TOWN OF EAST HAMPTON
THREATENED AND ENDANGERED SPECIES PROGRAM

END OF SEASON REPORT
2015

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INTRODUCTION

The goal of East Hampton Town's Threatened and Endangered Species Program is to provide protection of breeding shorebirds, their nests and young to encourage successful productivity during the breeding season while maintaining suitable public access on our beaches. This is achieved through accurate identification and recording of nesting dates and locations, specialized protection of individual nests and hatched young, frequent monitoring of nest sites and broods, and surveying and protection of rare plants and other beach-dependent species.

"Symbolic" string fencing protects shorebird nesting areas on the upper beach while allowing all beachgoers to use the lower beach and adjacent areas.

Protected bird species include the Federally threatened and New York State (NYS) endangered piping plover (*Charadrius melodus*) and the NYS threatened least tern (*Sterna antillarum*). East Hampton has historically been home to the federally and NYS threatened seabeach amaranth (*Amaranthus pumilus*) on our ocean beaches and is currently home to the NYS listed rare seabeach knotweed (*Polygonum glaucum*) on several bay beaches. All of these protected species depend on open beach habitats such as barrier beaches, sand spits, surplus dredge material areas and over-washed or sparsely vegetated upper beach and dune areas. Preserving these dynamic habitats plays a key role in protecting nesting shorebirds and other species associated with and dependent on our beaches. Throughout the nesting season, our efforts are focused on facilitating the earliest possible nesting success on each beach, so as not to prolong public access restrictions.

The Town of East Hampton Natural Resource Department actively manages approximately 18 miles of ocean and

bay beaches. The Threatened and Endangered Species management area consists of all bay and ocean beaches within the Town as well as the Incorporated Village of East Hampton (excluding all Federal, State and County-owned land). Individual site names are indicated on the map below for reference.

East Hampton Town Threatened and Endangered Species Management Sites.

PIPING PLOVER MANAGEMENT

When the first piping plovers arrive from their wintering grounds in mid to late March, "symbolic" string fencing is installed to protect historic nesting sites where pairs return each breeding season. This fencing helps preserve the upper beach habitat from foot and vehicular traffic as individual pairs begin to set up their territories.

When pairs nest within close proximity to each other, male piping plovers actively maintain their territories throughout the breeding season.

Once most territories have been established by late April or early May, females begin to lay eggs, one every other day, until four eggs completes their first clutch.

A piping plover pair demonstrating breeding behavior. Some nests are prepared by tossing small shell fragments into the depression.

If nests are found outside of string-fenced areas, additional fenced areas are installed to protect individual nest sites. Each nest is evaluated on a case-by-case basis, and if conditions are considered appropriate, a 10-foot diameter wire "exclosure" is installed surrounding the nest to protect the eggs from predators such as American and fish crows, red fox, raccoons, opossum and domestic cats and dogs while the adult birds can move freely to and from the nest during incubation.

Piping plover nests can be difficult to locate without observation and monitoring of adult breeding pairs.

The male and female adults share incubation responsibilities for 25-28 days until the eggs hatch. If a nest is unsuccessful early in the season, pairs will often re-nest within close proximity to their original nest site, but each consecutive nest may contain a decrease in the number of eggs. Nest failure can occur as a result of predation, abandonment, infertility, tidal inundation or even the loss of chicks at a young age.

After creating several scrapes, piping plovers often line their final nest with small shell fragments.

Piping plovers can be very well camouflaged while incubating their nests in a variety of substrates.

Piping plover chicks are precocial, meaning they are not fed by their parents and must forage on their own. However, they still require their parents for brooding to keep them warm, especially within the first few weeks of age. Like their parents, piping plover young often travel extensively between the dune and intertidal areas numerous times a day while foraging. As camouflage is their main defense, young chicks often crouch in place when predators (including vehicles) approach.

Unfledged piping plovers depend on their camouflage to protect them from predators.

Piping plover young forage all areas of the beach and are vulnerable to vehicles and dogs as they cannot yet fly.

Just prior to an expected nest hatching, snow fences are installed to restrict vehicles and dogs from within close proximity to the nest sites, where unfledged young actively forage the beaches and intertidal zones. This restricted area is extended approximately 1,000 meters on either side of a nest site or location of a located brood and extends from the dune to the mean high water mark. Beach access points are accommodated when feasible, depending on the exact location and habits of each brood. Most chicks are able to fly at 25-35 days old. Once a piping plover chick is 35 days old or able to fly 15 meters, it is considered fledged, and counted toward successful productivity for the site. Most piping plover pairs and their fledged young leave for their wintering grounds by late August.

Two young (almost fledged) piping plovers rest in the shade on the upper beach.

The United States Fish and Wildlife Service (USFWS) has developed a recovery program including criteria that must be met in order to remove the Atlantic Coast piping plover population from the Federal List of Endangered and Threatened Wildlife and Plants. Delisting will occur when 2,000 mating pairs are maintained over 5 years. Of the

2,000 pairs, 575 must be located within New York and New Jersey. A five-year average productivity of 1.5 chicks fledged per pair must also be met in order to achieve delisting, along with long term agreements established among cooperating agencies, organizations and land owners.

PIPING PLOVER PRODUCTIVITY

During the 2015 breeding season, a total of 34 breeding pairs of piping plovers nested on East Hampton's bay and ocean beaches. Of those pairs, 30 were successful in hatching young, while 27 fledged a total of 68 young, the highest since 2006 (94). The 2015 season's productivity rate of 2.00 (fledges per pair) was the highest since 2002 (2.03). It is noted that from 1995 – 2007, East Hampton Town's management program included USFWS, NYS and Sufflk County-owned sites which were handed over to their respective management in 2008. The total number of breeding pairs on East Hampton's beaches has been relatively stable since 2008 (two outstanding peak years 2009-2010 with breeding pair numbers at 46-48). The several sites managed by adjacent management areas (USFWS, NYS Parks, Suffolk County and Southampton Town – some of which located within East Hampton Town Boundaries) could account for the yearly variability.

Please refer to the accompanying tables, charts and maps for details on individual site statistics, overall breeding statistics and historic productivity in East Hampton Town. Piping plover site and sub-site activity and productivity for the bay beaches and ocean beaches are outlined below and Site Maps can be found in Appendix 1. Individual sites are listed from West to East. Our most productive sites with productivity rates of 2.00 fledges per pair or higher include Maidstone Beach (3.50), Lionhead Beach (3.50), Napeague Beach (3.20), Wiborg Beach (3.00), Sammy's Beach (2.00), Wainscott Pond (2.00), and Main Beach (2.00).

Bay Beaches

Sammy's Beach Peninsula is located on the west side of Three Mile Harbor inlet and separates Three Mile Harbor to the south from Gardiners Bay to the north. Surplus dredge material from Three Mile Harbor Inlet has historically been deposited over a large section of Sammy's Beach which has created a vast area of ideal nesting habitat for piping plovers, least terns and other beach nesting species such as the diamondback terrapin (*Malaclemys terrapin*). String fencing is installed around the entire surplus dredge material area early in the season when the first plovers arrive. This allows for a large area of protection for the several pairs that return to this site each season. Eight of the nine pairs at this site nested in the designated protection area. Additional areas of stringfencing were also installed to the west where breeding behavior was observed, and one pair nested in the westernmost fenced area adjacent to residences. Snowfencing was installed at all accesses to the beach, including the east access adjacent to the inlet as well as the three western accesses. The purpose of this fencing is to protect the birds from vehicles and dogs while hatched young are actively foraging the beach. Snow-fencing was removed when all young were confirmed fledged, and string fencing was removed shortly thereafter when all least terns had fledged their young. Sammy's Beach hosted a total of nine pairs of piping plovers, all of which successfully fledged a total of eighteen young.

