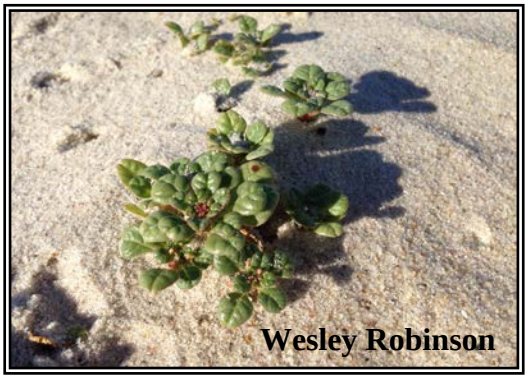
Southampton Town Trustees

Threatened and Endangered Species Management and Protection Program


Sean Keenen


Wesley Robinson


Terra Dunlop


Terra Dunlop

2014 Year End Report

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Executive Summary

2014 Summary

The 2014 breeding season had 33 breeding pairs of piping plover with an overall productivity of 0.76 fledges per pair. Piping plovers began arriving in mid-March but likely due to unfavorable weather, did not start nesting until early May. Based on the 2014 data, the average age of fledging was 33 days. Reproductive success was primarily hindered by predation of eggs and chicks. Least terns began arriving in May. The least tern overall productivity was 0.47 fledges per pair. A total of 120 seabeach amaranth plants were identified at 4 of the 9 ocean sites. Seabeach knotweed was identified at 5 of the 16 bay sites and at 1 ocean site. A total of 2,744 knotweed plants were located.

Current Species Status

Piping plover (*C. melodus*) – Endangered (NY), Threatened (population - Federal)
Least tern (*S. antillarum*) – Threatened (NY)
Seabeach amaranth (*A.pumilus)* – Threatened (Federal and NY)
Seabeach knotweed (*P. glaucum* Nutt.) – Rare/Special Concern (NY)

Program Objective

To protect currently existing numbers of the population while taking steps that result in the highest reproductive success possible. Efforts are targeted at increasing productivity annually through the assessment of previous threats by minimizing their impact or completely negating them. Involve the public in dialogue to reduce their impact on the threatened and endangered species, especially during the breeding season.

2014 Threatened and Endangered Species Program Staff

Program Coordinator:	Merriah Eberts
Crew Leader/Co-Author:	Terra Dunlop
Steward/Co-Author:	Wesley Robinson
Coastal Stewards:	John Papajohn
	Christine Bauer

History of Program

Prior to 1998, threatened and endangered species recovery in the Southampton area was jointly managed by the U.S. Fish and Wildlife Service (USFWS), the Nature Conservancy (TNC), and the New York State Department of Environmental Conservation (NYSDEC). However, due to a decrease in staffing and resources provided by the NYSDEC and TNC, the Southampton Trustees initiated their own threatened and endangered species program.

Prior to 2011, the Southampton Town Trustees were responsible for 13 miles of ocean beach and 16 bay sites. During the 2011 season the Trustees worked cooperatively with The Nature Conservancy to become acquainted with the Westhampton Island sites. In 2012, the Trustees independently managed the 5.5 miles of ocean beach from Tiana Pavilion in Hampton Bays to Roger's Beach Pavilion in Westhampton Beach. The Trustees now manage a total of 18.5 miles of ocean beach and 16 bay sites. The remaining sites in the Town of Southampton are managed by TNC, NYSDEC, USFWS, Suffolk County Department of Parks, Recreation and Conservation (SCDPRC) and a private consulting firm.

Over the course of the last 14 years additional sites have been added and removed altering the distance monitored. The total distance monitored has varied between 18.9 and 25.8 miles, as has abundance and productivity across the management area. (**Figure 1**) Fluctuations in abundance and productivity is likely due to a number of different factors: changes in the beach profile, growth and decline of predator populations, presence of foraging area on tidal mudflats as a result of water level and inclement weather to name a few.

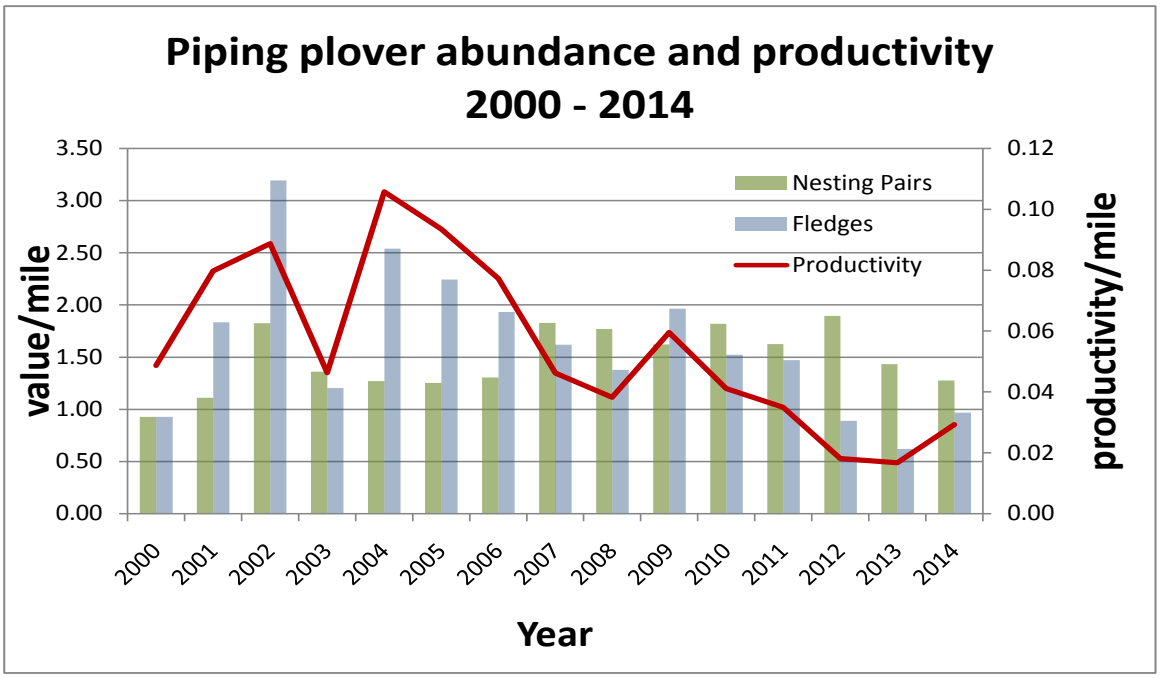


Figure 1. Historic productivity of the piping plover from 2000-2014. In 2011, the program acquired 5.5 miles of Westhampton Island, the largest addition to the program. The abundance and productivity of piping plovers has fluctuated over time due to numerous factors.

Life History

Piping plovers

Piping plovers are small migratory shorebirds that utilize the ocean and bay beaches of Long Island for breeding. Plovers are solitary breeders and often show site fidelity, nesting in the same area from year to year. Adults begin arriving in mid-March at which point males establish territories and pair bonds are formed. Males form small depressions or "scrapes" in the sand, often decorated with small shells. A male may make multiple scrapes within a site only one of which will become the eventual nest. Females lay 1-4 eggs per nest attempt and pairs may re-nest up to 4 times in one season. Chicks hatch 27 days after the 4th egg is laid. Chicks are precocial and therefore begin foraging between the ocean and the dune within 24 hours of hatching. On average, chicks can fledge as early as 25 days post hatch. Once fledged, plovers begin to congregate for their migration south.

Least terns

Least terns nest colonially along Long Island's ocean and bay beaches. Adults begin arriving in late April to mid-May and nest in small shallow depressions or "scrapes." Pairs commonly lay 2 eggs but may lay between 1-3 eggs per nest. Chicks hatch after 21 days. Chicks are semi-precocial and rely on their parents to feed them. Chicks begin moving around the site when just a few days old. Chicks shelter in the shade of debris and in tire tracks or foot prints. Juvenile chicks are often seen running between debris and plants. Tern chicks fledge 20 days post hatch.

Seabeach amaranth

Seabeach amaranth is an annual plant native to barrier island beaches. Amaranth is often found growing in the same areas that shorebirds nest. Germination occurs between April and July. Seeds are dispersed by wind and are buried as the plant senesces. Amaranth acts as a sand binder, accumulating sand and burying seeds which are retained within proximity of the plant. (USFWS 2007)

Seabeach knotweed

Seabeach knotweed is an annual plant found on barrier island beaches, cobble bay beaches and in salt marshes. Knotweed flower from May to October and fruits from June to November. Seeds are dispersed mainly by wind, wave action and by birds. (NYNHP 2010)

Conservation and Recovery Efforts

Piping plovers

Listed as federally threatened and state endangered, the piping plover constitutes a significant portion of management efforts for the Southampton Town Trustees Threatened and Endangered Species Program. Prior to their arrival, symbolic fencing is erected in areas that have been historically productive to protect the habitat from foot and vehicular traffic. Additional symbolic fencing is erected as the birds establish territories and courtship begins. If the site is suitable, a ten foot diameter wire mesh exclosure is erected and nylon netting is placed on top to protect the nesting birds from terrestrial and airborne predators. Reproductive failure occurs as a result of abandonment, vandalism,

predation, and washout. Eggs that fail to hatch could be attributed to infertility or embryonic death due to exposure to high temperatures or cold water. Loss of chicks at a young age is mainly due to exposure or predation. With each nesting attempt, the clutch size generally decreases leading to low reproductive success.

Snow fence is erected to close the beach to off road vehicles before the clutch hatches. These closures are erected approximately 1,000 meters on each side of the nest and extend from the toe of the dune to the water's edge and when necessary, beach accesses are also closed with snow fence. At 25 days old, chicks are considered fledged and counted towards the productivity for that breeding season. After 25 days, stewards continue to monitor sites until the birds depart. Snow fence is maintained until the bird is observed flying 15 feet or are 35 days old.

In order to remove the Atlantic Coast population from the Federal List of Endangered and Threatened Wildlife and Plants, the USFWS has developed recovery criteria that must be met. Delisting will occur when there are 2,000 breeding pairs, maintained over five years. Of the 2,000 pairs, 575 of those must be located within the New York/New Jersey region. Additional delisting criteria requires a five year average productivity of 1.5 fledged chicks per pair throughout the region and instituting long term agreements among cooperating agencies, landowners, and conservation organizations in order to maintain populations and productivity (USFWS, 2009).

The preliminary abundance and productivity for 2012 was released by the USFWS. The service reported that the New York/New Jersey region had 463 nesting pairs and a productivity of 0.72. In 2012, New York had 342 nesting pairs and a productivity of 0.72. From 2007 to 2010, the New York/New Jersey region sustained a 15% decrease in the abundance of nesting pairs (USFWS 2010). (**Figure 2**)

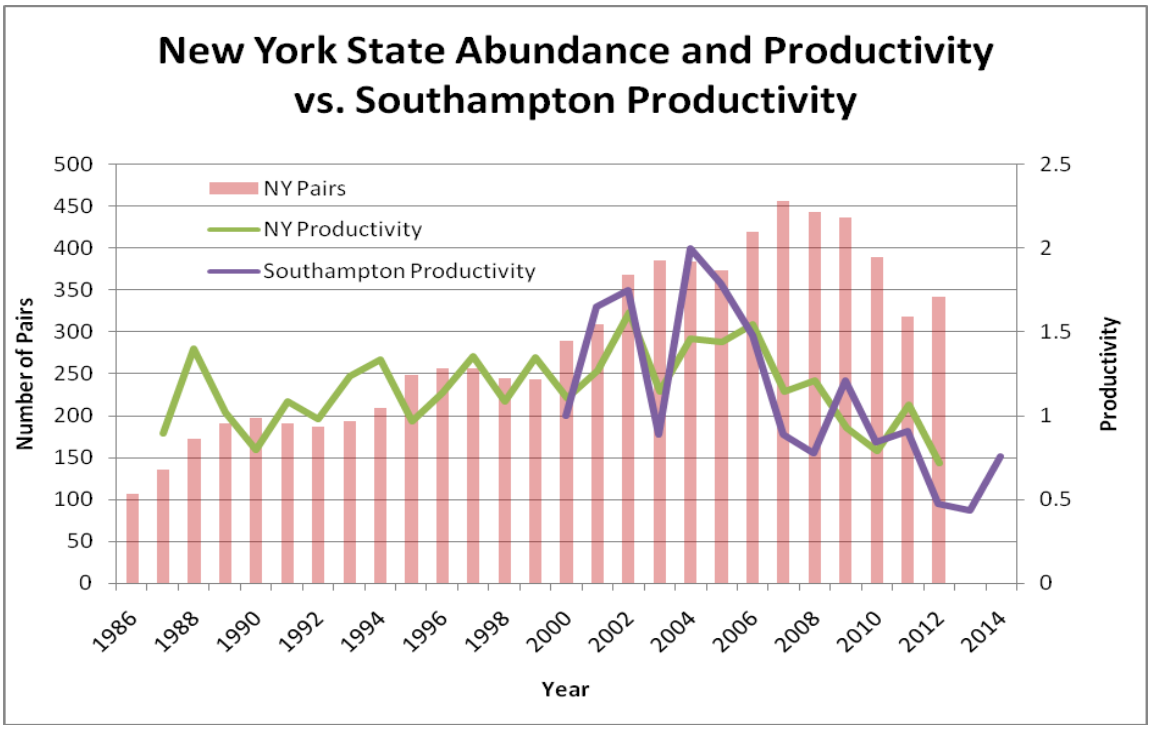
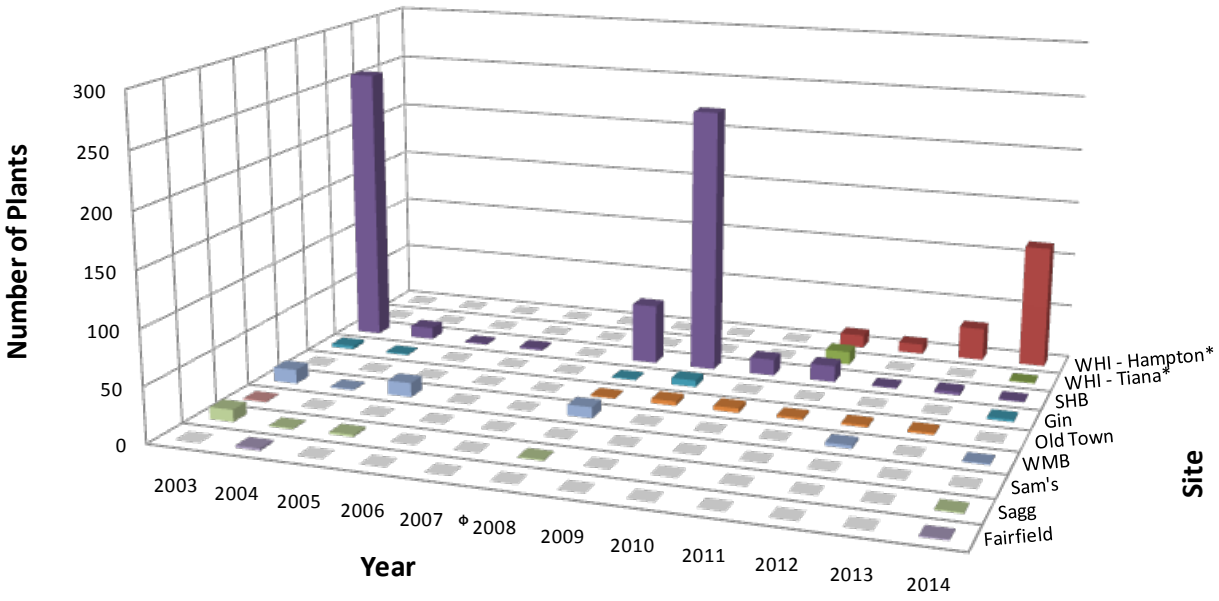


Figure 2. The number of nesting pairs for New York state have slowly increased until 2010 when the state sustained a 15% drop. The productivity within Southampton and the state has fluctuated over time, decreasing since the early 2000's. The state data for 2012 are preliminary numbers released by USFWS.

Seabeach amaranth

The interim goal to delist seabeach amaranth states that "seabeach amaranth will be considered for delisting when the plant exists again in at least 6 of the states within its historic range and when a minimum of 75% of suitable habitat within each site are occupied by amaranth populations for 10 consecutive years". Seabeach amaranth is currently found in 6 of the states within its historical range. However, the data does not encompass the required 10 consecutive years and the quantity of suitable habitat has yet to be defined. In the most recent 5 year review, it was recommended that no changes be made to the listing status (USFWS 2007). Within the Town of Southampton, the distribution of amaranth has varied greatly between years. (**Figure 3**)



	2003	2004	2005	2006	2007 Φ	2008	2009	2010	2011	2012	2013	2014
WHI - Hampton*	0	0	0	0	0	0	0	0	12	9	30	113
WHI - Tiana*	0	0	0	0	0	0	0	0	12	0	0	1
SHB	256	11	1	2	0	55	242	15	15	1	3	1
Gin	3	1	0	0	0	1	6	0	0	0	0	2
Old Town	0	0	0	0	0	1	4	4	2	2	2	0
WMB	13	1	13	0	0	10	0	0	0	3	0	1
Sam's	1	0	0	0	0	0	0	0	0	0	0	0
Sagg	11	1	2	0	0	1	0	0	0	0	0	1
Fairfield	0	2	0	0	0	0	0	0	0	0	0	1

Figure 3. Amaranth abundance and distribution has varied greatly overtime. * Data prior to 2011 was collected by TNC. Φ Monitoring was not conducted for seabeach amaranth in 2007.

