brighton Beach in 2012

Manhattan Beach: 87–Very Good

Manhattan Beach has steadily improved with each *Report Card* evaluation. Although the scores given to Bathrooms and Pathways fell from 2011 levels, Drinking Fountains and Shoreline scores both improved, bringing Manhattan Beach to a 2015 score of 87.

SUCCESSES

Shorelines at Manhattan Beach improved for the fourth *Report Card* in a row, reaching a high score of 96. Beach maintenance is strong at Manhattan Beach, a finding that is reinforced by learning that Manhattan Beach was recently assigned its own sand cleaning vehicle. This allows NYC parks staff to easily and frequently tend to the shoreline at this site.

Pathways received a strong grade of 94, a slight decline from the 100 received in 2011, but an improvement from 2007 and 2009 scores. Aside from a particular pathway section affected by litter and natural debris, overall the pathways were structurally sound and well-maintained.

Manhattan Beach's bathrooms scored very highly, at 90. While this is a slight decline from the 100 received in 2011, it is the second highest bathroom score given to any beach for the 2015 season. Although the bathrooms at Manhattan Beach are by and large clean and amply stocked, the men's bathroom facilities, such as toilet and sinks, were not uniformly working or free of damage.

CHALLENGES

For the fourth *Report Card* in a row, Drinking Fountains scored lowest at Manhattan Beach, receiving a 56. An alarming 44% of Manhattan Beach's drinking fountains failed, due to a lack of pressure, clogged basins, or persistent leaks. Although this is poor performance, Manhattan Beach drinking fountains improved from a 2011 score of 38, and matched a 2009 score of 56. However, this consistent lack of satisfactory improvement indicates a need for dedicated plumbing attention to Manhattan Beach, and beaches across the city.

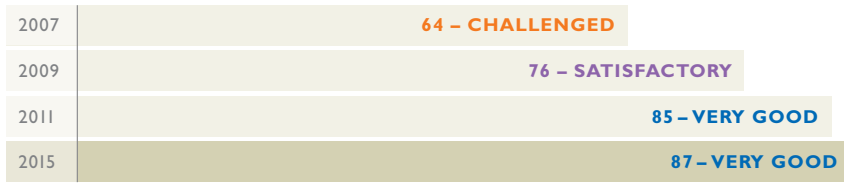
Trash is contained and emptied frequently at Manhattan Beach's well-maintained shoreline

It is not possible to drink at this water fountain due to low water pressure

Dedicated spray showers allow beachgoers to rinse, but make the pathway harder to clean

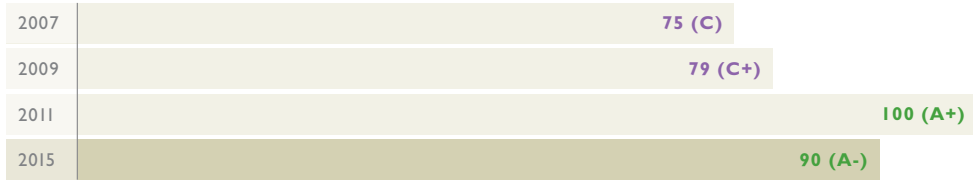
Overall Scores

HISTORICAL OVERALL SCORES

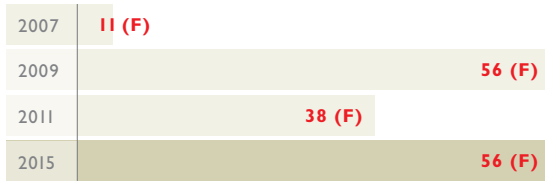


Feature Scores

BATHROOMS



DRINKING FOUNTAINS



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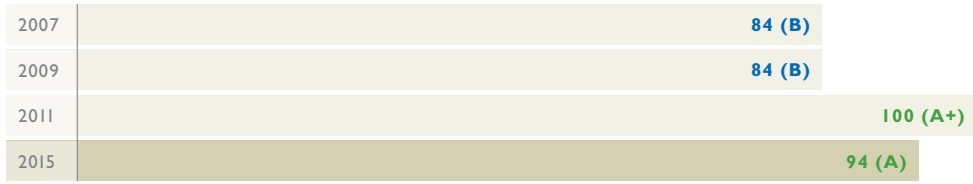
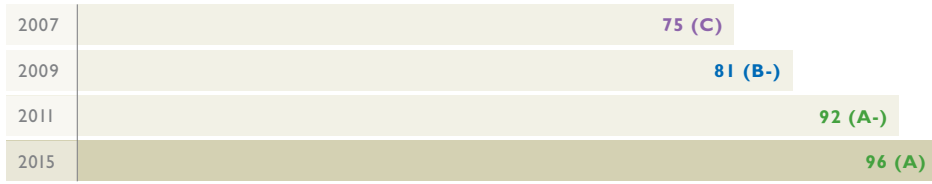


SHORELINE



EFFECTS OF HURRICANE SANDY

Manhattan Beach suffered moderate damage from Hurricane Sandy: reportedly, the damage was more significant than at neighboring Coney Island/Brighton Beach. Beach facilities were flooded, causing electrical and infrastructure failure. The beach's sand washed into the beach parking lot and neighboring streets. However, this presented an opportunity to renovate aging structures, and most work, including sand replenishment, was complete at Manhattan Beach by summer 2014.

The shade trees and promenade at Manhattan Beach largely survived Hurricane Sandy

Orchard Beach: 69–Challenged

After improving over 40% between 2009 and 2011, Orchard Beach's score fell by 37% in 2015 to 69. All four areas declined in performance from 2011, revealing that Orchard Beach faces dramatic maintenance shortfalls that are compounded by aging and deteriorating structures.

SUCCESSES

Of the four MSAs, Orchard Beach's shoreline performed the highest. Although it declined from a perfect score in 2011 to a score of 84 in 2015, Orchard Beach's shoreline is still well-maintained: trash was contained to trash bins, entrances to the beach were well-maintained and safe, and lifeguards were appropriately provided and signposted. However, 75% of the surveyed transects were affected by broken glass, a significant hazard to beachgoers.

CHALLENGES

Drinking Fountains received a failing grade of 36, falling 48 points from a high in 2011 of 84. As in previous years, a large number of drinking fountains were found to be unacceptable. 38% of fountains did not have sufficient pressure to allow use. The immediate areas of 14% of the fountains were affected by excessive sand, mud or standing water, and a further 14% had standing water or debris in the fountain basin. Additionally, almost half of the fountains were found to have visible structural damage, like cracks and leaks. It is clear that Orchard Beach's drinking fountains are no longer serving the beach-going population well.

Bathrooms and Pathways both received their lowest scores since our recordkeeping began, each earning a 73. Bathroom scores were affected by non-locking stall doors, damaged sinks, lack of soap, and dirty conditions. Nonetheless, Orchard Beach's bathrooms were free of graffiti and were appropriately stocked with hand towels and toilet paper. 25% of the Pathways surveyed were affected by excessive amounts of bird feces, and cracks in pathway walls were found spread along the beach.