Site Productivity: 18 Fledges/9 Pairs = 2.00

Maidstone Beach is a public beach located on the east side of Three Mile Harbor inlet with Gardiners Bay to the north. The section of beach from the inlet to Flaggy Hole Road is designated in the Town Code as a non-driving beach year round, so off-road vehicles are generally not an issue at this site. However, this season, vehicles drove around the snowfencing at Flaggy Hole Road and drove adjacent to the inlet in order to access the Gardiners Bay beach. Additional fencing was installed at the inlet, and the Flaggy Hole Road fencing was extended to prevent driving in this permanent non-driving section. Fortunately, this incident occurred prior to young hatching. Two pairs nested at this site, fledging three and four young each.

Site Productivity: 7 Fledges/2 Pairs = 3.50

Lionhead Beach is owned by the Lionhead Beach Association and is primarily used by members of the association. Two pairs of piping plovers nested at the point which was stringfenced early in the season when the birds were observed. The first pair's nest was exclosed, one egg did not hatch, and the pair fledged three young. A second pair fledged four young from their second nest attempt. Pedestrians with dogs are generally a major concern, aside from natural predators. Signs to restrict dogs within the foraging areas are installed at all beach access points prior to the

hatch date. Off-road vehicles are not permitted on the beach at any time, so vehicle disturbance at this site is not an issue.

Site Productivity: 7 Fledges/2 Pairs = 3.50

Piping plover fledges loaf on the upper beach at Sammy's Beach.

Kings Point Beach (Clearwater Beach) is owned by the Clearwater Beach Association and is primarily used by members of the association. The site contains decent nesting and foraging habitat, but did not host any piping plovers this season. The nesting area is stringfenced early in the season to prevent beachgoers from disturbing nesting activity, as the site hosted least terns again this season.

Site Productivity: N/A

Gerard Point and Park is a peninsula located on the north side of Accabonac Inlet and separates Accabonac Harbor to the West from Gardiners Bay to the East. This site is a public beach that is heavily disturbed by off-road vehicle access throughout the year. This site contains a large area of nesting and foraging habitat, and the section of beach near the Gerard Point access was string-fenced early in the season. One nest was located within the stringfencing, but was predated before we were able to exclose the nest.

Site Productivity: 0 Fledges/1 Pair = 0.00

Louse Point is a peninsula located on the south side of Accabonac Inlet and separates Accabonac Harbor to the West from Gardiners Bay to the East. This site is a public beach that is heavily disturbed by off-road vehicles throughout the year. Snow-fencing was installed to protect the birds from vehicles and dogs during the chick-rearing period at the end of Louse Point Road and at a second access to the southeast. The site contains an expansive area of surplus dredge material from Accabonac Inlet which provides for ideal plover habitat that is stringfenced early in the season. Two pairs nested at the site and one pair fledged two young. The second pair lost their first nest and did were not observed again at the site. A pair of American oystercatchers (Haematopus palliates) also nested at this site and fledged three young.

Site Productivity: 2 Fledges/2 Pairs = 1.00

Lazy Point is a peninsula located on the West side of Napeague Harbor, just southeast of Hicks Island. This site contains a small area of decent nesting and foraging habitat on the north side, adjacent to Gardiners Bay. One pair of piping plovers was observed at this site early in the season, flying back and forth to Hicks Island, but they were not found to have nested at this site which is heavily used by off-road vehicles.

Site Productivity: 0 Fledges/1 Pair = 0.00

Ocean Beaches

Wainscott Pond includes the stretch of ocean beach from the eastern end of the Town Line Road beach access bordering on the Town of Southampton to the Beach Lane beach access in Wainscott. This section also includes a notable overwash area adjacent to Wainscott Pond that was breached during Hurricane Sandy in the fall of 2012. The breach created a vast area of ideal piping plover nesting and foraging habitat adjacent to the pond. This area was inaccessible to the public due to the presence of an artificial dune and fencing that was installed after the storm by private landowners. Two pairs of piping plovers nested at this site on the pond side of the artificial dune, and neither nest was exclosed. Each pair fledged two young. Vehicles and dogs are restricted with the installation of snow-fencing adjacent to each access road during the chick-rearing period. A third pair with one chick (which nested on the ocean beach on the Southampton Town side of Town Line Road was also observed foraging at this site. This pair was not counted in our report.

Site Productivity: 4 Fledges/2 Pairs = 2.00

If given sufficient time, piping plover chicks will move to the upper beach when predators (and humans) approach.

Georgica Pond and Georgica Beach extends from the Beach Lane access in Wainscott to the access and parking lot at Georgica Beach. As in previous years, early in the season, Georgica Pond was opened to the ocean by the East Hampton Town Trustees but did not close for a few months. This stretch of beach contains excellent nesting and foraging habitat adjacent to the pond as well as some ideal nesting and foraging habitat east of the pond. A large area on the east side of Georgica Pond where birds have historically nested is string-fenced early in the season. Two piping plover pairs nested in this area, and the second pair was successful in fledging three young from their second nest attempt. Each pair's first nest attempt was predated before we were able to exclose them. A third pair nested further east along the ocean beach. Their nest was exclosed, but we were unable to locate the pair or their young once hatched. We are unsure of the ultimate fate of the brood. During the chick-rearing period, snow-fence was installed to protect

the chicks from vehicles and dogs on the beach but was often disregarded by off-road vehicles driving around at low tide or moving the fencing to gain access to the beach. It is noted that East Hampton Village Police Traffic Control Officers regularly patrol the Village Beaches and are regularly updated on the status and location of piping plover broods.

Site Productivity: 3 Fledges/3 Pairs = 1.00

Lily Pond Beach extends from the Georgica Beach parking lot off Lily Pond Lane to the Main Beach pavilion at the end of Ocean Avenue in the Village of East Hampton. No breeding behavior was observed, and no nests were located. It is noted that East Hampton Village Police Traffic Control Officers regularly patrol the Village Beaches and are regularly updated on the status and location of piping plover broods.

Site Productivity: N/A

Main Beach is a small section of beach in the Village of East Hampton, extending from the Main Beach pavilion to the Hook Pond access road at Highway Behind the Pond. Two pair nested at this site, and each fledged two young. The brood was often observed directly seaward of the eastern fork of the Hook Pond access, and snowfencing was installed blocking that side of the access during the chick-rearing period. It is noted that East Hampton Village Police Traffic Control Officers regularly patrol the Village Beaches and are regularly updated on the status and location of piping plover broods.

Site Productivity: 4 Fledges/2 Pairs = 2.00

Wyborg Beach extends from the Hook Pond Access to the beach access at the end of Highway Behind the Pond in the Village of East Hampton. One pair fledged three young from their second nest attempt at this site. Snow-fencing was installed to protect the birds from non-essential vehicles and dogs during the chick-rearing period. It is noted that East Hampton Village Police Traffic Control Officers regularly patrol the Village Beaches and are regularly updated on the status and location of piping plover broods.

Site Productivity: 3 Fledges/1 Pair = 3.00

Egypt Beach contains a small section of beach between the Highway Behind the Pond access and the Old Beach Lane access in the Village of East Hampton. No pairs nested at this site. It is noted that East Hampton Village Police Traffic Control Officers regularly patrol the Village Beaches and are regularly updated on the status and location of piping plover broods.