Seabeach knotweed

At this time there is insufficient baseline data on the distribution, range and population size of seabeach knotweed. Populations are estimated over a five-year average rather than a singular year because of shoreline variability. It is believed that there are 43 populations many of which consist of fewer than 100 plants. The largest populations are found in New York and Massachusetts. (NYHP 2010)

Threats

Piping plovers and least terns

Within Southampton Town, shorebird reproductive success faces numerous challenges and threats. Generally speaking, success is impaired by nest abandonment often due to predation pressure, direct predation, washout events, unhatched eggs due to low egg viability, or loss of chicks at a young age. Coastal development, recreational activities and storms lead to the loss of nesting and foraging habitat. Excessive recreational use, primarily off road vehicle use and beach events can lead to the disruption of nesting and foraging broods. Opportunistic predators are attracted by garbage and food left on the beach or at the access, putting predators within close proximity of nests and foraging chicks. Predation by fox, crows, raccoons, rats, ghost crabs and cats are serious threats to shorebird nesting success. In addition to these threats, plovers are faced with climate change, specifically sea level rise which will result in a decrease of habitat within both the breeding and wintering areas.

Predation was the primary cause of plover nest and chick failure during the 2014 nesting season. Plovers laid a total of 161 eggs in 43 nesting attempts. (**Figure 4)** Of the 161 eggs, 37.89% of the eggs hatched and about half of them fledged 15.53%. One hundred of the eggs failed to hatch. The primary reason for failure was predation with 27.33%. Abandonment likely from predation pressure accounted for 1.86% of failure. The outcome of 17.39% of the egg failure was unknown. This label was assigned to nests when predator tracks were not visible or other indicators of loss were not visible due to weather events. Ten and half percent (10.56%) of the eggs were washed out by high tides or storm surges. A single nest was vandalized and accounted for 2.48% of egg failure. The remaining 2.48% failed to hatch. The loss of chicks is often undetermined but loss of chicks is often assumed to be due to predation or exposure due to the low rate of discovery. **Table 3**

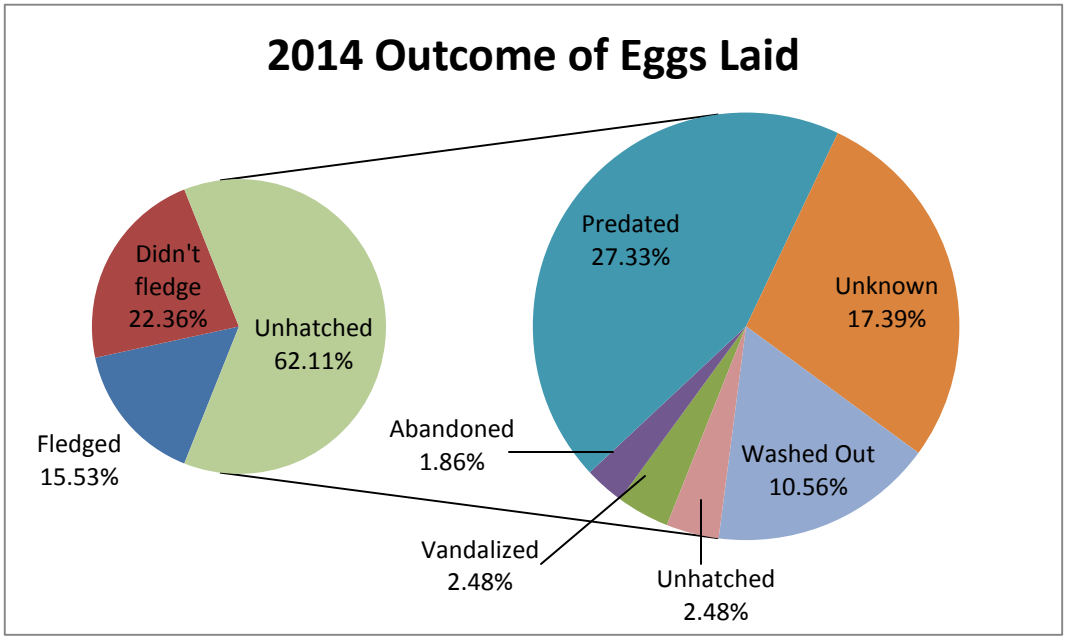


Figure 4. The outcome of the 161 plover eggs laid during the 2014 breeding season. Over half of the eggs did not hatch. The primary cause of egg failure was predation.

Seabeach amaranth and seabeach knotweed

Threats to seabeach amaranth and seabeach knotweed propagation includes intense recreational use primarily beach driving, coastal development, predation by mammals and insects, beach stabilization efforts and non-native plant introduction.

Activity in Southampton Town

Off Road Vehicles

The beaches of Southampton are heavily used by off road vehicles (ORV) year round. There are 23 ORV access points within the ocean management area. Only one of these accesses has a gate. The off road vehicle closures are often disregarded by the ORV operators. As of a result of this indifference, chicks can be run over as they shelter in tire tracks and depressions in the sand. This year, a least tern chick was found run over at Old Town. The ORV operator removed a beach closure fence post and drove into the area, replacing the post upon departure. The incident was reported to USFWS and DEC. Over the last 14 years, the number of off road vehicle permits sold has doubled. ORVs won't directly affect the productivity of nesting shorebirds except in cases when closures

are ignored and chicks or adults are run over. The likelihood of being run over increases as the number of vehicles on the beach increases.

Sagaponack and Bridgehampton Erosion Control Districts Dune Restoration

Southampton Town, Sagaponack and Bridgehampton erosion control districts acquired permits for a beach renourishment project. The beach renourishment project extended from Flying Point Pavilon to Townline Road encompassing a total of 6 miles of beach. The project added approximately 2,573,000 cubic yards of sand. The goal of the project was to widen the beach by 75' to 100' to provide additional protection for upland properties. The project was completed in February 2014.

The addition of sand widened the beach but it has been documented in other studies that renourishment projects bury sessile organisms that live in the sand. Plovers forage on organisms such as worms, crustaceans and insects found in the intertidal area that would be affected by the addition of sand. This is a preliminary assessment of the impact of the renourishment project on nesting plovers. Any positive or negative results of the project on reproductive success will need to be more closely examined. It is important to remember that this is a complex environment and many factors affect the reproductive success of nesting shorebirds.

From 2002 to 2012, the number of plovers nesting between Flying Point pavilion and Townline Road varied between 10 and 15 pairs. In 2013, after Hurricane Sandy, 8 plover pairs nested, fledging 8 chicks and resulting in a productivity of 1.0. In general, the number of plovers nesting within Southampton was lower than in previous years. After the renourishment project 13 pairs nested and fledged 11 chicks with an overall productivity of 0.85 in 2014. After the renourishment project, the number of nesting pairs increased but productivity decreased. (**Figure 5**) This decline in productivity may be due to increased habitat for predators or alteration of the slope of the beach which may have increased the beach's vulnerability to overwash events.

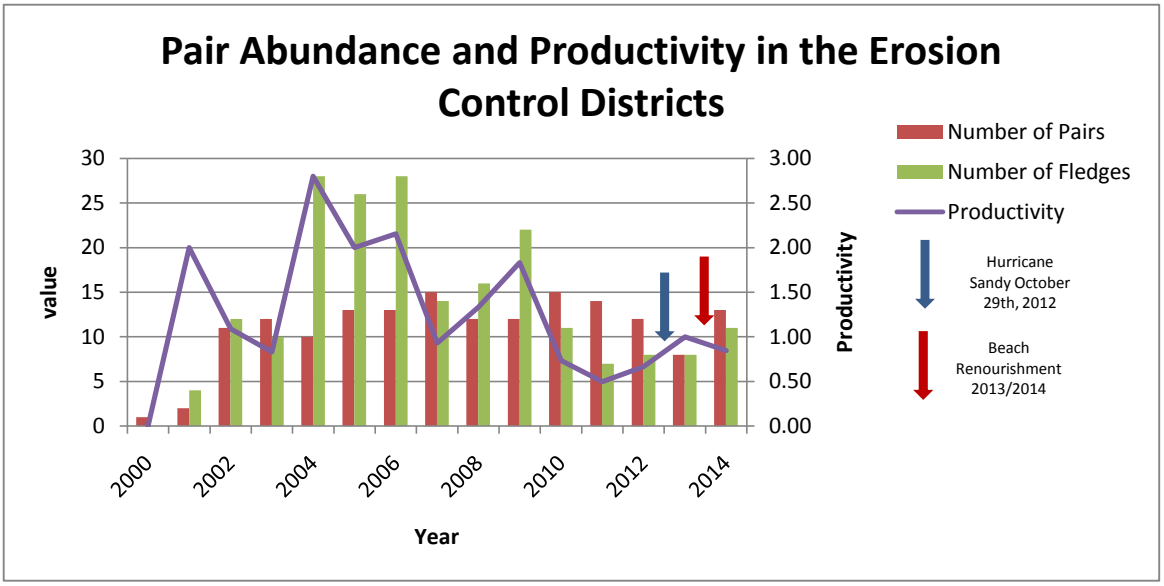


Figure 5. Piping plover reproductive success is affected by many factors and as a result productivity varies over time. On October 29th, 2012, Hurricane Sandy made land fall on New Jersey and dramatically altered the coastline of New Jersey and New York. The 2013 breeding season saw a decrease in the total of nesting pairs within the Erosion Control Districts. The productivity was 1.0 fledges per pair. The beach replenishment project was completed in 2014. The number of pairs and fledges increased but despite increased pairs, the productivity was lower with a productivity of 0.85 fledges.

Dune Restoration and Sand Fence

In addition to the large dune restoration project above, small dune restoration projects occur on beachfront properties. These projects typically include the addition of sand, installation of sand fence, construction of stairs and plantings of dune grass. These types of projects may help provide critical habitat for nesting shorebirds (studies would need to be conducted to show this correlation) if the work is completed outside of the window. Work conducted once the birds have arrived will affect males establishing territories, could destroy unfenced scrapes or nests, result in the abandonment of nests and negatively affect overall reproductive success.

Recommendations

Community outreach and education

- Develop a volunteer program to increase community involvement and support in recovery efforts and increase monitoring efforts. In addition, community oriented lectures and workshops will increase community interest and involvement.

Potential workshops could include informational lectures, prefencing workshops or animal behavior lectures/workshops.

- Contact local primary schools to develop a relationship and to start educating future conservationists. Some efforts have been made by other regional programs to incorporate young students into protecting threatened and endangered species. Offer presentations to classes for free or at an affordable cost to schools.
- Erect signs at public access points to inform the public of the presence of nesting shorebirds. Information should include: distinguishing characteristics (between least terns and plovers), threats, conservation efforts and a section on 'what they can do' to help.

Equipment

The program should shift towards environmentally friendly products that are durable and safe. Target items could include: red cloth that can be dyed again as the color fades to replace single use plastic flagging. Metal posts should be replaced with wood posts for symbolic fencing and ORV closures.

Scientific Studies

Studies should be designed and conducted to analyze the data that has been collected over the extent of the threatened and endangered species program's existence. Studies to consider include:

- The impact of the beach stabilization project in the Sagaponack and Bridgehampton Erosion Control Districts on shorebird reproductive success
- The population structure and habits of local predators and a review of potential predator management options
- Examine coastal formation processes and identify coastal stabilization practices which impact breeding habitat
- A general analysis of plover or tern biology to identify shifts in behavior or nesting habitat over the course of the program's lifetime.

Shorebird Activity Summary - See attached maps for nesting locations

For a complete site review including nesting shorebird pairs, fledges and productivity, see **Table 1** and **Table 2** in the appendix. Thirty three plover pairs fledged 25 chicks resulting in a productivity of 0.76. The average age of fledge was calculated for the broods. On average, the brood age was 33 days. **Table 4** A total of 149 tern pairs fledged 70 chicks resulting in a productivity of 0.47. Overall the productivity of plovers and terns improved slightly compared to the 2013 productivity. While some residents and beach users had an understanding of shorebirds, many did not. There were several negative encounters but the staff of the Threatened and Endangered Species Program used these opportunities to educate the individuals on shorebird behavior and the recovery efforts.

Ocean Sites

Westhampton Island

The Westhampton Island site extends from Roger's Pavilion, Westhampton Beach to Tiana Pavilion, Hampton Bays. The site is approximately 5.5 miles long and is divided into 2 sub-sites: Hampton and Tiana. Hampton is densely developed with homes while Tiana has very limited development. There is high recreational use throughout Tiana. The sites are faced with many threats and the reproductive success of breeding birds has remained low despite attempts to promote high productivity.

Plover activity: 8 pairs, 2 fledges, 0.25 productivity

Hampton Beach

Hampton Beach extends from Roger's Pavilion to Dolphin Lane, East Quogue. During the 2014 breeding season, Hampton was home to 4 pairs of piping plovers who laid 5 nests. Coastal Stewards were unable to exclose nests due to the nest's proximity to debris or sand fence. Other nests were not exclosed because they were predated before the clutch was complete. Three of the 5 nests hatched, fledging 2 chicks. The two remaining nests were predated, one pair re-nested. One nest was washed out twice during 2 separate storm events. During each event an egg was washed out. After the second event, an egg was located a few inches from the primary nest. For the next seven days, the pair alternately incubated the primary nest and the single egg. Eventually, the plovers rolled

the egg back into the nest and continued to incubate. Despite the presence of multiple crows in the symbolic fencing just days before the nest hatched two of the three eggs, but neither of the two chicks fledged.

No defined least tern colony existed, rather pairs nested sporadically along the stretch of beach between Surf Club and the Quogue Beach Club. A total of 11 least tern nests were identified, hatching 18 chicks and fledging 14 chicks. Seabeach amaranth was prolific between Roger's Pavilion and Surf Club. A total of 113 plants were identified. In 2013, a large plant was identified during plant sweeps (**Image 1**). On June 8, 2014, a large grouping of small seedlings (**Image 2**) was located in the vicinity of the 2013 plant. Despite storm events and being covered in wrack material, some of the small seedlings grew and were observed through September. Unleashed dogs, raccoons, cats and ghost crabs continue to be concerns in this area.

Plover activity: 4 pairs, 2 fledges, 0.5 productivity

Image 1. Seabeach amaranth observed on November 6th, 2013.

Image 2. Seabeach amaranth seedlings identified June 8th, 2014.

Tiana Beach

Tiana beach extends from Dolphin Lane to Tiana Pavilion. During the breeding season, 4 pairs laid a total of 5 nests. Two nests were located just west of Triton Lane. One nest was not suitable for exclosing and was predated. The second nest was exclosed and all 4 eggs hatched. The chicks were lost after 4 days and the adults were seen for several days acting frantic. Three nests were located near the overwash plume. A nest located in the overwash was abandoned with 2 eggs and the pair did not attempt to renest. Another pair nested on the slope of the dune; was predated and renested east of the original nest. This nest was also predated. A small colony of least terns was located west of the Triton access. A single amaranth plant was located south of the overwash plume but was lost in mid-August due to an extreme tide event.

Plover activity: 4 pairs, 0 fledges, 0 productivity

Southampton Beach

Southampton beach is located in Southampton Village and extends from the boundary of Shinnecock East County Park to South Main Street. The site is broken into the 3 sub-sites listed

below. A rebounding fox population has been of great concern and over the course of the last few years; the number of plover pairs has decreased. In addition to fox; off road vehicles, unleashed dogs and beach raking are issues at this site.

Plover activity: 6 pairs, 8 fledges, 1.33 productivity

Shinnecock East County Park to Road D

This sub-site includes a heavily used picnic area in the west portion of the site. This portion of picnic area is unlike the rest of the Town as there is 24 hour beach driving all year round. A single plover pair nested at this site east of the Road F access. The nest was predated and the pair did not attempt a renest.

A large colony of least terns was observed early in the season foraging and courting. Nests were never laid or located and the colony relocated by June 23rd. No amaranth was located.

