SOUTHAMPTON TOWN TRUSTEES THREATENED AND ENDANGERED SPECIES MANAGEMENT AND PROTECTION PROGRAM

2018 Year End Report

2018 Threatened and Endangered Species Program Staff

Program Coordinator/Editor:	James Duryea
Crew Leader/Author:	John Papajohn
Coastal Stewards:	Tim Squires
	Ashley Federici
	Rachel Speckenbach

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Executive Summary

During the 2018 piping plover breeding season areas managed and protected by the Southampton Town Trustees Threatened and Endangered Species Management and Protection Program (T&E program) encompassed a total of 9 ocean sites and 16 bay sites, covering approximately 26 miles of coastline. Within these sites 49 nesting pairs of piping plover were observed throughout the breeding season. This notes a decrease of four nesting pairs from the previous year. Although we saw a decrease in the number of nesting pairs present on our sites we were fortunate to fledge 11 more plovers than observed last year. Observed fledges totaled 79 giving an overall productivity of 1.61 fledges per pair. Piping plovers began to arrive on our shorelines in mid-March to establish nesting territories although, inclement weather coupled with some extraordinarily high tides and high predator prevalence in the late spring delayed the breeding process for many of these birds. Like-wise within the aforementioned management areas there were approximately 853 breeding pairs of least tern that were observed fledging 333 young least terns for an overall productivity of 0.39 fledges per pair. The least terns first arrived to our shorelines in the beginning of May shortly after which they established their nesting territories. The main hindrance with respect to the reproductive success of both of these species stemmed from predation. Additionally, a total of 148 seabeach amaranth plants were identified at the 8 ocean sites and a total of 2,134 seabeach knotweed plants were identified at 5 ocean sites and 5 bay sites.

Current Species Status

The species protected by this program include two avian species; the Federally threatened and New York State (NYS) endangered piping plover (*Charadrius melodus*), and the NYS threatened least tern (*Sternula antillarum)* along with two annual coastal plants: the federally and NYS threatened seabeach amaranth (*Amaranthus pumilus*) and the NYS listed rare species of special concern seabeach knotweed (*Polygonum glaucum*). Other migratory bird species are also monitored although none were observed nesting on our beaches this year.

Program Objective

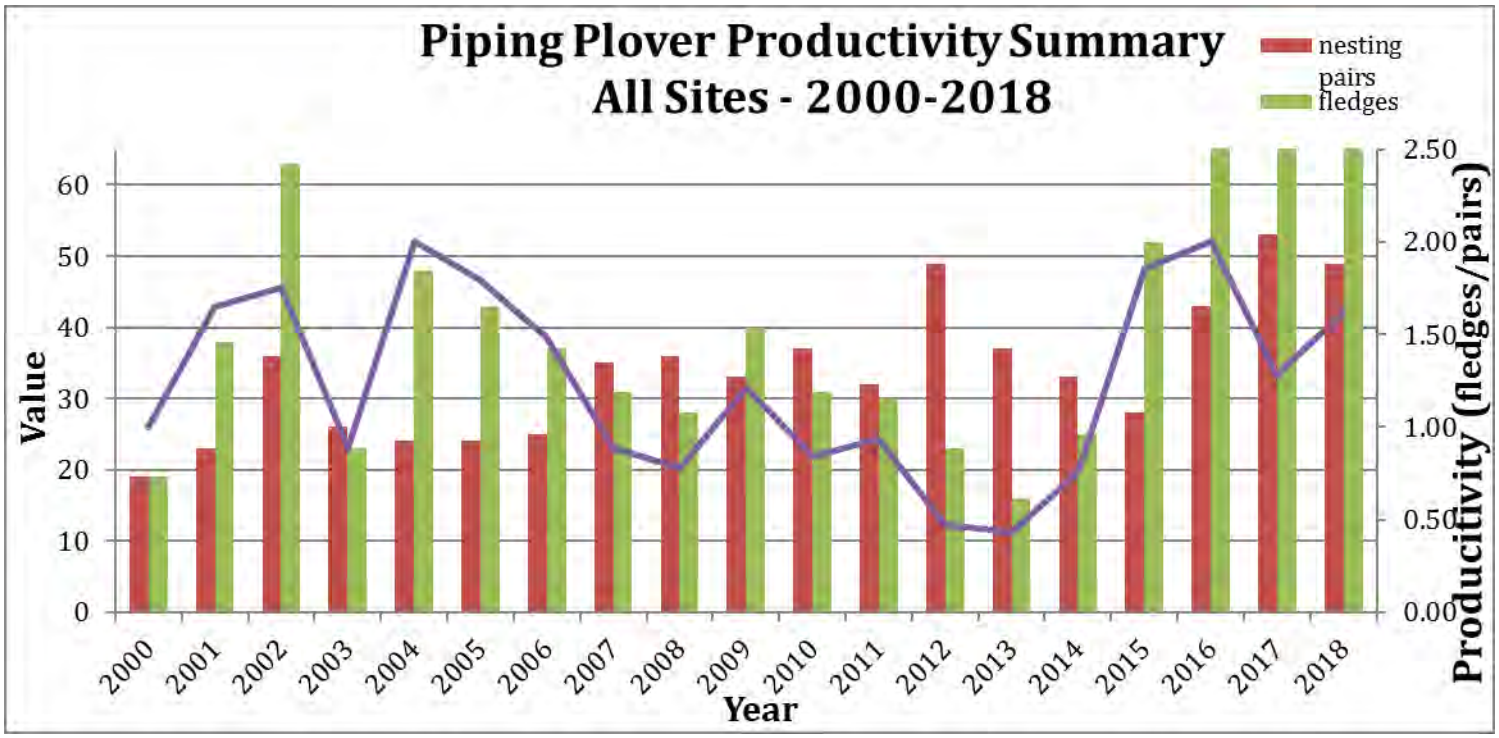
The T + E Program seeks to provide reasonable and adequate protection for the current populations of threatened and endangered flora and fauna that reside, breed and rely upon our coastal zones for their species longevity. Management efforts are directed toward increasing the annual productivity of these species by means of assessing the previous and current threats to the populations, applying the conclusions based on the assessment in the form of protective action by various methods of conservation, and through public education, so that the consequences of these threats can be effectively minimized or negated. We aim to maintain an appropriate balance between public access/recreational use of these sensitive areas provided in conjunction with the conservation and preservation efforts put forth by the program, to ensure threatened and endangered species current populations are able to have the greatest reproductive success possible.

History of the 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 15 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, and a reflection of this can be seen in abundance and productivity across the management area. (**Graph 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.



Graph 1: The historic number of pairs, fledges and productivity within sites monitored by Southampton Town Trustees T&E Program from 2000 to 2018. Abundances and productivities have fluctuated for a variety of reasons and factors over the years.

Life History, Conservation, and Recovery Efforts

Piping Plover Life History and Management

The piping plover is a small migratory shorebird that can be found on Long Island making use of our bay and ocean beaches for breeding purposes. They are identified by a light grey to sand colored back with a white underside typically seen sporting a defined black neckband and brow band, especially during the breeding season. (**Figure 1**)

Figure 1: An adult piping plover performing a "broken wing" display to distract potential predators from a nest.

Males will typically arrive first, sometime around mid-March, followed shortly thereafter by the females. These solitary nesters utilize open, sparsely vegetated sandy and moderately rocky shoreline habitats such as over-wash areas, gently sloped foredunes and sand flats to make their nests. The ideal nesting habitat is usually located in close proximity to prime foraging grounds in preparation for brood rearing. Plovers display nesting site fidelity meaning that the birds will return to the same nesting grounds year after year. In preparation for the breeding season, historic and suitable nesting habitats are fenced with "symbolic fencing", seen as posts with string, flagging and signs attached. (**Figure 2)** From their arrival through May, the courtship process begins and males will establish their nesting territories courting a female and forming a pair bond. During this process males will create multiple scrapes in the hopes the female will select one as her nest. Scrapes are shallow depressions in the sand often later decorated with seashell fragments by the female. Scrapes are difficult to see in this environment and can often be mistaken for a footprint or a depression left by a shell that has been picked up or moved. (**Figure 3**) The symbolic fencing will be rearranged to reflect the birds' behaviors during this time in order to provide them with an adequate buffer against disturbances. After copulation, the female will lay one egg every other day until a full clutch if formed, usually three to four eggs, which is considered a first nest attempt.

Figure 2: Symbolic fencing not only protects the nesting migratory shorebirds but also helps to vegetate and preserve the dune system.

Figure 3: The first scrape of the year found between Surf Club in Quogue and the Quogue Beach Club. As you can see if you weren't actively looking, a scrape could be easily overlooked and accidentally destroyed.

If a nest failure occurs, the pair will attempt to re-nest up to four times within a breeding season. Nest failure can be caused by many factors including frequent disturbance while incubating, exposure, predation, abandonment, infertility, vandalism and nest washout cause by wave or tidal inundation. It is typical to see fewer eggs in re-nesting attempts which can lead to lower reproductive success and productivity. In areas with a high predatory presence an exclosure will be installed around the nests to aid in their protection from predators **(Figure 4)**.

Figure 4: An exclosure is a 10-foot diameter wire mesh cylinder with a plastic mesh topper installed around piping plover nests at risk of predation from terrestrial and avian predators.

The parents share the responsibility of incubation, which commences with the laying of the final egg of the clutch. The incubatory period lasts for duration of approximately 25-28 days at which point the chicks hatch out **(Figure 5)**.

Figure 5: Piping plover chicks from Towd Beach hatching out!

After estimating the hatch date of a nest, snow fencing will be placed perpendicular to the dune a distance of 1000 m in either direction from the nest location restricting vehicles and dogs from the area. This is done approximately 3-5 days in advance of the estimated hatch date. Piping plover chicks are precocial and therefore begin foraging within 24 hours of hatching, scurrying between the foredune and intertidal zones for foraging. This puts them at great risk without the ability to fly. Their sole defense is their camouflage which they use by crouching still when feeling threatened by a perceived predator (vehicles included). Post hatching, the chicks take approximately 25-35 days to fledge, during which the brood will remain close for protection from elements and predators. Once a chick has aged 35 days or upon observation of the fledgling's ability to fly adequately for a minimum distance of 15m, they will be considered fledged and factored into the species' productivity. After fledging, plovers will begin to aggregate in small groups in preparation for the long migration back south as early as July and as late as October.

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).

Least Tern Life History and Management

This small migratory waterbird also utilizes the Long Island's shoreline for breeding purposes. These colonial nesters, found in groups ranging from 5 to upwards of 100 pairs, are identified by a grey back, white underside and a black capped head with a white brow band. Adult terns arrive to the nesting grounds between late April and mid-May, usually prior to the common terns and black skimmers. The least terns also nest in scrapes although their scrapes tend to be a bit shallower than a plover scrape. Selecting similar habitats to the piping plover for nesting areas, such as sand flats, gently sloped foredunes and flat expanses of beach above the high tide line, they can often be seen sharing nesting habitats, as they don't compete for food. Due to infringement on these habitats they have also been observed taking to dredge spoils. Pairs will commonly lay a full clutch of one to three eggs per nest from late-May through June and both parents share the incubatory responsibilities. Incubation will last approximately 20-23 days at which point the chicks will hatch out **(Figure 6)**.

Figure 6: A recently hatched least tern brood, consisting of 3 total chicks.

Within a few days of hatching, chicks will begin to move outside of the nest although being semi-precocial they are still dependent upon their parents for feeding and protection. Terns are loud and extremely protective of their young and nesting territories known for swooping at intruders. **(Figure 7)**

Figure 7: Least tern adult from the nesting colony near Round Dune apartments coming in for the swoop'n'poop while protecting the colony!

The chicks will commonly be seen sheltering in the shade of beach debris and foliage as well as in tire tracks and footprints. Nesting colonies are protected in a similar fashion to the piping plover, having symbolic fencing arranged around the colony followed by snow fencing a few days prior to the hatching of nests. At approximately 20 days old the chicks will fledge, and shortly thereafter, they depart for their wintering grounds, which can happen as early as August and typically no later than the end of September.

Seabeach Amaranth Life History and Management

For a great deal of years, it was presumed this annual beachfront plant had been eradicated from the coastal ecosystems of Long Island until 1990 when it was rediscovered. Even so it has lost approximately 2/3 of its historic range. This plant grows in the dynamic areas of the beach profile on accreting shorelines between the dunes edge and the high tide line, often in the same areas as nesting shorebirds. Germination of seabeach amaranth occurs between June and July here on Long Island, coming to maturation between August and September. During the maturation period, pants will continue to grow, bloom and disperse seed by wind at the same time acting as a sand- binder fortifying the beach profile. Plants can range in size from a few inches to a few feet in diameter.

Figure 8: Seabeach amaranth plant

Seabeach amaranth plants are protected by small symbolically fenced and signed areas directly encompassing the pant to prevent ORV and pedestrian traffic from damaging the plant prior to end of its growth and seed dispersal. In order to be considered for delisting, seabeach amaranth should be found within a minimum of 6 states that fall within its historic range in conjunction with seabeach amaranth plants occupying a minimum of 75% of this suitable habitat found within each site for a minimum of 10 years. According to the most recent 5-year review of seabeach amaranth it was suggested that no changes be made to the plants listing even though the plant is found within 6 of the states within its historical range given that the data does not encompass the 10-year requirement. (USFWS 2007)

Seabeach Knotweed Life History and Management

The annual beachfront plant, seabeach knotweed is found on bay and ocean shorelines of Southampton Town between the foredune, shoreline and bordering salt marshes. It is typically found in areas that are sparsely vegetated and have a relatively flat topography. Knotweed typically flowers from May to October and fruits from June to November dispersing seed via wind, wave action and birds. In NYS, 43 existing populations are currently recognized, which are relatively stable although due to the dynamic environment these plants grow in there are fluctuations in population numbers from year to year. In order to accurately determine the quantity and quality populations are derived from 5-year averages for species evaluation. (NYHP 2010)

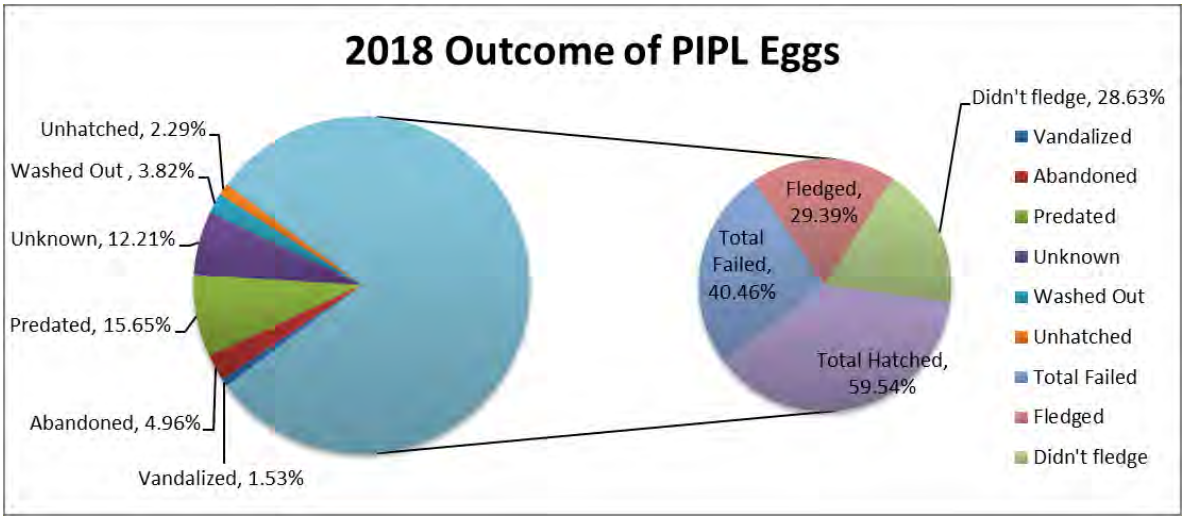
Figure 9: Seabeach knotweed photo courtesy of NY Natural Heritage Program

Threats to Species

Piping Plover and Least Tern

Within Southampton Town, shorebird reproductive success faces numerous challenges and threats. Generally speaking, success is impaired by nest abandonment (often due to predator pressures), direct predation, washout events, un-hatched eggs (due to low egg viability or overexposure), or loss of chicks at a young age. Simply put, the pressure these species face in finding suitable habitat are not to be understated and are also inflicted by coastal development, recreational activities and storms leading to the loss of physical nesting and foraging habitat. Additionally, excessive recreational use, primarily off road vehicle use and beach events can lead to the disruption of nesting and foraging broods ability to succeed. In congruence with anthropogenic impacts on their nesting areas opportunistic predators are attracted by garbage and food left on the beach or at the access point garbage cans, 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 their breeding and wintering grounds.