Site Productivity: N/A

Two Mile Hollow Beach extends from the access at Old Beach Lane to the eastern boundary of the Village of East Hampton, just east of the Two Mile Hollow Beach access in the Village of East Hampton. No pairs nested at this site. It is noted that East Hampton Village Police Traffic Control Officers regularly patrol the Village Beaches and are regularly updated on the status and location of piping plover broods.

Site Productivity: N/A

Atlantic Double Dunes Beach extends from the Eastern Village of East Hampton boundary, just east of Two Mile Hollow Beach access to the U.S. Fish and Wildlife Preserve located between Indian Wells Beach and Atlantic Avenue Beach. This site hosted four pairs, but only three pairs are known to have nested. Two of the three pairs that nested fledged a total of four young. Snow-fencing was installed to protect the birds from vehicles and dogs on the site during the chick rearing period.

Site Productivity: 4 Fledges/4 Pairs = 1.00

Napeague Beach extends from Atlantic Beach to the western boundary of Hither Hills State Park, excluding Napeague State Park and Hither Hills State Park, both of which are managed by the NYS Park Service. This site contains several hotels, and sections of this beach can become crowded with pedestrians and vehilces during the peak summer season. A total of five pairs nested at this site and fledged a total of sixteen young. Snow-fencing was installed

for individual sections of this site, (depending on the location of beach accesses) to protect the birds from dogs and vehicles during the chick-rearing period.

Site Productivity: 16 Fledges/5 Pairs = 3.20

Montauk Beach extends from the eastern boundary of Hither Hills State Park to the "downtown" section of Montauk at the Eton Road beach access. A majority of this site contains bluffs and does not provide suitable nesting habitat due to dramatic fluctuations in beach width. The small sections of suitable habitat that do exist early in the season are in close proximity to motels and clubs on the beach that host a high density of pedestrians during the nesting season. No pairs were observed at this site during this breeding season.

Site Productivity: N/A

A to-be-fledged piping plover forages near the water's edge at the ocean beach in Napeague.

LEAST TERN MANAGEMENT

Least terns nest in colonies and often share nesting habitat with piping plovers. If least tern nests are located outside of protected piping plover areas, additional areas of string fencing are installed or fencing is extended for their protection. Their numbers are estimated for productivity counts each season. Colonies help provide their nests and young protection in numbers as adults dive-bomb intruders and potential predators in close proximity to their nest sites. Terns arrive on their breeding grounds in late-April to mid-May and begin to lay eggs by late-May.

Least terns nest in colonies and actively defend their nests by dive-bombing intruders. Nests consists of shallow scrapes in the sand, pebbles or rocks, similar to that of a piping plover.

Nests may contain 1-3 eggs, and are protected by installing symbolic fencing around nesting areas to keep pedestrians and vehicles at a safe distance. When least tern young hatch, they are able to move around, but generally stick to the upper beach where adults provide their young with food. Least tern young usually fledge within 20 days and depart for their wintering grounds with the adults by the end of August or early September.

Unfledged least tern chicks find shelter on the upper beach in the shade.

LEAST TERN PRODUCTIVITY

An approximate total of 120 pairs of breeding least terns were estimated on all East Hampton Town sites during the New York State Department of Environmental Conservation (NYSDEC) Long Island Colonial Waterbird (LICWA) Survey period (June 1-June 30). Sites where least terns attempted nesting (during and outside of the LICWA Survey period) include: Georgica Pond, Wiborg Beach, Atlantic Double Dunes Beach, Napeague Beach, Sammy's Beach, Louse Point and Kings Point. Approximate pair and fledge numbers for each site are outlined as follows:

Georgica Pond: 48 Pairs, 30 Fledges
Wiborg Beach: 4 Pairs, 0 Fledges
Atlantic Double Dunes East (Indian Wells): 6 Pairs, 7 Fledges
Napeague Beach: 16 Pairs, 18 Fledges
Sammy's Beach: 36 Pairs, 48 Fledges
Louse Point: 15 Pairs, 12 Fledges
Kings Point: 12 Pairs, 11 Fledges

A least tern adult with two hatchlings at Georgica Pond.

SEABEACH AMARANTH PROTECTION

Seabeach amaranth is an annual coastal plant that is listed as both Federally and NYS threatened. It generally grows between the toe of dune and high tide mark, often sharing its habitat with the piping plovers and least tern colonies on sandy ocean beaches. Seabeach amaranth can facilitate the growth of beaches by helping to trap wind-blown sand which assists in the protection of dunes on ocean beaches. Germination takes place from April through July, and flowering begins as soon as the plant has reached a sufficient size, generally in June or July. Seed production begins in July, peaks in September and ends when the plant dies. As an annual plant, seabeach amaranth must be able to survive its entire growing season in order to set seed for the following year.

Seabeach Amaranth (Amaranthus pumilus) photo courtesy of USFWS.

The most prominent threat to seabeach amaranth is a loss of suitable habitat due to an increased rate of erosion, often caused by the installation of groins, jetties, bulkheads, rock revetments and other artificial forms of beach stabilization. Sea level rise is also a major factor, especially in area where human development exists close to shoreline which prevents the natural migration of beaches landward. Off-road vehicles also pose a significant threat during the growing season, especially in areas with heavy vehicular use. As its fleshy stems are brittle, even minor off-road vehicle traffic can be detrimental to plants, resulting in mortality or reduced seed production. In order to be removed from the US Fish and Wildlife Service list of federally protected species, the plant must exist in at least six of the states within its historic range and a minimum of 75 percent of the sites with suitable habitat within each state must be occupied by populations for ten consecutive years. Although adequate suitable habitat is available, no populations of seabeach amaranth were located on any of East Hampton Town's beaches this season.

SEABEACH KNOTWEED PROTECTION

Seabeach knotweed is a coastal annual plant found mostly on bay beaches, located above the mean high tide line, and often in clusters where a storm high tide may have deposited seeds. Considered a rare plant in New York State, it is found on East Hampton beaches from June through October and faces many of the same threats as seabeach amaranth. Flowering and setting of seeds occurs in late summer into early fall.

A single seabeach knotweed (*Polygonum glaucum*) plant partially gone to seed at Louse Point.

The number of plants is either counted or estimated on each site, depending on the number found. Like seabeach amaranth, seabeach knotweed is often found within protected piping plover or least tern nesting areas. All six bay beaches contained colonies of seabeach knotweed. The westernmost management areas including as Sammy's Beach, Lionhead Beach and Kings Point contained the densest populations.

EDUCATION, OUTREACH AND VOLUNTEERS

During the 2015 season, the Threatened and Endangered Species Management Program welcomed approximately 100 hours from volunteers who assisted in monitoring nests, pairs and young throughout the breeding season. Having additional monitors and volunteers in the field on a regular basis helps to ensure that all sites are monitored adequately in order to provide accurate counts of breeding pairs, nest sites and overall productivity recorded for the season.

Common terns *(Sterna hirundo)* display breeding behavior at the ocean beach at Gerogica Pond.

The Natural Resource Department actively recruits reliable volunteers and high school/college students to assist in monitoring, fencing and/or reporting data for specific bay or ocean beaches for each breeding season. This program provides a great opportunity for community members to learn about piping plover and least tern breeding behavior while developing a better understanding of the ecology of our beaches and current conservation efforts being implemented by the Town. Our goal for future seasons is to promote an "Adopt-A-Beach" program where volunteers will be assigned a specific beach to monitor and report back findings on a weekly basis. All monitors will be encouraged to attend the annual monitor training session held by the NYSDEC and USFWS, as well as in-the-field training by Natural Resource Department Staff.

Annual meetings are held with East Hampton Village Police, Traffic Control Officers and Lifeguards, and East Hampton Town Marine Patrol and Lifeguards who actively patrol East Hampton's Beaches. These meeting have proven successful in fostering partnerships in managing the protected areas adequately during the nesting season.