Sharp glass is a frequent hazard on Orchard Beach's otherwise well-maintained shoreline

Pressure at this drinking fountain is too low to allow use

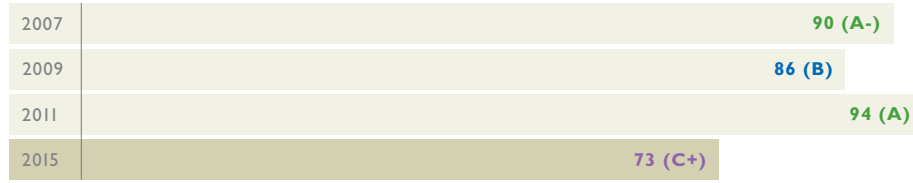
Deferred maintenance and storm damage have contributed to the deterioration of the Orchard Beach Ship's Rail

Overall Scores

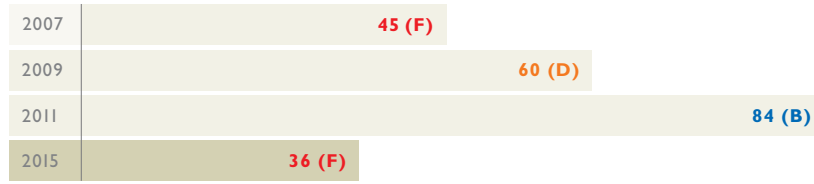
HISTORICAL OVERALL SCORES

Feature Scores

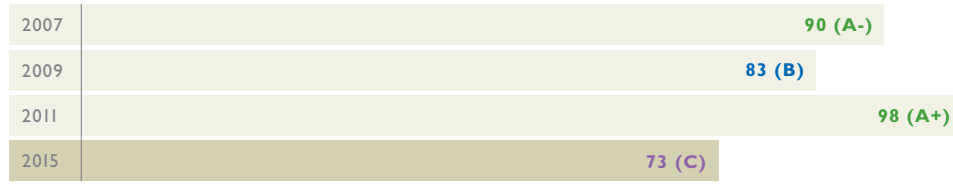
BATHROOMS



DRINKING FOUNTAINS



PATHWAYS



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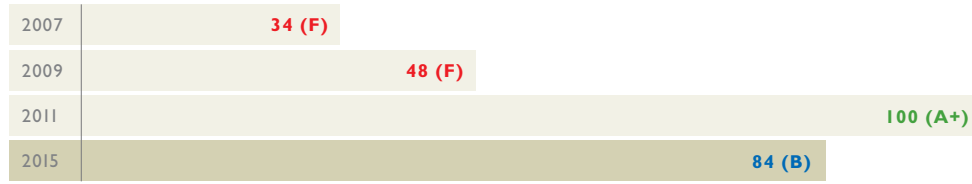


EFFECTS OF HURRICANE SANDY

Orchard Beach, unlike the other New York City municipal swimming beaches on the Atlantic coast, sits on the Long Island Sound. In October of 2012, Hurricane Sandy's storm surge affected Orchard Beach hours after it had caused damage to the city's other beaches. Rising water flooded the beach and historic promenade, displacing hundreds of hexagonal pavers, and damaging scores of trees throughout Pelham Bay Park. Empty concessions locations along the beach and the historic Orchard Beach Bathhouse were flooded by up to 3 feet of water. Although the damage was lesser at Orchard Beach than at other city beaches, recovery work started quickly. Volunteers from NYC Service helped to clean up the debris scattered over the beach and its parking lot. By November, a capital project to repair the promenade had started, and work was complete by the opening of the beach season in 2013. However, the combination of aging structures and a significant flood has not left Orchard Beach in good working order. Storm damage has weakened the historic promenade, and continues to affect the many drinking fountains throughout the beach.

Rockaway Beach: 90–Excellent

Rockaway Beach in Queens scored the highest of any beach in the 2015 *Report Card on Beaches*, receiving a 90. It has steadily improved across the years, rising from a score of 56 in the 2007 *Report Card*. This year, despite facing an ongoing recovery from Hurricane Sandy, Rockaway Beach's four MSAs all scored well.

SUCCESSES

The boardwalk at Rockaway Beach was 5.5 miles long before the storm. Now present in sections, the boardwalk that exists is in excellent condition, and received a score of 93 for pathways. This is a decline from 2011, when Rockaway Beach scored 100 for pathways. Although much of the boardwalk is in excellent condition, some sections were found to have cracked concrete or boards in poor repair on wooden sections. The missing boardwalk sections are scheduled to be rebuilt in the next few years.

Shore sections at Rockaway Beach were nearly impeccable, scoring a new high of 96. Not all of the 7.2 miles of shore are swimmable, but safety and access information were well signposted, especially around newly-constructed protective sand dunes. Constructed after sand replenishment, the dunes have specific access routes marked by beach mats, signage, and stakes. Except for a small amount of broken glass, the shore sections were clean and well maintained.

Drinking Fountains improved from a score of 71 in 2011 to an 86 in 2015, largely helped by the installation of a new drainless drinking fountain design in reconstructed areas. This metal model directs water into a trough that continues down the fountain column, directing waste water into a floor-level drain. A small number of fountains failed due to visible leaks. Otherwise, drinking fountains at Rockaway Beach were largely clean, working, and well-maintained.

CHALLENGES

Bathrooms scored an 83, declining 12 points from a high of 95 in 2011. The comfort stations are a mix of new, elevated models, pre-storm models, and temporary structures. Regardless of the age of the structure, bathrooms across Rockaway Beach suffered from small problems: a third of bathrooms were found to have at least one stall door that does not lock. Some were found to lack liquid soap and toilet paper.

Beach grass has been planted on Rockaway's dunes, and is protected from beachgoers

Rockaway's reconstructed boardwalk and facilities are new since the 2011 Report Card, *were installed as part of the Hurricane Sandy recovery*

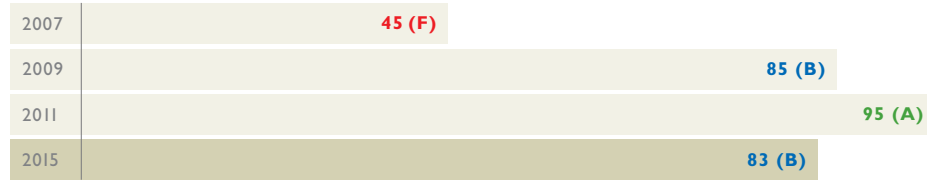
A drainless drinking fountain directs water and debris away from the user into a ground-level drain: it's usable even if the drain is clogged