Over the course of the 2018 breeding season 262 eggs were laid in 71 nests by the 49 pairs of piping plover that nested within our management sites. Of those 262 eggs 59.54% hatched with just less than 1/2 of those hatchlings making it to fledge. The loss of the chicks was often by predation pressures and resulted in a loss of about 28.63% of chicks that didn't fledge. It is assumed they were either predated or died from exposure due to the low rate of corpse discovery. Additionally, a total of 40.46% of all eggs laid did not hatch for a variety of reasons. The primary cause of nest failure and chick loss this season was predation taking its toll on 15.65% of the eggs laid. Nests that were abandoned (4.96%) can be attributed to predatory pressures as well as frequent disturbances by beach recreation in close proximity to nest sites by pedestrians and homeowners having little regard for symbolic fencing. For example, intentionally unleashing a dog into a fenced nesting area in hopes to deter the birds from nesting. A total of 3.82% of eggs were washed out as a product of either tidal inundation or flooding due to high wave action, most of which took place in the early season due to inclement weather and lunar tides. 2.29% of eggs were unviable and did not hatch most likely due to either infertility or exposure. Although in one instance a homeowner took it upon himself to move the fencing to reclaim his beach and by doing so resulted in take of one piping plover nest resulting in the loss of four eggs never to be seen again. For the remaining 12.21% of eggs laid the cause of failure was unknown having no signs of any of the other factors.



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.

Site Activity Summaries

Within our sites a total of 49 nesting pairs of piping plover fledged 79 young piping plover resulting in a total productivity of 1.61 fledges per pair. Additionally, 427 least tern pairs were observed nesting and fledging 333 young least terns having a resultant productivity of .78 fledges per pair. For completed site reviews and data sets see the following tables in the appendix. Overall it was as successful of a season as could be achieved. Through the season unfortunately a few heinous acts by a few of our citizens here had negative impacts on the breeding birds success but, these instances gave the staff a chance to provide valuable information educating the instigator on the breeding biology, chronology, behaviors, and importance of the work being done to achieve the recovery goals. It should be stated that the general sentiment of the community during the breeding season reflected positivity and support on the whole and some great outreach was able to take place through a partnership with the South Fork Nature Museum.

Ocean Sites

Westhampton Island

Westhampton Island encompasses approximately 5.5 miles of beach extending from Roger's Beach pavilion to just west of the Round Dune housing complex. This site is broken down into two subsites: Hampton and Tiana. Dogs off the leash, vandalism of fencing and ORV drivers ignoring/removing fencing were all concerns for the entirety of the site along with predatory presence of rats, crows and cats.

Plover Activity: 13 pair, 17 fledge, 1.31 productivity
Tern Activity: 17 pair, 15 fledge, 0.88 productivity
Seabeach amaranth: 26 plants

Hampton Beach

The most western site and western extend of WHI extends from Roger's Beach pavilion to just west of the Round Dune housing complex. Hampton contained 6 breeding pair of plover who made 9 nesting attempts over the course of the season. Six of these nests were successful fledging 11 plover. This area has had chronic issues from predator pressures coupled with pedestrian/recreation pressures from homeowners and the public alike. Two of the nests here were predated and one was lost due to unknown causes although likewise was presumed to have been due to some form of predatory influence; primarily based on the noted presence of feral cats and the many crows throughout the site. There were also four least tern colonies within this site, east of Rogers pavilion with approximately 34 total breeding adults who fledged 15 young. The colony found just east of Quantuck Beach Club originally contained many more birds although the predatory pressures from the cats forced many to abandon the nesting site early on in the season. 26 total amaranth plants were found within Hampton 80% of which were found within areas already symbolically fenced for nesting birds. Some concerns for the site over the season was the disregard by homeowners of the symbolically fenced areas often ignoring arranged walkways and simply passing through fenced areas (in one instance having a party within) or worse tearing down fencing, as well as having bonfires in close proximity to these fenced areas. In one instance it was noted that a homeowner had been shooting pellets at the nesting tern colony in order to deter them from nesting.

Plover Activity: 6 pair, 11 fledges, 1.83 productivity
Tern Activity: 17 pair, 15 fledges, .88 productivity
Seabeach Amaranth: 26 plants

Tiana

This site encompasses Round Dune housing complex east to the Tiana Beach pavilion. There were a total of 7 pairs who called Tiana home and they fledged 6 plovers with a productivity of .86. There were a total of ten nesting attempts by these birds only three of which were successful. One of the unsuccessful nests, located just inside of a rehabilitated over wash area was exclosed but, unfortunately was abandoned due to predatory influence. There were also three least tern colonies in the Tiana area consisting of 42 nesting adults who fledged 25 young constituting a 1.19 productivity. A total of 2 seabeach knotweed plants and 4 seabeach amaranth plants were observed here.

Plover Activity: 7 pair, 6 fledge, 0.86 productivity
Tern Activity: 21 pair, 25 fledges, 1.19 productivity
Seabeach amaranth: 4 plants
Seabeach knotweed: 2 plants

Southampton Beach (Village)

Located within the village of Southampton this site extends from the east boundary of the Shinnecock County Park out to South Main Street. There are 3 sub-sites that Southampton Beach is divided into, listed below. Persistent and excessive beach raking by both private and municipal entities within this site were a perpetual problem and threat all season long, along with dogs off the leash and ORV drivers taking down and driving around fenced areas where nesting and brood rearing was occurring.

Plover activity: 7 pair, 13 fledge, 1.86 productivity
Tern Activity: 7 pair, 6 fledge, .86 productivity
Seabeach Amaranth: 5 plants
Seabeach knotweed: 9 plants

Shinnecock County Park to Rd. D

This site was predominately inactive most likely due to the heavy beach activity with 24-hour beach driving in the picnic area. There was one pair that nested here although after laying a two-egg clutch shortly thereafter the nest was either predated or crushed. The pair remained in the area for one-week post predation. They did not re-nest here and eventually relocated further east, but were unsuccessful in breeding.

Plover activity: 1 pair, 0 fledge, 0 productivity
Seabeach knotweed: 3 plants

Rd. D to Halsey Neck Lane

Three nesting pairs were observed between Rd. D and Halsey Neck Lane fledging seven (6) plovers for a total productivity of 2.33 fledge per pair. There were a total of six nesting attempts one of which was abandoned due to predatory pressures from fox and two, which were lost to indeterminate causes. Other threats to the pairs included ORV drivers disregard for fencing as well as off leash dogs especially near Rd. D and Halsey Neck Lane access points.

Plover Activity: 3 pair, 7 fledge, 2.33 productivity
Seabeach Amaranth: 1 plant
Seabeach Knotweed: 2 plants

Halsey Neck Lane to S. Main St.

This sub-site held three nesting pairs who made three nesting attempts, all three of which successfully hatched. All of these nests were located in the area between the bulkhead east of Cooper's Beach and Cryder Lane for the third year in a row. There was also one nesting attempt from the pair originally located to the west of Rd D, which was unsuccessful. The predatory pressures east of Coopers seemed negligent this year so nests were not exclosed and the pairs successfully fledged a total of 6 PIPL. There was also a substantial least tern colony in this same area consisting of 14 nesting adults and fledging 6 fledges. Coopers Beach and a private club within this site were persistent in raking the beachfronts at least once a week, with the private club raking almost every day despite requests and warnings to cease raking without a monitor's presence as the broods were found frequently in close

proximity to both bathing areas. Other threats consisted of ORV disregard for fencing as well as off leash dogs near the access points of Halsey Neck, Coopers Beach, Cryder Lane, and S. Main St.

Plover Activity: 3 pair, 6 fledge, 2.0 productivity
Tern Activity: 7 pair, 6 fledge, 0.86 productivity
Seabeach Amaranth: 4 plants
Seabeach Knotweed: 4 plants

Gin Lane Beach

This site stretches from S. Main St. to Old Towne Rd. and was inactive. The majority of the properties between South Main Street and Old Town Lane have hard structures such as bulkheads although the beach is quite wide and seems suitable for nesting shorebirds.

Seabeach Amaranth: 4 plants
Seabeach Knotweed: 2 plants

Old Town Beach

This site stretches from Old Town Rd. to Fowlers St. and was successful this year. Two PIPL were fledged from one pair at the west end of the site. Along with the PIPL just to the east a small colony of least tern consisting of 10 nesting adults were able to fledge 8 young. Also present at the site was one seabeach amaranth and one seabeach knotweed plant.

Plover Activity: 1 pair, 2 fledge, 2.00 productivity
Tern Activity: 5 pair, 8 fledges, 1.60 productivity
Seabeach Amaranth: 1 plants
Seabeach knotweed: 1 plants

Watermill Beach

The western extent of this site falls just to the west of Fowlers St. and stretches out to Jobs Lane. 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. This can be a wonderful area that has proven to be a bird mecca but unfortunately also holds a very delicate timeline. The risk this poses is as follows; in years where “the cut” has been opened prior to nesting birds arrival exposes the mudflats providing prime foraging and nesting habitat, but the issue follows once they have arrived and are established because in years such as 2018 when post nesting establishment there are periods of abundant precipitation the water level of the Bay rises and covers over the previously exposed habitat. Water levels are managed by manually opening and closing “the cut” with heavy machinery so that water can drain and flush with the ocean tides, but this poses significant disturbance factors for established nesting birds. It’s a catch twenty-two and proved such this year when many LETE and PIPL nests were lost due to water inundation on the mudflats. Like most other

sites that have a high frequency of beach recreation threats present here include ORV drivers ignoring fenced areas, bonfires in close proximity to fencing, boat landings, off leash dogs, and predators are prevalent. It must be noted that ORV drivers are unreasonably adverse in this area and persistently remove closure and drive through nesting territories.

Plover Activity: 13 pair, 26 fledge, 2.00 productivity
Tern Activity: 100 pair, 87 fledge, 0.87 productivity
Seabeach Amaranth: 22 plants
Seabeach knotweed: 17 plants

Fowlers

This site stretches from just west of Fowlers St. to the Flying Point pavilion. There were four nesting pairs who made five nesting attempts during the course of the season. They were responsible for fledging 6 young this year having a productivity of 1.50 fledges per pair. There was no least tern activity here this year and only 1 seabeach amaranth and one seabeach knotweed observed.

Plover Activity: 4 pair, 6 fledge, 1.50 productivity
Seabeach Amaranth: 1 plant
Seabeach Knotweed: 1 plant

Flying Point

This site stretches from Flying Point pavilion to the end of Flying Point Rd. and was found to be inactive most of the site save for foraging birds occasionally observed along the shoreline. Most of the site is bordered by hard structures and has limited suitable habitat due to excessive erosion from the winter storms. There is also a large number of off leash dogs in the area at any given point in time.

Scott Cameron

Site extends from the end of Dune rd. to Jobs Lane. Although there was still heavy predator activity in the area the multitude of least terns was extensive enough to prove adequate protection to the nesting plovers found within the colonies territories. Out of 12 nesting attempts by the 9 nesting pairs of PIPL, 20 chicks were able to reach fledge having an overall productivity of 2.22 fledges per pair. There were three extensive least tern colonies consisting of approximately 199 breeding individuals who fledged 87 young for a productivity of .44 fledges per pair. Also of note 17 seabeach amaranth plants were observed between the west shoreline of Mecox Bay and the end of Flying Point Rd. An additional 4 seabeach amaranth were observed east between Scott Cameron and Mecox Beach bathing areas. Around "the cut" areas on the east and west sides, 12 seabeach knotweed were also observed along with an additional 4 plants between Scott Cameron and Mecox Beach.

Plover Activity: 9 pair, 20 fledge, 2.22 productivity
Tern Activity: 100 pair, 87 fledge, .87 productivity
Seabeach amaranth: 21 plants
Seabeach knotweed: 16 plants

Sam's Creek

Extending from Jobs Lane to Ocean Rd. this site housed one breeding pair of piping plover who were able to fledge 1 of their young out of two nesting attempts for a productivity of 1.0 fledges per pair. There were also 22 individuals of least tern who fledged 12 young for a productivity of .55 fledges per pair. ORV drivers taking down fencing and driving through the fenced areas was a threat all season long as well as homeowners rearranging fencing to suit their convenient access to the ocean and allowing pets and children to run through fenced areas cause the abandonment of many least terns from the site. Off leash dogs are a huge issue especially near the Ocean Rd. access.

Plover Activity: 1 pair, 1 fledge, 1.0 productivity
Tern Activity: 11 pair, 12 fledge, 1.09 productivity

Sagaponack Pond

This site stretches from Ocean Rd. out to Gibson Lane and is broken down into a west and east sub-site. Sagaponack Pond lies in the middle section of the overall site and provides a tremendous amount of foraging and nesting grounds for both the plovers and least terns. Sagaponack Pond acts as the site divider. Unfortunately, due to high predator prevalence, especially around Sagg Pond, many nesting attempts were unsuccessful. Similarly to the Mecox "cut" area Sagg pong also deals with the same conundrum and this many least tern and one plover nest was lost to water inundation. There were a total of 4 pairs of plover who fledged 7 fledges for a productivity of 1.75 fledges per pair. There were also three least tern colonies totaling 234 individuals who fledged 81 young for a total productivity of 0.35 fledges per pair. 85 seabeach amaranth plants were identified site-wide. Like most other sites that have a high frequency of beach recreation threats present here include ORV drivers ignoring fenced areas, bonfires in close proximity to fencing, boat landings, off leash dogs, and predators are prevalent. All site activity took place between Ocean Rd. and Sagg Main.