We are also focusing our efforts on getting the word out regarding safe and responsible beach driving, especially during the shorebird nesting season from March – August. Beach driving is a tradition that many residents enjoy, and in order to maintain adequate protection measures and ensure cooperation, we need to keep the public engaged. Several field trips will be held each season with various community groups and stakeholders including East Hampton Town Trustees, Citizens for Access Rights (CfAR), Accabonac Protection Committee, and other groups who can educate their members on our current protection measures and the importance of sharing and protecting these dynamic beach habitats.

ACKNOWLEDGEMENTS

The Town of East Hampton Planning and Natural Resource Departments would like to thank everyone who helped make the 2015 Threatened and Endangered Species Management Program season a success. Thank you to our Stewardship Coordinator, Juliana Duryea, for all site fencing, monitoring, data collection and analysis, preparation of report, tables, maps and photographs. Thank you to East Hampton Town Natural Resource Staff, Bill Taylor, Mark Abramson and John Sousa-Botos, East Hampton Town Land Acquisition Staff, Andrew Gaites and Andrew Drake for assistance with fencing installation and removal. Thank you to the East Hampton Town Board, East Hampton Town Trustees and the East Hampton Village Trustees. Thank you to the East Hampton Town Marine Patrol, East Hampton Town Police Department and the East Hampton Village Police Department and their Traffic Control Officers for continued cooperation and assistance with our program.

We would also like to acknowledge our partners: A big thank you to Latisha Coy of NYS Parks for adopting monitoring of two of our piping plover broods who found a home in Napeague State Park, Chip Hamilton of the New York State Department Environmental Conservation, Joe Jannsen of The Nature Conservancy, and Tim Simmons, Michelle Potter, Carolyn Comber, Steve Papa and Steve Sinkevich of the USFWS.

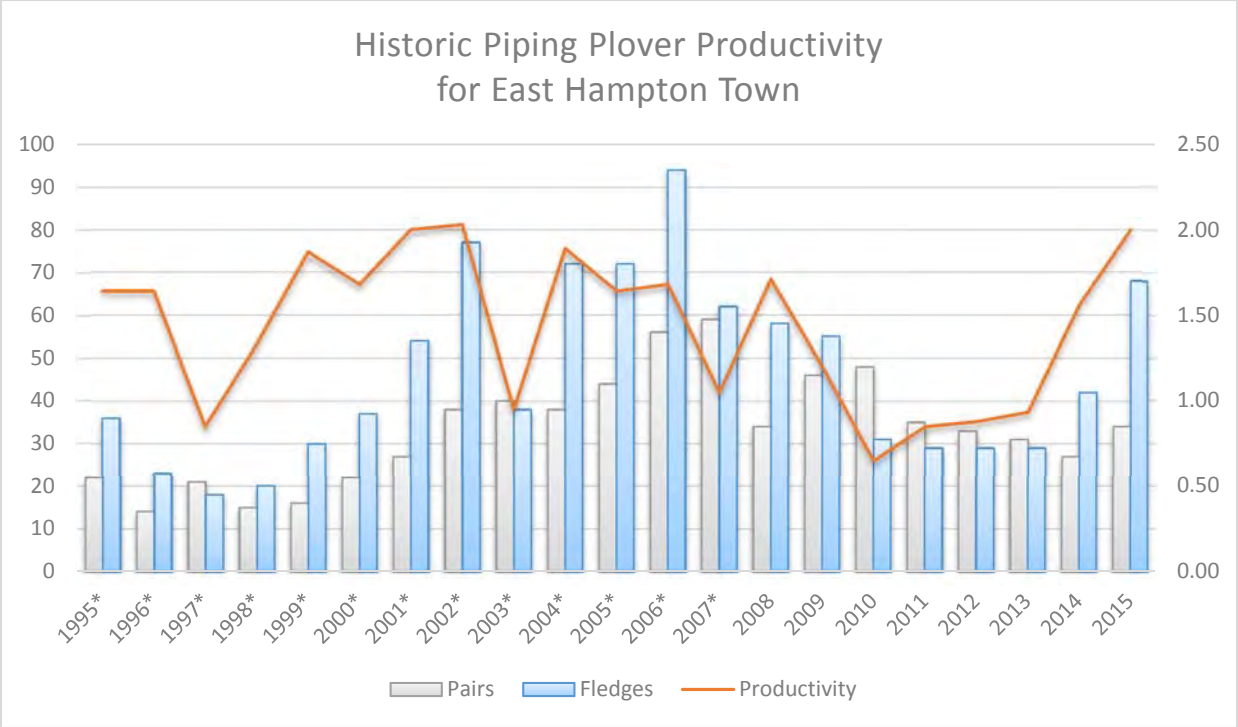
Special thanks to Citizens for Access Rights (CfAR) for their cooperation and working with our department in promoting public awareness regarding the nest and young found east of Marine Boulevard. Thank you to the Southampton Town Trustees Threatened and Endangered Species Program staff for coordination with monitoring and fencing at Town Line Road. Thank you to our high school intern, Devin Yadav, for dedicating over 50 hours of monitoring and fencing with the program. And a big thank you to our long-time volunteer, Joann Dittmer, for her continuous enthusiasm and commitment to the Lionhead pairs and their broods this season.

Two piping plover chicks (less than a week old) forage at the water's edge at Three Mile Harbor Inlet (Sammy's Beach side) during low tide.

2015 PIPING PLOVER BREEDING STATISTICS	
Total No. of Pairs	**34**
Total no. of nesting attempts	39
No. of successful nest attempts (hatched)	30
% Successful nest attempts	77%
No. of successful pairs (with fledged young)	27
% Successful pairs	79%
No. of Pairs that had chicks but lost them all	3
Total no. of chicks hatched	115
No. of Chicks Fledged	**68**
% Chicks fledged	59%
Total no. of eggs laid	152
No. of Exclosed nests	11
No. of Unexclosed nests	25
Total no. of nests lost to predation	6
No. of exclosed nests lost to predation	0
No. of unexclosed nests lost to predation	6
No. of nests lost to high tides	0
No. Exclosed nests that abandoned	0
No. Unexclosed nests that abandoned	0
No. of unexclosed nests that hatched	19
No. of exclosed nests that hatched	11
% of unexclosed nests that hatched	76%
% of exclosed nests that hatched	100%
Overall Productivity (fledges/pair)	**2.00**