Overall Scores

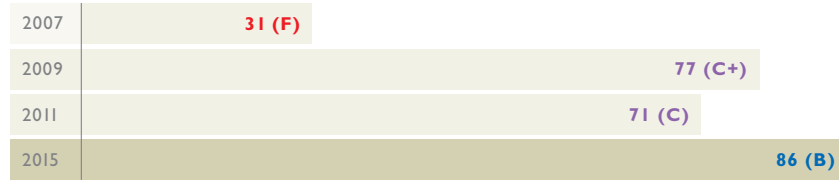
HISTORICAL OVERALL SCORES

Feature Scores

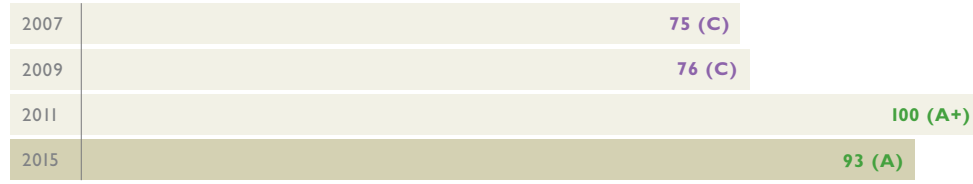
BATHROOMS



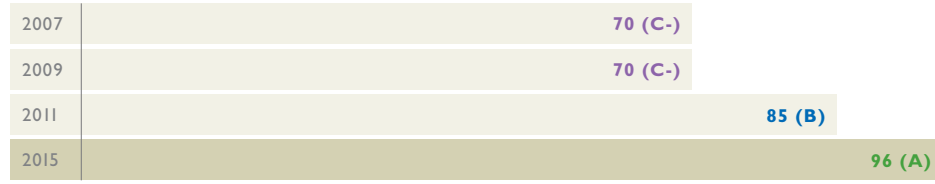
DRINKING FOUNTAINS



PATHWAYS



SHORELINE



EFFECTS OF HURRICANE SANDY

Although NYC Parks and other city agencies worked to prepare Rockaway Beach for Hurricane Sandy, none of the measures—berming, sandbags, or Jersey barriers—worked to keep the storm's force from decimating Rockaway Beach. Additionally, the damage to the neighborhoods adjacent to the beach was tremendous. Much of the sand from the beach was brought inland by the force of the storm surge. Initial recovery work included debris removal, demolition of broken boardwalk, and cleaning and power-washing of the buildings that remained standing. NYC Parks prioritized the safe operation of the beach as the goal for the summer 2013 reopening, reconstructing lifeguard stands and comfort stations first, then turning towards boardwalk reconstruction, which will be complete for the 2016 beach season. NYC Parks predicts that all construction at Rockaway Beach will be complete by summer 2017. Sand replenishment, carried out through the summer of 2014, negated the effects of erosion, and allowed for protective sand dunes to be built along its length.

South Beach: 80 – Very Good

South Beach on Staten Island, the highest-scoring beach in 2011, scored a respectable 80 in 2015. Although its famed boardwalks and its drinking fountains scored highly, bathrooms and shoreline received middling and poor grades, respectively.

SUCCESSES

Drinking Fountains at South Beach did not attain a perfect score, as occurred in 2011, but the 2015 score of 89 improved on both 2007 and 2009 scores. 40% of the drinking fountains were affected by structural cracks, however all fountains were in good working order.

The pathways at South Beach received a 94, equaling the 2009 score, and almost reaching the perfect score achieved in 2011. Aside from one pathway section with boardwalk damage, the South Beach boardwalk was clear of trip hazards, weeds, dirty conditions, and glass.

CHALLENGES

South Beach's bathrooms were plagued with plumbing issues and damaged features, resulting in a grade of 79: this is the lowest score this MSA has received over four *Report Cards*. 50% of the bathrooms had non-locking stall doors, and 75% had non-functioning sinks. 25% were found to have non-functioning toilets, and 50% lacked liquid soap. However, the bathrooms were clean, suggesting that lingering storm damage may be responsible for some of the non-functional features.

After improving 92 points in the last *Report Card*, South Beach's shorelines declined by 32 points in the 2015 results. Scoring 68, the surveyed shoreline sections were found to be uniformly affected by broken glass. 20% of the shoreline surveyed had an unacceptable amount of litter. Additionally, the beach has been physically transformed since Hurricane Sandy: manufactured sand dunes berm the beach, providing coastal protection, but also create a barrier to access. These dunes are not signposted, and they are at risk of collapse due to beachgoer traffic.

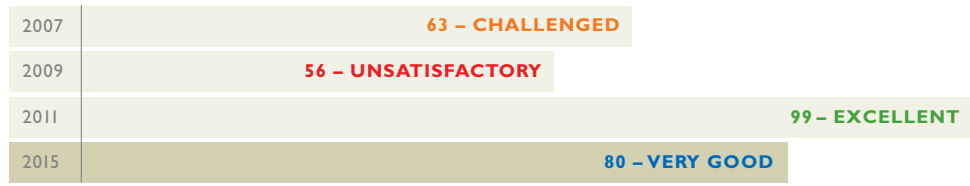
South Beach's boardwalk, with the Verrazano-Narrows Bridge in the background, is in very good condition

Sections of the shoreline were strewn with unacceptable amounts of litter

Many bathroom stall doors are damaged and do not lock

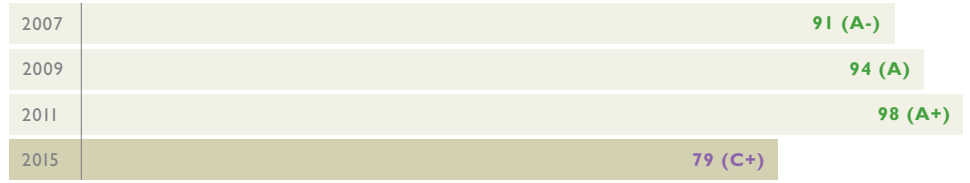
Overall Scores

HISTORICAL OVERALL SCORES

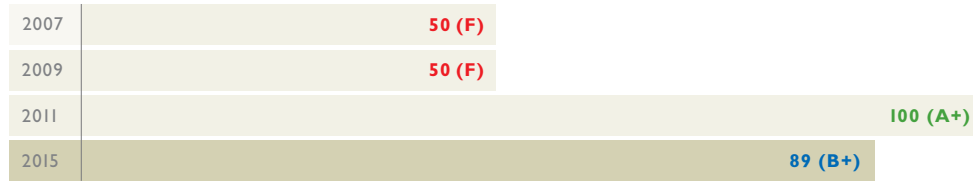


Feature Scores

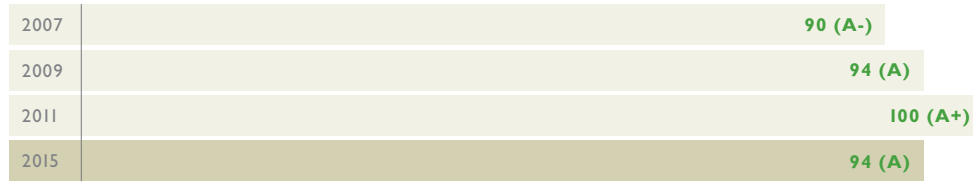
BATHROOMS



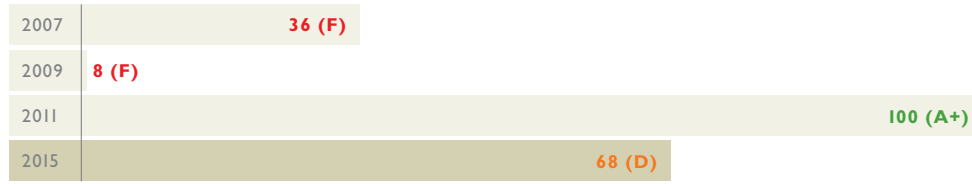
DRINKING FOUNTAINS



PATHWAYS



SHORELINE



EFFECTS OF HURRICANE SANDY

Hurricane Sandy had a devastating effect on Staten Island's beaches, including South Beach. The force of the storm carried away a tremendous amount of sand, inundating Father Cappodano Boulevard, the road to the north of the beach. Beach operations and maintenance facilities were flooded, and all initial recovery work took place out of vehicles and mobile offices. The Staten Island office of NYC Parks initially triaged park properties, cataloguing needs for a series of major capital recovery contracts. South Beach now sports a temporary dune that acts as a berm, and is planned for a 5-to-10-year lifespan. However, there remains serious need for sand replenishment at South Beach. Additionally, more recovery activity is needed, including ongoing temporary debris storage, and the rehabilitation of beach facilities and NYC Parks offices.