Plover Activity: 4 pair, 7 fledge, 1.75 productivity
Tern Activity: 117 pairs, 81 fledge, 0.69 productivity
Seabeach Amaranth: 85 plants
Seabeach knotweed: 3 plants

Fairfield Pond Lane Beach

Located between Gibson Lane and Townline Rd. this site contained 5 nesting pairs of piping plover. Due too significant erosion many of the plovers had difficulty maintaining their nests and were often predated. There also is a very large feral cat colony in the eastern extent of the site maintained on a private property at the southern end of Townline Rd. The pairs successfully fledged 7 of their young for a total productivity of 1.40 fledges per pair. There were three small least tern colonies consisting of a total 48 nesting individuals who made nesting attempts directly in the middle of Peter's Pond Lane and Gibson Lane as well as on the east side of Peter's Pond Ln. The least terns successfully fledged a total of 25 birds within this site. High tides and storm surges due to changes in beach profile made

nesting difficult for all birds here. Other threats to the site included significant numbers of off leash dogs and ORV drivers regularly taking down snow fencing and driving through restricted areas.

Plover Activity: 5 pair, 7 fledge, 1.40 productivity
Tern Activity: 24 pair, 25 fledge, 1.04 productivity
Seabeach amaranth: 1 plant

Bay Sites

Red Cedar Point

There were three pairs of piping plover who made four nesting attempts at Cedar Point, although one pair was unsuccessful, a total of four PIPL were fledged providing a productivity of 1.33 fledges per pair. There was also a sizeable least tern colony of 140 nesting birds who fledged 32 least terns for a productivity of 0.23 fledges per pair. Early in the season a pair of American oystercatcher were seen hanging around acting suspicious but eventually they pushed off. In past years predation was a serious problem inhibiting nesting birds reproductive success. This year predation was not as big of an issue although we came to learn that one of the homeowners right near the access has out door cats. Both piping plover nests were exclosed due to the presence of crows irritating the nesting birds. Tidal fluctuations and boat landings are also common disturbances to the site.

Plover Activity: 3 pair, 4 fledge, 1.33 productivity
Tern Activity: 70 pair, 32 fledge, .46 productivity
Seabeach knotweed: 20 plants

Red Creek Pond

There was a small least tern colony of 22 adults who managed to fledge 9 young.

Tern Activity: 11 pair, 9 fledge, 0.82 productivity

Squires Pond

This site was inactive for both birds and plants probably due to high frequency of intensive beach recreation and ORV usage as well as off leash dogs.

Meschutt Beach East

Bordered to the west by the county park, the majority of the site is backed by hard structures leaving extremely limited amount of critical habitat for any breeding birds. The site was inactive for both plants and birds.

Canoe Place

The site was inactive for both plants and birds.

Fish Cover/N. Sea Harbor

The site was inactive for both plants and birds.

Towd Neck

Towd Neck West

This site has limited suitable habitat and has frequent ORV use and bonfires. This sub-site was inactive for birds and plants,

Towd Neck East

This sub-site has a high frequency of recreational use especially near the Towd Point Rd. access point. Threats to the site involved ORV drivers as well as off leash dogs whom also pose a significant threat to nesting birds at this location. There was one pair of nesting piping plover who were able to fledge 2 young for a productivity of 2.0 fledges per pair. There were also 40 nesting least tern adults who fledged 15 young for a productivity of 0.38 fledges per pair. There were a great deal more least tern in the early nesting season but many abandoned site due to predatory pressures. A total of 1,784 seabeach knotweed plants were also estimated to be at this site.

Plover Activity: 1 pair, 2 fledge, 2.0 productivity
Tern Activity: 20 pair, 15 fledge, 0.75 productivity
Seabeach Knotweed: 1,784 plants

Wooley Pond

The site was inactive for both plants and birds.

Roses Grove

The site was inactive for both plants and birds.

Fresh Pond

The site was inactive for both plants and birds.

Pine Neck

The site contained 28 seabeach knotweed plants.

Seabeach knotweed: 28 plants

Long Beach

At the north end of Long Beach one least tern colony consisting of 22 individuals fledged 12 of their young.

Tern Activity: 11 pairs, 12 fledge, 1.09 productivity

Short Beach

Four seabeach knotweed plants were observed at this site.

Seabeach Knotweed: 4 plants

Genet Creek

The site was inactive for both plants and birds.

Middle Pond

This site has significant predator issues and housed one unsuccessful pair of piping plover along with a small least tern colony whose numbers dwindled as the season progressed.

Plover Activity: 1 pair, 0 fledge, 0.00 productivity
Tern Activity: 13 pair, 6 fledge, 0.46 productivity

Acknowledgements

The staff of the Southampton Town Trustee's Threatened and Endangered Species program would like to give a huge thanks to everyone who supported our program and made the 2018 season a possibility and a success. Thank-you Board of Trustees; President Edward Warner, Secretary/Treasurer Scott Horowitz, Bruce Stafford, William Pell, and Ann Welker for all of your continued support; Lisa Dunlap, James Duryea, Brandy Campbell, Jessica Goleski, Rachel Longobardi, the Southampton Town Bay Constables, Trustees Marine Maintenance division, Joe Jannsen of the Nature Conservancy, Steve Sinkevich and Terra Dunlop of the USFWS, Kevin Jennings and Michelle Gibbons of the NYSDEC, James Gromely of the Town GIS Department, and the public that had patience, understanding and respect towards the work that we perform. I also want to throw a huge thank-you to the young birders club, Eleni Nikolopolous, and Frank Quevedo of the South Fork Nature Museum for working with us in bringing the beauty of the nesting season to the youth of our township! None of this work would have been possible without all of your hard work and dedication, Thank-you!

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.

Appendix I: Summary Tables

2018 Piping Plover Abundance and Productivity

Site Name / Location	No. Nesting Pair	No. Nests	No. Eggs	No. Chicks	Hatch Rate (Chicks/Eggs)	No. Fledges	Fledge Rate (Fledges/Chicks)	Productivity (Fledges/Pair)	No. Times Site Visited
Atlantic Ocean Nesting Sites									
1) Westhampton Island	13	19	71	35	0.49	17	0.49	1.31	24
a) Hampton	6	9	32	19	0.59	11	0.58	1.83	
b) Tiana	7	10	39	16	0.41	6	0.38	0.86	
2) Southampton Beach	7	11	38	24	0.63	13	0.54	1.86	24
a) County Park East to Rd. D	1	1	2	0	0.00	0	0.00	0.00	
b) Rd. D to Halsey Neck Ln.	3	6	22	12	0.55	7	0.58	2.33	
c) Halsey Neck Ln. to S. Main St.	3	4	14	12	0.86	6	0.50	2.00	
3) Gin Lane Beach	0	0	0	0	0.00	0	0.00	0.00	17
4) Old Town Beach	1	1	4	4	1.00	2	0.50	2.00	23
5) Watermill Beach	13	17	64	46	0.72	26	0.57	2.00	27
a) Fowlers Beach	4	5	20	16	0.80	6	0.38	1.50	
b) Flying Point Beach	0	0	0	0	0.00	0	0.00	0.00	
c) Scott Cameron Beach	9	12	44	30	0.68	20	0.67	2.22	
6) Sam's Creek	1	2	8	4	0.50	1	0.25	1.00	23
7) Sagaponack Lake	4	8	28	12	0.43	7	0.58	1.75	25
8) Fairfield Pond Ln. Beach	5	6	23	15	0.65	7	0.47	1.40	20
Total for Ocean Nest Sites	**44**	**64**	**236**	**140**	**0.59**	**73**	**0.52**	**1.66**	
Peconic Bay Nesting Sites									
9) Red Cedar Point	3	4	14	12	0.86	4	0.33	1.33	23
10) Red Creek Pond	0	0	0	0	0.00	0	0.00	0.00	19
11) Squires Pond	0	0	0	0	0.00	0	0.00	0.00	10
12) Meschutt Beach E.	0	0	0	0	0.00	0	0.00	0.00	9
13) Canoe Place	0	0	0	0	0.00	0	0.00	0.00	10
14) Fish Cove/N. Sea Harbor	0	0	0	0	0.00	0	0.00	0.00	9
15) Towd Neck	1	2	8	4	0.50	2	0.50	2.00	18
16) Wooley Pond	0	0	0	0	0.00	0	0.00	0.00	12
17) Roses Grove	0	0	0	0	0.00	0	0.00	0.00	6
18) Fresh Pond	0	0	0	0	0.00	0	0.00	0.00	7
19) Pine Neck/Mill Creek	0	0	0	0	0.00	0	0.00	0.00	10
20) Long Beach	0	0	0	0	0.00	0	0.00	0.00	12
21) Short Beach	0	0	0	0	0.00	0	0.00	0.00	8
22) Genet Creek	0	0	0	0	0.00	0	0.00	0.00	8
Shinnecock Bay Nesting Sites									
23) Middle Pond	1	1	4	0	0.00	0	0.00	0.00	15
Total for Bay Nesting Sites	5	7	26	16	0.62	6	0.38	1.20	
Total for All Nesting Sites	49	71	262	156	0.60	79	0.51	1.61	

Site Name / Location	No. Nesting Pairs	No. Fledges	Productivity (Fledges/Pair)	No. Times Site Visited
Atlantic Ocean Nesting Sites				
1) Westhampton Island (Hampton)	17	15	0.88	26
2) Westhampton Island (Tiana)	21	25	1.19	25
3) Southampton Beach	7	6	0.86	24
4) Gin Lane Beach	0	0	0.00	17
5) Old Town Beach	5	8	1.60	23
6) Watermill Beach	100	87	0.87	27
7) Sam's Creek	11	12	1.09	23
8) Sagaponack Lake	117	81	0.69	25
9) Fairfield Pond Ln. Beach	24	25	1.04	20
Total for Ocean Nest Sites	302	259	0.86	-
Peconic Bay Nesting Sites				
10) Red Cedar Point	70	32	0.46	23
11) Red Creek Pond	11	9	0.82	19
12) Squires Pond	0	0	0.00	10
13) Meschutt Beach E.	0	0	0.00	9
14) Canoe Place	0	0	0.00	10
15) Fish Cove/N. Sea Harbor	0	0	0.00	9
16) Towd Neck	20	15	0.75	18
17) Wooley Pond	0	0	0.00	12
18) Roses Grove	0	0	0.00	6
19) Fresh Pond	0	0	0.00	7
20) Pine Neck/Mill Creek	0	0	0.00	10
21) Long Beach	11	12	1.09	12
22) Short Beach	0	0	0.00	8
23) Genet Creek	0	0	0.00	8
Shinnecock Bay Nesting Sites				
24) Middle Pond	13	6	0.46	15
Total for Bay Nesting Sites	125	74	0.59	-
Total for All Nesting Sites	427	333	0.78	-

2018 Outcome of PIPL Eggs

Site Name/Location	Number of eggs	Vandalized	Abandoned	Predated	Unknown	Washed Out	Unhatched	Total Failed	Fledged	Didn't fledge	Total Hatched
Ocean Sites											
Westhampton Island - Hampton	32			6	4		3	13	11	8	19
Westhampton Island - Tiana	39	4	4	15				23	6	10	16
Southampton Beach	38		4	2	8			14	13	11	24
Old Town Beach	4							0			4
Watermill Beach	64				12	3	3	18	26	20	46
Sam's Creek	8			4				4	1	3	4
Sagaponack Lake Beach	28		5	4	4	3		16	7	5	12
Fairfield Pond Lane Beach	23				4	4		8	7	8	15
Bay Sites											
Red Cedar Point	14			2				2	4	8	12
Towd Neck	8			4				4	2	2	4
Middle Pond	4			4				4			
Total for Ocean Nesting Sites	236	4	13	31	32	10	6	96	71	65	140
Total for Bay Nesting Sites	26	0	0	10	0	0	0	10	6	10	16
Totals for All Sites	262	4	13	41	32	10	6	106	77	75	156
Percent of all egg outcome		1.53%	4.96%	15.65%	12.21%	3.82%	2.29%	40.46%	29.39%	28.63%	59.54%

Appendix II: Site Maps


N
Prepared by:
Town of Southampton Division of Geographic
Information Systems December 2018
0
2,550
5,100
Feet
HAMPTON BEACH
Village of Quogue
2013
2014
2015
2016
2017
2018 Plover Nests
Amaranth
Least Tern Colony
Least Tern Colonies and Seabeach Amarath Locations show by this map are approximate. For actual locations please contact the Town of Southampton Trustees
SOUTH COUNTY
CARWIN LN
EAST LN
QUANTUK BAY LN
OLD MAIN RD
SCRUB OAK RD
OLD DEPOT RD
FOSTER RD
DEER PATH
TALL PINES DR
104
BAY RD
SECOND NECK LN
TURTLE LN
80
JESSUP AVE
ANTHONY LN
ACORN PATH
PEN CRAIG
LAMB AVE
CLUB LN
SHINNECOCK RD
Penniman Creek
Shinnecock Bay West
MAIN ST
FOSTER LN
QUOGUE ST
Quantuck Creek
DOLPHIN LN
PRIVATE RD
DUNE RD
ASSUPS NECK LN
QUAQUANANTUCK LN
OCEAN AVE
DELAFIELD ST
QUANTUCK LN
QUOGO NECK LN
JESSUP LN
BEACH LN
NIAMOGUE LN
POST LN
LEAWARD LN
BAY VIEW DR
Quantuck Bay
Hampton - 4A
Hampton - 5A
Hampton - 6A
Hampton - 1B
Hampton - 2B
Hampton - 3A
BEACH LN
Atlantic Ocean
2018 Aerial Imagery


N
Prepared by:
Town of Southampton Division of Geographic
Information Systems December 2018
0
1,300
2,600
Feet
TIANA BEACH
Hampton Bays
2013
2014
2015
2016
2017
2018 Plover Nests
Amaranth
Least Tern Colony
Least Tern Colonies and Seabeach Amaranth Locations show by this map are approximate. For actual locations please contact the Town of Southampton Trustees.
Shinnecock Bay West
Atlantic Ocean
DUNE RD
MERMAID LN
TRITON LN
PRIVATE RD
PRIVATE RD
DOLPHIN LN
Tiana - 7A
Tiana - 5A
Tiana - 4A
2018 Aerial Imagery