Plover activity: 1 pair, 0 fledges, 0 productivity

Road D to Halsey Neck Lane

This site had 5 plover pairs that fledged 8 chicks. Three of the 6 nesting attempts were located either high in the dunes in thick dune grass, on the slope of the dune or within close proximity to snow fence. As a result of these obstructions, erecting exclosures was impossible. Of the remaining nests, one was predated before a third egg was laid and never re-nested. The last nest was exclosed. The first nest was laid early, fledging the whole brood. The second nest located on the crest of the dune was found vandalized (an incident report was filed) just one week before it was due to hatch. Coastal stewards found wooden posts broken, the eggs missing and the adults absent. The pair later re-nested several houses to the east. This re-nest only hatched 2 of the 4 eggs. It was affected by a tidal event that engulfed the nest but did not wash out the eggs. This event may have been the reason for the failure to hatch. Only one chick fledged. The third and fifth nests were predated and never re-nested. The fourth nest was laid on the slope of the dune in the crook of snow fencing, the pair hatched and fledged a clutch of three.

A single least tern nest of two eggs was located in the east section of the sub-site. It was predated shortly after being protected. A single seabeach amaranth plant was identified and fenced.

This sub-site was fraught with many issues. Disregard for ORV closures was a daily occurrence. Operators at times even drove around the north side of the fence over the dune when tides were high. An ATV was repeatedly seen driving out of a residence on Meadow Lane. The operator was informed on numerous occasions of the closures and the repercussions of endangering piping plovers. The village ordinance inspector was informed of the situation. A bird box was heard but never located in the east section of the subsite.

Plover activity: 5 pairs, 8 fledges, 1.6 productivity

Halsey Neck Lane to South Main Street

This site had little activity early in the season. Plover tracks and scrapes were observed but a pair did not nest at this site. Least terns and seabeach amaranth were not present.

Plover activity: 0 pairs, 0 fledges, 0 productivity

Gin Lane Beach

The majority of the properties between South Main Street and Old Town Lane have hard structures such as bulkheads that leave little suitable habitat for breeding birds. Two seabeach amaranth plants were identified and fenced.

Plover activity: 0 pairs, 0 fledges, 0 productivity

Old Town Beach

This site was home to a single nesting pair. The first nest of 2014 was located next to a large piece of asphalt behind the crest of the primary dune. This nest was in the exact location as a nest during the 2013 breeding season. This nest was not a candidate for an exclosure due to its location. The pair later re-nested to the east. This nest was exclosed but an extreme tidal event washed out the nest soon after. The single egg that remained was incubated for another 23 days before the adult abandoned the egg. A resident told stewards there was a large feral cat colony in the area. Seven least tern nests fledged a total of 3 chicks. One least tern chick was discovered

run over in a tire track after an ORV operator removed the fence and drove through. An incident report was filed. No plants were observed at this site.

Plover activity: 1 pair, 0 fledges, 0 productivity

Watermill Beach

This site is comprised of 3 sub-sites and measures approximately 2.38 miles. There are 3 town beaches and 2 additional access roads that provide public access to the beach. Mecox Bay is located between the Flying Point Road access and Scott Cameron Beach. When the water level in the bay is low, mudflats are exposed which provide ideal foraging habitat for piping plovers and other migratory shorebirds.

Plover activity: 7 pairs, 1 fledge, 0.14 productivity

Fowlers Beach

This sub-site had two pairs that laid three nests. The first nest was laid behind the dune and was not excloseable. It was predated by a fox just before it was due to hatch. The pair later re-nested, this nest was exclosed, hatched 2 of the 4 eggs but none of the chicks survived. The third nest was also exclosed and fledged one chick**.** Three least tern fledges were observed at this site. No plants were observed.

Plover activity: 2 pairs, 1 fledge, 0.5 productivity

Flying Point Beach

This sub-site had one pair and one nest. The nest was found covered in sand and a re-nest was never observed although tracks and scrapes were located to the east. This sub-site is a heavily used recreational site due to numerous access points and its proximity to Mecox Bay. Two pairs were observed courting and scraping on the mudflats. The bay naturally closed early in the breeding season and the mudflats were gradually flooded. The pair was seen foraging and flying east and west of the bay and nested in the middle of the site. After the nest was lost, tracks and scrapes were located to the east but the pair was not seen.

Plover activity: 1 pair, 0 fledge, 0 productivity

Scott Cameron Beach

There were four nesting pairs that laid six nests at this subsite. All the nests were either washed out or predated. Two of the pairs attempted renests; one was predated and the other was washed out. Fifteen least tern fledges were observed.

Plover activity: 4 pairs, 0 fledge, 0 productivity

Sam's Creek Beach

This site had a single pair that fledged a full clutch of 4. Early in the season there was little to no least tern activity but in early July the colony almost tripled on this .6 mile stretch of beach. This colony was wedged between Mecox Bay and Sagaponack Pond and likely increased when the Mecox and Sagaponack mudflats began to flood in mid June. Fourteen least terns fledged from this site.

Plover activity: 1 pair, 4 fledges, 4.0 productivity

Sagaponack Pond Beach

In the early spring, the Sagaponack cut was open, exposing roughly 50% of the lake bottom. This exposed mud flat area provided significant foraging area for a variety of migratory shore birds. In mid June the cut closed flooding the mudflats and one plover nest.

Plover activity: 5 pairs, 6 fledges, 1.20 productivity

Sagaponack Pond West

The western portion of the site known as Sagaponack Pond was home to three pairs. One of the nests located on the mud flat area was flooded when the flats naturally flooded in mid-June. Prior to the nest being washed out 2 of the 4 eggs had been predated. The pair did not attempt a renest. The other two pairs fledged 7 chicks. One of these nests was exclosed. Eighteen least terns fledged from this sub-site. One seabeach amaranth plant was fenced.

Plover activity: 3 pairs, 6 fledges, 2.0 productivity

Sagaponack Pond East

Two pairs laid 3 nests east of the Sagaponack inlet. The first nest was located near the eastern boundary of this site. The nest was exclosed, the chicks hatched but were never observed. The day the nest was due to hatch crows were observed perching on the sand

fence and symbolic fence. The pair did not attempt a re-nest. The other pair nested on the east side of the inlet in an area that was overwashed by Hurricane Sandy. The first nest was located behind the dune system in an area that could not be exclosed and was predated. The second nest was not exclosed and washed out during an extreme tidal event. Several least tern nests were observed on the east side of the cut but were not as successful or as large as the colony on the west side.

Plover activity: 2 pairs, 0 fledges, 0 productivity

Fairfield Pond Lane Beach

This site is located between Gibson Lane and Townline Road. The east portion of this site had been heavily eroded during the last few breeding seasons and was not utilized by breeding pairs. This year, the beach had built up enough for birds to nest without the threat of being washed out.

Plover activity: 2 pairs, 1 fledge, 0.5 productivity

Fairfield Pond Lane Beach West

There was no bird activity in the western portion of this site. A single seabeach knotweed plant was identified.

Plover activity: 0 pairs, 0 fledges, 0 productivity

Fairfield Pond Lane Beach East

The eastern portion was more productive with two nesting pairs laying a total of three nests laid. One pair nested and hatched but due to unknown circumstances, this brood moved east of the Southampton town boundary, and foraged in East Hampton until a single chick fledged. There was a storm the night after the nest hatched that washed out the re-nest of the second pair that may have forced the first pair and brood to move east. Stewards worked cooperatively with the Town of Easthampton to maintain fencing and monitor the brood.

Plover activity: 2 pairs, 1 fledge, 0.5 productivity

Bay Sites

Red Cedar Point

This year a single pair nested at Red Cedar Point. The pair laid their first nest in a dense clump of dune grass. The nest was likely predated by raccoons. The pair's re-nest was exclosed and two chicks fledged from the nest. Coastal stewards observed numerous raccoon tracks at this site this season. Residents confirmed an increase in the raccoon population in the neighborhood. This site historically was one of the most productive least tern colonies but this year it only fledged 3 least terns.

Plover activity: 1 pair, 2 fledges, 2.0 productivity

Red Creek Pond

This site was inactive for both birds and plants.

Squires Pond

This high recreation use bathing beach is narrow and known for having numerous unleashed dogs and excessive ORV use. Symbolic fencing was erected early in the season though no birds were ever observed. No plants were found at this site.

Meschutt Beach East

This site was inactive for both plants and birds. Bordered on the west by a busy County Park, the beach is quite narrow and provides little critical habitat for nesting shorebirds.

Canoe Place Beach

This site was inactive for both plants and birds.

Fish Cove/North Sea Harbor

This site was inactive for both plants and birds.

Towd Neck

Towd Neck West

This site has little critical habitat for nesting birds during high tide. Neither plants nor birds were observed at this site.

Towd Neck East

This site is a high use recreation beach with a lot of ORV traffic. One pair laid a single nest of four eggs at this sub-site. The nest was exclosed as the fox population at this site in on the rise. The nest hatched but the adults and chicks were never seen again. A small colony of terns nested at this site. A total of 2,506 seabeach knotweed plants were counted.

Plover activity: 1 pair, 0 fledge, 0 productivity

Wooley Pond

This site was inactive for both birds and plants.

Roses Grove

This site was inactive for both birds and plants.

Fresh Pond

This site was inactive for both birds and plants.

Pine Neck

This site was inactive for both birds and plants.

Long Beach

This site had a small least tern colony early in the season but there was limited nesting and none of the nests hatched. Piping plovers were not observed. There were 184 seabeach knotweed plants counted.

Short Beach

No birds were observed at this site. A total of 46 seabeach knotweed plants were counted.

Genet Creek

This is a small private beach inaccessible to ORVs. Piping plovers, least terns or plants were not observed at this site. Genet had a pair that nested every year since 2008.

Middle Pond

This site was inactive for birds and plants.

Acknowledgements

The staff of the Southampton Town Trustee Threatened and Endangered Species Program would like to thank all of those individuals who supported the 2014 season. Thank you to the Board of Trustees; President, Eric Shultz, Secretary/Treasurer Edward Warner, William Pell, Scott Horowitz and Ray Overton, the Southampton Town Bay Constables, the Marine Maintenance Division, Joe Jannsen of the Nature Conservancy, Steve Sinkevich and Steve Papa of USFWS, Chip Hamilton and Michelle Gibbons of the NYSDEC, James Gromely and Ross Baldwin with the Towns GIS Department and the public that had patience and respected our symbolic fences and ORV closures. A special thanks to Sean Keenen for joining us in the field and taking beautiful photos of our birds and Juliana Duryea of the Town of East Hampton for helping to protect our traveling brood.

Literature Cited

New York Natural Heritage Program. 2010. Biotics database. New York Natural Heritage Program. New York State Department of Environmental Conservation. Albany N.Y.

U.S. Fish and Wildlife Service. 2007. Seabeach Amaranth 5 year Review: Summary and Evaluation. Raleigh N.C.

U.S. Fish and Wildlife Service. 2009. Piping plover 5 year review: Summary and Evaluation. Raleigh N.C.

U.S. Fish and Wildlife Service. 2010. Abundance and productivity estimates – 2010 update atlantic coast piping plover population. Raleigh N.C.

Table 1. 2014 Piping Plover Abundance and Productivity

Site Name/ Location	No. Nesting Pairs	No. Nests	No. Eggs	No. Chicks	Hatch Rate (Chicks/ Eggs)	No. Fledges	Fledge Rate (Fledges/ Chicks)	Productivity (Fledges/ Pairs)	No. Times Site Visited
Atlantic Ocean Nesting Sites									
1. Westhampton Island	8	10	34	14	0.41	2	0.14	0.25	-
a) Hampton	4	5	17	10	0.59	2	0.20	0.50	53
b) Tiana	4	5	17	4	0.24	0	0.00	0.00	35
2. Southampton Beach	6	7	25	9	0.36	8	0.89	1.33	103
a) County Park East to Rd D	1	1	4	0	0.00	0	0.00	0.00	-
b) Rd D to Halsey Neck Ln	5	6	21	9	0.43	8	0.89	1.60	-
c) Halsey Neck Ln to S. Main St	0	0	0	0	0.00	0	0.00	0.00	-
3. Gin Lane Beach	0	0	0	0	0.00	0	0.00	0.00	6
4. Old Town Beach	1	2	8	0	0.00	0	0.00	0.00	50
5. Watermill Beach	7	10	38	6	0.16	1	0.17	0.14	93
a) Fowlers Beach	2	3	12	6	0.50	1	0.17	0.50	-
b) Flying Point Beach	1	1	4	0	0.00	0	0.00	0.00	-
c) Scott Cameron Beach	4	6	22	0	0.00	0	0.00	0.00	-
6. Sam's Creek	1	1	4	4	1.00	4	1.00	4.00	70
7. Sagaponack Lake Beach	5	6	24	12	0.50	6	0.50	1.20	97
8. Fairfield Pond Lane Beach	2	3	12	4	0.33	1	0.25	0.50	51
Total for Ocean Nesting Sites	**30**	**39**	**145**	**49**	**0.34**	**22**	**0.45**	**0.73**	**-**
Peconic Bay Nesting Sites									
9. Red Cedar Point	1	2	8	4	0.5	2	0.5	2	27
10. Red Creek Pond	0	0	0	0	0	0	0	0	3
11. Squires Pond	0	0	0	0	0	0	0	0	8
12. Meschutt Beach East	0	0	0	0	0	0	0	0	2
13. Canoe Place Beach	0	0	0	0	0	0	0	0	5
14. Fish Cove/N. Sea Harbor	0	0	0	0	0	0	0	0	3
15. Towd Neck	1	1	4	4	0	0	0	0	22
16. Wooley Pond	0	0	0	0	0	0	0	0	7
17. Roses Grove	0	0	0	0	0	0	0	0	3
18. Fresh Pond	0	0	0	0	0	0	0	0	5
19. Pine Neck/Mill Creek	1	1	4	4	1	1	0.25	1	39
20. Long Beach	0	0	0	0	0	0	0	0	8
21. Short Beach	0	0	0	0	0	0	0	0	4
22. Genet Creek	0	0	0	0	0	0	0	0	12
Shinnecock Bay Nesting Site									
23. Middle Pond	0	0	0	0	0	0	0	0	7
Total for Bay Nesting Sites	**3**	**4**	**16**	**12**	**0.75**	**3**	**0.25**	**1**	**-**
Totals for All Sites	**33**	**43**	**161**	**61**	**0.38**	**25**	**0.41**	**0.76**	**-**

Table 2. 2014 Least Tern Abundance and Productivity

Site Name/Location	No. Nesting Pairs	No. Fledges	Productivity (Fledges/ Pairs)	No. Times Site Visited
Atlantic Ocean Nesting Sites				
Village Beaches				
1. Southampton Beach	1	0	0.00	103
2. Gin Lane Beach	0	0	0.00	6
3. Old Town Beach	7	3	0.43	50
Town Beaches				
4. Westhampton Island	11	14	1.27	88
5. Watermill Beach	27	18	0.67	93
6. Sam's Creek	24	14	0.58	70
7. Sagaponack Lake Beach	34	18	0.53	97
8. Fairfield Pond Lane Beach	0	0	0.00	51
Total for Ocean Nesting Sites	**104**	**70**	**0.67**	**-**
Peconic Bay Nesting Sites				
9. Red Cedar Point	26	3	0.12	27
10. Red Creek Pond	0	0	0	3
11. Squires Pond	0	0	0	8
12. Meschutt Beach East	0	0	0	2
13. Canoe Place Beach	0	0	0	5
14. Fish Cove/N. Sea Harbor	0	0	0	3
15. Towd Neck	18	3	0.17	22
16. Wooley Pond	0	0	0	7
17. Roses Grove	0	0	0	3
18. Fresh Pond	0	0	0	5
19. Pine Neck/Mill Creek	0	0	0	39
20. Long Beach	1	0	0	8
21. Short Beach	0	0	0	4
22. Genet Creek	0	0	0	12
Shinnecock Bay Nesting Site				
23. Middle Pond	0	0	0	7
Total for Bay Nesting Sites	**45**	**6**	**0.13**	**-**
Totals for All Sites	**149**	**70**	**0.47**	**-**

