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Long Island Horseshoe Crab Network Annual Inventory Report

CERCOM, Molloy University

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Kyle F. Maurelli

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

(CERCOM)

Molloy University

Long Island Horseshoe Crab Network

Annual Inventory Report

2022

FINAL REPORT

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

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

Address:

132 Clyde Street

West Sayville, NY 11796

2022

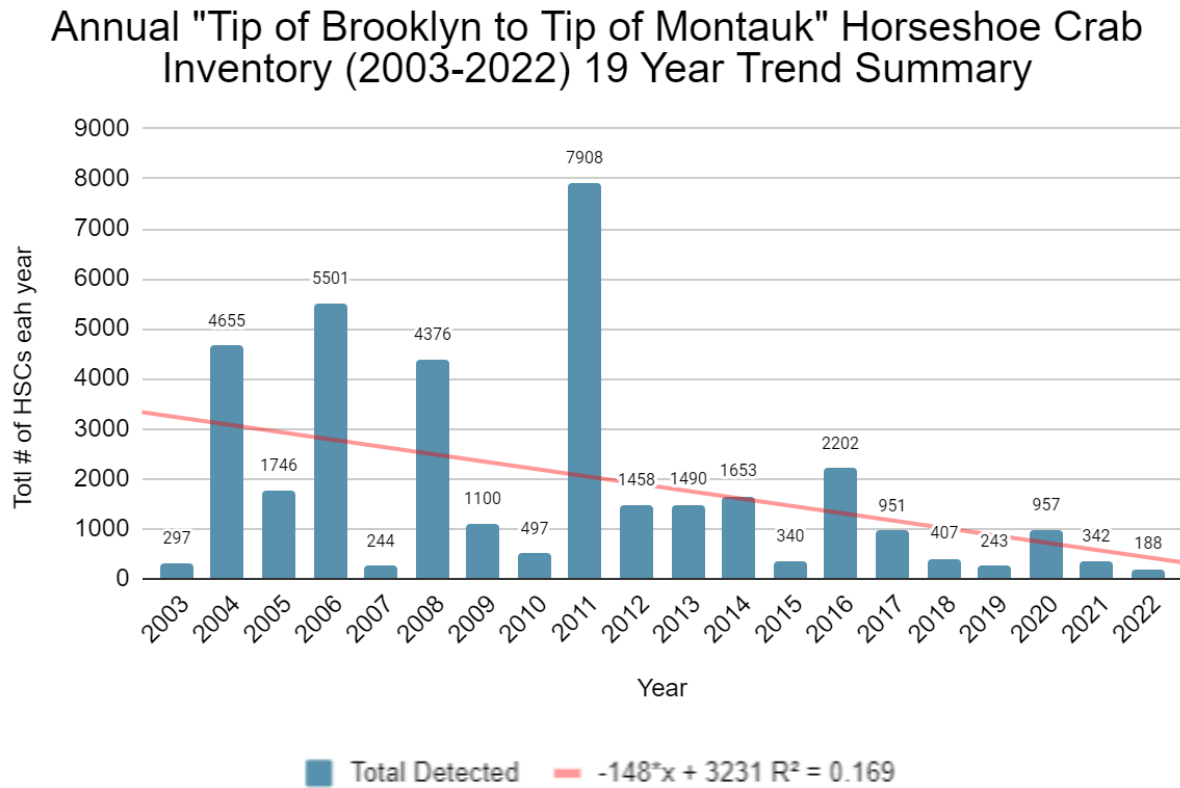
Student Intern Participation:

Caroline Kane	Volunteer	N/A
Nina Scanze	Biology	Molloy University
Laura Munn	Biology	Molloy University
Eylin Garciaguirre Yanes	Biology	Molloy University

CERCOM monitors 115 beach locations from Brooklyn – Montauk during the optimal *Limulus Polyphemus* breeding season. These beach surveys take place for approximately 15 weeks, ranging from May - August. These beach locations are marked specifically using GPS coordinates, to assure the same location is visited each year. Students and volunteers are required to attend a HSC Survey training orientation led by CERCOM's research assistant, Mr. Kyle Maurelli. Surveying is done around tide and moon cycles (New/Full Moon). Each site takes about 1-2 hours and data is recorded along an approximate 1 mile distance. Walking along the water's edge the number of male and female HSCs are counted as well as the dead and or molted HSCs. This data is recorded and submitted to Molloy University's online HSC inventory form/ database on the Molloy University's website. CERCOM provides data for total observed HSC populations per site as well as whether or not HSC breeding has or is occurring at each beach location. Trends in breeding beach productivity and overall Long Island populations are recorded annually.