CANOE PLACE BEACH

Hampton Bays

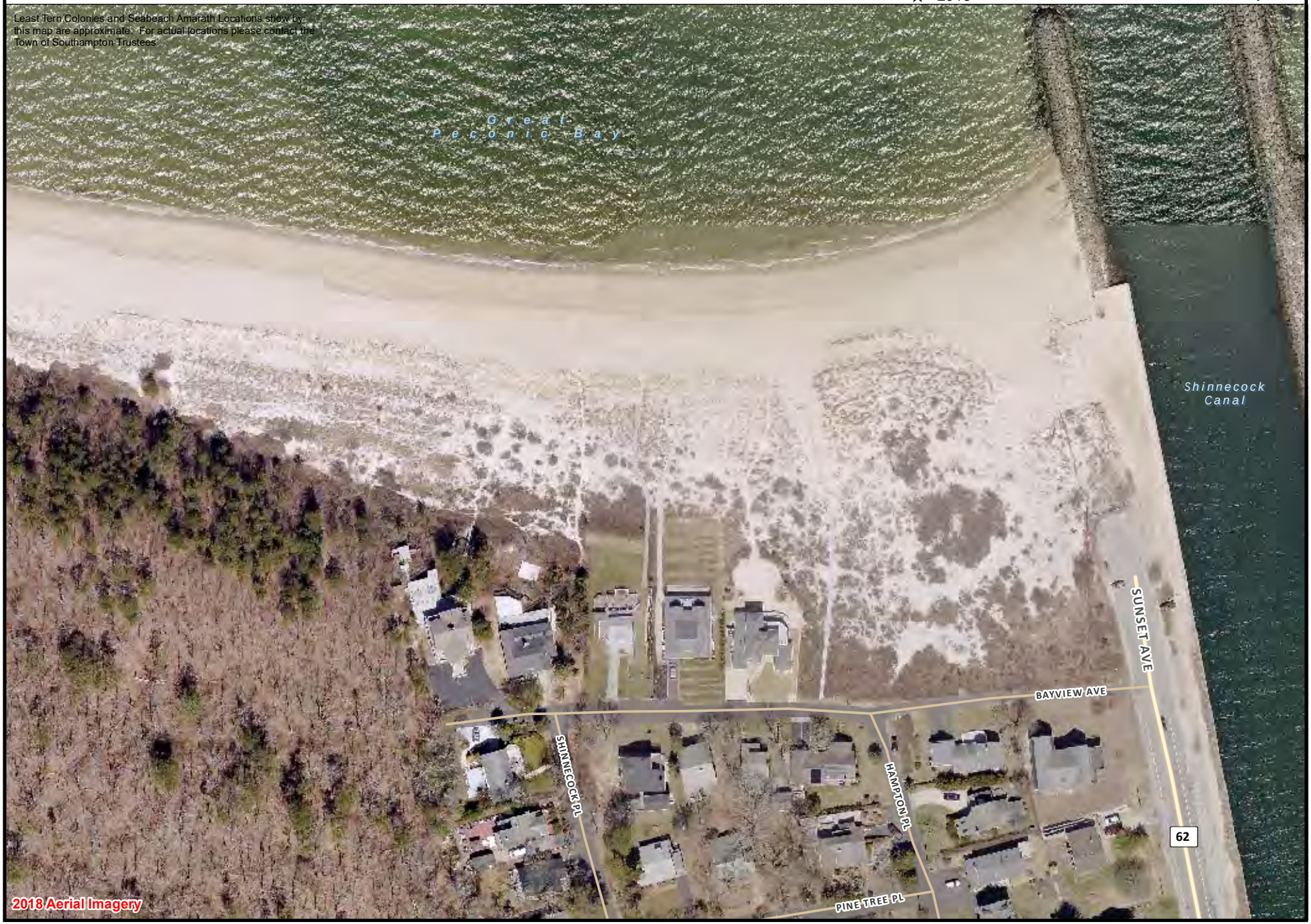
N

Prepared by:
Town of Southampton Division of Geographic Information Systems December 2018

0 165 330 Feet

2013
2014
2015
2016
2017
2018 Plover Nests
Amaranth
Least Tern Colony

Least Tern Colonies and Seabeach Amarath Locations show by this map are approximate. For actual locations please contact the Town of Southampton Trustees

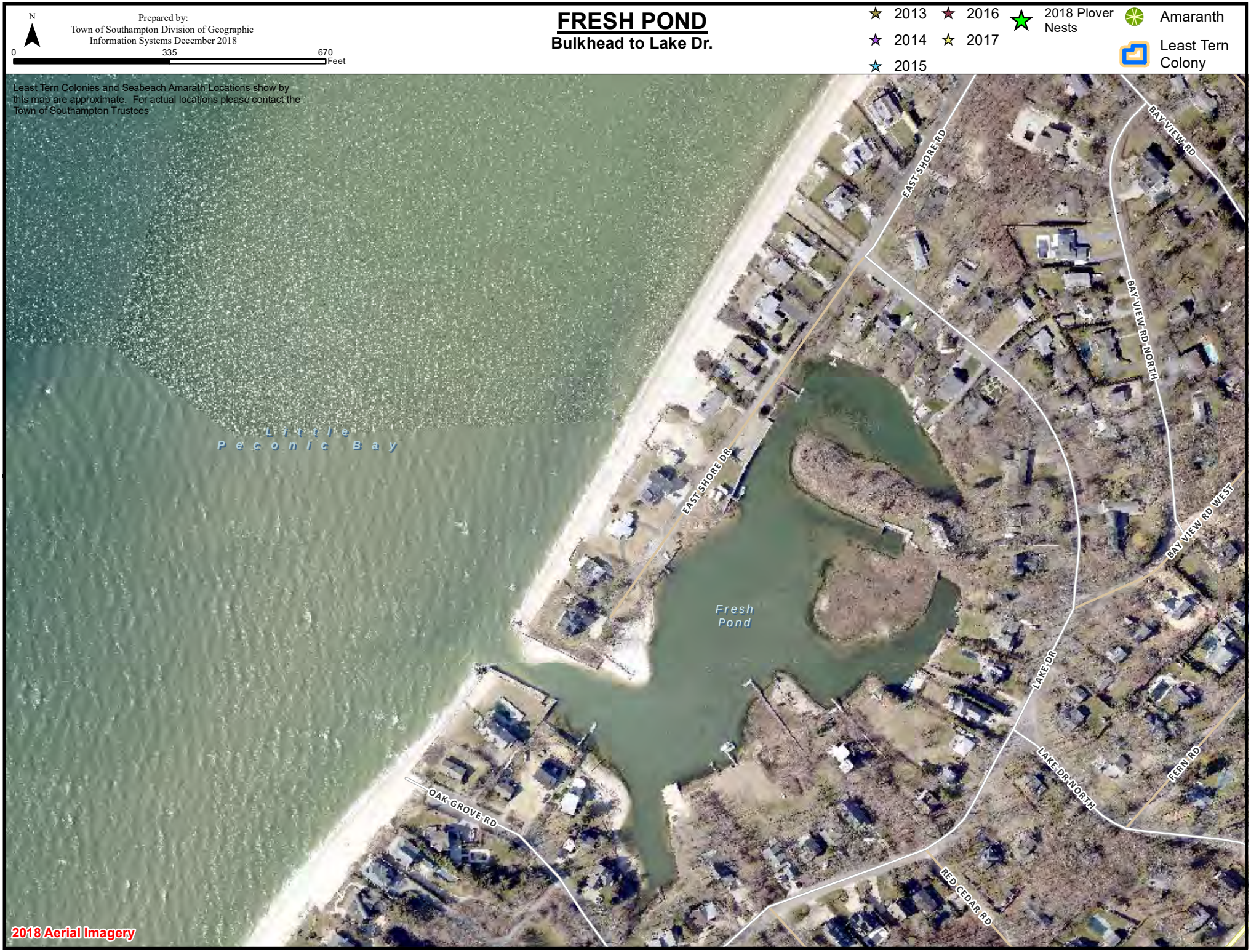


2018 Aerial Imagery


Prepared by:
Town of Southampton Division of Geographic
Information Systems December 2018
0
650
1,300
Feet
FAIRFIELD POND LANE BEACH (EAST)
Peter's Pond Ln to Town line Rd
2013
2014
2015
2016
2017
2018 Plover Nests
Amaranth
Least Tern Colony
Least Tern Colonies and Seabeach Amarath Locations show by this map are approximate. For actual locations please contact the Town of Southampton Trustees
DANIELS LN
ERICAS LN
ERICAS LN
TOWN LINE RD
PETERS POND LN
PRIVATE RD
POTATO RD
POTATO LN
Peters Pond
Fairfield - 4A
Atlantic Ocean
2018 Aerial Imagery

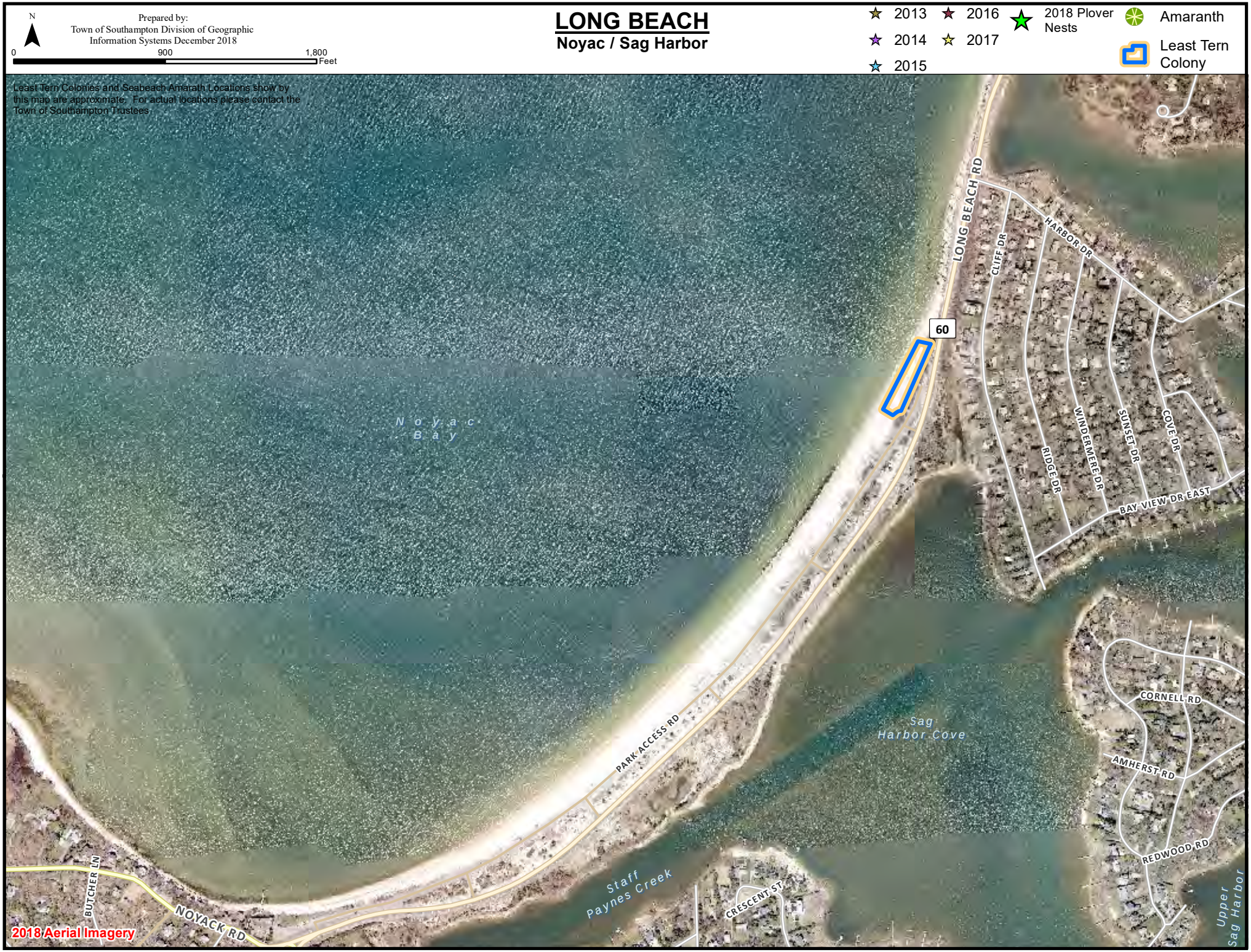

Prepared by:
Town of Southampton Division of Geographic Information Systems December 2018
0
500
1,000
Feet
FAIRFIELD POND LANE BEACH (WEST)
Gibson Ln to Peter's Pond
2013
2014
2015
2016
2017
2018 Plover Nests
Amaranth
Least Tern Colony
Least Tern Colonies and Seabeach Amaranth Locations show by this map are approximate. For actual locations please contact the Town of Southampton Trustees.
CHANTELL LN
CRESTVIEW LN
GIBSON LN
FAIRFIELD POND LN
PETERS POND LN
Fairfield Pond
Peters Pond
Fairfield - 2A
Fairfield - 3A
Fairfield - 5A
Atlantic Ocean
2018 Aerial Imagery