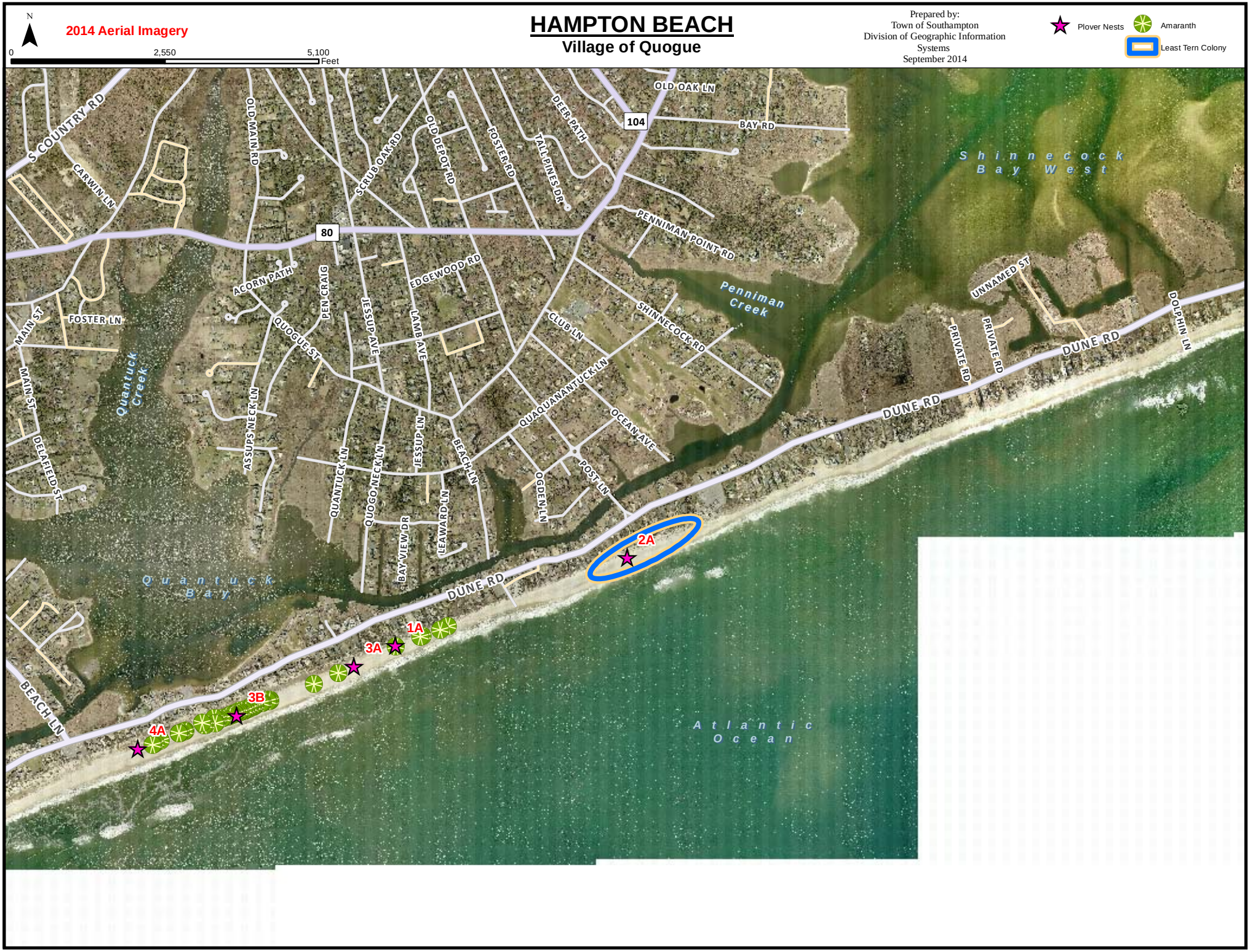
Table 3. Summary of egg outcome.

	2014 Outcome of Eggs								
Site Name/Location	**Number of eggs**	**Vandalized**	**Abandoned**	**Predated**	**Unknown**	**Washed Out**	**Unhatched**	**Total Failed**	**Fledged**	**Didn't fledge**	**Total Hatched**
Southampton Beach	25	4		10			2	16	8	1	9
Old Town Beach	8		1	4		3		8			10
Westhampton Island - Hampton	17			1	4	2		7	2	8	4
Westhampton Island - Tiana	17		2	7	4			13		4	4
Watermill Beach	38			8	20	2	2	32	1	5	6
Sam's Creek	4							0	4		4
Sagaponack Lake Beach	24			6		6		12	6	6	12
Fairfield Pond Lane Beach	12			4		4		8	1	3	4
Red Cedar Point	8			4				4	2	2	4
Towd Neck	4							0		4	4
Pine Neck/Mill Creek	4							0	1	3	4
Total for Ocean Nesting Sites	145	4	3	40	28	17	4	96	22	27	49
Total for Bay Nesting Sites	16	0	0	4	0	0	0	4	3	9	12
Totals for All Sites	161	4	3	44	28	17	4	100	25	36	61
Percent of all egg outcome		2.48%	1.86%	27.33%	17.39%	10.56%	2.48%	62.11%	15.53%	22.36%	37.89%

Table 4. Fledge Age of Brood was calculated by averaging the brood ages for the 11 successful broods.

Fledge Age of Brood				
Nest	**Hatch Date**	**Fledge Date**	**Age (days)**	**Number Chicks**
Fair 1A	6/3/2014	7/11/2014	38	1
SHB 1A	6/4/2014	7/9/2014	35	4
Sam 1A	6/10/2014	7/15/2014	35	4
Sagg 4A	6/11/2014	7/18/2014	37	3
Pine 1A	6/12/2014	7/11/2014	29	1
SHB 4A	7/5/2014	8/7/2014	33	3
WHIH 2A	7/5/2014	8/4/2014	30	2
RCPT 1A	7/6/2014	8/5/2014	30	2
Sagg 5A	7/11/2014	8/8/2014	28	3
WMB 7A	7/11/2014	8/19/2014	39	1
SHB 2B	7/20/2014	8/21/2014	32	1

average brood age	33 days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0
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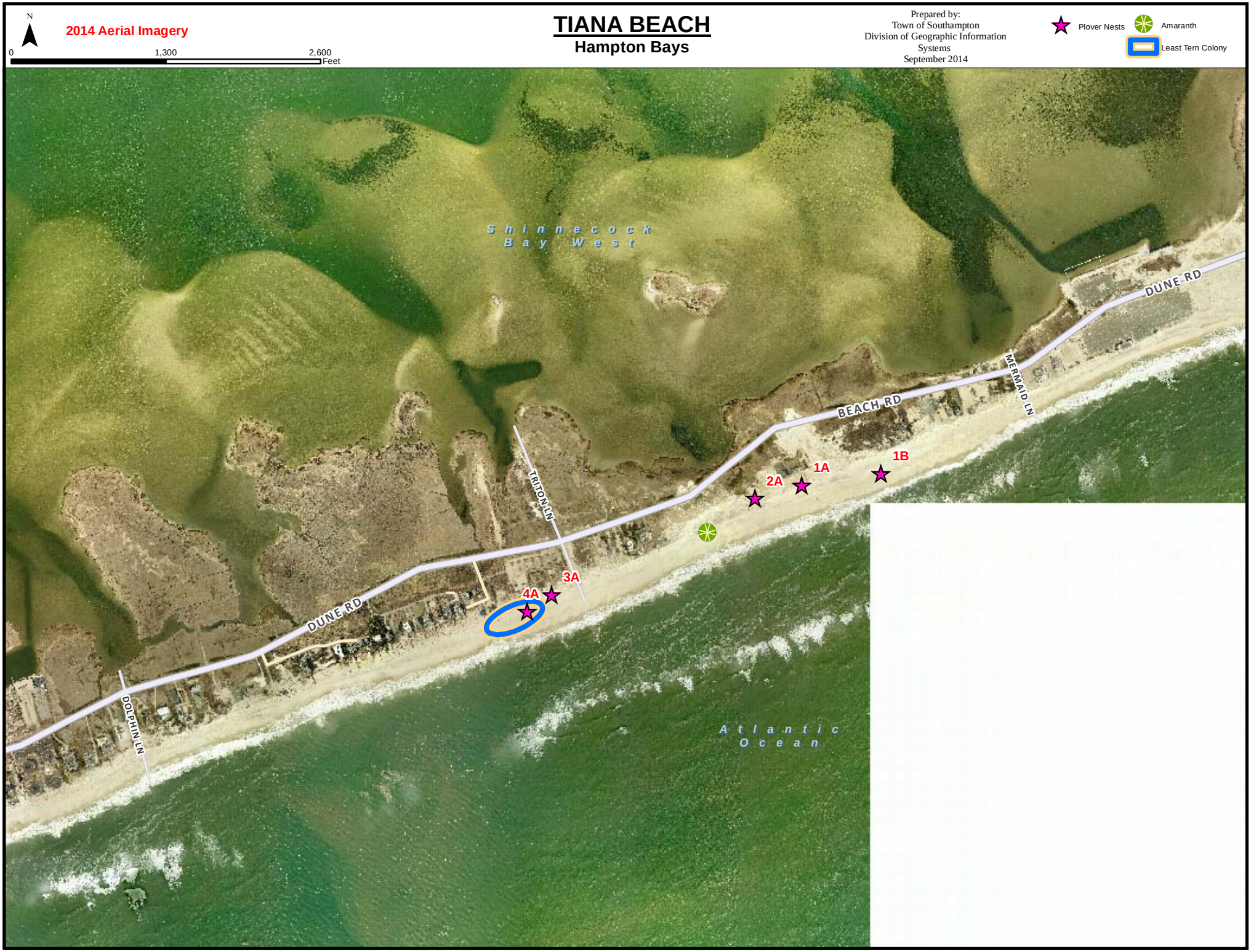
Feet
HAMPTON BEACH
Village of Quogue
Prepared by:
Town of Southampton
Division of Geographic Information Systems
September 2014
Plover Nests
Amaranth
Least Tern Colony
S COUNTRY RD
CARWIN LN
OLD MAIN RD
SCRUB OAK RD
OLD DEPOT RD
FOSTER RD
DEER PATH
TALL PINES DR
OLD OAK LN
104
BAY RD
80
PENNIMAN POINT RD
Shinnecock Bay West
Penniman Creek
ACORN PATH
PEN CRAIG
EDGEWOOD RD
JESSUP AVE
LAMB AVE
CLUB LN
SHINNECOCK RD
UNNAMED ST
DOLPHIN LN
PRIVATE RD
PRIVATE RD
DUNE RD
MAIN ST
FOSTER LN
QUOGUE ST
Quantuck Creek
MAIN ST
DELAFIELD ST
ASSUPS NECK LN
QUANTUCK LN
QUOGO NECK LN
JESSUP LN
BEACH LN
QUAQUANANTUCK LN
OCEAN AVE
POST LN
OGDEN LN
LEAWARD LN
BAY VIEW DR
DUNE RD
Quantuck Bay
2A
1A
3A
3B
4A
BEACH LN
Atlantic Ocean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Hampton Bays
Prepared by:
Town of Southampton
Division of Geographic Information Systems
September 2014
Plover Nests
Amaranth
Least Tern Colony
Shinnecock Bay West
DUNE RD
BEACH RD
MERMAID LN
TRITON LN
1A
1B
2A
3A
4A
DUNE RD
DOLPHIN LN
Atlantic Ocean


N
2014 Aerial Imagery
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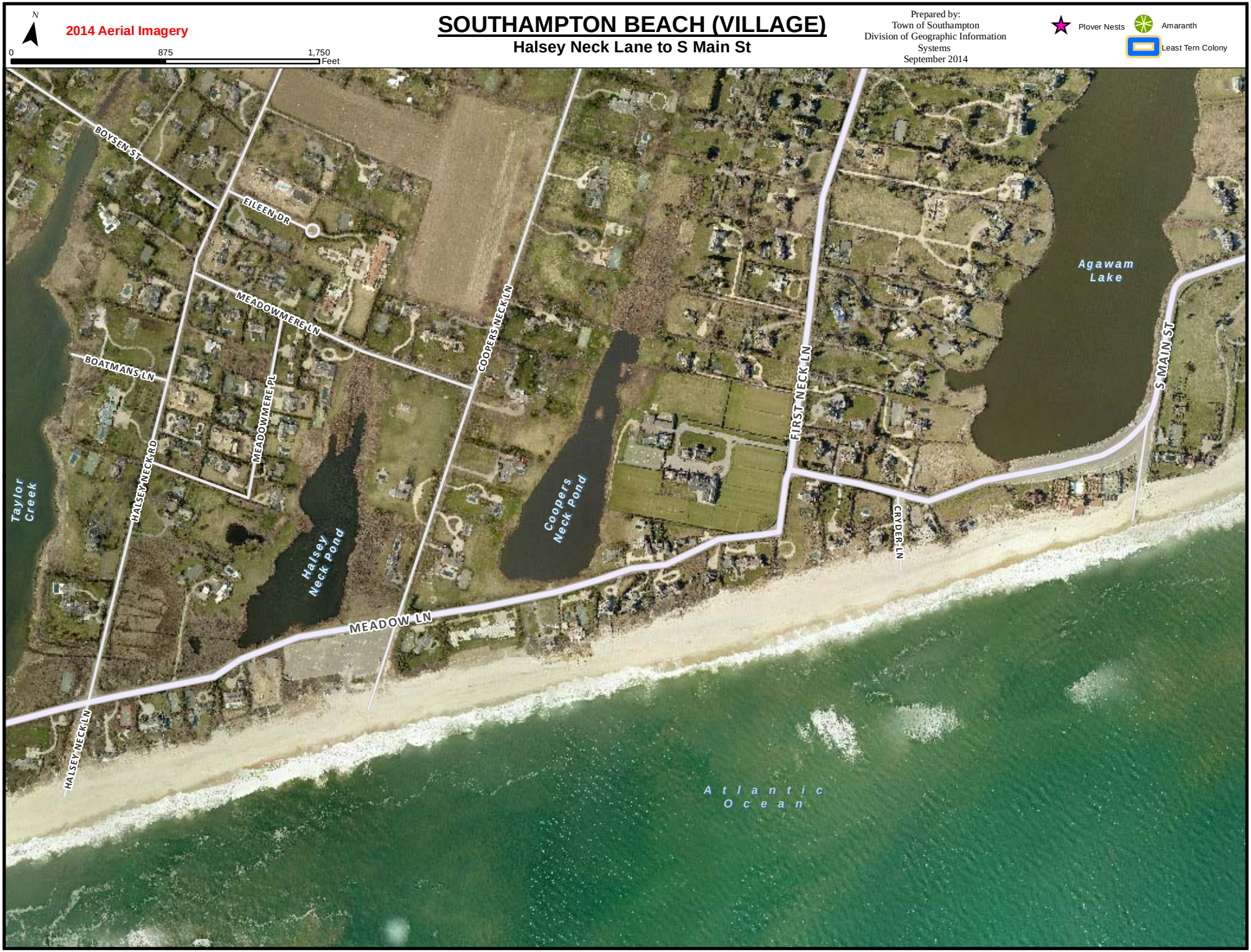
2,500
Feet
SOUTHAMPTON BEACH (VILLAGE)
Shinnecock East to Road D
Prepared by:
Town of Southampton
Division of Geographic Information Systems
September 2014
Plover Nests
Amaranth
Least Tern Colony
Shinnecock Bay East
MEADOW LN
ROAD D
MEADOW LN
6A
Atlantic Ocean
Shinnecock Inlet


2014 Aerial Imagery
0
1,350
2,700
Feet
SOUTHAMPTON BEACH (VILLAGE)
Road D to Halsey Neck Lane
Prepared by:
Town of Southampton
Division of Geographic Information Systems
September 2014
Piper Nests
Amaranth
Least Tern Colony
OLD POINT RD
CAPTAINS NECK LN
BOATMANS LN
HALSEY NECK RD
HALSEY NECK LN
Heady Creek
Taylor Creek
Shinnecock Bay East
MEADOW LN
ROAD D
Atlantic Ocean
1A
2A
2B
3A
4A
5A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SOUTHAMPTON BEACH (VILLAGE)
Halsey Neck Lane to S Main St
Prepared by:
Town of Southampton
Division of Geographic Information Systems
September 2014
Plover Nests
Amaranth
Least Tern Colony
BOYSEN ST
EILEEN DR
MEADOWMERE LN
COOPERS NECK LN
BOATMANS LN
MEADOWMERE PL
HALSEY NECK RD
FIRST NECK LN
S MAIN ST
Agawam Lake
Taylor Creek
Halsey Neck Pond
Coopers Neck Pond
CRYDER LN
MEADOW LN
HALSEY NECK LN
Atlantic Ocean

GIN LANE BEACH (VILLAGE)