Figure 1.

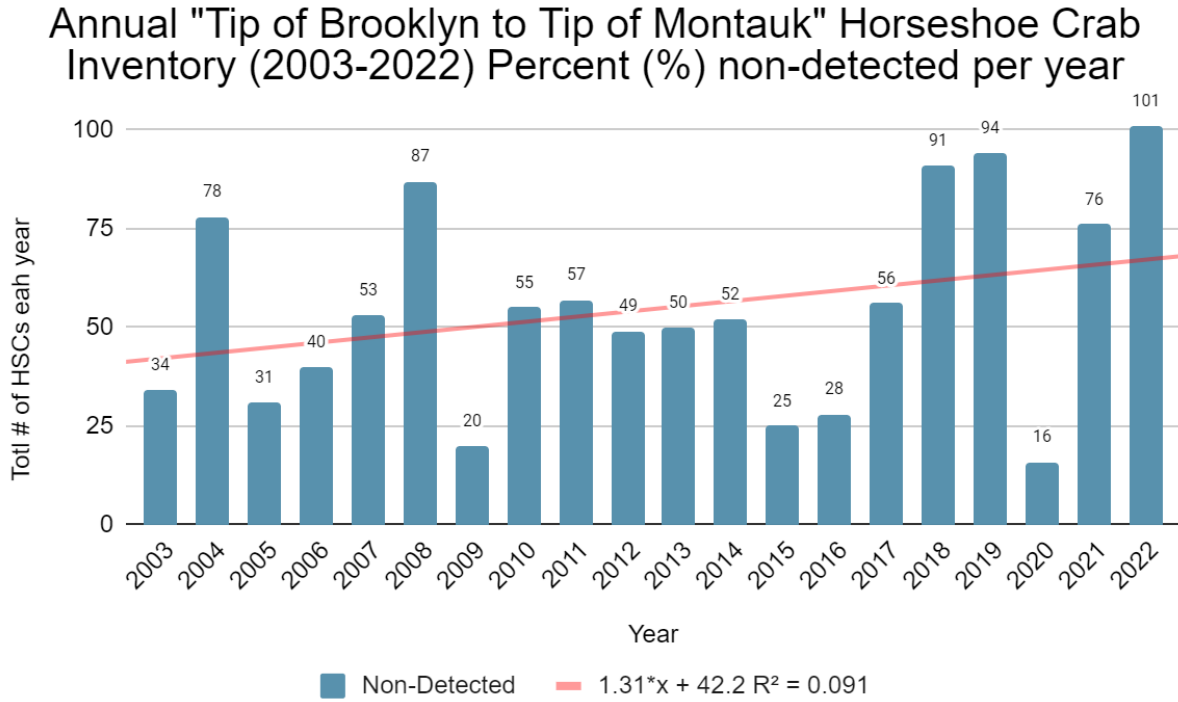
Annual totals with calculation of declining trend for 19 years of CERCOM data from 2003 – 2022.



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

Figure 2.

Annual totals with calculation of increasing trend of absent beaches for 19 years of CERCOM data from 2003 – 2022.



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

Figure 3.