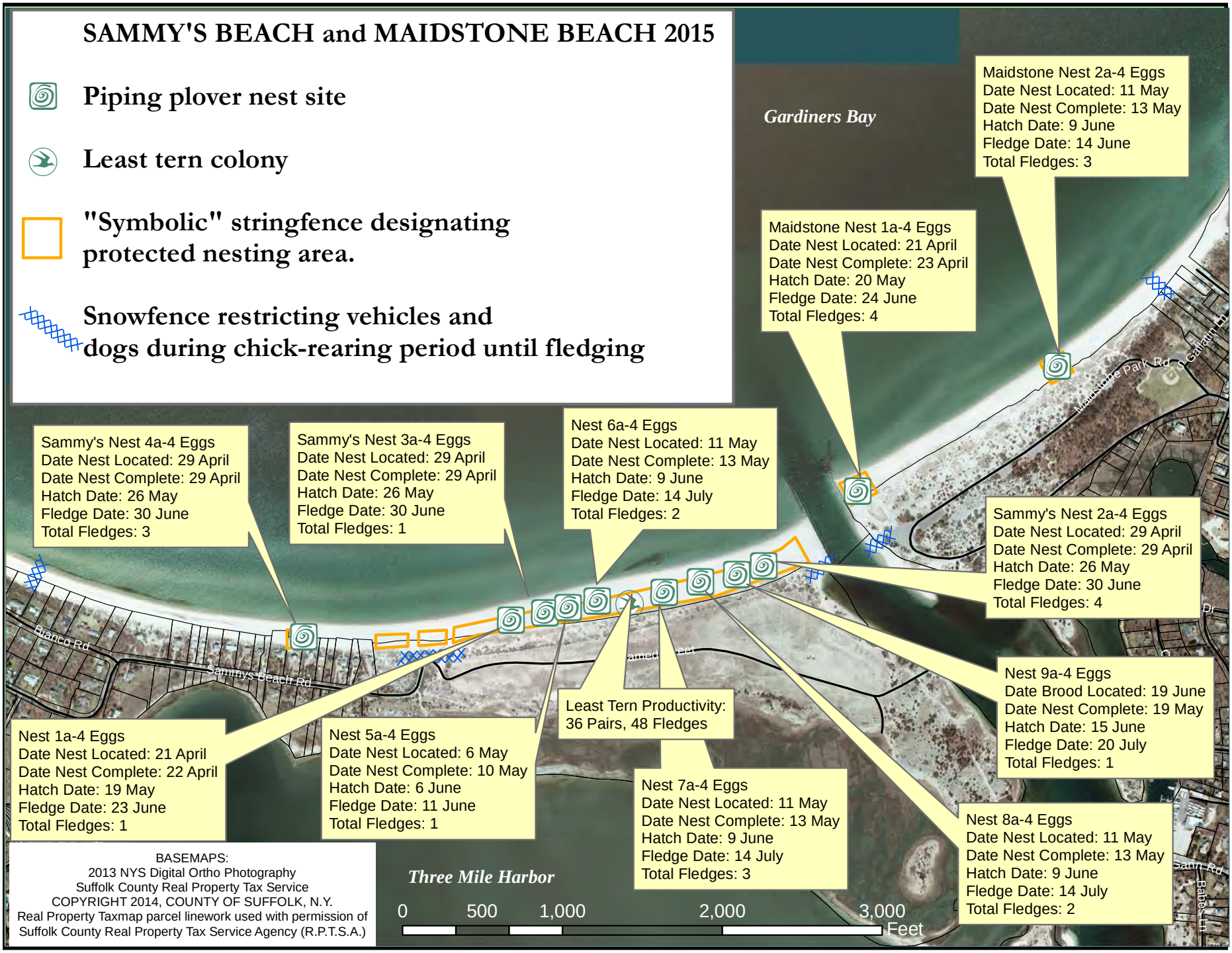
2015 TOWN OF EAST HAMPTON PIPING PLOVER NEST OVERVIEW							
Nest Attempt	Date Nest/Brood Located	Total # of Eggs	Nest Exclosed	Estimated Hatch Date	Fledge Date	# Fledges	Date Nest Failed
Sammy's 1a	21-Apr	4	N	19-May	23-Jun	1	N/A
Maidstone 1a	21-Apr	4	Y	20-May	24-Jun	4	N/A
Louse 1a	21-Apr	4	N	22-May	26-Jun	0	N/A
Wainscott 1a	27-Apr	4	N	24-May	28-Jun	2	N/A
Sammy's 2a	29-Apr	4	N	24-May	28-Jun	4	N/A
Sammy's 3a	29-Apr	4	N	24-May	28-Jun	1	N/A
Sammy's 4a	29-Apr	4	N	26-May	30-Jun	3	N/A
Wiborg 1a	27-Apr	4	N	28-May	N/A	0	4-May
Louse 2a	28-Apr	4	N	29-May	3-Jul	2	N/A
Lionhead 1a	14-May	4	Y	30-May	4-Jul	3	N/A
Napeague East 1a	5-May	4	Y	1-Jun	6-Jul	2	N/A
Georgica Pond 1a	4-May	1	Nx	4-Jun	N/A	0	13-May
Sammy's 5a	6-May	4	N	6-Jun	11-Jul	1	N/A
Atlantic DD West 1a	13-May	4	Nx	7-Jun	N/A	0	20-May
Atlantic DD West 2a	13-May	4	Y	7-Jun	12-Jul	1	N/A
Lionhead 2a	11-May	3	Nx	8-Jun	N/A	0	11-May
Maidstone 2a	11-May	4	N	9-Jun	14-Jul	3	N/A
Napeague East 2a	13-May	4	Y	9-Jun	14-Jul	4	N/A
Sammy's 6a	11-May	4	N	9-Jun	14-Jul	2	N/A
Sammy's 7a	11-May	4	N	9-Jun	14-Jul	3	N/A
Sammy's 8a	11-May	4	N	11-Jun	16-Jul	2	N/A
Georgica Beach 1a	13-May	4	Y	11-Jun	N/A	0	N/A
Napeague East 3a	13-May	4	Y	13-Jun	18-Jul	3	N/A
Georgica Pond 2a	13-May	1	Nx	13-Jun	N/A	0	20-May
Georgica Pond 1b	11-Jun	4	N	7-Jul	11-Aug	3	N/A
Main Beach 1a	20-May	4	Y	20-Jun	25-Jul	2	N/A
Napeague East 4a	21-May	4	Y	17-Jun	22-Jul	4	N/A
Atlantic DD West 1b	22-May	4	Y	14-Jun	19-Jul	0	N/A
Atlantic DD West 3b	22-May	4	Y	14-Jun	19-Jul	3	N/A
Lionhead 2b	3-Jun	4	N	21-Jun	26-Jul	4	N/A
Wiborg 1b	30-May	4	N	6-Jun	11-Jul	3	N/A
Atlantic DD East 1a	16-Jun	4	N	23-Jun	28-Jul	3	N/A
Sammy's 9a	19-Jun	4	N	15-Jun	20-Jul	1	N/A
Gerard 1a	19-Jun	4	N	N/A	N/A	0	N/A
Wainscott 2a	25-Jun	4	N	22-Jun	27-Jul	2	N/A
Main Beach 2a	2-Jul	N/A	N	N/A	22-Ju	2	N/A
Successful Nest with Fledges		Successful Nest but Fate of Young Unknown				Nest Predated	

EAST HAMPTON TOWN HISTORICAL PIPING PLOVER PRODUCTIVITY			
Year	Pairs	Fledges	Productivity
1995*	22	36	1.64
1996*	14	23	1.64
1997*	21	18	0.85
1998*	15	20	1.33
1999*	16	30	1.87
2000*	22	37	1.68
2001*	27	54	2.00
2002*	38	77	2.03
2003*	40	38	0.95
2004*	38	72	1.89
2005*	44	72	1.64
2006*	56	94	1.68
2007*	59	62	1.05
2008	34	58	1.71
2009	46	55	1.20
2010	48	31	0.65
2011	35	29	0.85
2012	33	29	0.88
2013	31	29	0.94
2014	27	42	1.56
2015	34	68	2.00
*Including Current State, USFWS, & County managed sites			



