

Molloy University

DigitalCommons@Molloy

---

CERCOM reports

Center for Environmental Research and Coastal  
Oceans Monitoring (CERCOM)

---

2023

## Long Island Horseshoe Crab Network Annual Inventory Report

CERCOM, Molloy University

John Tanacredi Ph.D.

Molloy University, [jtanacredi@molloy.edu](mailto:jtanacredi@molloy.edu)

Kyle F. Maurelli

Molloy University, [kmaurelli@molloy.edu](mailto:kmaurelli@molloy.edu)

Follow this and additional works at: [https://digitalcommons.molloy.edu/cercom\\_reports](https://digitalcommons.molloy.edu/cercom_reports)



Part of the [Earth Sciences Commons](#), [Environmental Sciences Commons](#), and the [Oceanography and Atmospheric Sciences and Meteorology Commons](#)

[DigitalCommons@Molloy Feedback](#)

---

### Recommended Citation

CERCOM, Molloy University; Tanacredi, John Ph.D.; and Maurelli, Kyle F., "Long Island Horseshoe Crab Network Annual Inventory Report" (2023). *CERCOM reports*. 24.

[https://digitalcommons.molloy.edu/cercom\\_reports/24](https://digitalcommons.molloy.edu/cercom_reports/24)

This Horseshoe Crab Annual Inventory Report is brought to you for free and open access by the Center for Environmental Research and Coastal Oceans Monitoring (CERCOM) at DigitalCommons@Molloy. It has been accepted for inclusion in CERCOM reports by an authorized administrator of DigitalCommons@Molloy. For permissions, please contact the author(s) at the email addresses listed above. If there are no email addresses listed or for more information, please contact [tochter@molloy.edu](mailto:tochter@molloy.edu).



**Center for Environmental Research and Coastal Oceans  
Monitoring**

(CERCOM)

**Molloy University**

**Long Island Horseshoe Crab Network**

**Annual Inventory Report**

**2023**

FINAL REPORT

A handwritten signature in blue ink, which appears to read 'John T. Tanacredi'. The signature is fluid and cursive, with a long horizontal line extending to the right.

Director; **Dr. John T. Tanacredi**

Scientific Research Technical Assistant; **Mr. Kyle F. Maurelli**

Address:

132 Clyde Street

West Sayville, NY 11796

2023

Student Intern Participation:

Caroline Kane	Volunteer	N/A
---------------	-----------	-----

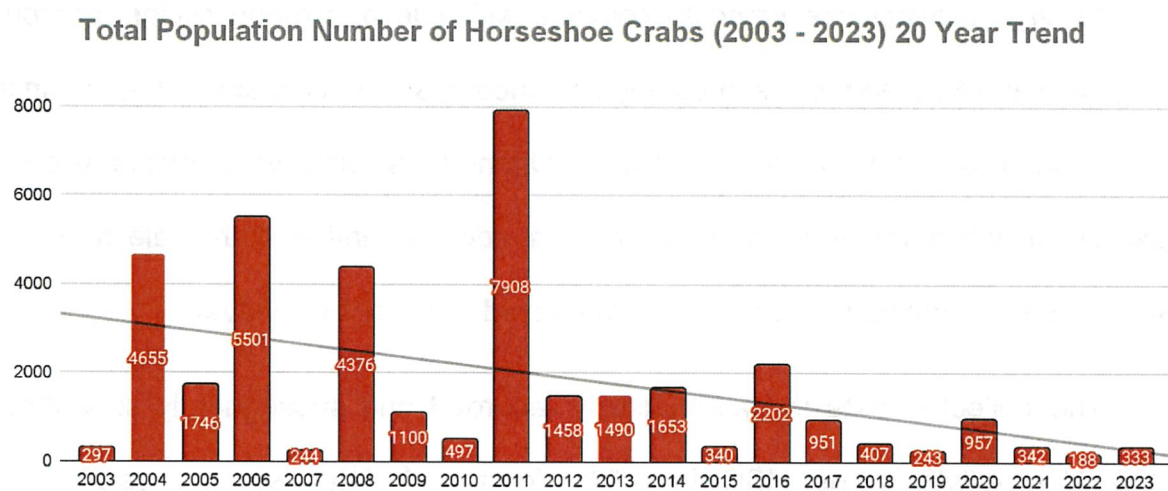
CERCOM conducts monitoring of 111 beach locations spanning from Brooklyn to Montauk during the optimal breeding season of *Limulus polyphemus*. These surveys span approximately 15 weeks, commencing in May and concluding in August. Each beach location is meticulously marked with GPS coordinates to ensure consistent annual revisitation. Participation in these surveys necessitates attendance at an HSC Survey training orientation, led by Mr. Kyle Maurelli, CERCOM's research assistant.