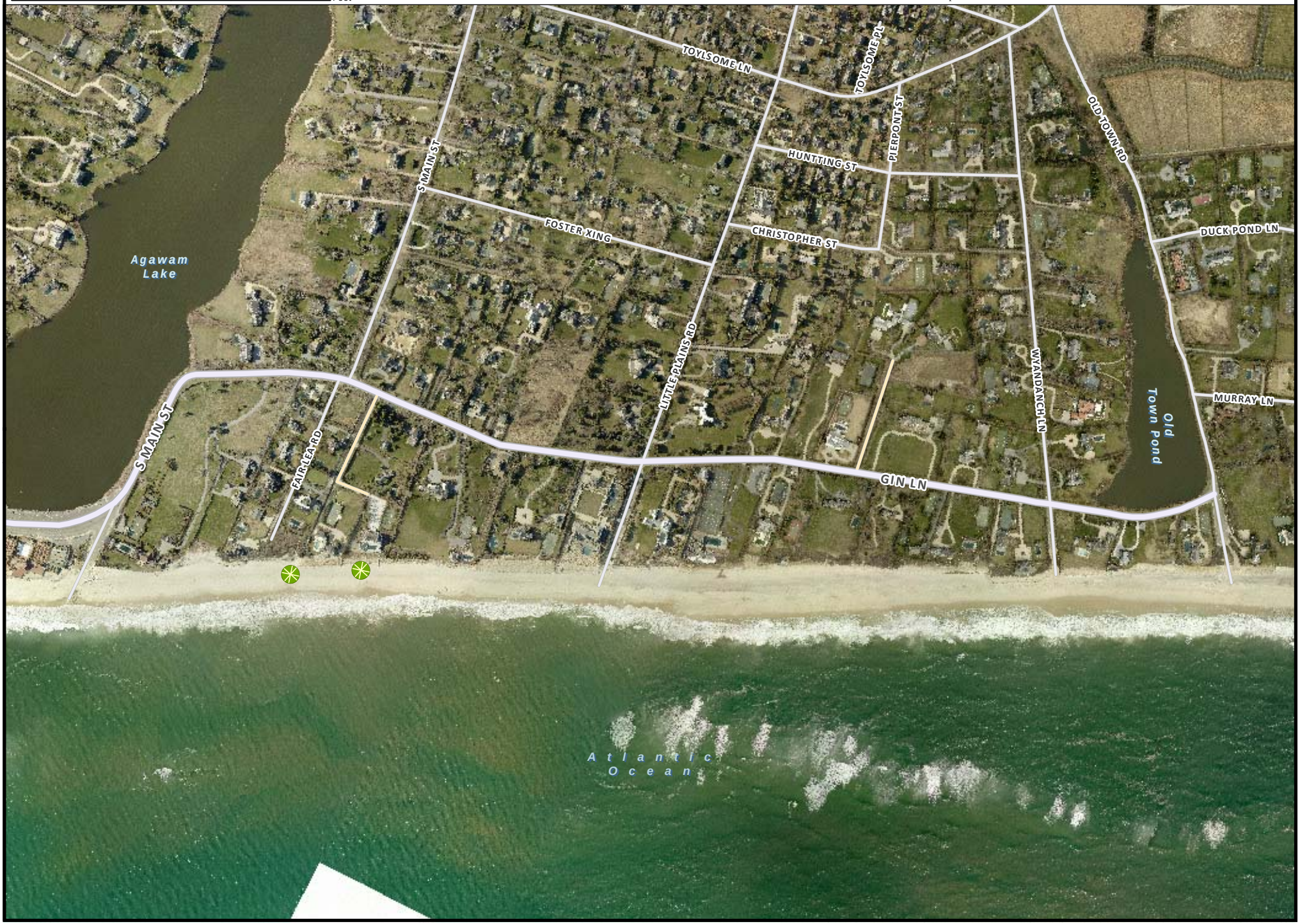
South Main St to Old Town Rd

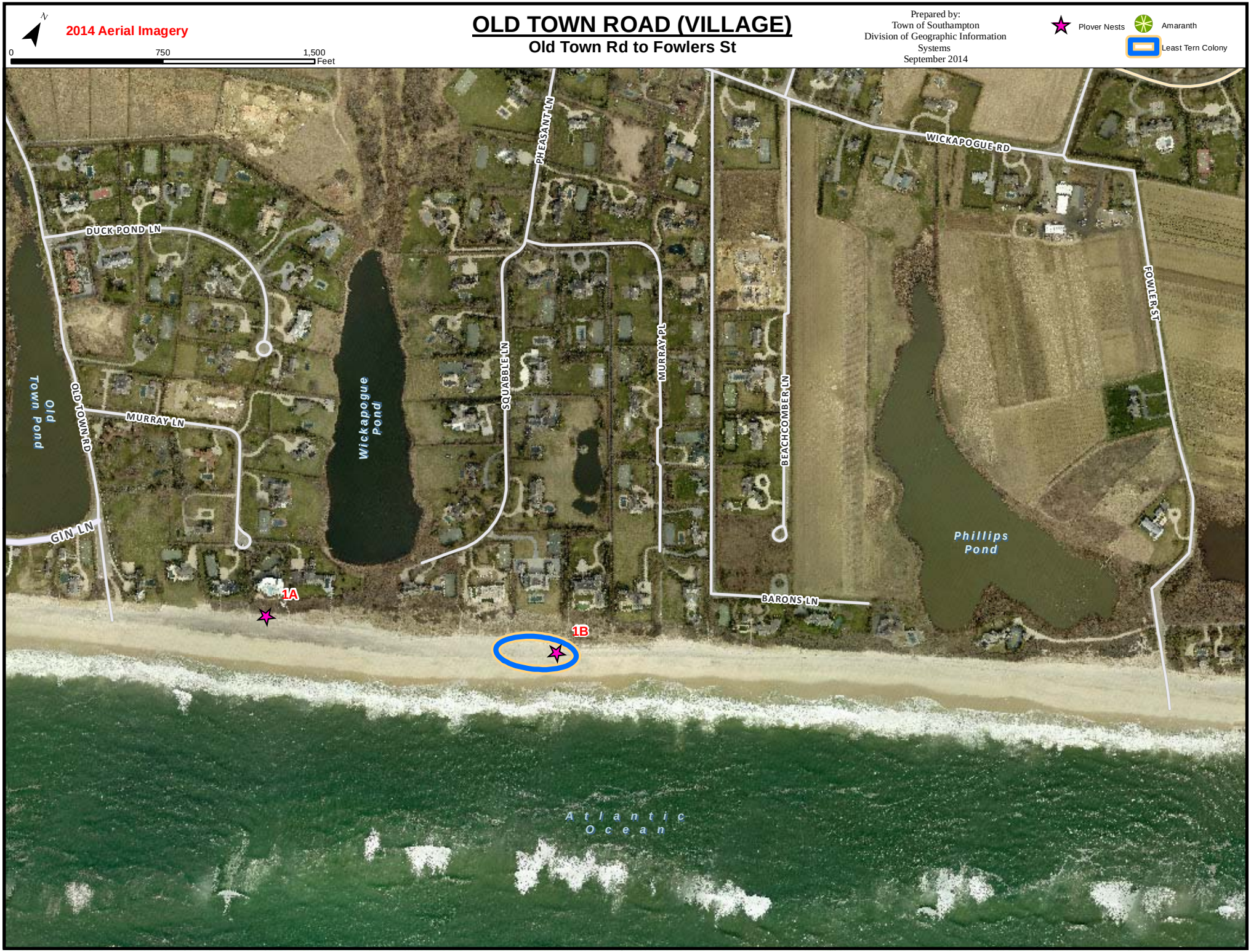
2014 Aerial Imagery

0 875 1,750 Feet

Prepared by:
Town of Southampton
Division of Geographic Information Systems
September 2014

Plover Nests
Amaranth
Least Tern Colony

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OLD TOWN ROAD (VILLAGE)
Old Town Rd to Fowlers St
Prepared by:
Town of Southampton
Division of Geographic Information Systems
September 2014
Plover Nests
Amaranth
Least Tern Colony
DUCK POND LN
PHEASANT LN
WICKAPOGUE RD
FOWLER ST
OLD TOWN RD
MURRAY LN
SQUABBLE LN
MURRAY PL
BEACHCOMBER LN
GIN LN
BARONS LN
Old Town Pond
Wickapogue Pond
Phillips Pond
1A
1B
Atlantic Ocean


2014 Aerial Imagery
0
600
1,200
Feet
WATER MILL BEACH
Fowlers St to Flying Pt Rd
Prepared by:
Town of Southampton
Division of Geographic Information Systems
September 2014
Plover Nests
Amaranth
Least Tern Colony
FOWLER ST
CHANNEL POND CT
JULE POND DR
FLYING POINT RD
Mecox Bay
Jule Pond
Little Jule Pond
Channel Pond
1A
1B
7A
Atlantic Ocean

WATER MILL BEACH

Flying Point Rd to Dune Rd

2014 Aerial Imagery

0 485 970 Feet

Prepared by:
Town of Southampton
Division of Geographic Information Systems
September 2014

Plover Nests
Amaranth
Least Tern Colony


2014 Aerial Imagery
0
700
1,400
Feet
WATER MILL BEACH
Dune Rd to Jobs Ln
Prepared by:
Town of Southampton
Division of Geographic Information Systems
September 2014
Plover Nests
Amaranth
Least Tern Colony
Swan Creek
POINTE MECOX LN
Mecox Bay
Sam's Creek
DUNE RD
JOBS LN
6A
4A
3A
3B
5A
4B
Atlantic Ocean


2014 Aerial Imagery
0
500
1,000
Feet
SAM'S CREEK / MECOX BEACH
Jobs lane to Ocean Rd
Prepared by:
Town of Southampton
Division of Geographic Information Systems
September 2014
Plover Nests
Amaranth
Least Tern Colony
POINTE MECOX LN
ROSE WAY
Sam's Creek
Sam's Creek
SAMS CREEK RD
SANDPIPER LN
MID OCEAN DR
OCEAN RD
SURFSIDE DR
DUNE RD
JOBS LN
1A
Atlantic Ocean


2014 Aerial Imagery
0
550
1,100
Feet
SAGAPONACK LAKE (WEST)
Ocean Rd to Surfside Dr
Prepared by:
Town of Southampton
Division of Geographic Information Systems
September 2014
Plover Nests
Amaranth
Least Tern Colony
PHEASANT WALK
QUIMBY LN
OCEAN RD
Sam's Creek
MEADOWLARK LN
Sagaponack Lake
SAMS CREEK RD
SANDPIPER LN
3A
MID OCEAN DR
SURFSIDE DR
5A
2B
4A
Atlantic Ocean


2014 Aerial Imagery
0
650
1,300
Feet
SAGAPONACK LAKE (EAST)
Sagg Main St to Gibson Ln
Prepared by:
Town of Southampton
Division of Geographic Information Systems
September 2014
Plover Nests
Amaranth
Least Tern Colony
SEASCAPE LN
SAGG POND CT
BRIDGE LN
CEMETERY RD
TREES LN
DANIELS LN
GIBSON LN
SAGAPONACK MAIN ST
SANDUNE CT
Sagaponack Lake
2A
2B
1A
Atlantic Ocean

FAIRFIELD POND LANE BEACH (WEST)

Gibson Ln to Peter's Pond

2014 Aerial Imagery

0 500 1,000 Feet

Prepared by:
Town of Southampton
Division of Geographic Information Systems
September 2014

Plover Nests
Amaranth
Least Tern Colony

FAIRFIELD POND LANE BEACH (EAST)

Peter's Pond Ln to Town line Rd

2014 Aerial Imagery

0 650 1,300 Feet

Prepared by:
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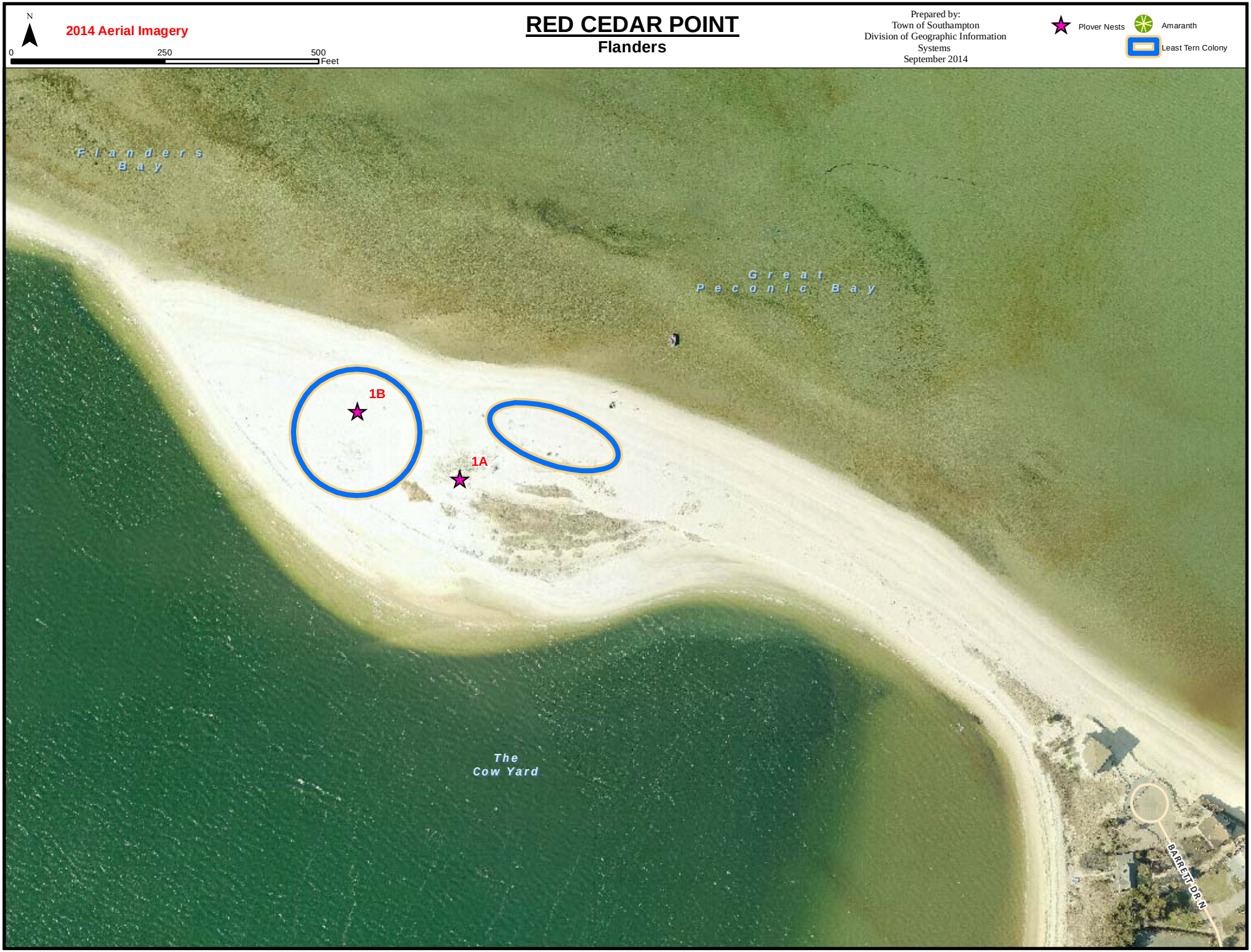
Division of Geographic Information Systems
September 2014

Plover Nests
Amaranth
Least Tern Colony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RED CEDAR POINT
Flanders
Prepared by:
Town of Southampton
Division of Geographic Information Systems
September 2014
Plover Nests
Amaranth
Least Tern Colony
Flanders Bay
Great Peconic Bay
1B
1A
The Cow Yard
BARRETT DR N

RED CREEK POND

Hampton Bays

N

2014 Aerial Imagery

0 320 640 Feet

Prepared by:
Town of Southampton
Division of Geographic Information Systems
September 2014