2015 East Hampton Town
Threatened and Endangered Species Program
End of Season Report

Appendix 1.
Management Site Maps


SAMMY'S BEACH and MAIDSTONE BEACH 2015
Piping plover nest site
Least tern colony
"Symbolic" stringfence designating protected nesting area.
Snowfence restricting vehicles and dogs during chick-rearing period until fledging
Gardiners Bay
Maidstone Nest 2a-4 Eggs
Date Nest Located: 11 May
Date Nest Complete: 13 May
Hatch Date: 9 June
Fledge Date: 14 June
Total Fledges: 3
Maidstone Nest 1a-4 Eggs
Date Nest Located: 21 April
Date Nest Complete: 23 April
Hatch Date: 20 May
Fledge Date: 24 June
Total Fledges: 4
Sammy's Nest 4a-4 Eggs
Date Nest Located: 29 April
Date Nest Complete: 29 April
Hatch Date: 26 May
Fledge Date: 30 June
Total Fledges: 3
Sammy's Nest 3a-4 Eggs
Date Nest Located: 29 April
Date Nest Complete: 29 April
Hatch Date: 26 May
Fledge Date: 30 June
Total Fledges: 1
Nest 6a-4 Eggs
Date Nest Located: 11 May
Date Nest Complete: 13 May
Hatch Date: 9 June
Fledge Date: 14 July
Total Fledges: 2
Sammy's Nest 2a-4 Eggs
Date Nest Located: 29 April
Date Nest Complete: 29 April
Hatch Date: 26 May
Fledge Date: 30 June
Total Fledges: 4
Nest 9a-4 Eggs
Date Brood Located: 19 June
Date Nest Complete: 19 May
Hatch Date: 15 June
Fledge Date: 20 July
Total Fledges: 1
Least Tern Productivity:
36 Pairs, 48 Fledges
Nest 1a-4 Eggs
Date Nest Located: 21 April
Date Nest Complete: 22 April
Hatch Date: 19 May
Fledge Date: 23 June
Total Fledges: 1
Nest 5a-4 Eggs
Date Nest Located: 6 May
Date Nest Complete: 10 May
Hatch Date: 6 June
Fledge Date: 11 June
Total Fledges: 1
Nest 7a-4 Eggs
Date Nest Located: 11 May
Date Nest Complete: 13 May
Hatch Date: 9 June
Fledge Date: 14 July
Total Fledges: 3
Nest 8a-4 Eggs
Date Nest Located: 11 May
Date Nest Complete: 13 May
Hatch Date: 9 June
Fledge Date: 14 July
Total Fledges: 2
Bianco Rd
Sammys Beach Rd
Maidstone Park Rd
Three Mile Harbor
0 500 1,000 2,000 3,000 Feet
BASEMAPS:
2013 NYS Digital Ortho Photography
Suffolk County Real Property Tax Service
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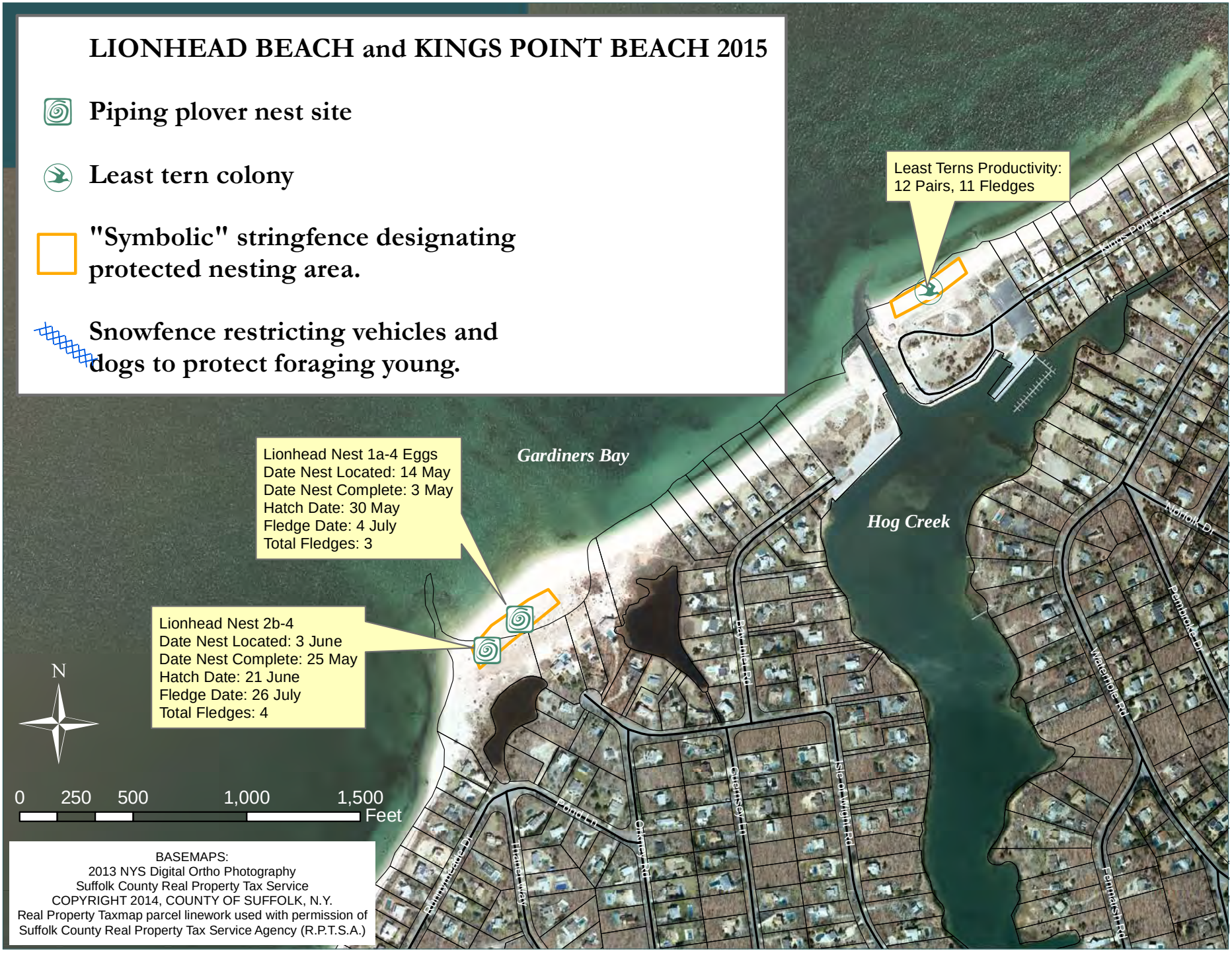
LIONHEAD BEACH and KINGS POINT BEACH 2015
Piping plover nest site
Least tern colony
"Symbolic" stringfence designating protected nesting area.
Snowfence restricting vehicles and dogs to protect foraging young.
Least Terns Productivity:
12 Pairs, 11 Fledges
Lionhead Nest 1a-4 Eggs
Date Nest Located: 14 May
Date Nest Complete: 3 May
Hatch Date: 30 May
Fledge Date: 4 July
Total Fledges: 3
Lionhead Nest 2b-4
Date Nest Located: 3 June
Date Nest Complete: 25 May
Hatch Date: 21 June
Fledge Date: 26 July
Total Fledges: 4
Gardiners Bay
Hog Creek
Kings Point Rd
Norfolk Dr
Pembroke Dr
Waterhole Rd
Bay Hill Rd
Guernsey Ln
Isle of Wight Rd
Pond Ln
Chimney Rd
Frances Way
Pennhaven Rd
N
0 250 500 1,000 1,500 Feet
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GERARD POINT and LOUSE POINT 2015
Piping plover nest site
Least tern colony
"Symbolic" stringfence designating protected nesting area.
Snowfence restricting vehicles and dogs to protect foraging young.
Gerard Nest 1a-4 Eggs
Date Located: 19 June
Nest predated before exclosed.
Total Fledges: 0
Gardiners Bay
Accabonac Harbor
Louse Point Least Terns Productivity:
15 Pairs, 12 Fledges
Louse Point Nest 1a-4 Eggs
Date Nest Located: 21 April
Date Nest Complete: 25 April
Hatch Date: 22 May
Last Date Young Observed: 26 May
Total Fledges: 0
Louse Point Nest 2a-4 Eggs
Date Nest Located: 28 April
Date Nest Complete: 11 May
Hatch Date: 29 May
Fledge Date: 3 July
Total Fledges: 2
Lookout Ln
N
0 250 500 1,000 1,500
Feet
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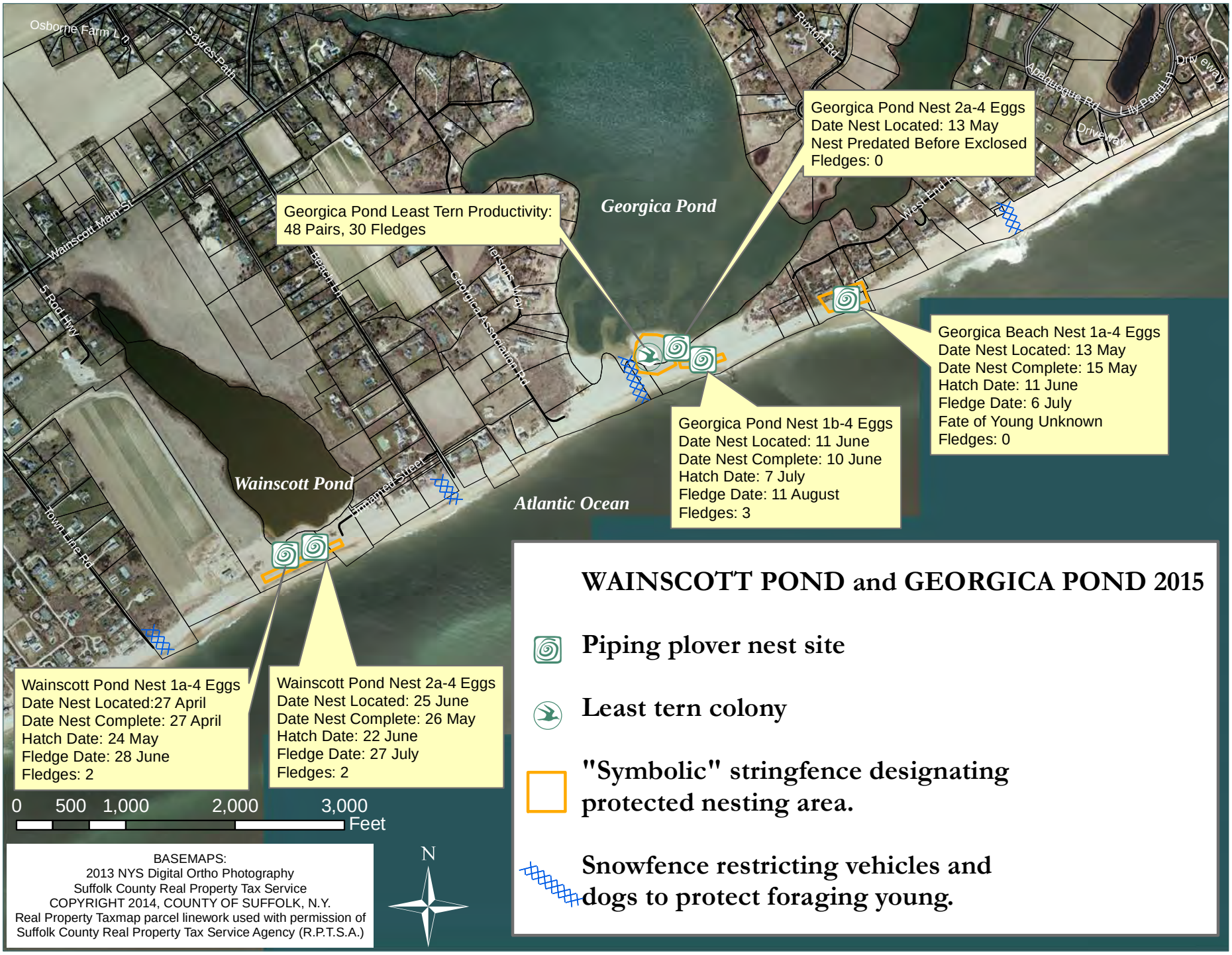
Osborne Farm Ln
Sayles Path
Wainscott Main St
5 Rod Hwy
Town Line Rd
Beach St
Georgica Association Rd
Unnamed Street
Ruxton Rd
Apaquogue Rd
Lily Pond Ln
Driveway
West End Rd
Georgica Pond
Wainscott Pond
Atlantic Ocean
Georgica Pond Nest 2a-4 Eggs
Date Nest Located: 13 May
Nest Predated Before Exclosed
Fledges: 0
Georgica Pond Least Tern Productivity:
48 Pairs, 30 Fledges
Georgica Beach Nest 1a-4 Eggs
Date Nest Located: 13 May
Date Nest Complete: 15 May
Hatch Date: 11 June
Fledge Date: 6 July
Fate of Young Unknown
Fledges: 0
Georgica Pond Nest 1b-4 Eggs
Date Nest Located: 11 June
Date Nest Complete: 10 June
Hatch Date: 7 July
Fledge Date: 11 August
Fledges: 3
Wainscott Pond Nest 1a-4 Eggs
Date Nest Located:27 April
Date Nest Complete: 27 April
Hatch Date: 24 May
Fledge Date: 28 June
Fledges: 2
Wainscott Pond Nest 2a-4 Eggs
Date Nest Located: 25 June
Date Nest Complete: 26 May
Hatch Date: 22 June
Fledge Date: 27 July
Fledges: 2
0 500 1,000 2,000 3,000
Feet
BASEMAPS:
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N
WAINSCOTT POND and GEORGICA POND 2015
Piping plover nest site
Least tern colony
"Symbolic" stringfence designating protected nesting area.
Snowfence restricting vehicles and dogs to protect foraging young.