Survey activities are timed to coincide with tide and moon cycles, particularly during New and Full Moons. Each survey site encompasses a distance of approximately one mile and requires 1-2 hours to complete. During these surveys, participants conduct observations while walking along the water's edge, counting both male and female HSCs, as well as noting the presence of deceased or molted individuals.

The collected data is systematically recorded and subsequently submitted via Molloy University's online HSC inventory form and database, accessible on the university's website. This annual endeavor undertaken by Molloy University's CERCOM serves the dual purpose of providing comprehensive data on total observed HSC populations per site and ascertaining the occurrence of HSC breeding at each beach location.

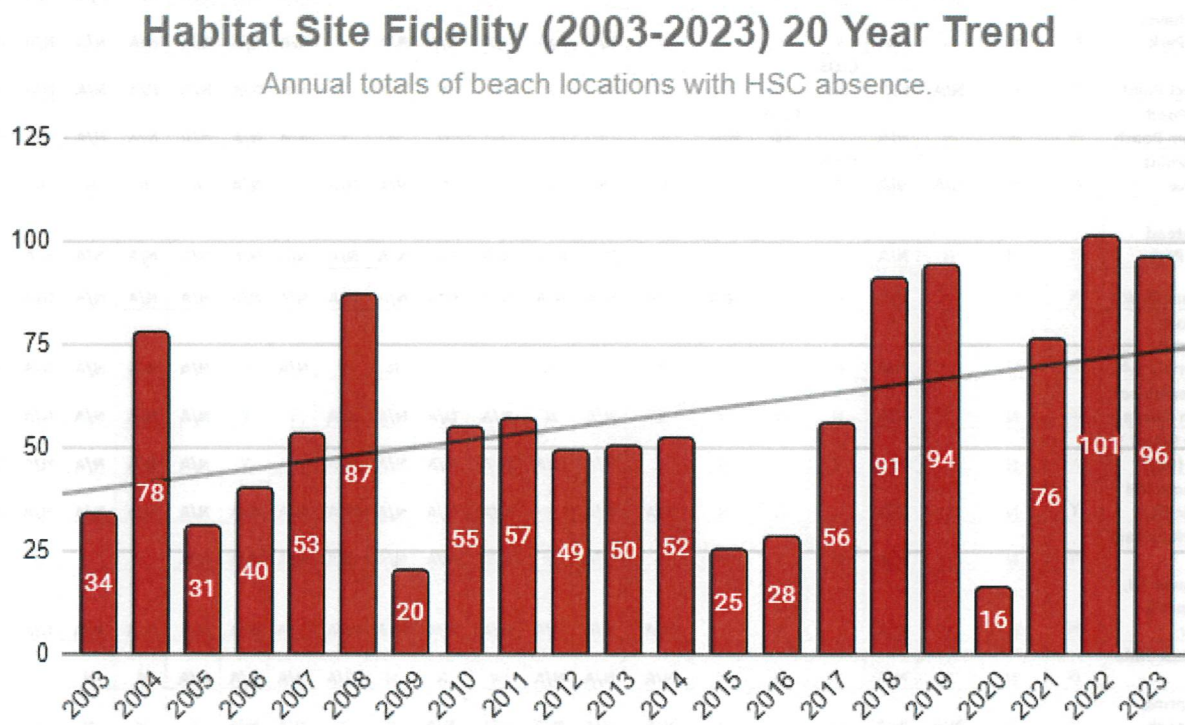
This ongoing effort facilitates the annual recording of trends in breeding beach productivity and the broader population dynamics of *Limulus polyphemus* across Long Island.

Figure 1.



\*Raw Data available upon request, held in reserve at CERCOM.

Figure 2.



\*Raw Data available upon request, held in reserve at CERCOM.



Figure 3.