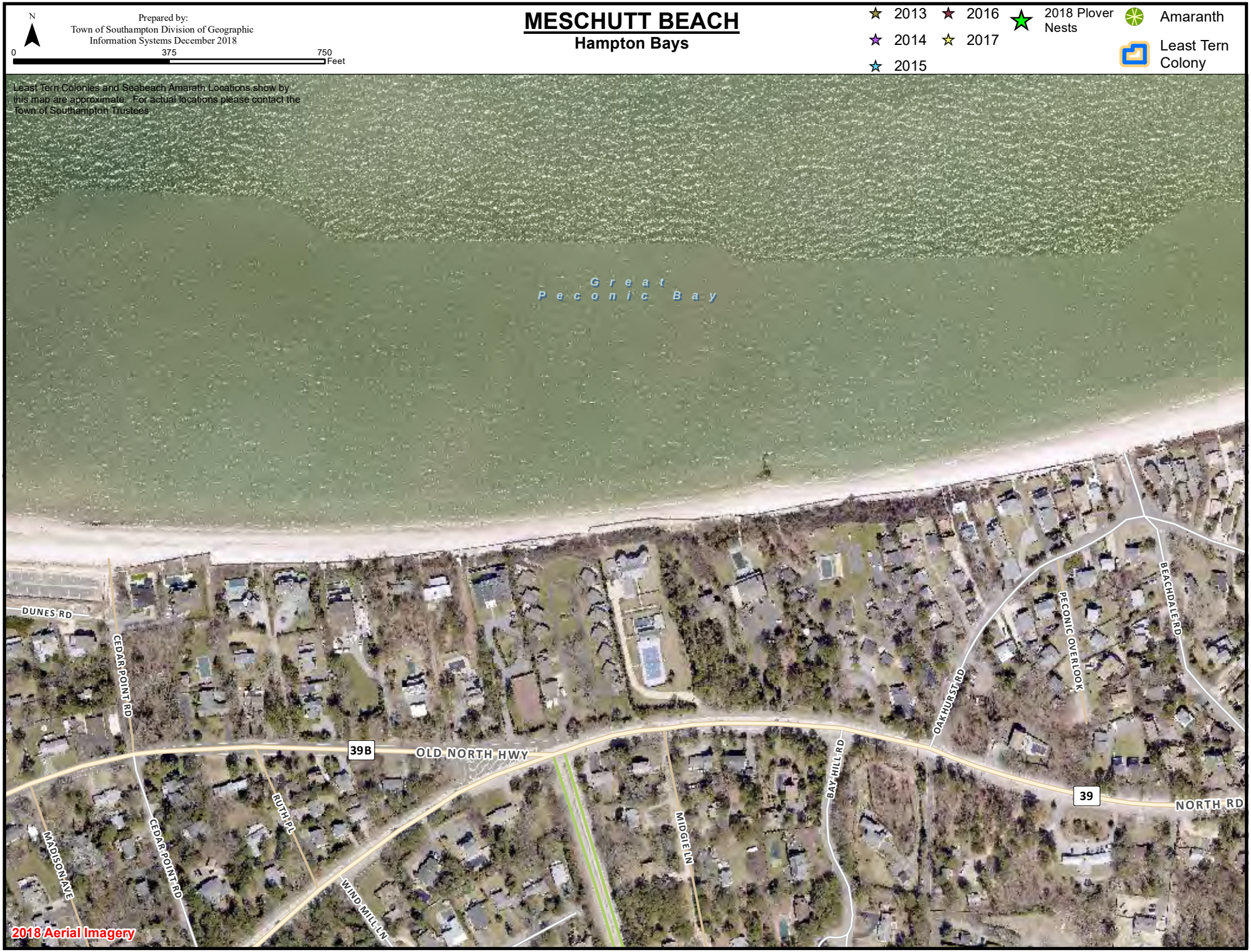

N
Prepared by:
Town of Southampton Division of Geographic
Information Systems December 2018
0
1,150
2,300
Feet
FISH COVE / NORTH SEA HABOR
North Sea
2013
2014
2015
2016
2017
2018 Plover Nests
Amaranth
Least Tern Colony
Least Tern Colonies and Seabeach Amarath Locations show by this map are approximate. For actual locations please contact the Town of Southampton Trustees
WEST ST
BAY ST
SOUTH ST
Davis Creek
INDIAN RD
TOWD POINT RD
THIRD RD
CEDARBERRY LN
PRIVATE ROW
HIDDEN COVE CT
CEDAR CREST RD
SEAWEED RD
OLD ORCHARD RD
OAK PL
OLD SAG HARBOR RD
ASHWOOD CT
MAJORS PATH
COVE RD NORTH
COVE RD
COVE RD SOUTH
WATERS EDGE RD
KNOLL RD
ROBINS LN
WOODS LN
North Sea Harbor
Fish Cove
NORTH SEA RD
OLD SCALLOP POND RD
OLD SCALLOP POINT RD
OLDFIELD RD
MARIES LN
GREAT HILL RD
FISH COVE RD
OLD FISH COVE RD
SPINAKER WAY
COVE NECK LN
LOCUST AVE
BAY AVE
OAK AVE
ROSE AVE
PECONIC AVE
CEDAR AVE
NOYACK RD
SHORE RD
LINCOLN AVE
STRAIGHT PATH
SCOTT RD
JENNINGS RD
HARRIS LN
2018 Aerial Imagery


N
Prepared by:
Town of Southampton Division of Geographic
Information Systems December 2018
0
335
670
Feet
FRESH POND
Bulkhead to Lake Dr.
2013
2014
2015
2016
2017
2018 Plover Nests
Amaranth
Least Tern Colony
Least Tern Colonies and Seabeach Amarath Locations show by this map are approximate. For actual locations please contact the Town of Southampton Trustees
Little Peconic Bay
Fresh Pond
EAST SHORE RD
EAST SHORE DR
BAY VIEW RD
BAY VIEW RD NORTH
BAY VIEW RD WEST
LAKE DR
LAKE DR NORTH
FERN RD
OAK GROVE RD
RED CEDAR RD
2018 Aerial Imagery

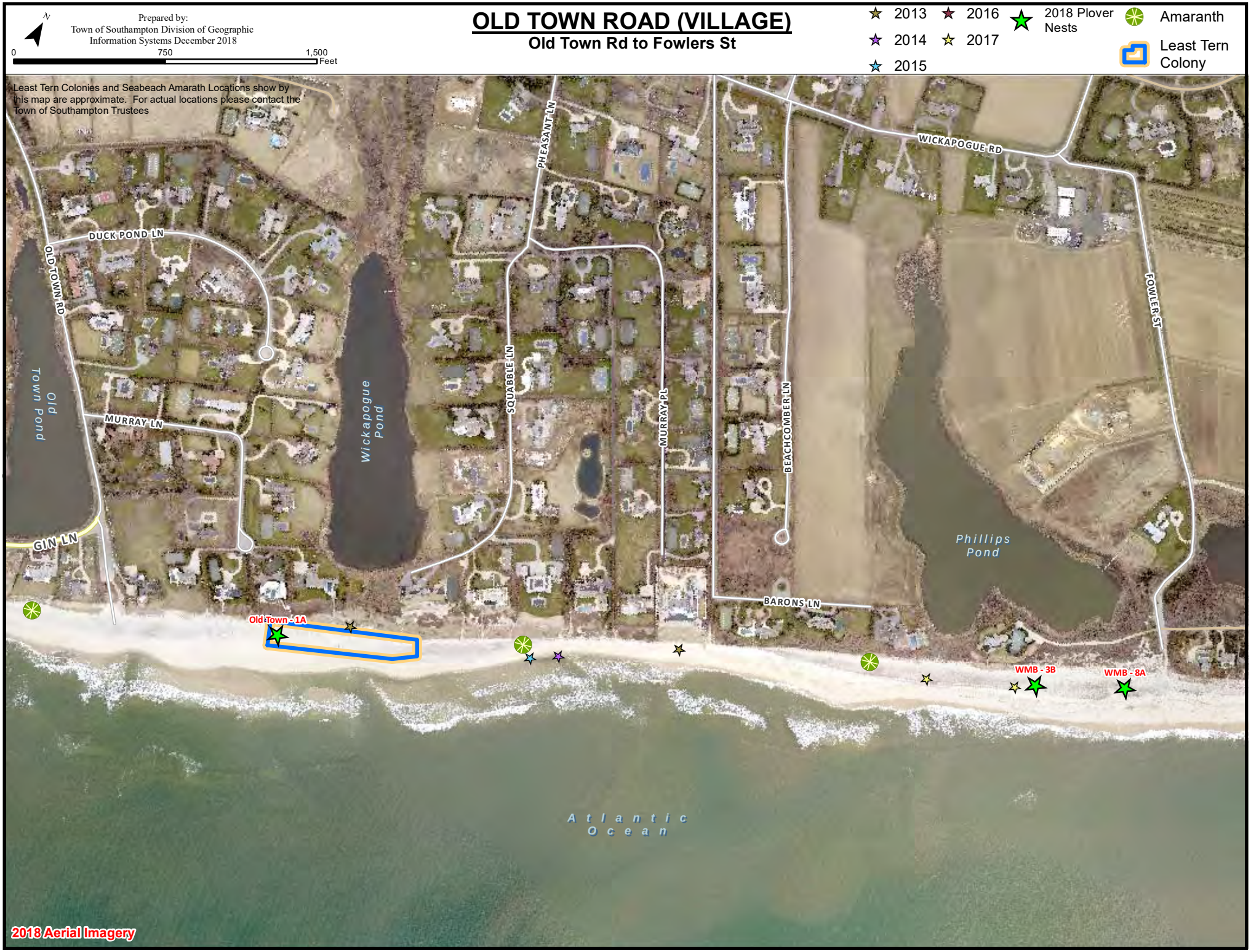

N
Prepared by:
Town of Southampton Division of Geographic Information Systems December 2018
0
462.5
925
Feet
GENET CREEK
North Haven
2013
2014
2015
2016
2017
2018 Plover Nests
Amaranth
Least Tern Colony
Least Tern Colonies and Seabeach Amarath Locations show by this map are approximate. For actual locations please contact the Town of Southampton Trustees
Shelter Island Sound
Genets Creek
NORTH DR
WEST DR
SOUTH DR
EAST DR
STOCK FARM LN
EZEKILLS HOLLOW
SEAPONACK DR
NORTH HAVEN WAY
2018 Aerial Imagery


Prepared by:
Town of Southampton Division of Geographic Information Systems December 2018
0
875
1,750
Feet
GIN LANE BEACH (VILLAGE)
South Main St to Old Town Rd
2013
2014
2015
2016
2017
2018 Plover Nests
Amaranth
Least Tern Colony
Least Tern Colonies and Seabeach Amarath Locations show by this map are approximate. For actual locations please contact the Town of Southampton Trustees.
TOYLSOME LN
TOYLSOME PL
OLDE TOWNE LN
S MAIN ST
HUNTTING ST
PIERPONT ST
FOSTER CROSSING
CHRISTOPHER ST
DUCK POND LN
OLD TOWN RD
Agawam Lake
LITTLE PLAINS RD
PRIVATE RD
WYANDANCH LN
MURRAY LN
Old Town Pond
FAIR LEA RD
PRIVATE RD
GIN LN
Atlantic Ocean
2018 Aerial Imagery

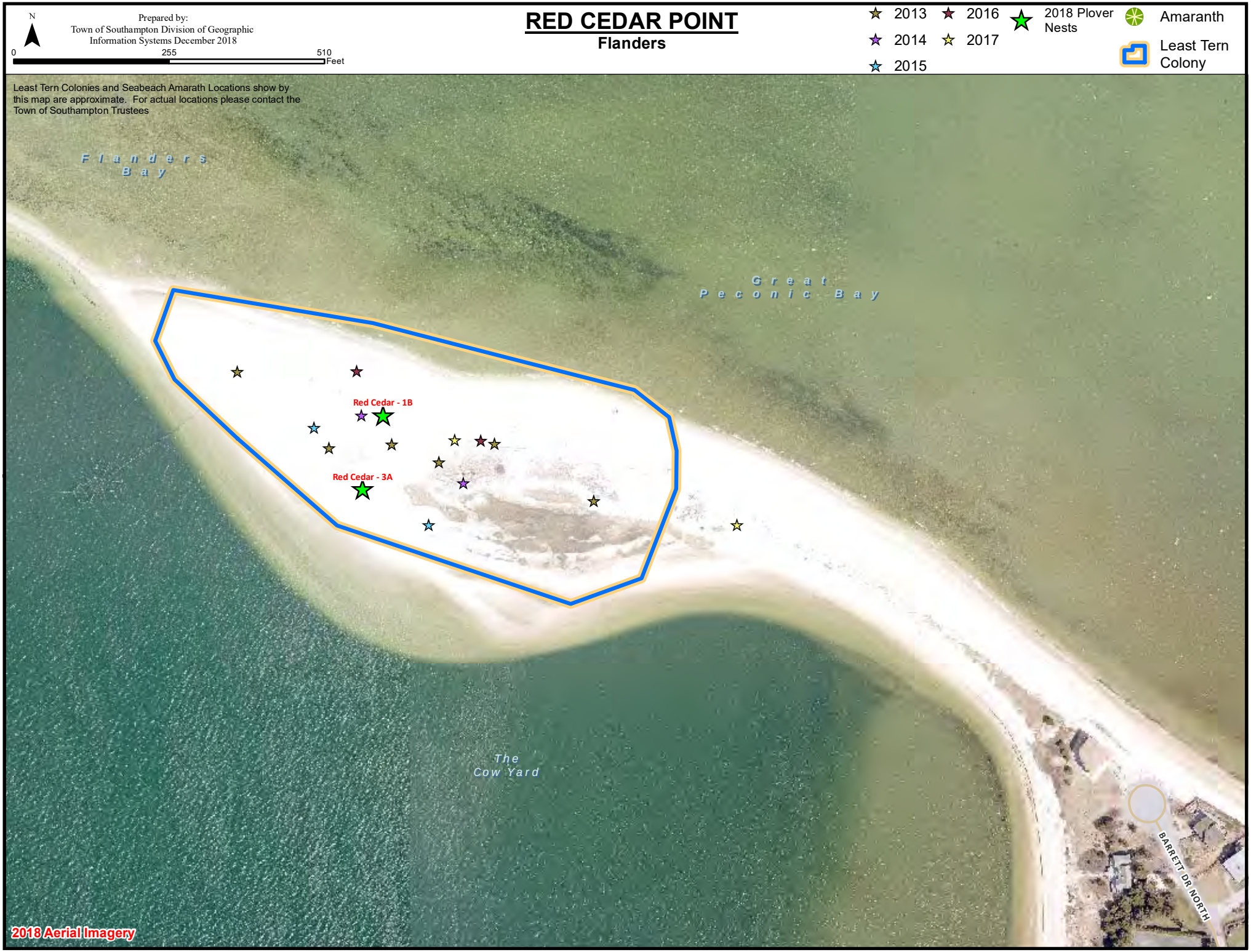

N
Prepared by:
Town of Southampton Division of Geographic
Information Systems December 2018
0
900
1,800
Feet
LONG BEACH
Noyac / Sag Harbor
2013
2014
2015
2016
2017
2018 Plover Nests
Amaranth
Least Tern Colony
Least Tern Colonies and Seabeach Amarath Locations show by this map are approximate. For actual locations please contact the Town of Southampton Trustees
LONG BEACH RD
CLIFF DR
HARBOR DR
60
RIDGE DR
WINDERMERE DR
SUNSET DR
COVE DR
BAY VIEW DR EAST
Noyac Bay
PARK ACCESS RD
Sag Harbor Cove
CORNELL RD
AMHERST RD
REDWOOD RD
BUTCHER LN
NOYACK RD
Staff Paynes Creek
CRESCENT ST
Upper Sag Harbor
2018 Aerial Imagery


N
Prepared by:
Town of Southampton Division of Geographic
Information Systems December 2018
0
375
750
Feet
MESCHUTT BEACH
Hampton Bays
2013
2014
2015
2016
2017
2018 Plover Nests
Amaranth
Least Tern Colony
Least Tern Colonies and Seabeach Amarath Locations show by this map are approximate. For actual locations please contact the Town of Southampton Trustees
Great Peconic Bay
DUNES RD
CEDAR POINT RD
39B
OLD NORTH HWY
RUTH PL
MADISON AVE
CEDAR POINT RD
WIND MILL LN
MIDGE LN
BAY HILL RD
OAKHURST RD
PECONIC OVERLOOK
BEACHDALE RD
39
NORTH RD
2018 Aerial Imagery