Plover Nests

Amaranth

Least Tern Colony

SQUIRES POND

Hampton Bays

N

2014 Aerial Imagery

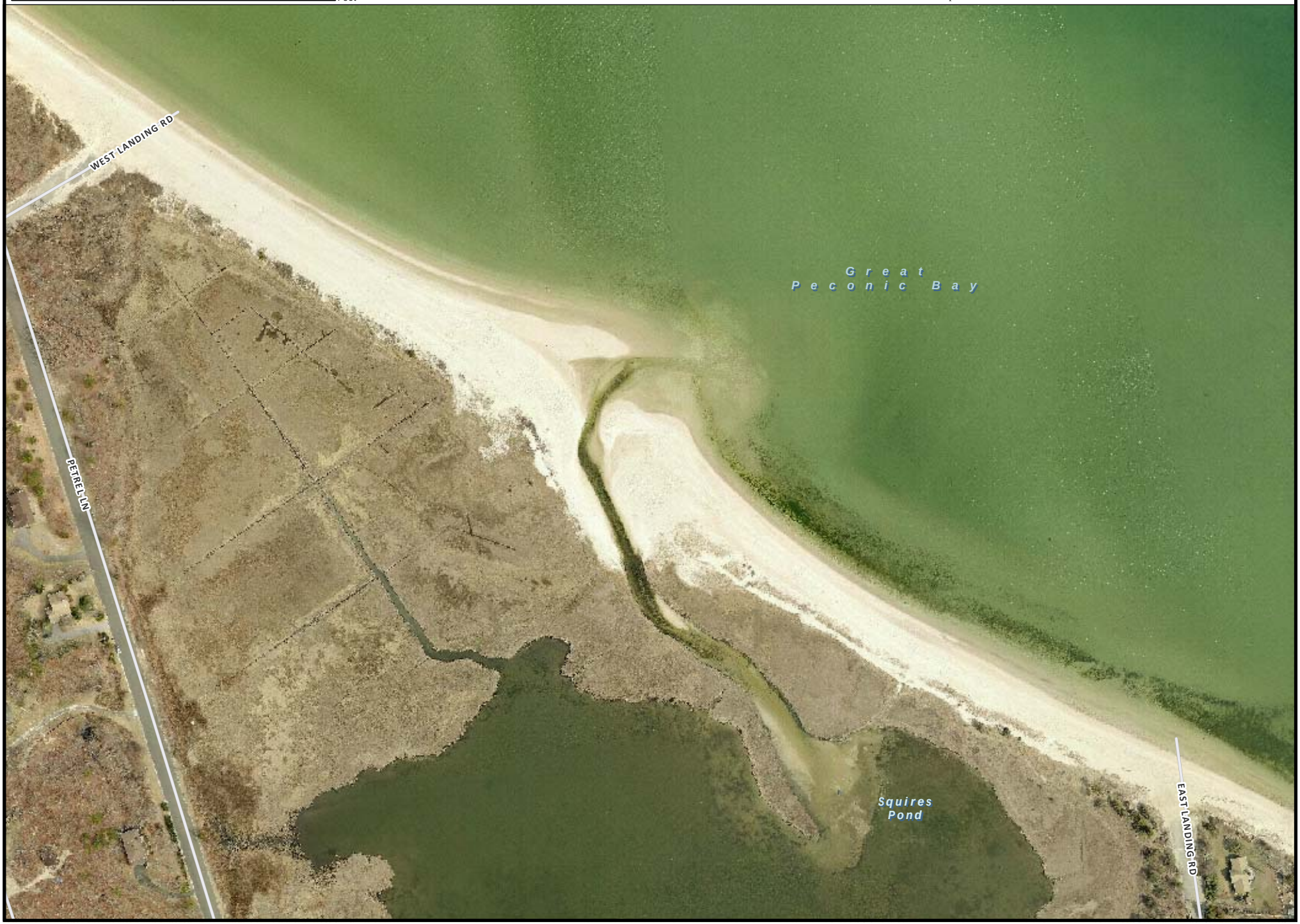
0 285 570 Feet

Prepared by:
Town of Southampton
Division of Geographic Information Systems
September 2014

Plover Nests

Amaranth

Least Tern Colony



CANOE PLACE BEACH

Hampton Bays

2014 Aerial Imagery

N

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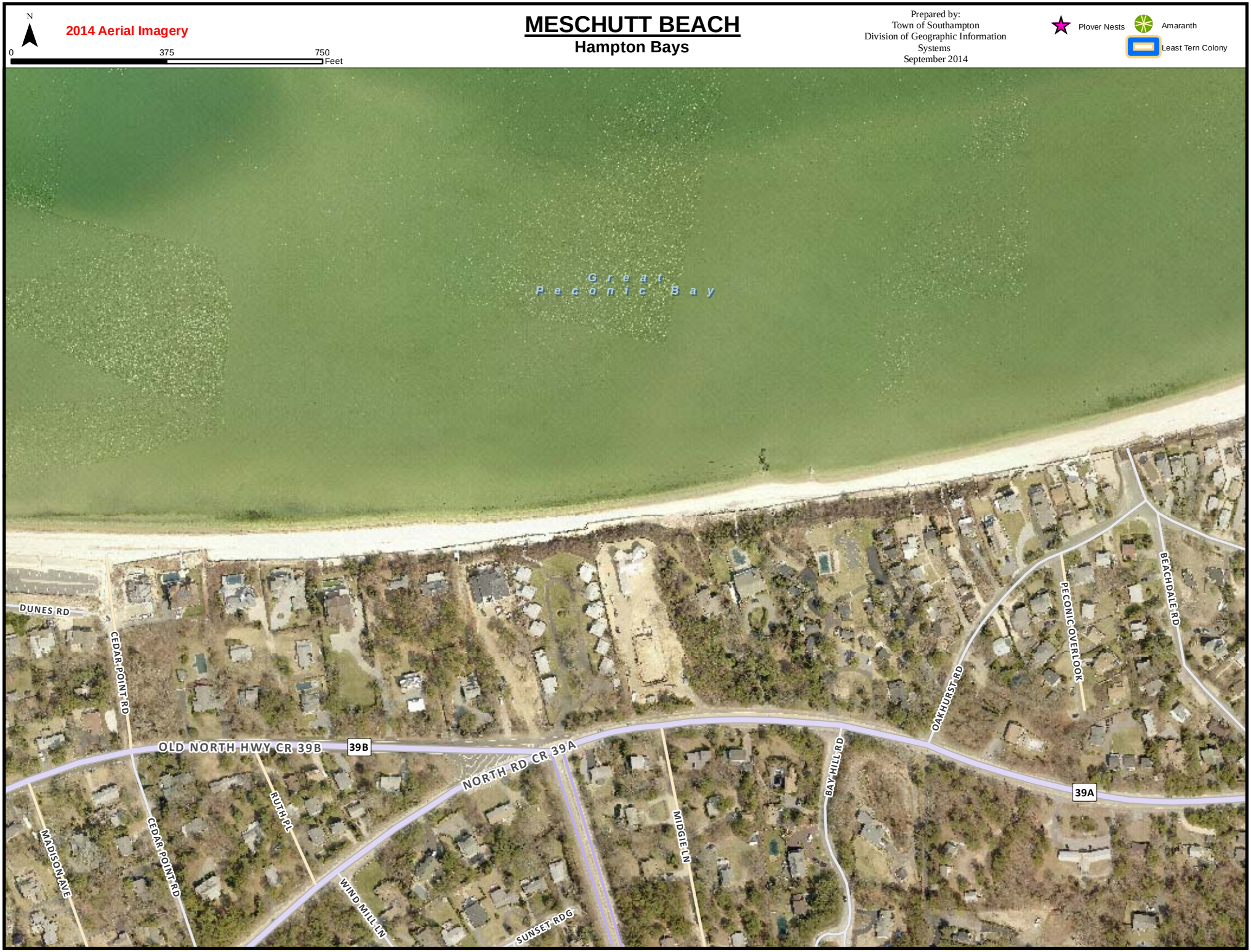
Prepared by:
Town of Southampton
Division of Geographic Information Systems
September 2014

Plover Nests

Amaranth

Least Tern Colony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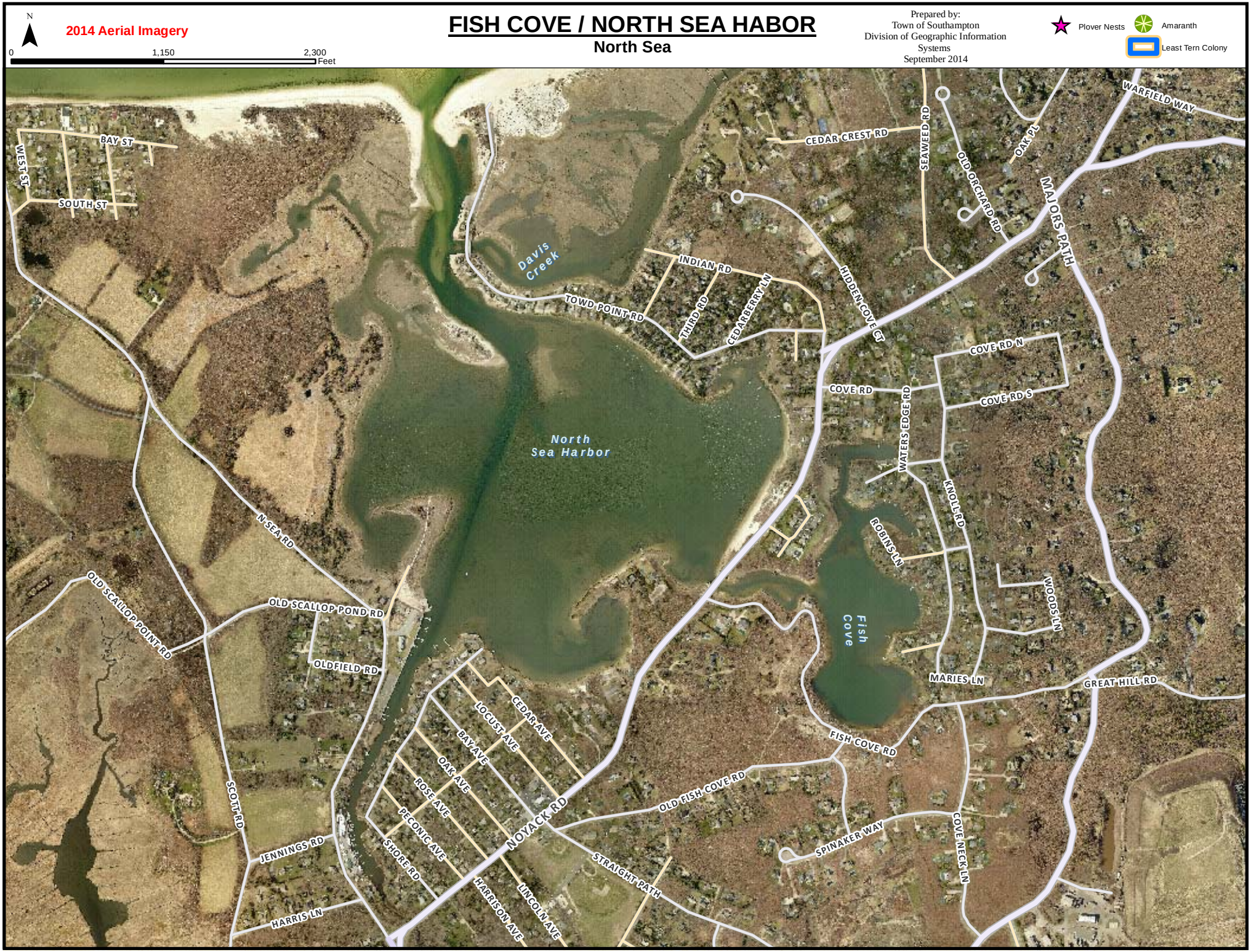
MESCHUTT BEACH
Hampton Bays
Prepared by:
Town of Southampton
Division of Geographic Information Systems
September 2014
Plover Nests
Amaranth
Least Tern Colony
Great Peconic Bay
DUNES RD
CEDAR POINT RD
OLD NORTH HWY CR 39B
39B
NORTH RD CR 39A
RUTH PL
MADISON AVE
CEDAR POINT RD
WIND MILL LN
SUNSET RDG
MIDGIE LN
BAY HILL RD
OAKHURST RD
PECONIC OVERLOOK
BEACHDALE RD
39A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2014 Aerial Imagery
0
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Feet
FISH COVE / NORTH SEA HABOR
North Sea
Prepared by:
Town of Southampton
Division of Geographic Information Systems
September 2014
Plover Nests
Amaranth
Least Tern Colony
BAY ST
WEST ST
SOUTH ST
Davis Creek
CEDAR CREST RD
SEAWEED RD
OLD ORCHARD RD
OAK PL
WARFIELD WAY
MAJORS PATH
INDIAN RD
TOWD POINT RD
THIRD RD
CEDARBERRY LN
HIDDEN COVE CT
COVE RD N
COVE RD
COVE RD S
WATERS EDGE RD
KNOLL RD
North Sea Harbor
ROBINS LN
WOODS LN
Fish Cove
MARIES LN
GREAT HILL RD
N SEA RD
OLD SCALLOP POINT RD
OLD SCALLOP POND RD
OLDFIELD RD
CEDAR AVE
LOCUST AVE
BAY AVE
OAK AVE
ROSE AVE
PECONIC AVE
SHORE RD
NOYACK RD
FISH COVE RD
OLD FISH COVE RD
SPINAKER WAY
COVE NECK LN
STRAIGHT PATH
HARRISON AVE
LINCOLN AVE
SCOTT RD
JENNINGS RD
HARRIS LN

TOWD NECK (WEST)