Protective dunes have no signage or clear access points, leaving the structures vulnerable to beachgoer traffic

Midland Beach: 76 – Satisfactory

Midland Beach, just south of South Beach on Staten Island, declined from the excellent improvement recorded in 2011 to receive a 76 in 2015's *Report Card*. This decline of 15 percentage points can be attributed to, in large part, significant declines in Bathroom and Drinking Fountain scores for Midland Beach.

SUCCESSES

Pathways at Midland Beach improved to a near-perfect score of 96. Midland Beach's at-grade, broad promenade is made of hexagonal concrete pavers, a contrast to South Beach's elevated wooden boardwalk. With the exception of a section of path that was found to have significant cracks, the promenade received perfect scores.

The shoreline also received a respectable score of 84. The shore sections were excellently maintained, completely free of broken glass, and almost free of litter. However, 80% of the sections surveyed had protective dunes that lack appropriate prohibitive safety signage.

CHALLENGES

Drinking fountains declined 36 percentage points, receiving an alarming 45. Half of the drinking fountains failed inspection, often due to low pressure, lack of water, or persistent leaks. In addition, several fountains were had significant structural problems, such as broken spigots, or structural cracks. The majority of Midland's drinking fountains are concrete structures, which crack easily in severe winter weather.

Bathrooms in Midland Beach declined 20 points since 2011, scoring a 74. Many of Midland's bathrooms are temporary structures, erected after Hurricane Sandy. Although all bathrooms were structurally sound, they were not well-maintained or clean. One bathroom failed due to dirty conditions; others received low scores due to lack of soap, hand towels or working dryers, toilet paper, and dirty conditions or excessive odors. In addition, a third of the bathrooms surveyed had damaged toilets or urinals.

Midland Beach's pathways offer a near-pristine surface for walking and biking on the beach

Although the shore is well-maintained, the sand dune is unmarked and unprotected

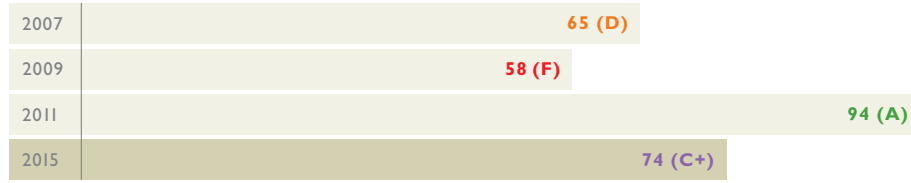
Midland Beach's concrete drinking fountains are in poor working condition

Overall Scores

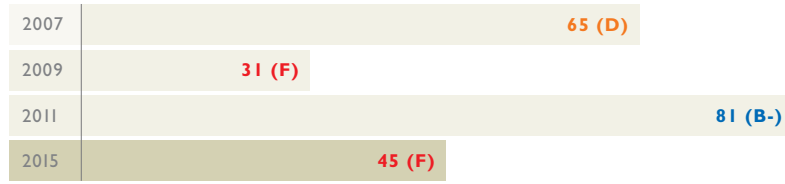
HISTORICAL OVERALL SCORES

Feature Scores

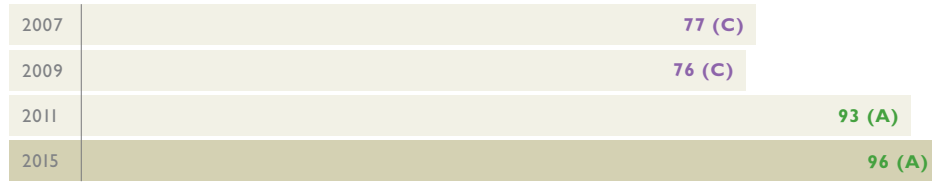
BATHROOMS



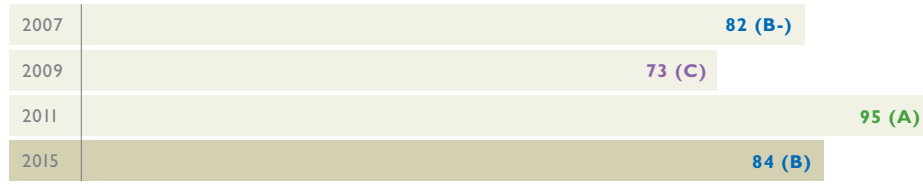
DRINKING FOUNTAINS



PATHWAYS



SHORELINE



EFFECTS OF HURRICANE SANDY

Like neighboring South Beach, Midland Beach was severely affected by Hurricane Sandy. The force of the storm carried away a tremendous amount of sand, flooded beach operations and maintenance facilities, and inundated comfort stations. Although initial debris removal and the provision of temporary facilities allowed Midland Beach to open for the 2013 summer season, it still has long-term recovery needs. Midland Beach now sports a temporary dune that acts as a berm, and has an intended lifespan of 5-to-10 years, but is currently not safeguarded from beachgoer activity. Additionally, the beach is served by a bevy of temporary comfort stations, which must be replaced by permanent facilities.

Hurricane Sandy carried away feet of sand at Midland Beach, and the erosion is still visible

Cedar Grove Beach: 83 – Very Good

The 2015 *Report Card on Beaches* marks the first time that Cedar Grove Beach, in Staten Island's Great Kills Park, has been included in a NY4P *Report Card* study. It debuted with a respectable score of 83, based on excellent bathrooms and drinking fountains, though the shoreline performed poorly.

SUCCESSES

Cedar Grove does not have a pathway, and thus did not receive a Pathway score. Although it does not yet have permanent comfort station facilities, Cedar Grove Beach's bathrooms scored highly—they were the highest-scoring bathrooms found in the 2015 *Report Card* and received a 92. With the exception of missing toilet paper and a bathroom with a non-functioning stall, Cedar Grove Beach's bathrooms were clean, well-maintained, and well-functioning.

Cedar Grove's drinking fountain, a temporary spigot, performed perfectly, scoring 100.

CHALLENGES

Not all of Cedar Grove Beach's shoreline is swimmable. The areas where swimming is permitted are well-signposted. However, the protective sand dunes along the beach did not have adequate signage in the areas where swimming is prohibited. Both sections of shore at Cedar Grove Beach that were surveyed were affected by broken glass, and litter was found to be a problem in one of the sections. The shoreline scored a 65, showing clear areas for improvement in the beach sections that are outside of the swimmable areas. Maintenance and cleanliness were found to be significantly better in areas near the swimmable shoreline sections.