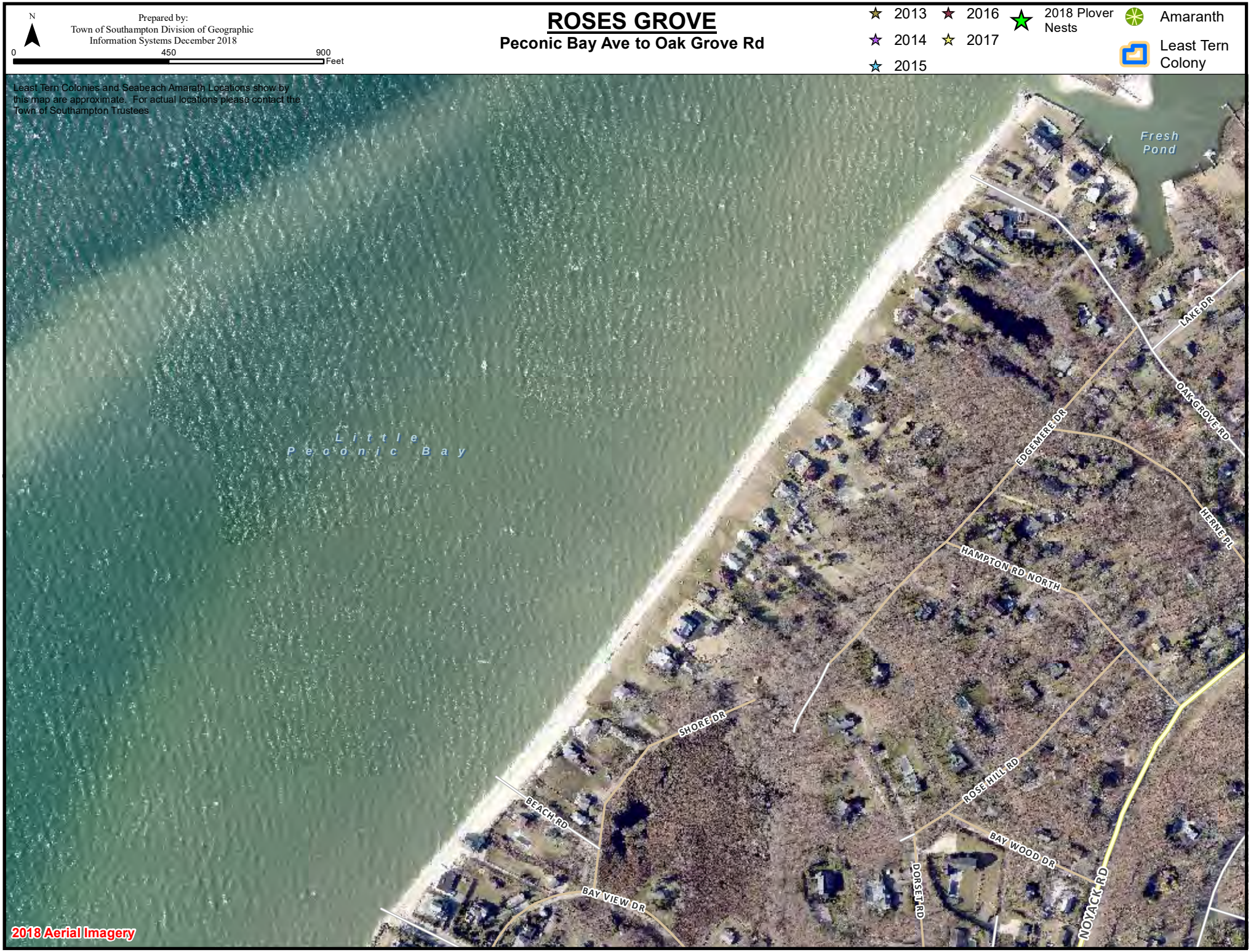

N
Prepared by:
Town of Southampton Division of Geographic
Information Systems December 2018
0
275
550
Feet
MIDDLE POND
Shinnecock Hills
2013
2014
2015
2016
2017
2018 Plover Nests
Amaranth
Least Tern Colony
Least Tern Colonies and Seabeach Amarath Locations show by this map are approximate. For actual locations please contact the Town of Southampton Trustees
BAYBERRY COVE LN
FAR POND RD
Far Pond
Honey Pot
Middle Pond
Shinnecock Bay East
2018 Aerial Imagery

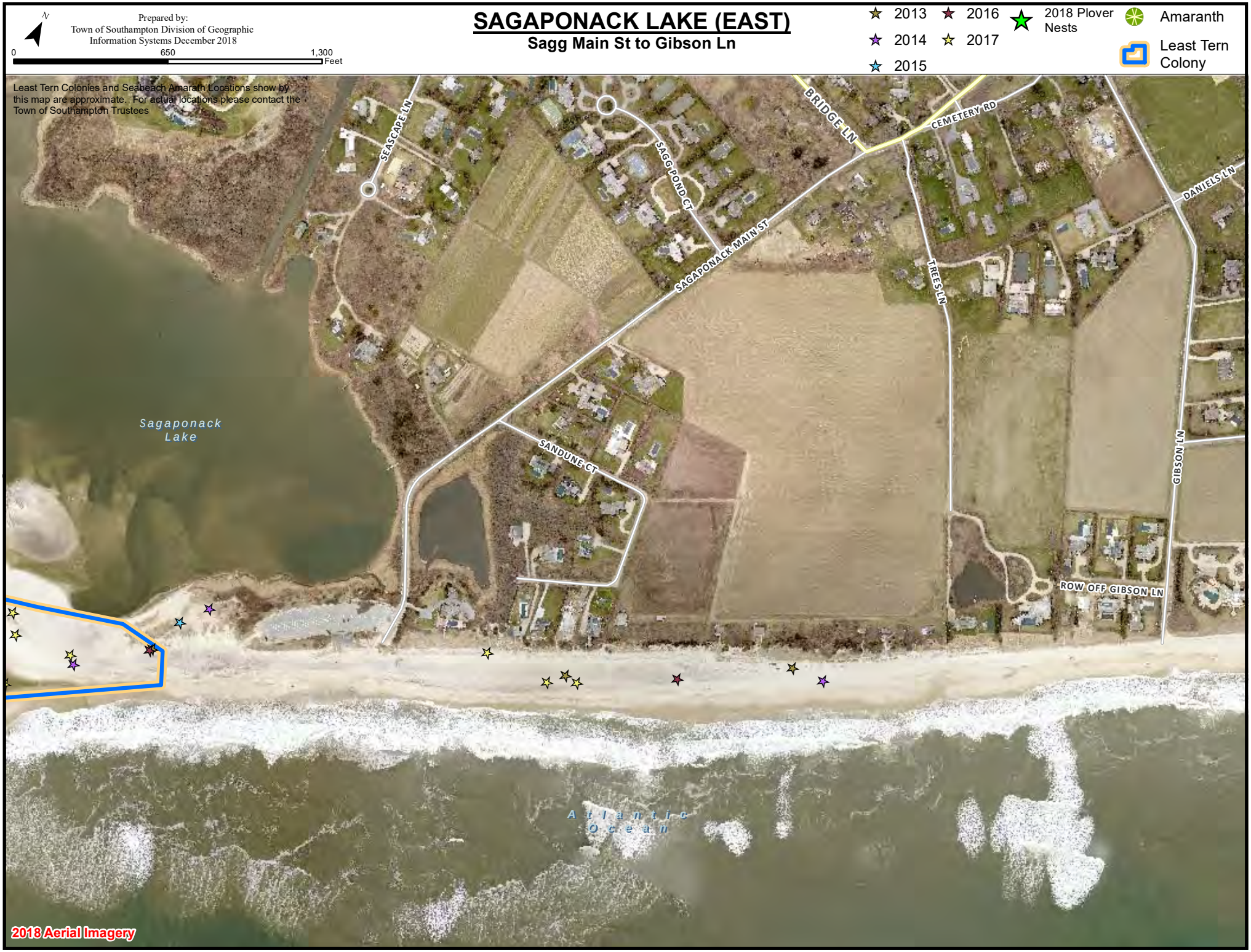

Prepared by:
Town of Southampton Division of Geographic
Information Systems December 2018
0
750
1,500
Feet
OLD TOWN ROAD (VILLAGE)
Old Town Rd to Fowlers St
2013
2014
2015
2016
2017
2018 Plover Nests
Amaranth
Least Tern Colony
Least Tern Colonies and Seabeach Amarath Locations show by this map are approximate. For actual locations please contact the Town of Southampton Trustees
DUCK POND LN
OLD TOWN RD
MURRAY LN
GIN LN
PHEASANT LN
SQUABBLE LN
MURRAY PL
WICKAPOGUE RD
BEACHCOMBER LN
FOWLER ST
BARONS LN
Old Town Pond
Wickapogue Pond
Phillips Pond
Atlantic Ocean
Old Town - 1A
WMB - 3B
WMB - 8A
2018 Aerial Imagery

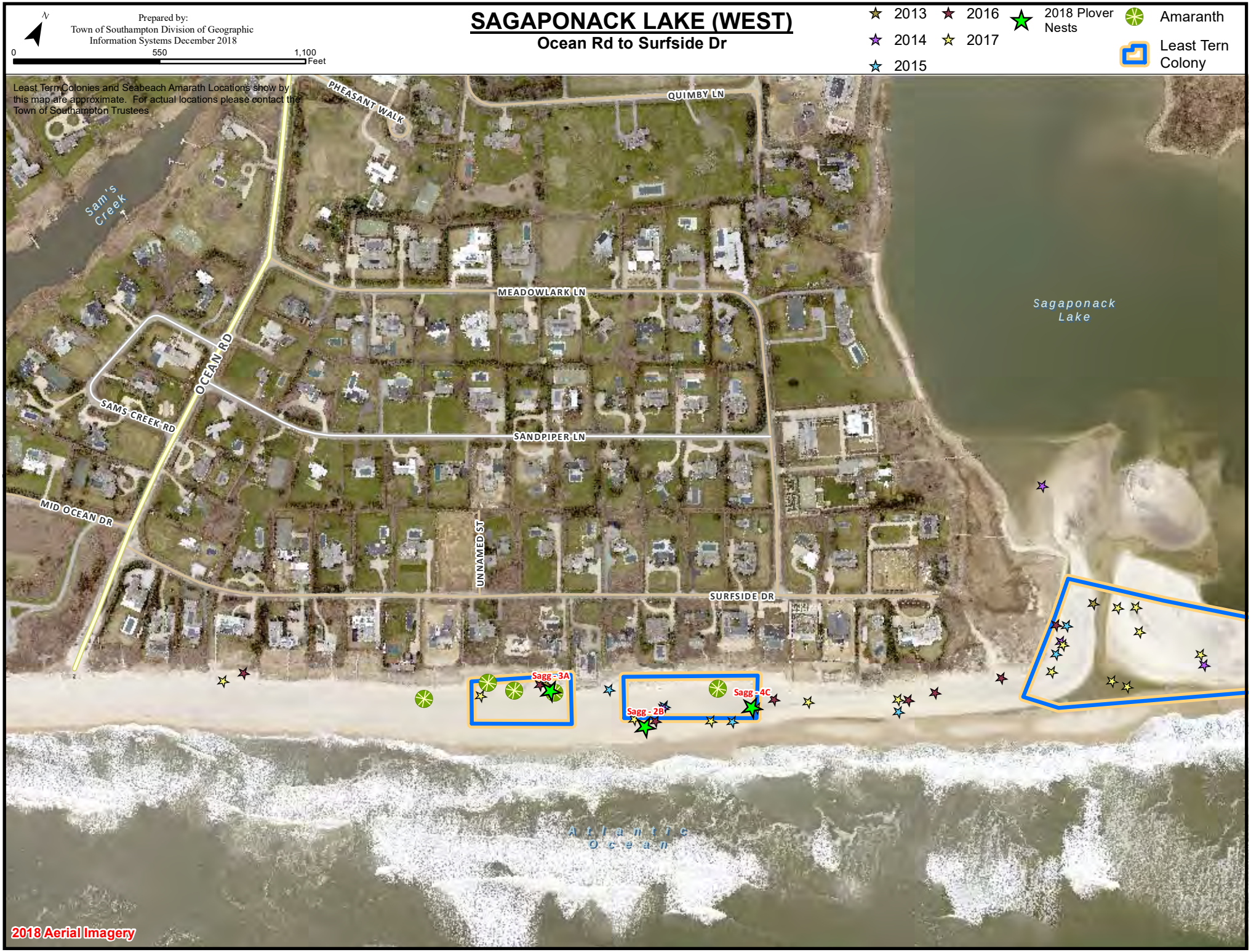

N
Prepared by:
Town of Southampton Division of Geographic
Information Systems December 2018
0
550
1,100
Feet
PINE NECK / MILL CREEK
Noyac
2013
2014
2015
2016
2017
2018 Plover Nests
Amaranth
Least Tern Colony
Least Tern Colonies and Seabeach Amarath Locations show by this map are approximate. For actual locations please contact the Town of Southampton Trustees
Noyac Bay
Mill Creek
OAK RD
OAK ST
HAMPTON RD
PINE RD
BRIAR LN
RIGHT OF WAY (NOYACK AVE)
NOYACK AVE
PINE NECK AVE
CHESTNUT ST
POPLAR ST
BIRCH ST
WALNUT ST
DOGWOOD ST
NOYACK BAY AVE
BERNARD PL
OAK DR NORTH
TREDWELL LN
LOCUST LN
MILL RD
HARRYS LN
MUNCHOGUE DR
NOYACK RD
NORTHVIEW DR
2018 Aerial Imagery