**Yes & No chart for individual CERCOM monitoring locations to show if both male and female Horseshoe Crabs (HSCs) were present at each beach site for indication of breeding.**

		2023	2022	2021	2020	2019	2018	2017	2016	2015	2014	2013	2012	2011	2010	2009	2008	2007	2006	2005	2004	2003
1	Stepping Stone Park	N	N	N	N/A	Y	N	N	N	N/A	Y	N	Y	N	N	N/A	N/A	N/A	N/A	N/A	N/A	N/A
2	Plum Beach Point	Y	Y	Y	N/A	CLOS ED	CLOS ED	Y	N/A	N/A	N/A	N/A	N/A	N/A	Y	Y	Y	N/A	N	Y	Y	N
3	Half Moon Beach	N	N	N/A	N/A	CLOS ED	N	Y	Y	Y	Y	N	Y	N	Y	N/A	N/A	N/A	N/A	N/A	N/A	N/A
4	Manorhaven Beach Park	N	N	N	N/A	Y	Y	Y	N	N/A	N/A	N/A	N/A	N/A	Y	N/A	N/A	N/A	N/A	N/A	N/A	N/A
5	Prospect Point	N	N	N/A	N/A	CLOS ED	Y	Y	Y	Y	Y	Y	Y	N	Y	N/A	N/A	N/A	N/A	N/A	N/A	N/A
6	Leeds Pond Museum Beach	N	N	N	N/A	N	CLOS ED	N/A	N	Y	Y	N	N	N	Y	N/A	N/A	N/A	N/A	N/A	N/A	N/A
7	Sands Point Preserve	N	N	N/A	N/A	CLOS ED	N	N	N	N	N	N	N	N/A	N/A	N	N/A	N	N	N	N	Y
8	North Hempstead Beach Park	N	N	N	N/A	Y	N	Y	Y	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
9	Beekman Beach	N	N	N	N/A	N	N	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
10	Theodore Roosevelt Memorial Park	N	N	N	N/A	N	N	Y	Y	Y	Y	Y	Y	N	Y	N/A	Y	N/A	N/A	N/A	N/A	N/A
11	Center Island Beach (Shore)	N	N	N	N/A	N	N	N	Y	N/A	N	N/A	N/A	N/A	N/A	Y	Y	N/A	N/A	N/A	N/A	N/A
	Center Island Beach (Bay)	N	N	N	N/A	Y	N	N	Y	N/A	N/A	N/A	N/A	N/A	N/A	Y	Y	N/A	N/A	N/A	N/A	N/A
12	Sagamore Hill Historic Site	Y	N	N	N/A	N	N	N	N/A	N/A	N	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
13	Lloyd Neck Bath Club	N	N	N	N/A	Y	N	Y	N	N/A	Y	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N	N	Y	N
14	Bungtown Rd, Cold Spring Harbor	N	N	N	N/A	N	Y	Y	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
15	Caumsett State Park	N	N	N	N/A	Y	N	Y	N/A	N/A	N/A	N	N	N	N/A	N/A	N/A	N/A	N	N	Y	N
16	Cold Spring Harbor Lab	N	N	N/A	N/A	N	N	Y	N/A	N/A	N/A	N/A	N/A	N	N	N/A	N/A	Y	N	N	Y	Y
17	Cold Spring Harbor Beach Club	N	N	N/A	N/A	N	Y	Y	N/A	N/A	N/A	N/A	N/A	N/A	N	N/A	N/A	Y	N	N	Y	Y
18	Gold Star Beach Club	Y	N	N	N/A	N	N	Y	Y	Y	Y	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	Target Rock National Wildlife Refuge	N	N	Y	N/A	N	Y	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
19	Bay Hills Beach, Huntington	N	N	N	N/A	N	N	N	Y	N	N	N/A	N/A	N	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
20	Crescent Beach Town Park	N	N	N	N/A	N	N	N	N	N	Y	N/A	N/A	Y	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
21	Hobart Beach Park	N	N	Y	N/A	Y	N	Y	Y	Y	N	N	Y	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
22	Fleets Cove Beach Park	N	N	N	Y	N	Y	N	N	Y	N	Y	Y	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
23	Centerport Beach Park	N	N	Y	Y	N	Y	N	N	Y	N	N	Y	N	N/A	Y	Y	N/A	N	N	Y	N
24	Asharoken Beach Park	N	N	Y	N/A	N	N	Y	N	Y	Y	N	N	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
25	Kirschbaum Park	N	N	CLOS ED	N/A	N	CLOS ED	N/A	N	N/A	N/A	N/A	N/A	N	N/A	N/A	N/A	N	N	N	Y	N
26	Short Beach, Nissequogue	N	N	N	Y	N	Y	N	Y	N/A	Y	N/A	N/A	N/A	N/A	N	Y	Y	Y	Y	Y	N