MAIN BEACH and WIBORG BEACH 2015
Piping plover nest site
Least tern colony
"Symbolic" stringfence designating protected nesting area.
Snowfence restricting vehicles and dogs to protect foraging young.
Hook Pond
Atlantic Ocean
Main Beach Nest 1a-4 Eggs
Date Nest Located: 20 May
Date Nest Complete: 24 May
Date Nest Exclosed: 26 May
Hatch Date: 20 June
Fledge Date: 25 July
Fledges: 2
Main Beach Nest 2a
Date Brood Located: 2 July
Fledge Date: 22 July
Fledges: 2
Least Tern Productivity:
4 Pairs, 0 Fledges
Wiborg Beach Nest 1b-4 Eggs
Date Nest Located: 30 May
Date Nest Complete: 10 May
Hatch Date: 6 June
Fledge Date: 11 July
Fledges: 3
A Rd
Pudding Hill Ln
Terbell Ln
Lockwood
Ocean Ave
Unnamed Street
L Rd
W Dune Ln
Hwy Behind the Pond
0 250 500 1,000 1,500
Feet
N
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ATLANTIC DOUBLE DUNES WEST
Piping plover nest site
Least tern colony
"Symbolic" stringfence designating protected nesting area.
Snowfence restricting vehicles and dogs to protect foraging young.
0 375 750 1,500 2,250
Feet
N
Atlantic Ocean
Cross Hwy
Further Ln
Favorite Ln
Driveway
2-Mile Hollow Ln
Spaeth Ln
Road B
Cranberry Dunes
Tyson Ln
Cranberry Rd
Unnamed Street
Cranberry Dr
Road H
Indian Wells Hwy
Basemaps: 2007 NYS Digital Ortho Photography
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Least Tern Colony
Productivity: 6 Pairs, 7 Fledges
U.S. Fish and Wildlife Service
Amagansett National Wildlife Refuge
Approximate location of piping plover nest and least tern colony
ATLANTIC DOUBLE DUNES EAST (INDIAN WELLS) 2015
Piping plover nest site
Least tern colony
"Symbolic" stringfence designating protected nesting area.
Snowfence restricting vehicles and dogs to protect foraging young.
Atlantic Ocean
0 100 200 400 600 Meters
N
BASEMAPS:
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Garden Way
Hedges Ln
Carsert Ln
Mankoma Ln
Meetinghouse Ln
Hand Ln
Holly Way
Melissa Way
St Marys Ln
Bluff Rd
Indian Wells Hwy
A Rd
Unnamed Street
Atlantic Ave
Parking Lot
Beach Ave
Sandpiper Ln
NYS Parks