Cedar Grove Beach's temporary comfort stations were the highest scoring beach bathrooms

Some of Cedar Grove's shoreline is poorly maintained, and sand dunes are left vulnerable to human activity

Lifeguard protection and maintenance is excellent in the designated swimming areas

2015 Overall Score

2015	83 – VERY GOOD

Feature Scores

BATHROOMS	2015	92 (A-)
DRINKING FOUNTAINS	2015	100 (A+)
SHORELINE	2015	65 (D)

EFFECTS OF HURRICANE SANDY

Hurricane Sandy pummeled Cedar Grove Beach, causing the newly-opened park facility to close until summer 2013. The site of a former vacation colony on Staten Island's South Shore, Cedar Grove Beach was characterized by the modest bungalows that are found north of the beach. Few bungalows survived the storm. Like other beaches in Staten Island, Cedar Grove Beach was affected by storm debris, loss of sand, and flooding of existing beach facilities. The beach was not opened for the 2013 summer season, and did not open until partway through the 2014 summer season, due to continuing storm recovery activity. Although new elevated facilities were constructed for Staten Island parks maintenance and operations employees, the majority of the facilities at Cedar Grove beach remain temporary.

Cedar Grove Beach was covered with debris after Hurricane Sandy in 2012

Wolfe's Pond Beach: 32 – Unsatisfactory

Wolfe's Pond Beach, after improving in 2011 to a 62, plummeted 30 points to an overall score of 32 in the 2015 *Report Card on Beaches*. Found in Wolfe's Pond Park, the beach's central section is where swimming is allowed. To the east and west of that area, the beach is poorly maintained, and lacks adequate safety signage. In 2015, Wolfe's Pond Beach received scores for its shoreline and drinking fountain, but no selected transect included a pathway section, so that MSA was not evaluated.

SUCCESSES

The drinking fountain at Wolfe's Pond Beach received a score of 86. It functioned well, and the immediate environment was clean and well-maintained, but like other concrete drinking fountains, surveyors found cracks in the structure.

CHALLENGES

The shoreline sections surveyed at Wolfe's Pond Beach received a grade of 0, failing for the fourth *Report Card* in a row. All of the sections selected for the survey, which mirror the sections randomly selected in 2011, were strewn with excessive litter or large natural debris. While required signage was present at the three central entrances to the beach, none of the surveyed sections contained signage or notification indicating that no lifeguards were present or that swimming was prohibited.

A small section at the center of the beach was groomed, maintained, and supervised by lifeguards. A fence separates this section from a non-maintained, non-swimming section of natural shoreline to the east. However, that barrier does not prevent beachgoer access during low tide, and does not indicate to beachgoers that the area to the east is non-maintained. In 2011, surveyors found signage on a stretch of fencing to the west of the maintained area that indicated a non-maintained zone, discouraging public access. This signage no longer exists as Wolfe's Pond Beach.

Wolfe's Pond Beach is in dire need of sand replenishment, which would assist NYC Parks as the agency continues to care for this waterfront resource.

Appropriate safety and rules signage is present at one of the official entrances to the beach

The fence that separates the eastern, non-maintained part of Wolfe's Pond Beach from the maintained central zone is passable at low tide and not well marked

The shore was affected by excessive litter and natural debris

Overall Scores

HISTORICAL OVERALL SCORES

2007	56 – UNSATISFACTORY
2009	0 – UNSATISFACTORY
2011	62 – CHALLENGED
2015	32 – UNSATISFACTORY

Feature Scores

BATHROOMS

2007	0 (F)
2009	0 (F)
2011	93 (A)
2015	N/A

DRINKING FOUNTAINS

2007	N/A
2009	N/A
2011	N/A
2015	86 (B)

PATHWAYS

2007	80 (B-)
2009	N/A
2011	N/A
2015	N/A

SHORELINE

2007	38 (F)
2009	0 (F)
2011	38 (F)
2015	0 (F)

EFFECTS OF HURRICANE SANDY

Like other Staten Island beaches, Wolfe's Pond Beach was dramatically affected by Hurricane Sandy. Although all beaches on Staten Island's South Shore lost sand, Wolfe's Pond Beach was decimated. It lost almost all of its sand, and the underlying clay has been exposed along parts of the shore. Initial debris removal occurred in the months following the storm, but flooding had severely damaged existing comfort stations. The beach remained closed until the summer of 2014, when new elevated comfort stations were installed. Despite having new facilities, Wolfe's Pond Beach is far from recovered. Most critically, the beach needs sand replenishment to restore the shoreline to a condition that serves the public and can be better maintained by NYC Parks.

Erosion at Wolfe's Pond Beach from Hurricane Sandy has stripped sand from the shore

Analysis & Recommendations

Beach Scores: 2007–2015

Scores for five beaches declined in 2015, and only two improved scores since the 2011 *Report Card*.

Although the 2015 *Report Card on Beaches* appears at first to be an indictment of poor conditions relative to 2011 results, the long-term view shows that New York City's beaches are still in a state of improvement. All seven beaches that have been tracked since 2007 have equaled or improved on their scores from 2007 and 2009. Cedar Grove Beach, in its first *Report Card*, has achieved a score that ranks this beach among the top performing beaches in the study. There is room for maintenance and operations improvement at all of the beaches, but as a whole, they continue to be safe and well-maintained.

HIGH SCORES

In 2015, one beach—Rockaway Beach—scored a 90 and received a grade of "Excellent." Three additional beaches scored over 80, including the survey's newest site, Cedar Grove Beach. By contrast, in 2011, the highest score attained was a 99, with six beaches scoring over 80.

IMPROVEMENT

Two beaches have consistently seen improved scores in each *Report Card*: Manhattan Beach has risen from a 64 in 2007 to an 87 in 2015, and Rockaway Beach has improved from a 56 in 2007 to a 90 in 2015.

DECLINE

Five beaches declined in score from the results received in 2011: Coney Island, Midland Beach, Orchard Beach, South Beach, and Wolfe's Pond Beach. Notably, none of the five beaches received a score that was lower than the score achieved in the 2009 survey, indicating that the beach scores are still improving from the initial 2007 results.

FAILING SCORES

In 2007, six beaches received a failing score. This improved to four beaches in 2009, and only one beach in 2011. In 2015, two beaches received failing scores: Orchard Beach, in the Bronx, and Wolfe's Pond Beach, on Staten Island, which failed on the fourth *Report Card* in a row.

Historical Beach Scores

Beach Name	*Borough*	*2007*	*2009*	*2011*	*2015*
Coney Island / Brighton Beach	Brooklyn	54 – Unsatisfactory	76 – Satisfactory	88 – Very Good	76 – Satisfactory
Manhattan Beach	Brooklyn	64 – Challenged	76 – Satisfactory	85 – Very Good	87 – Very Good
Orchard Beach	Bronx	63 – Challenged	67 – Challenged	95 – Excellent	69 – Challenged
Rockaway Beach	Queens	56 – Challenged	77 – Satisfactory	88 – Very Good	90 - Excellent
South Beach	Staten Island	64 – Challenged	56 - Unsatisfactory	99 – Excellent	80 – Very Good
Midland Beach	Staten Island	73 – Satisfactory	61 – Challenged	91 – Excellent	76 – Satisfactory
Cedar Grove Beach	Staten Island	N/A	N/A	N/A	83 – Very Good
Wolfe's Pond Beach	Staten Island	36 – Unsatisfactory	0 – Unsatisfactory	62 – Challenged	32 – Unsatisfactory
Average Score Across All Beaches		59 – Unsatisfactory	59 – Unsatisfactory	87 – Very Good	74 – Satisfactory

Feature Scores: 2007–2015

Scores for all four MSAs declined between 2011 and 2015, but equaled or improved on scores achieved in 2009.