28	Long Beach Town Park (Shore)	N	N	N	N	N	N	Y	N/A	N/A	N/A	N	N	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	Long Beach Town Park (Bay)	N	N	Y	Y	N	N	N/A	Y	N	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
29	Cordwood Park, Stony Brook Harbor	N	N	Y	N	N	N	Y	N/A	N/A	N	N	N	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
30	West Meadow Wetlands Reserve	N	N	Y	N/A	N	Y	Y	Y	N/A	N/A	N	N	N/A	N/A	N	N/A	N	N	N	Y	N	N
31	Walnut Beach, Walnut Ave	N	N	N	N/A	Y	N	N/A	N/A	N/A	Y	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
32	Poquott Beach, Chestnut Ave	N	N	N	N/A	N	N	Y	Y	N/A	N/A	N	N	Y	Y	Y	N/A	Y	N	Y	Y	N	N
33	Mt Sinai Fishing Spot	N	N	Y	N/A	Y	Y	Y	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
34	Mt Sinai: Cedar Town Beach	Y	N	N	N	N	N	N	Y	N	N/A	Y	N	N	Y	Y	N/A	Y	Y	N	Y	N	N
35	Mt Sinai: Harbor Beach Rd	Y	Y	N	N	N	N	N/A	N/A	Y	N	Y	N	N	Y	Y	N	Y	Y	N	Y	N	N
36	Landing Rd, Miller Place	N	Y	Y	N	N	N	Y	N/A	N/A	N/A	N/A	N/A	N/A	N/A	Y	N/A	N	Y	N	Y	N	N
37	Seacliff Ave, Miller Place	N	N	N	N/A	N	N	N	N/A	N/A	N	N	N	N	N/A	N	N/A	N	Y	N	Y	N	N
38	Hagerman Landing Rd, Rocky Point	N	N	Y	N/A	N	N	N	N/A	N/A	N	N	N	N/A	N/A	N	N/A	Y	N	N	Y	N	N
39	Beach Ln, Shoreham	Y	Y	N	N/A	N	N	N	N/A	N/A	N	N	N	N	N/A	N	N/A	N	N	N	Y	N	N
40	Creek Rd, Wading River	Y	Y	N	N/A	N	N	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
41	Wildwood State Park	N	N	Y	N/A	N	N	N	N/A	N/A	N	N	N	N	N/A	N	N/A	N	N	N	Y	N	N
42	Reeves Beach	N	N	N	N/A	N	N	N	N/A	N/A	N	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
43	Roanoke Ave	CLO SED	N	N	N/A	N	N	N	N/A	N/A	N	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
44	Sound Ave	N	CLOS ED	CLO SED	N/A	CLOS ED	N	N	N/A	N	N/A	N/A	N/A	N/A	N/A	N/A	N	N/A	Y	N	N	Y	N
45	South Jamesport Beach	N	N	N	N/A	CLOS ED	N	N/A	N	N/A	N	N	N	Y	N/A	N/A	Y	N/A	Y	Y	N	Y	N
46	Breakwater Rd, Mattituck	N	N	N	N/A	N	N	N	N	N	N	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
47	Bailee Beach Park, Mattituck	N	N	N	N/A	N	N	N	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
48	New Suffolk Beach, 1st St	N	N	N	N/A	N	N	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
49	K Rd, Southold	N	N	N	N/A	CLOS ED	N	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
50	Peconic Dunes County Park	N	N	N	N/A	CLOS ED	N	N/A	N/A	N	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
51	Kenny's Beach	N	N	N	N	N	N	N	Y	N	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
52	McCabes Beach	N	N	N	N/A	N	N	N	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
53	South Harbor Park, Southold	Y	N	N	N	N	N	N/A	N	N/A	N	N	Y	Y	N	N	Y	N	N	N	N	N	N
54	Narman E. Klipp Marine Park	N	N	Y	N/A	N	N	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
55	Southold Town Beach, East Marion	N	N	N	N/A	CLOS ED	N	N	N	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
56	Orient Point	N	N	N	N/A	N	N	N/A	N	N	N/A	N	N	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
57	Hither Hills State Park	N	N	N/A	N/A	N/A	N	N/A	N/A	N/A	N/A	N	N	N	N	N/A	N/A	N/A	Y	N	Y	N	N