West Cow Neck Point to Towd Point

N

2014 Aerial Imagery

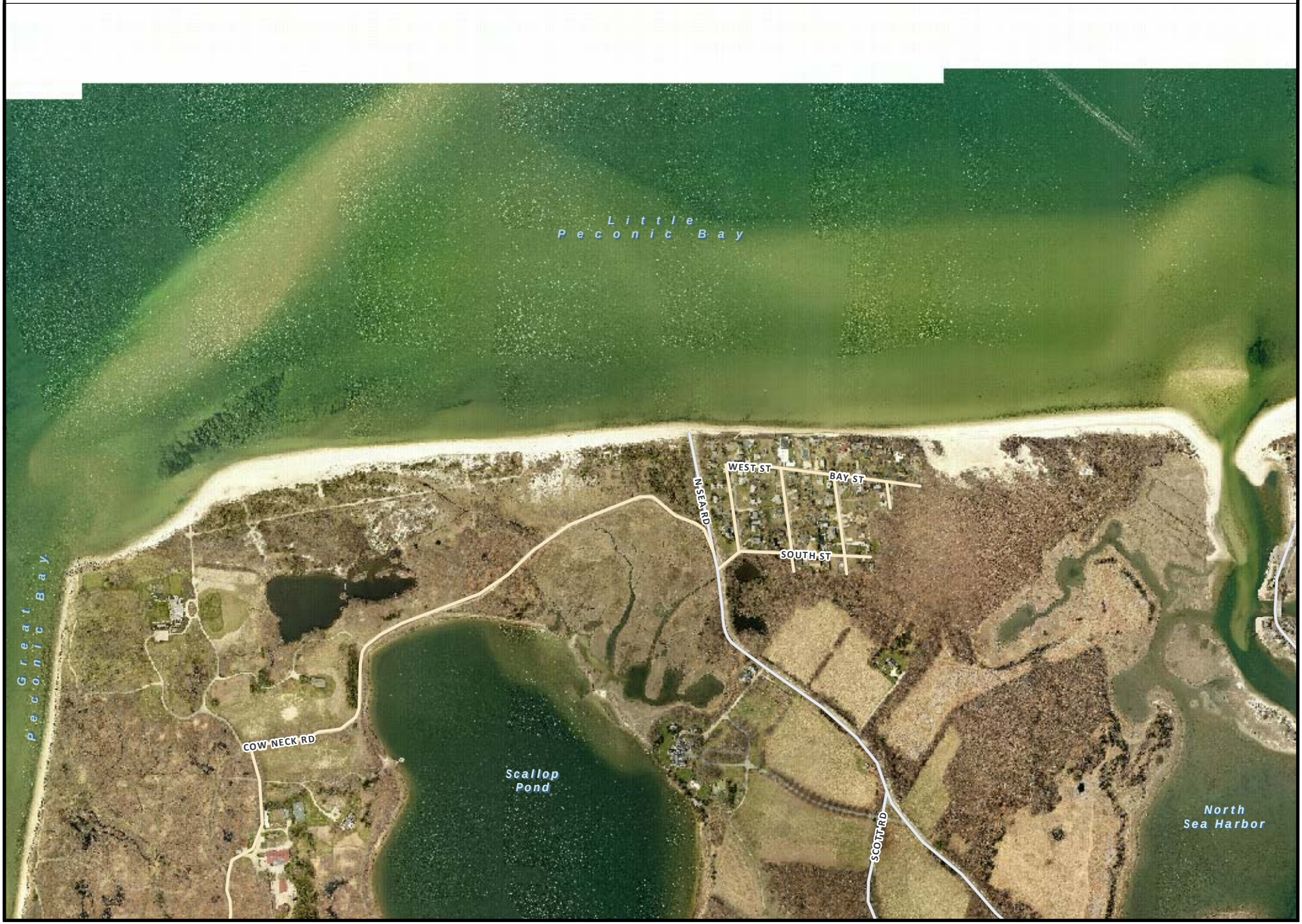
0 1,000 2,000 Feet

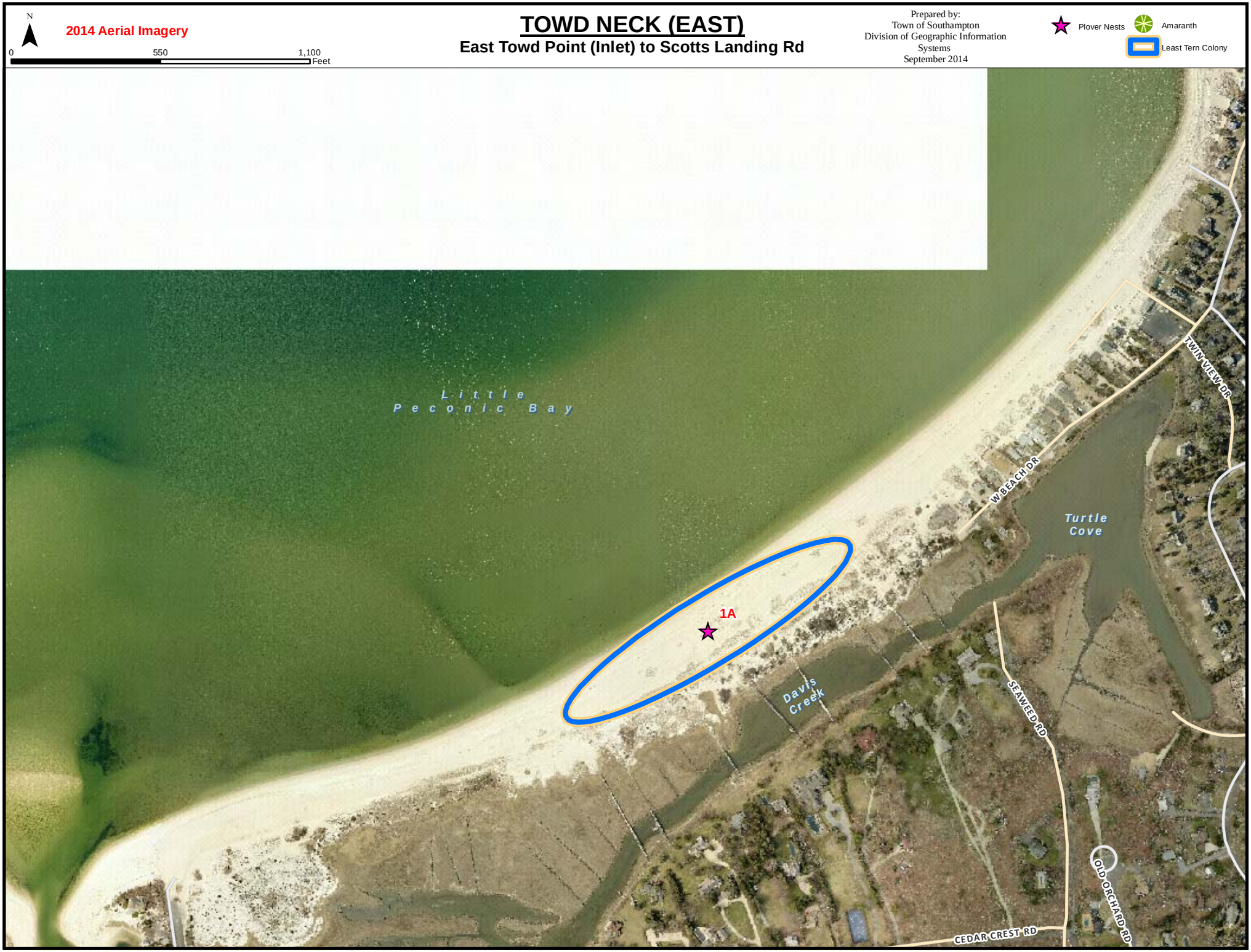
Prepared by:
Town of Southampton
Division of Geographic Information Systems
September 2014

Plover Nests

Amaranth

Least Tern Colony




N
2014 Aerial Imagery
0
550
1,100
Feet
TOWD NECK (EAST)
East Towd Point (Inlet) to Scotts Landing Rd
Prepared by:
Town of Southampton
Division of Geographic Information Systems
September 2014
Plover Nests
Amaranth
Least Tern Colony
Little Peconic Bay
1A
Davis Creek
Turtle Cove
W BEACH DR
TWIN VIEW DR
SEAWEED RD
OLD ORCHARD RD
CEDAR CREST RD

N

2014 Aerial Imagery

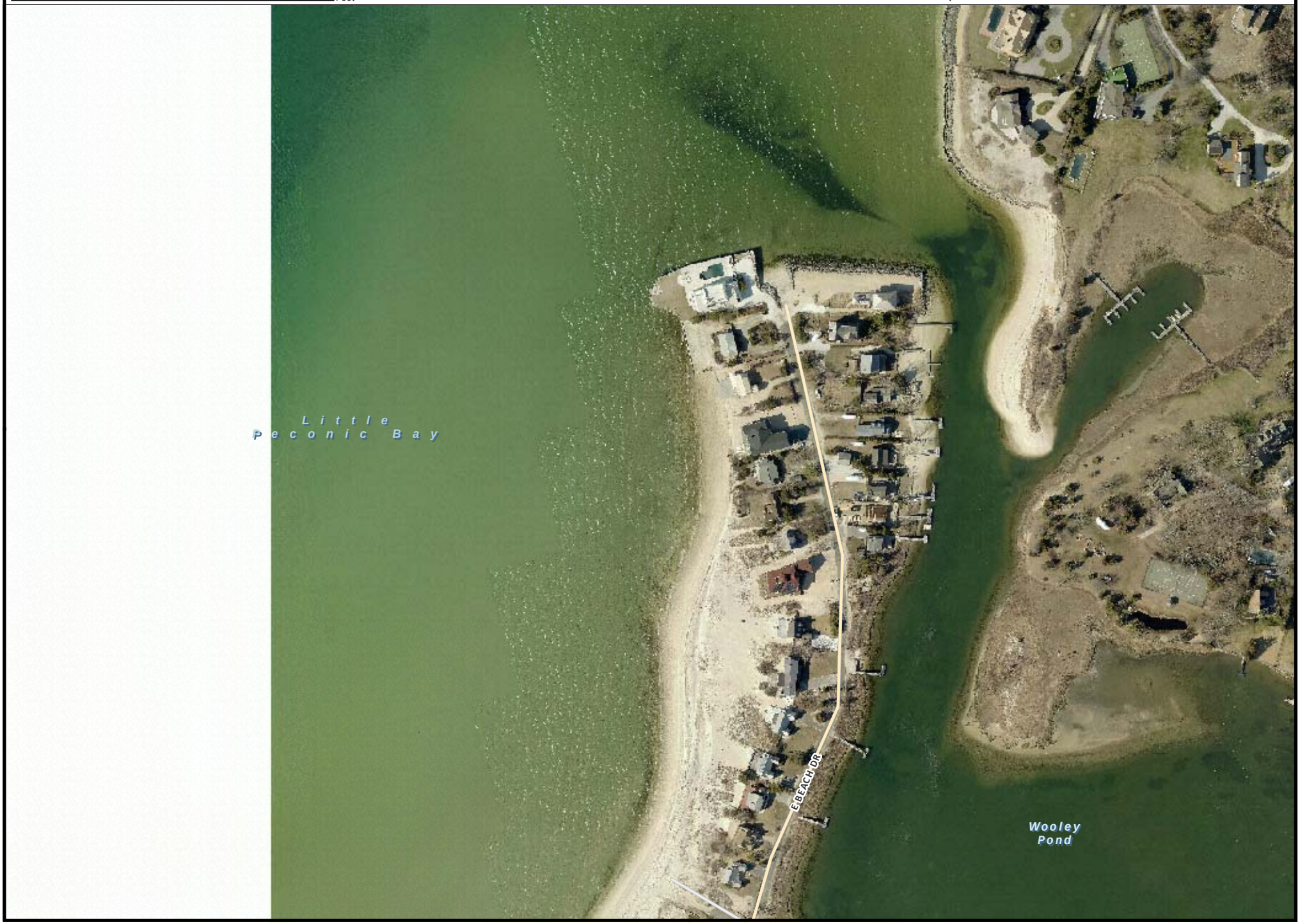
0 300 600 Feet

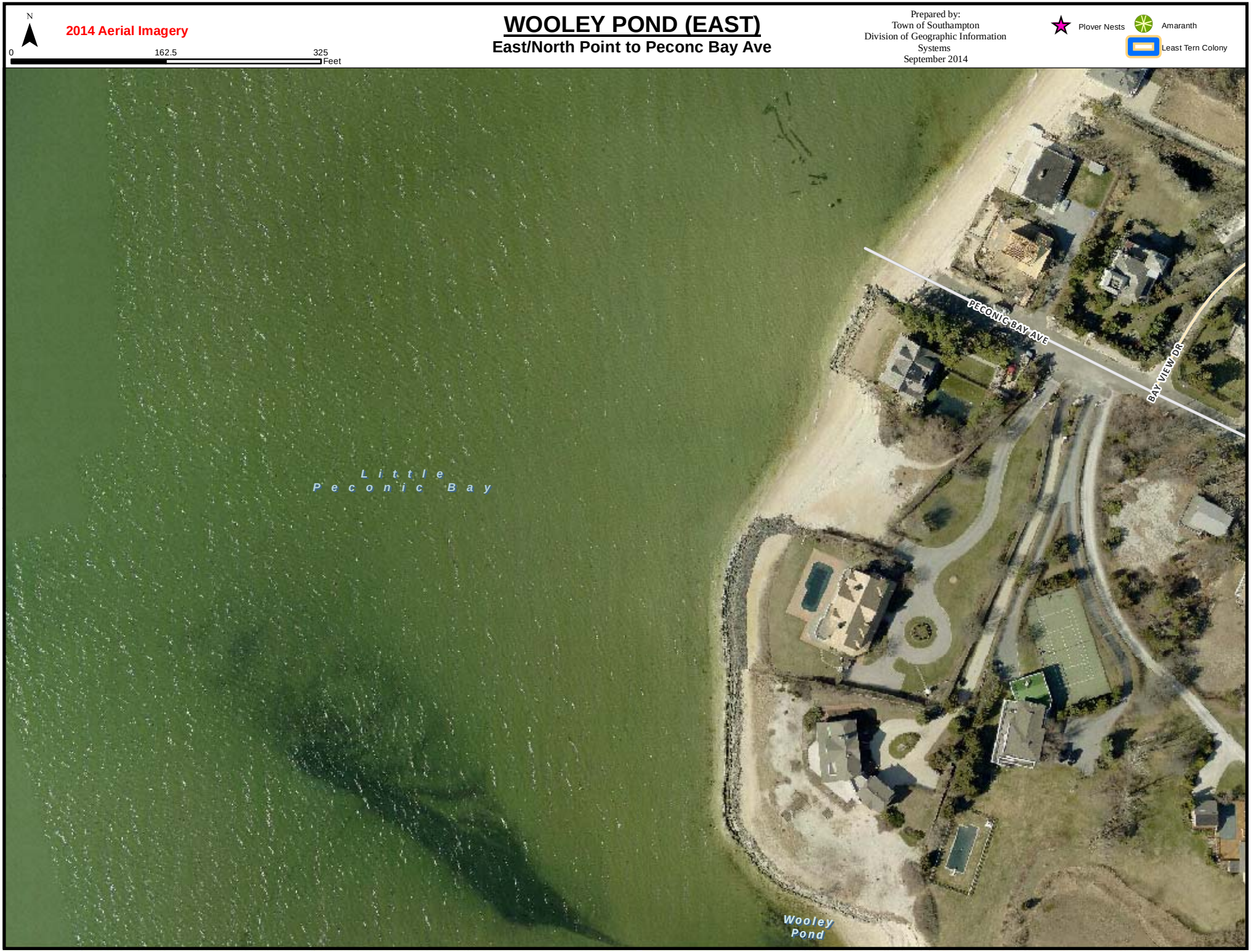
WOOLEY POND (WEST)

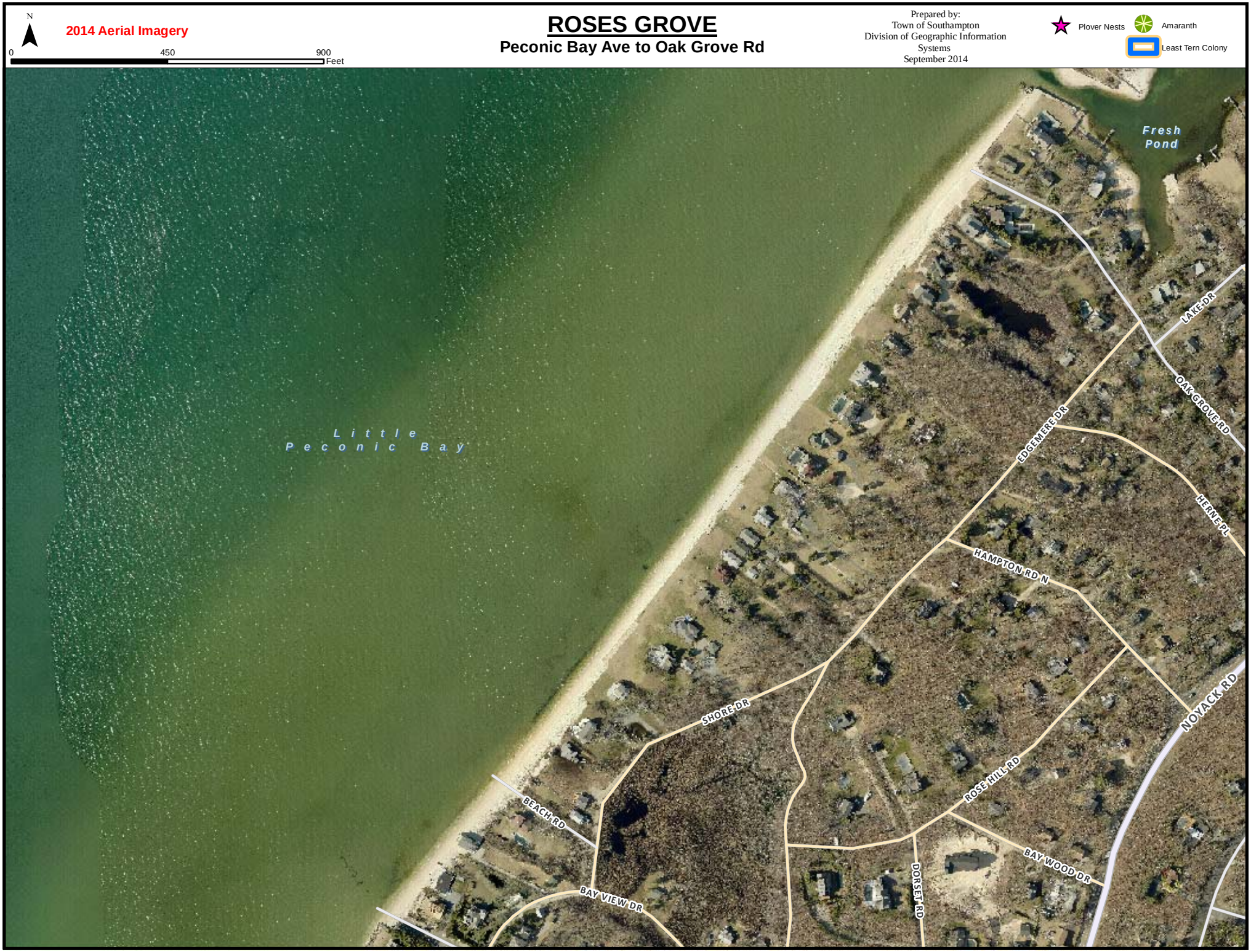
West Scotts Landing to Bulkhead

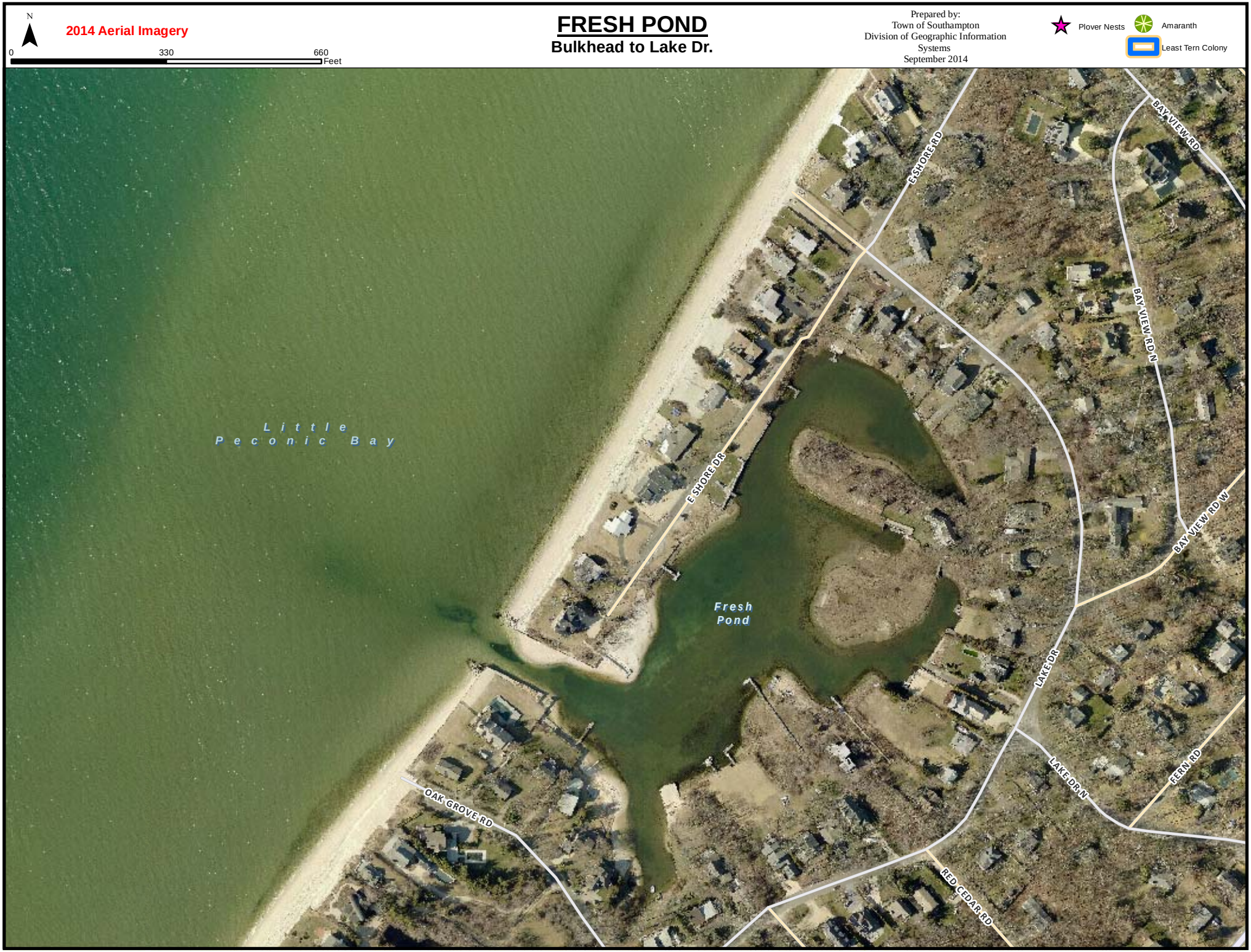
Prepared by:
Town of Southampton
Division of Geographic Information Systems
September 2014