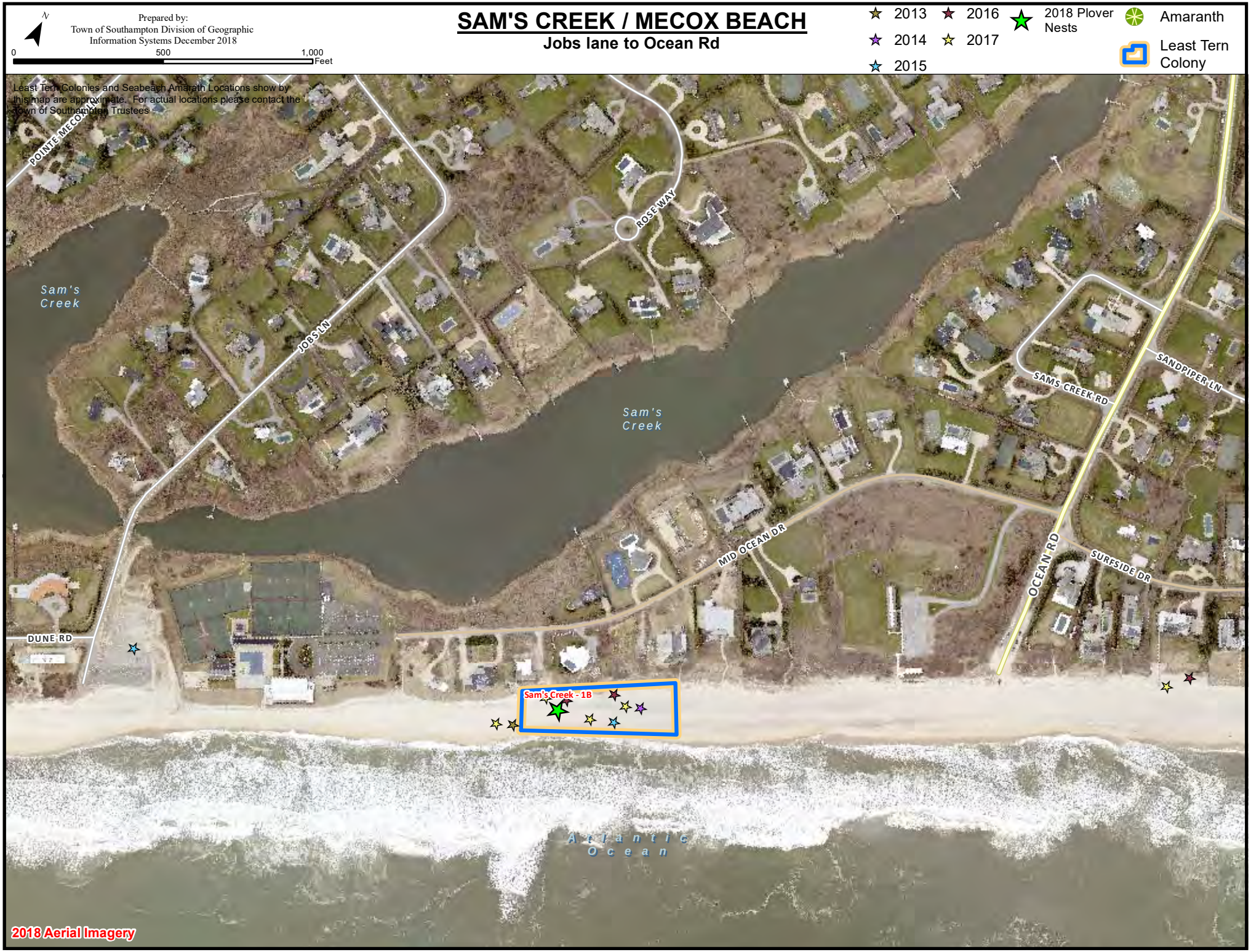

N
Prepared by:
Town of Southampton Division of Geographic
Information Systems December 2018
0
255
510
Feet
RED CEDAR POINT
Flanders
2013
2014
2015
2016
2017
2018 Plover Nests
Amaranth
Least Tern Colony
Least Tern Colonies and Seabeach Amarath Locations show by this map are approximate. For actual locations please contact the Town of Southampton Trustees
Flanders Bay
Great Peconic Bay
Red Cedar - 1B
Red Cedar - 3A
The Cow Yard
BARRETT DR NORTH
2018 Aerial Imagery

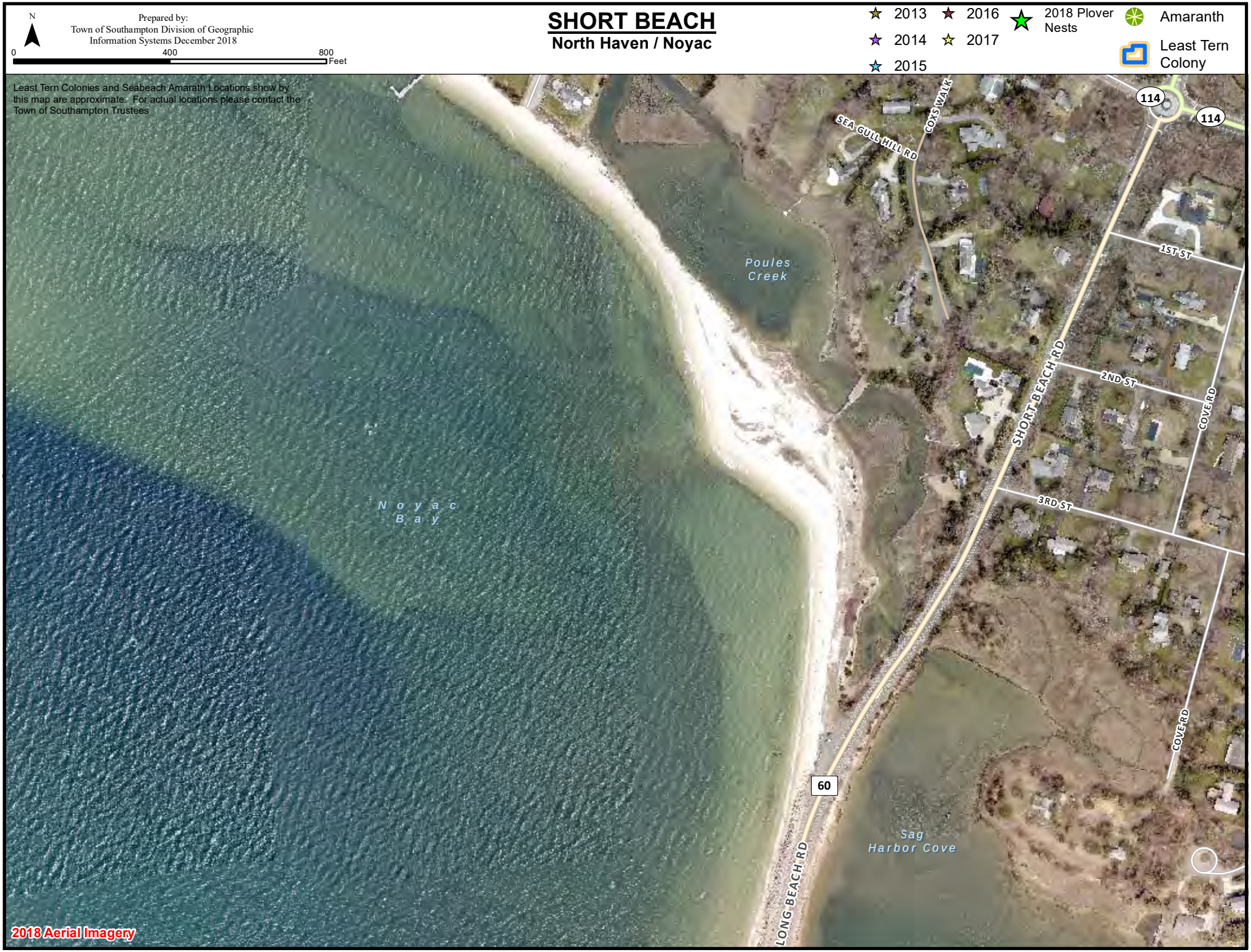

N
Prepared by:
Town of Southampton Division of Geographic
Information Systems December 2018
0
325
650
Feet
RED CREEK POND
Hampton Bays
2013
2014
2015
2016
2017
2018 Plover Nests
Amaranth
Least Tern Colony
Least Tern Colonies and Seabeach Amarath Locations show by this map are approximate. For actual locations please contact the Town of Southampton Trustees.
Great Peconic Bay
Red Creek Pond
Fourniers Pond
RED CREEK PARK
GATHERING ROCKS RD
2018 Aerial Imagery

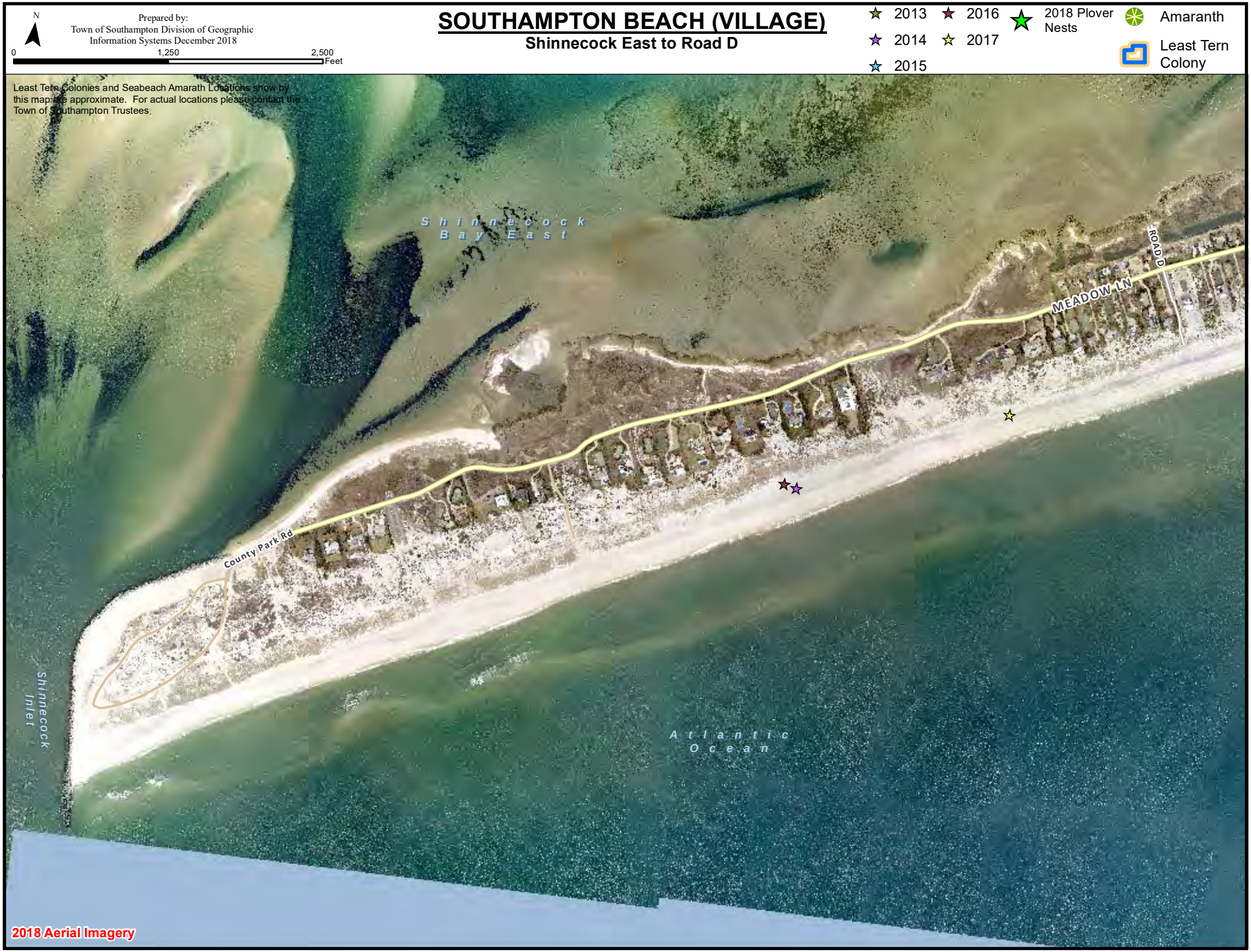

N
Prepared by:
Town of Southampton Division of Geographic
Information Systems December 2018
0
450
900
Feet
ROSES GROVE
Peconic Bay Ave to Oak Grove Rd
2013
2014
2015
2016
2017
2018 Plover Nests
Amaranth
Least Tern Colony
Least Tern Colonies and Seabeach Amarath Locations show by this map are approximate. For actual locations please contact the Town of Southampton Trustees
Fresh Pond
Little Peconic Bay
LAKE DR
OAK GROVE RD
EDGEMERE DR
HERNE PL
HAMPTON RD NORTH
SHORE DR
BEACH RD
BAY VIEW DR
ROSE HILL RD
BAY WOOD DR
DORSET RD
NOYACK RD
2018 Aerial Imagery

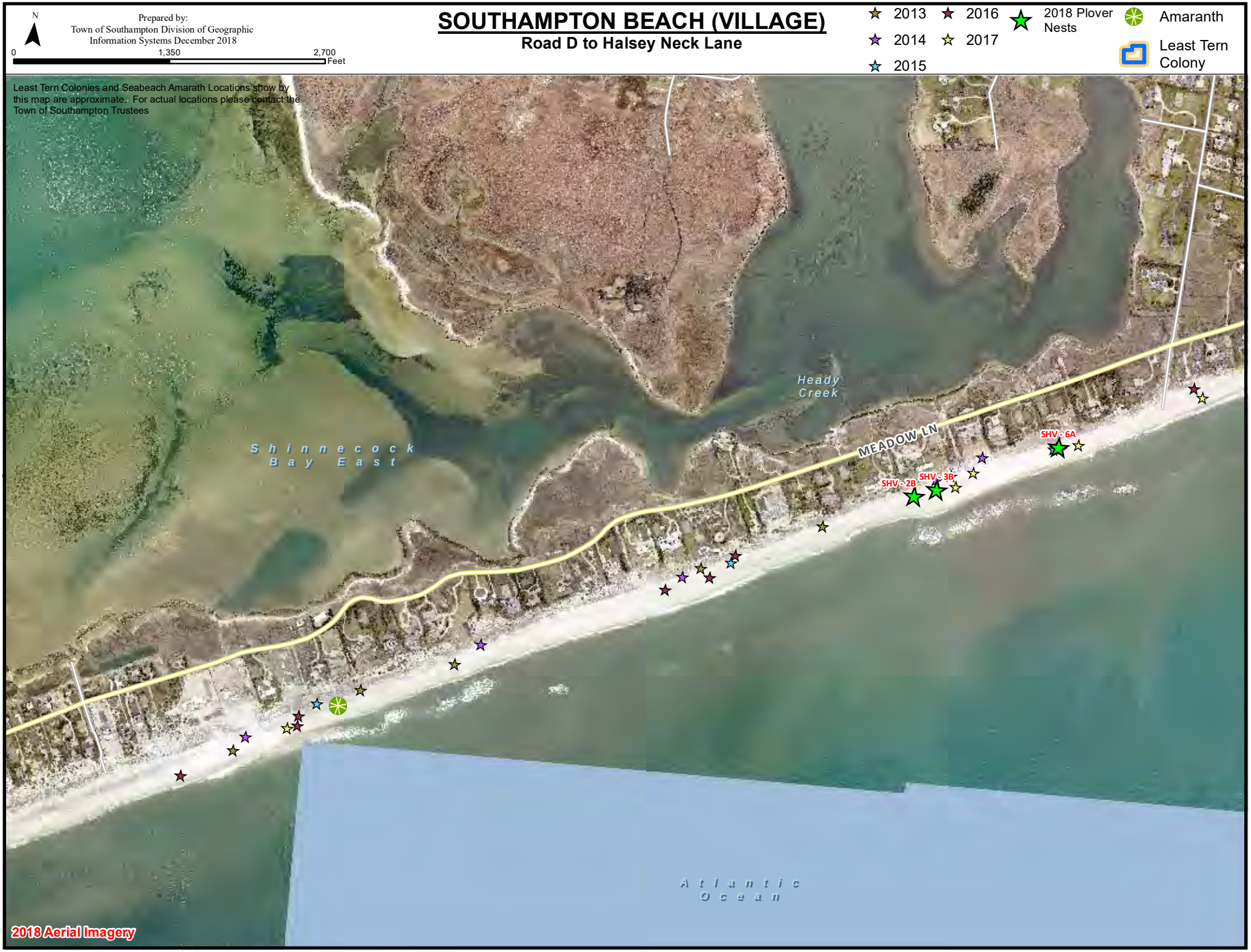

Prepared by:
Town of Southampton Division of Geographic Information Systems December 2018
0
650
1,300
Feet
SAGAPONACK LAKE (EAST)
Sagg Main St to Gibson Ln
2013
2014
2015
2016
2017
2018 Plover Nests
Amaranth
Least Tern Colony
Least Tern Colonies and Seabeach Amaranth Locations show by this map are approximate. For actual locations please contact the Town of Southampton Trustees
SEASCAPE LN
SAGG POND CT
BRIDGE LN
CEMETERY RD
DANIELS LN
SAGAPONACK MAIN ST
TREES LN
GIBSON LN
SANDUNE CT
ROW OFF GIBSON LN
Sagaponack Lake
Atlantic Ocean
2018 Aerial Imagery