[illegible]

	Oak Beach 2	N	N	MISSING	N/A	N	N	Y	Y	Y	N	N	N	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	Oak Beach 3	N	N	MISSING	N/A	N	N	Y	Y	Y	N	N	N	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	Oak Beach 4	N	N	MISSING	N/A	N	N	Y	Y	Y	N	N	N	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	Oak Beach 5	Y	N	MISSING	N/A	N	N	Y	Y	Y	N	N	N	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	Oak Beach 6	Y	N	MISSING	N/A	N	N	Y	Y	Y	N	N	N	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
89	Gilgo State Park	N	N	MISSING	N/A	N	N	N/A	Y	Y	N	N	Y	N	Y	Y	Y	N	N	N	Y	N
90	Tanner Park Beach	N	N	N	N/A	N	Y	N	N/A	N/A	Y	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
91	Gilgo Beach	Y	N	MISSING	N/A	Y	Y	Y	Y	Y	N	Y	N	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
92	Tobay Beach	Y	N	MISSING	Y	N	N	N	N	N	N	N	N	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
93	Alhambra Rd	N	N	N/A	N/A	Y	Y	N	N/A	N/A	Y	N	Y	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
94	Florence Ave	N	Y	N	N/A	N	N/A	N	N/A	N/A	N	Y	Y	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
95	Zach's Bay	N	N	MISSING	N/A	N	Y	CLOSED	Y	N/A	Y	N	N	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
96	Jones Beach State Park	N	N	MISSING	N	N	N	N/A	N/A	N/A	N/A	N/A	N/A	Y	Y	N	Y	Y	Y	Y	Y	Y
97	Wantaugh Park	N	Y	N	N/A	Y	N/A	N	Y	Y	N	Y	N	N	N	N	N	N	N	N	N	N
98	Jones Beach Field 10	N	N	MISSING	N	N	N	N	Y	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
99	Jones Beach Coast Guard Beach	N	N	MISSING	N/A	N	Y	N/A	N/A	N/A	Y	N/A	N/A	N	Y	N/A	N/A	N/A	N/A	N/A	N/A	N/A
100	Point Lookout	N	N	N	Y	N	N	N/A	N	N/A	Y	N/A	N/A	N/A	N/A	N	Y	N	N	N	N	Y
101	West Marina, Lido Beach	N	N	N	N/A	N	N	N/A	N/A	N/A	N/A	N	Y	N	N/A	N/A	N/A	N	N	N	N	Y
102	Masone Beach	N	N	N	Y	N	Y	N	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
103	Long Beach Blvd Bridge	N	N	N	N/A	N	N	Y	N	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
104	Ocean Beach Park, Long Beach	N	N	N/A	N/A	N	Y	N	N	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
105	Hewlett Point Park		N	Y	Y	N	Y	N	N/A	N/A	N	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
106	Bannister Bay Beach 9		N/A	N/A	N/A	N	CLOSED	N/A	N/A	N/A	N	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
107	Playground		N	N	N/A	N	N/A	N	Y	Y	Y	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
108	Crossbay Blvd		N	N	N/A	N	N	N	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
109	Plum Beach West		Y	N	N/A	Y	Y	N/A	N/A	Y	Y	Y	N	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
110	Sheepshead Bay, Shore Blvd		N	N/A	N/A	N	Y	N/A	N/A	N	N/A	N	N	N	Y	N/A	Y	Y	Y	Y	N	Y
111	Breezy Point Tip		N	N/A	Y	N	N	N/A	Y	N	N/A	N	N	N	N	N/A	N/A	N	N	Y	Y	Y

\*Raw Data available upon request, held in reserve at CERCOM.