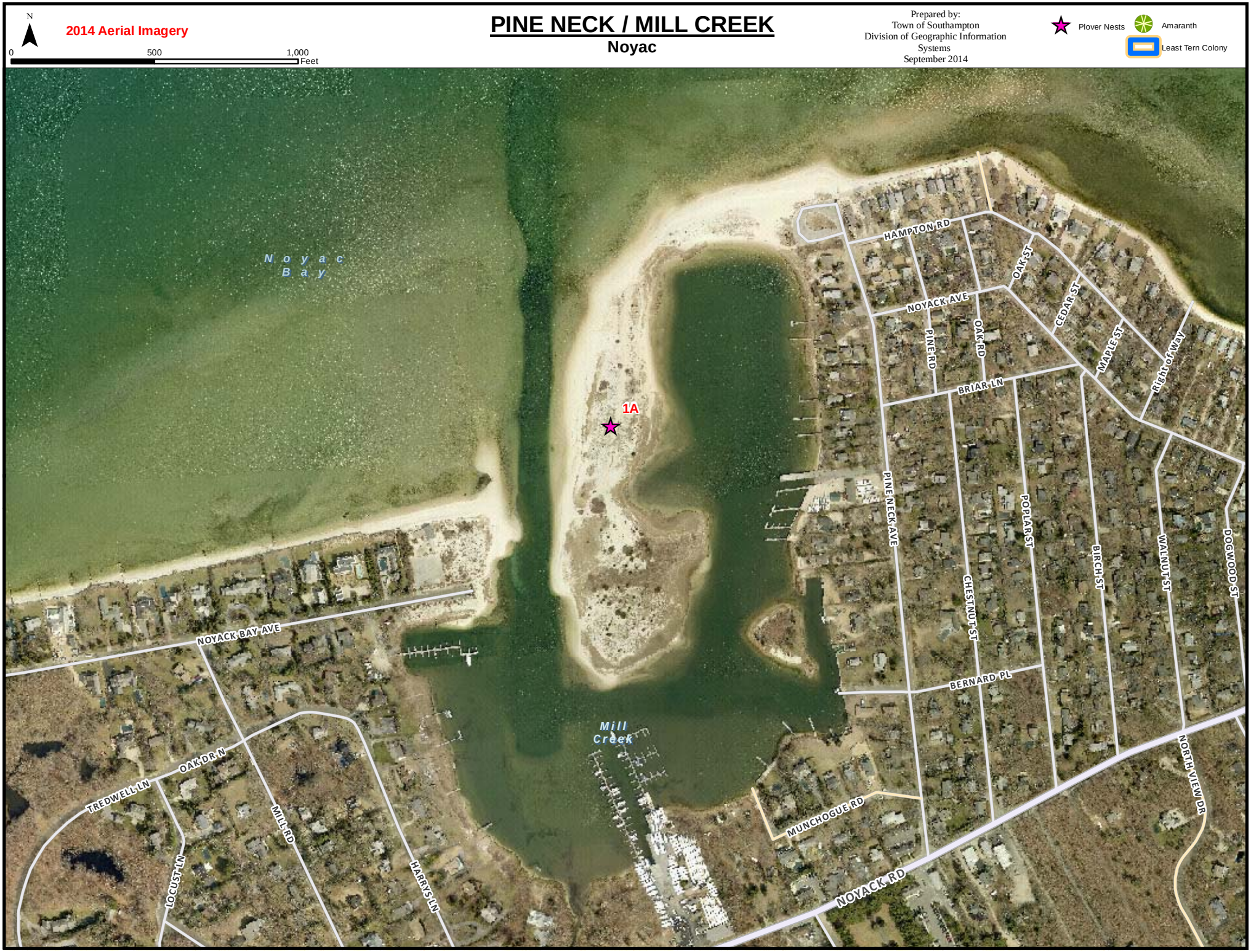
Plover Nests
Amaranth
Least Tern Colony

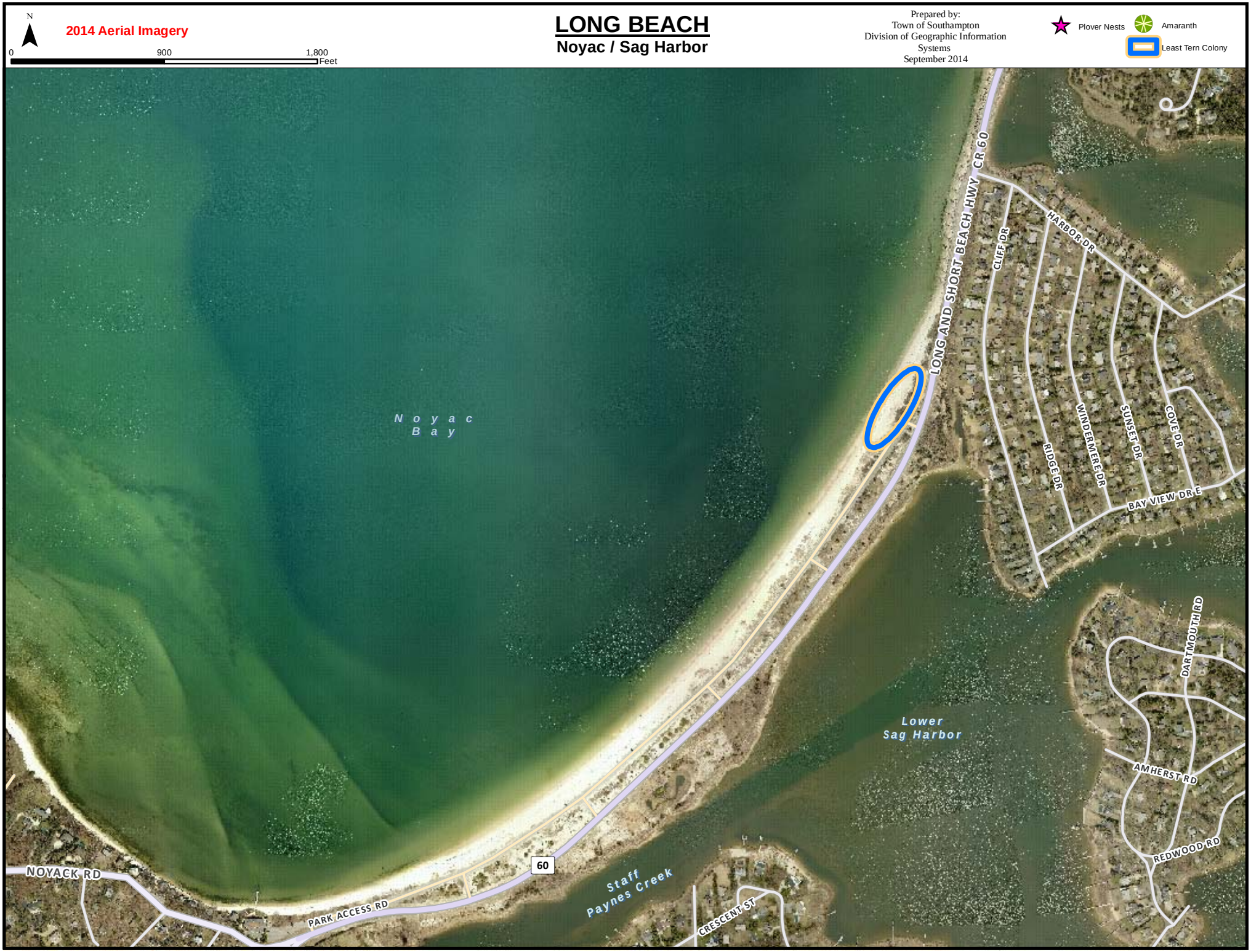


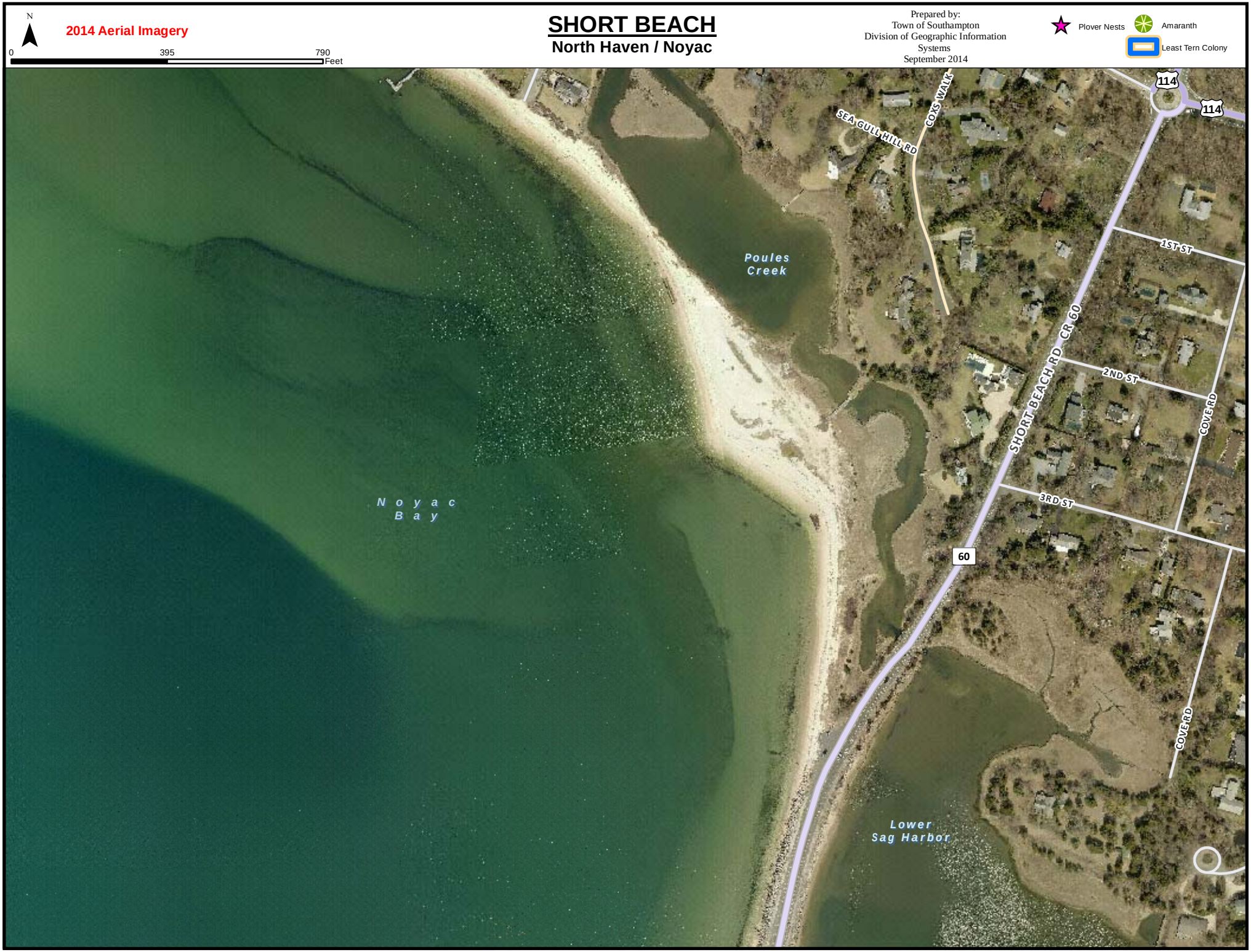

N
2014 Aerial Imagery
0
162.5
325
Feet
WOOLEY POND (EAST)
East/North Point to Peconc Bay Ave
Prepared by:
Town of Southampton
Division of Geographic Information Systems
September 2014
Plover Nests
Amaranth
Least Tern Colony
PECONIC BAY AVE
BAY VIEW DR
Little Peconic Bay
Wooley Pond


N
2014 Aerial Imagery
0
450
900
Feet
ROSES GROVE
Peconic Bay Ave to Oak Grove Rd
Prepared by:
Town of Southampton
Division of Geographic Information
Systems
September 2014
Plover Nests
Amaranth
Least Tern Colony
Fresh
Pond
Little
Peconic Bay
LAKE DR
OAK GROVE RD
EDGEMERE DR
HERNE PL
HAMPTON RD N
SHORE DR
BEACH RD
BAY VIEW DR
ROSE HILL RD
DORSET RD
BAY WOOD DR
NOYACK RD


N
2014 Aerial Imagery
0
330
660
Feet
FRESH POND
Bulkhead to Lake Dr.
Prepared by:
Town of Southampton
Division of Geographic Information Systems
September 2014
Plover Nests
Amaranth
Least Tern Colony
Little Peconic Bay
Fresh Pond
E SHORE DR
E SHORE RD
BAY VIEW RD
BAY VIEW RD N
BAY VIEW RD W
LAKE DR
LAKE DR N
FERN RD
OAK GROVE RD
RED CEDAR RD


N
2014 Aerial Imagery
0
500
1,000
Feet
PINE NECK / MILL CREEK
Noyac
Prepared by:
Town of Southampton
Division of Geographic Information Systems
September 2014
Plover Nests
Amaranth
Least Tern Colony
Noyac Bay
1A
HAMPTON RD
NOYACK AVE
OAK ST
CEDAR ST
MAPLE ST
Right of Way
PINE RD
OAK RD
BRIAR LN
PINE NECK AVE
CHESTNUT ST
POPLAR ST
BIRCH ST
WALNUT ST
DOGWOOD ST
BERNARD PL
NOYACK BAY AVE
Mill Creek
OAK DR N
TREDWELL LN
MILL RD
LOCUST LN
HARRYS LN
MUNCHOGUE RD
NOYACK RD
NORTH VIEW DR


N
2014 Aerial Imagery
0
900
1,800
Feet
LONG BEACH
Noyac / Sag Harbor
Prepared by:
Town of Southampton
Division of Geographic Information Systems
September 2014
Plover Nests
Amaranth
Least Tern Colony
Noyac Bay
LONG AND SHORT BEACH HWY CR 60
CLIFF DR
HARBOR DR
RIDGE DR
WINDERMERE DR
SUNSET DR
COVE DR
BAY VIEW DR E
DARTMOUTH RD
Lower Sag Harbor
AMHERST RD
REDWOOD RD
60
NOYACK RD
PARK ACCESS RD
Staff Paynes Creek
CRESCENT ST


N
2014 Aerial Imagery
0
395
790
Feet
SHORT BEACH
North Haven / Noyac
Prepared by:
Town of Southampton
Division of Geographic Information
Systems
September 2014
Plover Nests
Amaranth
Least Tern Colony
SEA GULL HILL RD
COXS WALK
114
114
Poules
Creek
1ST ST
SHORT BEACH RD CR 60
2ND ST
COVE RD
3RD ST
60
N o y a c
B a y
Lower
Sag Harbor
COVE RD

GENET CREEK

North Haven

2014 Aerial Imagery

N

0 462.5 925 Feet

Prepared by:
Town of Southampton
Division of Geographic Information Systems
September 2014

Plover Nests
Amaranth
Least Tern Colony

N

2014 Aerial Imagery

0 275 550 Feet

MIDDLE POND

Shinnecock Hills

Prepared by:
Town of Southampton
Division of Geographic Information Systems
September 2014

Plover Nests
Amaranth
Least Tern Colony