BATHROOMS

Bathrooms declined 10 points, from 89 in 2011 to an average of 79 in 2015. The most frequent challenge to bathrooms was poor infrastructure: many bathrooms lacked locking stall doors, and had non-functioning sinks or toilets. By contrast to the 2011 survey, surveyors found very little structural deterioration to the ceilings, walls, windows, and floors. In many cases, we can attribute this to the replacement of old comfort station facilities damaged or destroyed by Hurricane Sandy. The beach with the highest performing bathrooms was Cedar Grove Beach, and the beach with the poorest was Orchard Beach.

DRINKING FOUNTAINS

Drinking Fountains, after three *Report Card* studies showing steady improvement, declined 14 points, from 77 in 2011 to an average of 63 in 2015. This MSA is perennially the poorest performing feature at New York City's swimming beaches. Conditions at a third of drinking fountains at beaches made them unusable, up from a fifth of drinking fountains in 2011. 16% of the fountains failed because there was not sufficient water pressure to allow drinking, and 1 in 10 fountains failed because of an inability to drain due to standing water, broken glass, or debris in the basin. Structural damage, cracks, and leaks were very common: 18% of the fountains suffered from cracks, and 7% from persistent leaks. The beach with the highest performing drinking fountains was Cedar Grove Beach, and the beach with the poorest was Orchard Beach.

PATHWAYS

Pathways were the highest performing MSA in 2015, scoring an average of 86. This MSA declined 13 points from 2011, when it achieved a near-perfect 99. Many pathway sections at Rockaway Beach that were surveyed in 2011 were destroyed by Hurricane Sandy, thus limiting the number of pathway surveys NY4P completed in 2015. Of the pathway sections that remain, it is clear that pathway maintenance should continue to be a priority. Nearly 1 in 5 pathway sections were found to have trip hazards – missing, raised, or sunken sections. 13% of the sections had cracks or holes, and 16% were affected by litter and/or weeds. However, no pathway section was found to have broken glass, and all trash was well contained. Benches and utility covers were also found to be in excellent condition. Pathways at Manhattan Beach, Rockaway Beach, and Midland Beach all received pathway scores of over 90.

Average Feature Scores, 2007–2015

Feature	*2007*	*2009*	*2011*	*2015*
Bathrooms	64	79	89	79
Drinking Fountains	39	63	77	63
Pathways	79	78	99	86
Shoreline	60	58	86	82

SHORELINE

Shoreline scores dropped slightly from the 2011 *Report Card*, falling 4 points from an 86 to an 82. Shoreline maintenance factors scored fairly well: trash cans were plentiful and frequently emptied, and only 16% of the sections were affected by litter. However, over 40% of the surveyed shorelines were affected by broken glass. Although most shore infrastructure was adequate, a significant minority of shorelines were found to lack appropriate safety signage, and over 14% of surveyed sand dunes were unguarded by fencing or signage. Manhattan Beach and Rockaway Beach had the highest performing shorelines, and Wolfe's Pond Beach had the lowest.

Recommendations

Overall, NYC Parks is to be commended on the continued trend toward improving maintenance and cleanliness, and especially for the speedy work in returning the swimming beaches to save and usable condition after the destructive force of Hurricane Sandy in 2012.

The eight municipal beaches surveyed for this report are varied in size and location, and experience a wide range of usership. Rockaway and Coney Island/Brighton Beach, with miles of sand, amenities, and boardwalk, may host hundreds of thousands of visitors on a single day. A smaller property like Wolfe's Pond Beach or Cedar Grove Beach, with a compact shoreline and minimal amenities, will attract far fewer visitors than other beaches. To ensure that all of New York City's beach properties remain safe and attractive to beachgoers throughout the summer swimming season, NYC Parks must consider system-wide strategies as well as targeted actions that meet the needs of individual beaches.

1

CONTINUE THE CAPITAL REPAIRS REQUIRED TO RECOVER FROM HURRICANE SANDY

Construction at Rockaway Beach includes driving piles to support boardwalk reconstruction.

Although many of the facility and infrastructure repairs necessitated by Hurricane Sandy have been completed, there is more work to be done. Rockaway Beach, in particular, faces a multi-year phased reconstruction to restore the boardwalk, beaches and facilities.

2

CONTRACT OUT FOR PLUMBING AND CARPENTRY NEEDS AT BEACHES

Drinking fountains across the city's beaches would benefit from frequent plumbing work

The summer beach season stretches NYC Parks' plumbers beyond capacity: drinking fountains, spray showers, comfort stations, and ornamental fountains at beaches require more plumbing attention than the city can provide. In addition, where wooden boardwalk exists, frequent carpentry maintenance is needed to keep the walking surface safe and in good repair. Creating specific contracts for beach plumbing and carpentry will reduce the load on NYC Parks staff, and will allow plumbing and carpentry attention to remain at normal levels in parks throughout the city that are non-beach properties.

3

MAINTAIN CLEAR SIGNAGE PRACTICES ACROSS ALL BEACHES TO ENFORCE AREAS WHERE ACCESS IS PROHIBITED

Dune access is prohibited at Cedar Grove Beach

In order to safeguard beachgoers and protect fragile beach features, such as sand dunes, NYC Parks must maintain a consistent signage practice to demarcate where activities and access are allowed. Some beaches have non-swimming areas: beachgoers must know where they are being safely observed in the water. New York City's swimming beaches have, since Hurricane Sandy, become ringed with sand dunes built to protect upland areas from future storm threats. These fragile dunes will fail if they are not appropriately signposted. NYC Parks should determine dune crossing points at beaches and mark them with beach mats, signage, and stakes, as is done at Rockaway Beach. This prevents beachgoers from climbing on the dunes, eroding the structures, and reducing the efficacy of this flood prevention infrastructure.

4

CONTINUE TO INVEST CAPITAL DOLLARS IN NEW DRINKING FOUNTAINS AND SPRAY SHOWERS

A drainless drinking fountain at Rockaway Beach

NYC Parks should continue to install beach infrastructure such as drainless drinking fountains and stand-alone spray showers. Found along parts of Rockaway Beach, drainless drinking fountains steer excess water along the body of the fountain towards a drain in the boardwalk surface at the rear of the fountain. These fountain basins do not clog with sand or debris, making them easier to maintain and more pleasant to use. Stand-alone spray showers allow beachgoers to rinse off sand and saltwater. With dedicated plumbing and auto-timed fixtures, they provide a valuable service to beachgoers while saving water.

5

CREATE A CAPITAL PLAN FOR THE REDESIGN AND RESTORATION OF ORCHARD BEACH

The promenade at Orchard Beach needs immediate capital attention

Orchard Beach, unlike beaches in Staten Island, Brooklyn, and Queens, did not suffer dramatic, large-scale damage due to Hurricane Sandy. Similarly, unlike the other New York City municipal swimming beaches, it has not received prioritization for capital reinvestment. Because of this, the long-term effects of the storm and its associated flooding have hastened the wholesale decline in Orchard Beach's facilities and infrastructure. Instead of simply repairing the landmark features of Orchard Beach, NYC Parks should create a concerted capital plan for reinvestment in and the redesign of this vital site. Dating to 1936, Orchard Beach has an important role to play as a part of New York City's largest Park, Pelham Bay Park, and should have the level of investment appropriate to bring its facilities and structures into good working order.