ATLANTIC DOUBLE DUNES EAST
(MARINE BLVD) 2015
Piping plover nest site
Least tern colony
"Symbolic" stringfence designating protected nesting area.
Snowfence restricting vehicles and dogs to protect foraging young.
Nest 1a-4
Date Nest Located: 16 June
Date Nest Complete: 27 May
Nest not exclosed.
Hatch Date: 23 June
Fledge Date: 28 July
Total Fledges: 3
NYS Parks
Atlantic Ocean
Montauk Hwy
Bendigo Rd
Cranberry Ln
Cranberry Hole Rd
Ocean View Ln
Castle Ct
Sandcastle Ln
Mitchell Dunes Ln
Whalers Ln
Ship Wreck Dr
Driveway
Road B
Raymond Ln
Napeague State Park Rd
Hampton Ln
Napeague Ln
Gilberts Path
Devon Rd
Central Ave
Maidstone Dr
Gardiner Dr
Marine Blvd
0
175
350
700
1,050
Meters
N
BASEMAPS:
2013 NYS Digital Ortho Photography
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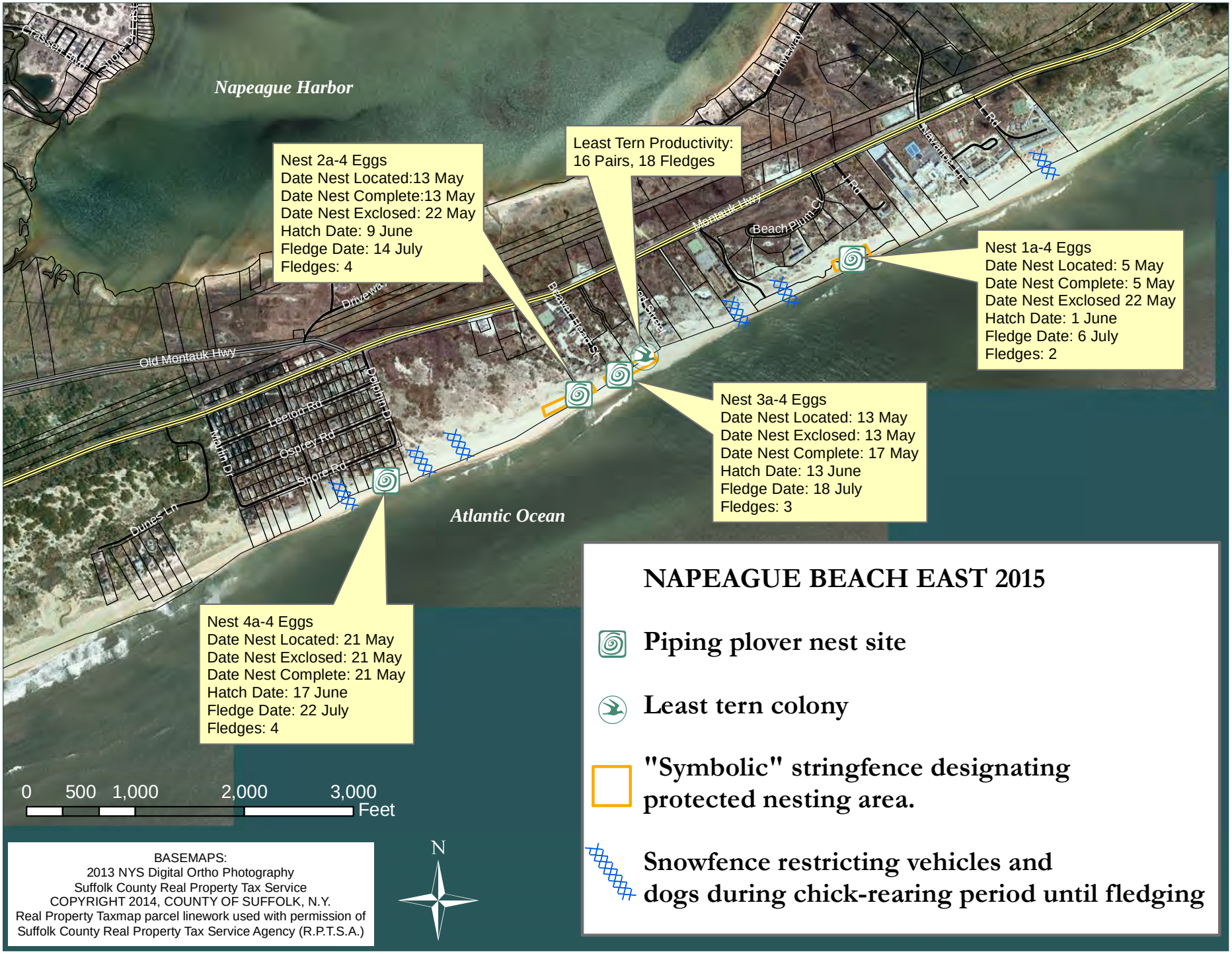
Napeague Harbor
Atlantic Ocean
Nest 2a-4 Eggs
Date Nest Located:13 May
Date Nest Complete:13 May
Date Nest Exclosed: 22 May
Hatch Date: 9 June
Fledge Date: 14 July
Fledges: 4
Least Tern Productivity:
16 Pairs, 18 Fledges
Nest 1a-4 Eggs
Date Nest Located: 5 May
Date Nest Complete: 5 May
Date Nest Exclosed 22 May
Hatch Date: 1 June
Fledge Date: 6 July
Fledges: 2
Nest 3a-4 Eggs
Date Nest Located: 13 May
Date Nest Exclosed: 13 May
Date Nest Complete: 17 May
Hatch Date: 13 June
Fledge Date: 18 July
Fledges: 3
Nest 4a-4 Eggs
Date Nest Located: 21 May
Date Nest Exclosed: 21 May
Date Nest Complete: 21 May
Hatch Date: 17 June
Fledge Date: 22 July
Fledges: 4
Old Montauk Hwy
Driveway
Leeton Rd
Osprey Rd
Shore Rd
Dolphin Dr
Marlin Dr
Dunes Ln
Beaver Head St
Beach Plum Ct
J Rd
Neptune Ln
0 500 1,000 2,000 3,000
Feet
N
BASEMAPS:
2013 NYS Digital Ortho Photography
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NAPEAGUE BEACH EAST 2015
Piping plover nest site
Least tern colony
"Symbolic" stringfence designating protected nesting area.
Snowfence restricting vehicles and dogs during chick-rearing period until fledging

2015 East Hampton Town
Threatened and Endangered Species Program
End of Season Report

Appendix 2.
Photographs of Piping Plovers on Nest