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

		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/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	N/A	CLOSED	CLOSED	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/A	N/A	CLOSED	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/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/A	N/A	CLOSED	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/A	N	CLOSED	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/A	N/A	CLOSED	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/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/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/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/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/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	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/A	Y	N	Y	N	N/A	Y	N/A	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/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/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/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/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	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	
19	Target Rock National Wildlife Refuge	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	
20	Bay Hills Beach, Huntington	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	
21	Crescent Beach Town Park	N	N	N/A	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	N/A	
22	Hobart Beach Park	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	
23	Fleets Cove Beach Park	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	
24	Centerport Beach Park	N	Y	Y	N	Y	N	N	Y	N	N	Y	N	N/A	Y	Y	N/A	N	N	Y	N	
25	Asharoken Beach Park	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	
26	Kirschbaum Park	N	CLOSED	N/A	N	CLOSED	N/A	N	N/A	N/A	N/A	N/A	N	N/A	N/A	N/A	N	N	N	Y	N	
27	Short Beach, Nissequogue	N	N	Y	N	Y	N	Y	N/A	Y	N/A	N/A	N/A	N/A	N	Y	Y	Y	Y	Y	Y	N
28	Long Beach Town Park (Shore)	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	
	Long Beach Town Park (Bay)	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	
29	Cordwood Park, Stony Brook Harbor	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	
30	West Meadow Wetlands Reserve	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	
31	Walnut Beach, Walnut Ave	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	
32	Poquott Beach, Chestnut Ave	N	N	N/A	N	N	Y	Y	N/A	N/A	N	N	Y	Y	Y	N/A	Y	N	Y	Y	N	
33	Mt Sinai Fishing Spot	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	
34	Mt Sinai: Cedar Town Beach	N	N	N	N	N	N	Y	N	N/A	Y	N	N	Y	Y	N/A	Y	Y	N	Y	N	
35	Mt Sinai: Harbor Beach Rd	Y	N	N	N	N	N/A	N/A	Y	N	Y	N	N	Y	Y	N	Y	Y	N	Y	N	
36	Landing Rd, Miller Place	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	
37	Seacliff Ave, Miller Place	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	
38	Hagerman Landing Rd, Rocky Point	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	

39	Beach Ln, Shoreham	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
40	Creek Rd, Wading River	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
41	Wildwood State Park	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
42	Reeves Beach	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
43	Roanoke Ave	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
44	Sound Ave	CLO SED	CLO SED	N/A	CLOS ED	N	N	N/A	N	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/A	CLOS ED	N	N/A	N	N/A	N	N	N	Y	N/A	N/A	Y	N/A	Y	Y	N	Y
46	Breakwater Rd, Mattituck	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
47	Bailee Beach Park, Mattituck	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
48	New Suffolk Beach, 1st St	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
49	K Rd, Southold	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
50	Peconic Dunes County Park	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
51	Kenny's Beach	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
52	McCabes Beach	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
53	South Harbor Park, Southold	N	N	N	N	N	N/A	N	N/A	N	N	Y	Y	N	N	Y	N	N	N	N	N
54	Narman E. Klipp Marine Park	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
55	Southold Town Beach, East Marion	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
56	Orient Point	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
57	Hither Hills State Park	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
58	Napeague Harbor Rd, Montauk	N	N	N/A	N/A	N	N	N/A	N/A	Y	N/A	N/A	N/A	N/A	N/A	N/A	N/A	Y	N	Y	N
59	Amagansett National Wildlife Refuge	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
60	Louse Point Town Beach	N	N	N/A	N	N	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
61	Havens Beach, Sag Harbor	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
62	Shinnecock Bay East	N	N	N/A	N	N	N	N/A	N/A	N/A	N	N	N	N/A	N/A	N/A	N/A	N	N	N	Y

87	Captree State Park East	N	N	N/A	N	N	Y	Y	N	N	N	N	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	Captree State Park West	N	N	N/A	N	N	N	Y	Y	N	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
88	Oak Beach 1	N	MIS SIN G	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 2	N	MIS SIN G	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	MIS SIN G	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	MIS SIN G	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	N	MIS SIN G	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	N	MIS SIN G	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	MIS SIN G	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/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	N	MIS SIN G	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	N	MIS SIN G	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/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	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	MIS SIN G	N/A	N	Y	CLOS ED	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	MIS SIN G	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	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	MIS SIN G	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	MIS SIN G	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	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/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	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/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/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	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	Beach 9 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	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.