6

REPLENISH THE SAND AT WOLFE'S POND BEACH AND OTHER STATEN ISLAND BEACHES

Erosion at Wolfe's Pond Beach makes maintenance difficult

Despite sustaining heavy damage from Hurricane Sandy, Staten Island's beaches have not yet seen the replenishment of shoreline sand, typically undertaken by the U.S. Army Corps of Engineers. In addition to this, naturally occurring ocean currents erode Staten Island's shoreline daily, reducing recreational beach area. At present, years of erosion have driven Wolfe's Pond Beach back more than 50 feet from mid-century levels, exposing the municipal infrastructure—house foundations, fire hydrants—of the neighborhood that used to exist there. A beach like Wolfe's Pond Beach, which received particularly low scores on Shoreline, would be markedly easier to maintain with a healthy level of sand on its shores.

Detailed Methodology

This section describes in detail the methodology used by New Yorkers for Parks in creating the *Report Card on Beaches*. The methods are derived from New Yorkers for Parks' award-winning *Report Card on Parks* survey methodology, first implemented in 2003. In 2005, the *Report Card on Parks* received a Community Indicators Award from the Community Indicators Consortium and the Brookings Institution's Urban Markets Initiative.

SURVEY POPULATION

The Report Card on Beaches focuses on "beach" properties that are owned and operated by the NYC Department of Parks and Recreation (NYC Parks) where the public is invited to swim and lifeguards and swimming-related facilities are provided. A total of eight beaches meet these criteria and were evaluated in the survey. The newest swimming beach, Cedar Grove, was opened in 2011, but because it was not a public swimming beach during the 2006, 2008, and 2010 survey periods, it was not included in previous beach surveys.

In each of the eight beach properties, New Yorkers for Parks set out to measure conditions in four Major Service Areas (MSAs): Shoreline, Pathways, Bathrooms and Drinking Fountains (please see below). In each previous report card survey, as in this one, all bathrooms and all drinking fountains at each property were surveyed. However, due to the large size of the beaches, an evaluation of the total acreage of every property is not feasible due to limited resources and NY4P's rigorous data collection process. To address this challenge, NY4P used Geographic Information Systems (GIS) to map each beach property and divide it into transects. A width of fifty yards was identified as the survey's standard transect size because it corresponds with the NYC Department of Health's requirements for lifeguard placement along the beach. In 2006, 2008, and again in 2010, New Yorkers for Parks randomly selected 10% of transects to be surveyed for shoreline and pathway conditions.

In October 2012, Hurricane Sandy hit the Northeastern United States. The storm caused tremendous damage to park properties in New York, disproportionately on the City's shoreline. Since then, NYC Parks has invested millions of dollars for the repair and renovation of beaches. In order to gauge progress made in the recovery effort, NY4P decided to revisit, where possible, the same transects selected for inclusion in the previous survey in 2010. Doing so allows for a direct comparison, transect by transect, of shoreline and pathway conditions in 2014 against a 2010 baseline. As in all previous beach reports, NY4P evaluated every drinking fountain and bathroom on each property, whether or not it fell within selected transects. Transects made inaccessible by damage or construction were replaced by randomized alternate selections.

IDENTIFICATION & WEIGHTING OF MAJOR SERVICE AREAS

In constructing the *Report Card on Beaches*, NY4P took a user-focused approach to identify four MSAs impacting a beach user's experience. Of the eight MSAs measured through the *Report Card on Parks*, three are included in the *Report Card on Beaches*: Bathrooms, Drinking Fountains, and Pathways. For the creation of the *Report Card on Parks*, a focus group of park experts, community leaders and public officials was convened to help define eight MSAs, along with a scale of weights to reflect the relative importance of different indicators. Participants and park users at Brooklyn's Prospect Park were asked to rate the MSAs on a scale of 1 to 5, 1 having the least impact on their park experience, and 5 being the most critical. Participants also provided feedback on the structure and composition of the MSAs. In order to be able to compare beach survey results to park survey results, the same MSA weights were used in the *Report Card on Beaches*, with the addition of a weight of 5 for the Shoreline form. In constructing the Shoreline feature form, a Beaches Advisory Group was convened to provide feedback on form questions from the user's perspective. The rankings provided were then averaged and rounded to the nearest whole number to provide a final MSA relative weight figure. See Figure 1 for MSA weights.

STRUCTURE OF SURVEY INSTRUMENT: FEATURE FORMS

The structure of the survey instrument replicates that of the *Report Card on Parks*. NY4P staff, in cooperation with statistical consultants from the firm of Ernst & Young, developed question forms for the *Report Card on Parks* with which to

Figure 1: Major Service Areas & Relative Weights

Major Service Areas	*Description*	*Weight*
Bathrooms	This MSA evaluates the maintenance, cleanliness, safety, and structural integrity of each discrete bathroom or comfort station along the beach or boardwalk.	4
Drinking Fountains	This MSA evaluates the maintenance, cleanliness, safety, and structural integrity of each discrete drinking fountain along the beach or boardwalk.	3
Pathways	This MSA evaluates the maintenance, cleanliness, safety, and structural integrity of each type of walkway or boardwalk at the beach, including wood, asphalt, turf, pavers, and concrete.	3
Shoreline	This MSA evaluates the maintenance, cleanliness, and safety of the sand shoreline at the beach, starting from where the water meets the sand and ending at the dune or pathway.	5

evaluate the MSAs found in each park. Individual questions were designed to measure the performance of the MSAs in each of the following categories: Maintenance, Cleanliness, Safety and Structural Integrity.

Whenever possible, the form questions were adapted from NYC Parks' own internal evaluation mechanism, the Parks Inspection Program (PIP). The form questions for the Shoreline form were adapted from established *Report Card on Parks* feature forms, including the Waterbodies, Natural Areas and Lawns forms, as well as research on beach evaluations conducted by other groups. During the development of the *Report Card on Parks*, a second focus group was convened to provide relative weights to individual feature forms on a scale of 1 to 5, 1 having the least impact on their park experience, and 5 being the most critical. Next, the focus group was asked to designate each of the individual form questions as 'priority' or 'routine.' Priority ratings refer to those conditions of a park feature necessary for its safe use. Finally, the focus group rated questions tagged as routine on a scale from 1 to 5. The survey design team followed this same protocol for the Shoreline feature form, relying heavily on the results of focus group research used in the creation of the *Report Card on Parks*.

ASSIGNMENT OF NUMERICAL SCORES

Any beach feature receiving an 'unacceptable' rating on any priority question was automatically assigned a form grade of zero. However, in the large majority of completed forms, beach features received 'acceptable' ratings to priority questions. In these cases, all non-priority questions were scored as acceptable, not acceptable or not applicable. Following the guidelines of the focus group, each applicable form question was assigned a weight of 1 to 5. Form scores were calculated as the weighted ratio of questions scored acceptable to those scored acceptable or unacceptable. This number was then multiplied by 100 to give a final form score. No form score was assigned to a beach which lacked a given feature; in this way, no beach was penalized for lacking any of the survey's feature types.

Forms in each MSA were averaged to give four scores: Shorelines, Pathways, Bathrooms and Drinking Fountains. No MSA rating was assigned to a beach which lacked any given major service area; in this way no beach was penalized for not having any of the survey's four major service area types.

Detailed Methodology (*continued*)

The raw score for each beach was calculated in a similar fashion to MSA scores. MSAs present for any given beach were weighted following the guidelines of the focus groups. These weighted figures were then averaged to give an overall beach score.

The survey is designed to fairly rate all features that are or should be available to a user visiting a particular beach. By way of example, if a beach has a bathroom facility that is locked or closed without explanation, it would receive a "0" score for the Bathroom rating. However, if the beach does not have a bathroom, it would not receive any score for Bathrooms, so that no beach will be penalized for not having a particular major service area. Although New Yorkers for Parks tracked whether or not a lifeguard was present at a given Shoreline transect, this measure did not impact the beach's grade.

Sample Calculation: Manhattan Beach
Figure 2 shows the actual form and MSA scores for Manhattan Beach in Brooklyn. Figure 3 shows the MSAs, weights and subsequent beach scores.

CONVERSION OF NUMERICAL SCORES TO LETTER GRADES

To maintain consistency and comparability, the grade conversion system for the *Report Card on Beaches* is based on that of the *Report Card on Parks*, shown in Figure 4. During the creation of the *Report Card on Parks*, a fourth focus group of park managers and open space experts was convened to determine the assignment of letter grades to raw scores. Participants were brought to three parks and asked to provide a letter grade for the park based on a brief description of the MSAs and a tour of the park. These letter grades were consistent with the raw number scores for the parks and resulted in the raw score/grade assignment chart.

In 2007 and 2009, beach scores ranged from 0% to 77%. For those two *Report Cards*, NY4P translated the numeric scores for each beach into three relative categories: Satisfactory (70% to 79%), Challenged (60% to 69%) and Unsatisfactory (59% and below). In 2011, a number of beach scores exceeded 80%, and a new category for Excellent (80% to 100%) was established.

Figure 2: Summary of Manhattan Beach Form and MSA Data

Form	*Form Scores*	*Msa Score*
Shoreline	100, 100	100
Bathrooms	100, 79	90
Drinking Fountains	100, 100, 100, 100, 100, 100, 100, 100, 100, 0, 0, 0, 0, 0, 0, 0, 0	56
Pathways	100, 88	94

Figure 3: Calculation of Raw Score and Letter Grade

MSA	*MSA Score times Weight*
Beaches	100 * 5 = 500
Bathrooms	90 * 4 = 359 (with rounding)
Drinking Fountains	56 * 3 = 169 (with rounding)
Boardwalks and Pathways	94 * 3 = 282
Total	1310 (with rounding)

Figure 4: Converting Raw Scores to Letter Grades

Raw Numerical Grade	*Letter Grade*	*Category*
97-100	A+	EXCELLENT
93-96	A	
90-92	A-	
87-89	B+	VERY GOOD
83-86	B	
80-82	B-	
77-79	C+	SATISFACTORY
73-76	C	
70-72	C-	
60-69	D	CHALLENGED
59 and below	F	UNSATISFACTORY

SURVEY DATA COLLECTION

Survey work for the 2015 *Report Card on Beaches* took place Tuesdays through Thursdays in July and August 2014 from the hours of 10 AM to dusk. NY4P trained three staff members to complete the survey work. NY4P senior staff held a full-day training session to train surveyors in the following techniques: use of the tablets; delineation of beach features and transects; use of maps, measuring wheels, survey forms and standards manual; and procedures for documenting features with digital cameras. The training session included a step-by-step review of beach surveying, collection of data according to defined standards, proper photo documentation, safety procedures, and procedures for storing data in the *Report Card* database upon completion of survey.

In the field, surveyors used tablet computers to complete a feature form for each pathway and shoreline feature that was included in the selected transect. In addition, every drinking fountain and bathroom located on the beach or boardwalk was evaluated. For example, for every drinking fountain on a beach, a Drinking Fountain form was completed so that on a beach with ten drinking fountains, a surveyor would complete ten Drinking Fountain feature forms. If five transects were randomly selected for a given beach, five Shoreline forms were completed for those transects.

In addition to the completion of the survey forms, surveyors took extensive digital photographs to support and complement survey results. All survey findings and feature forms receive an identification number and are correlated to a series of photographs documenting conditions for each beach in the survey. Survey results and photo documentation are stored in a central database. When photo documentation did not correlate with results or did not adequately illustrate beach conditions, the beach was re-visited and re-evaluated by surveyors.

Survey methodology was consistent for the 2007, 2009, 2011, and 2015 reports. In 2011 and 2015, language within several items in the survey instrument was refined to improve the clarity of the measures.

OTHER INSPECTIONS OF NYC BEACHES

NYC Parks evaluates its properties using the Parks Inspection Program (PIP). While PIP rates sites from a park management perspective, the survey used in the *Report Card* was designed from the park user's perspective. By listing ratings and feature performance by beach, NY4P's *Report Card* is intended to provide a comparative analysis of beach conditions as an easy-to-use tool for communities and beachgoers.

In addition, the two inspection programs evaluate park properties in different ways. For example, the *Report Card* evaluates and scores Bathrooms and Drinking Fountains. Although NYC Parks tracks those features through PIP, they do not influence a beach's PIP score.

New Yorkers can also access beach data through the NYC Department of Health's website (can we hyperlink for the web pdf to http://www.nyc.gov/html/doh/html/environmental/beach-homepage.shtml). Every summer the Department of Health inspects public beach facilities to ensure that they comply with the health code. The agency evaluates whether the appropriate number of lifeguards is present, and whether liquid soap and paper towels are available in beach bathrooms. NY4P incorporated several of these standards into our inspection of beaches. The results of the Department of Health inspections are posted on its website throughout the summer, as well as in an annual report released in the fall. The agency also monitors water quality and provides this data online, ensuring that community members are educated about public safety.

NEW YORKERS FOR PARKS

NEW YORKERS FOR PARKS
The Arthur Ross Center for Parks and Open Spaces
55 Broad Street, 23rd Floor
New York, NY 10004
(212) 838-9410
www.ny4p.org

New Yorkers for Parks is the citywide independent organization championing quality parks and open spaces for all New Yorkers in all neighborhoods.

Parks are essential to the health of residents, the livability of neighborhoods, and the economic development of the city. Through our integrated approach of research, advocacy and strategic partnerships, we drive immediate actions and long-term policies that protect and enhance the city's vast network of parks, ensure equitable access to quality open spaces for all neighborhoods, and inform and empower communities throughout New York City. Information on New Yorkers for Parks' research and projects is available at www.ny4p.org.

REPORT STAFF
Tupper Thomas
Executive Director

Beth Bingham
Director of Research & Planning

Lucy Robson
Research & Planning Analyst

Haley Cox
Research & Planning Graduate Intern

Jillian Hoenig
Field Surveyor

Will Gottsegen
Field Surveyor

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