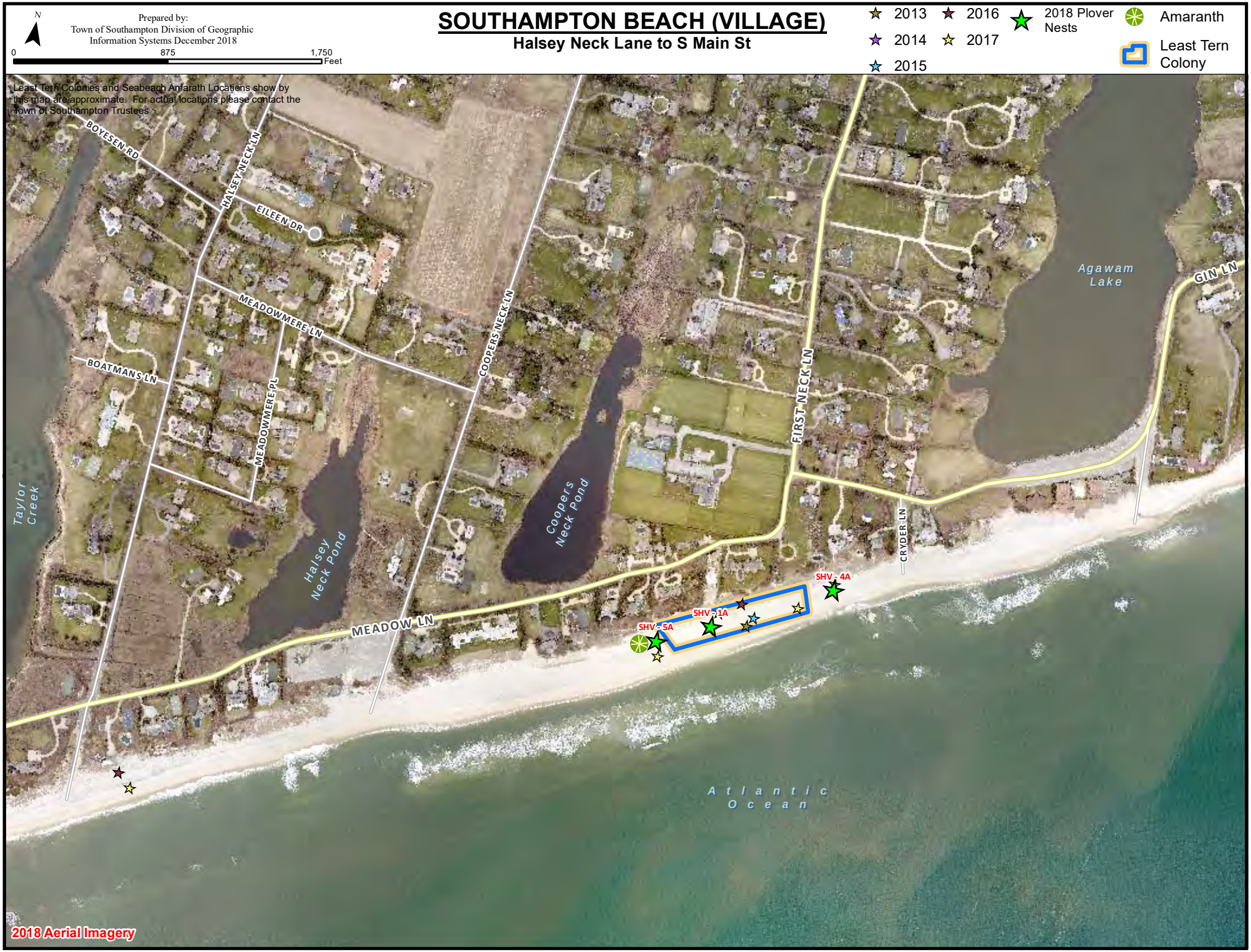

Prepared by:
Town of Southampton Division of Geographic Information Systems December 2018
0
550
1,100
Feet
SAGAPONACK LAKE (WEST)
Ocean Rd to Surfside Dr
2013
2014
2015
2016
2017
2018 Plover Nests
Amaranth
Least Tern Colony
Least Tern Colonies and Seabeach Amarath Locations show by this map are approximate. For actual locations please contact the Town of Southampton Trustees
PHEASANT WALK
QUIMBY LN
Sam's Creek
MEADOWLARK LN
Sagaponack Lake
OCEAN RD
SAMS CREEK RD
SANDPIPER LN
MID OCEAN DR
UNNAMED ST
SURFSIDE DR
Sagg - 3A
Sagg - 4C
Sagg - 2B
Atlantic Ocean
2018 Aerial Imagery

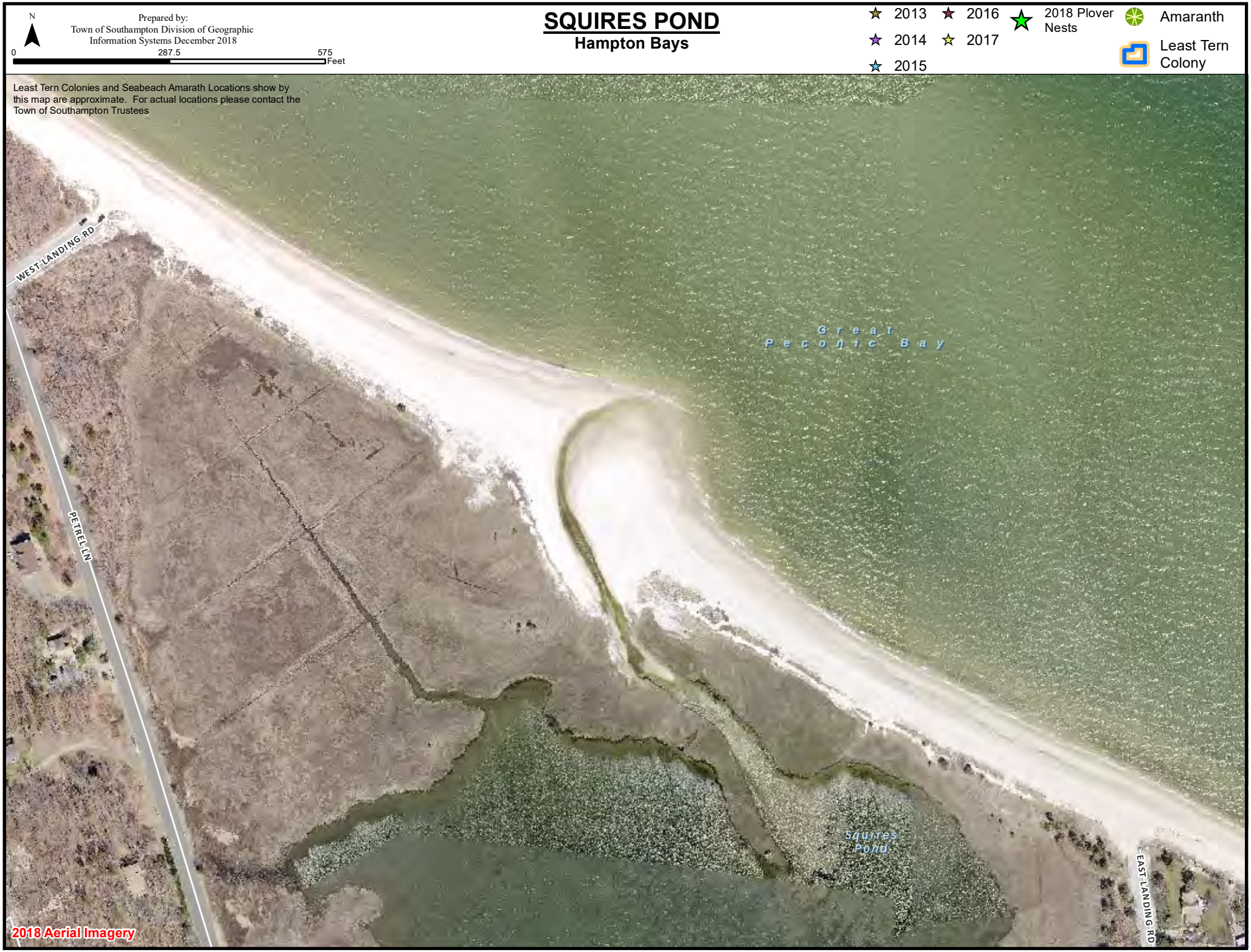

Prepared by:
Town of Southampton Division of Geographic
Information Systems December 2018
0
500
1,000
Feet
SAM'S CREEK / MECOX BEACH
Jobs lane to Ocean Rd
2013
2014
2015
2016
2017
2018 Plover Nests
Amaranth
Least Tern Colony
Least Tern Colonies and Seabeach Amaranth Locations show by this map are approximate. For actual locations please contact the Town of Southampton Trustees
POINTE MECOX
ROSE WAY
Sam's Creek
JOBS LN
Sam's Creek
SAMS CREEK RD
SANDPIPER LN
MID OCEAN DR
OCEAN RD
SURFSIDE DR
DUNE RD
Sam's Creek - 1B
Atlantic Ocean
2018 Aerial Imagery

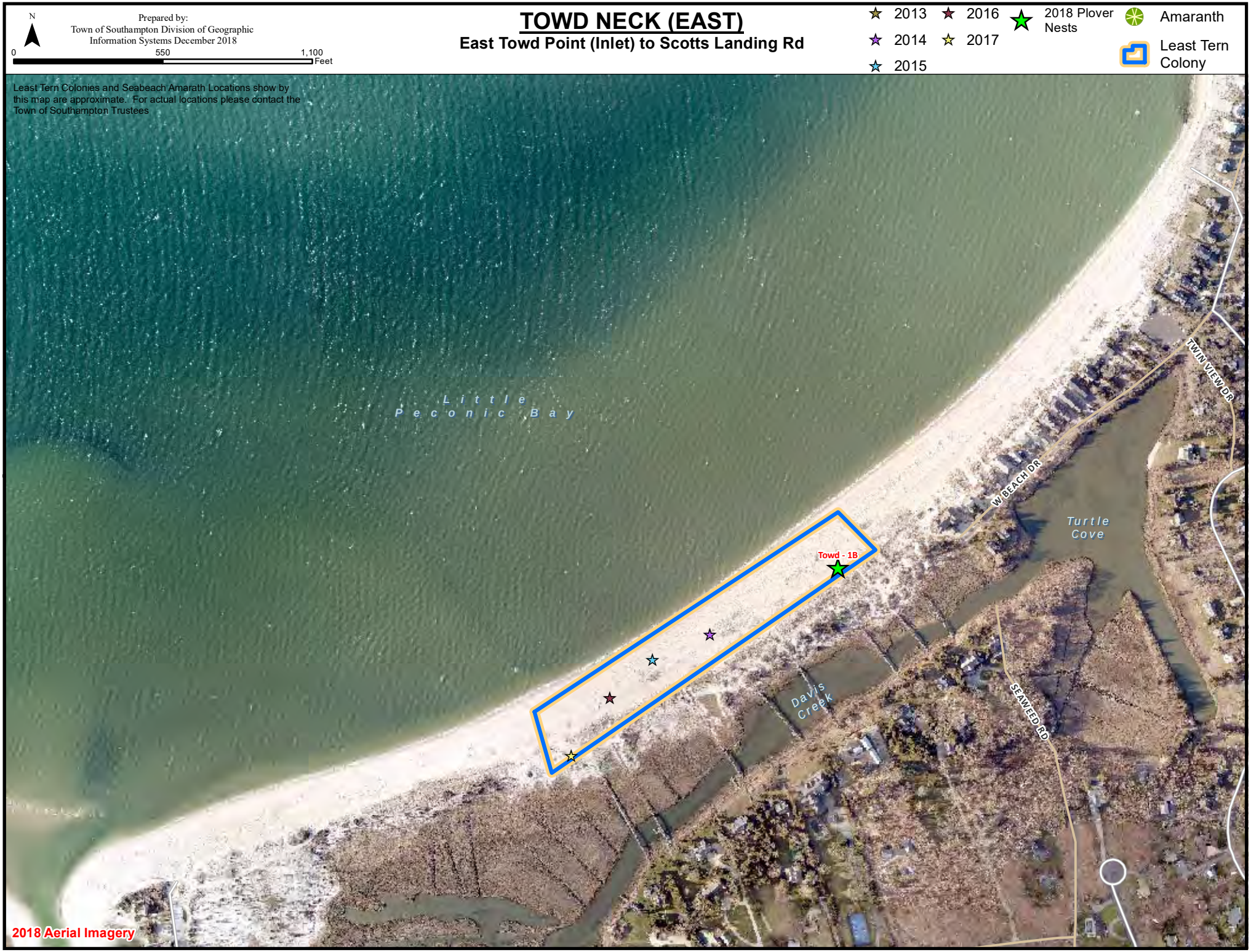

N
Prepared by:
Town of Southampton Division of Geographic
Information Systems December 2018
0
400
800
Feet
SHORT BEACH
North Haven / Noyac
2013
2014
2015
2016
2017
2018 Plover Nests
Amaranth
Least Tern Colony
Least Tern Colonies and Seabeach Amarath Locations show by this map are approximate. For actual locations please contact the Town of Southampton Trustees
SEA GULL HILL RD
COXS WALK
Poules Creek
114
114
1ST ST
SHORT BEACH RD
2ND ST
COVE RD
3RD ST
COVE RD
N o y a c B a y
60
LONG BEACH RD
Sag Harbor Cove
2018 Aerial Imagery

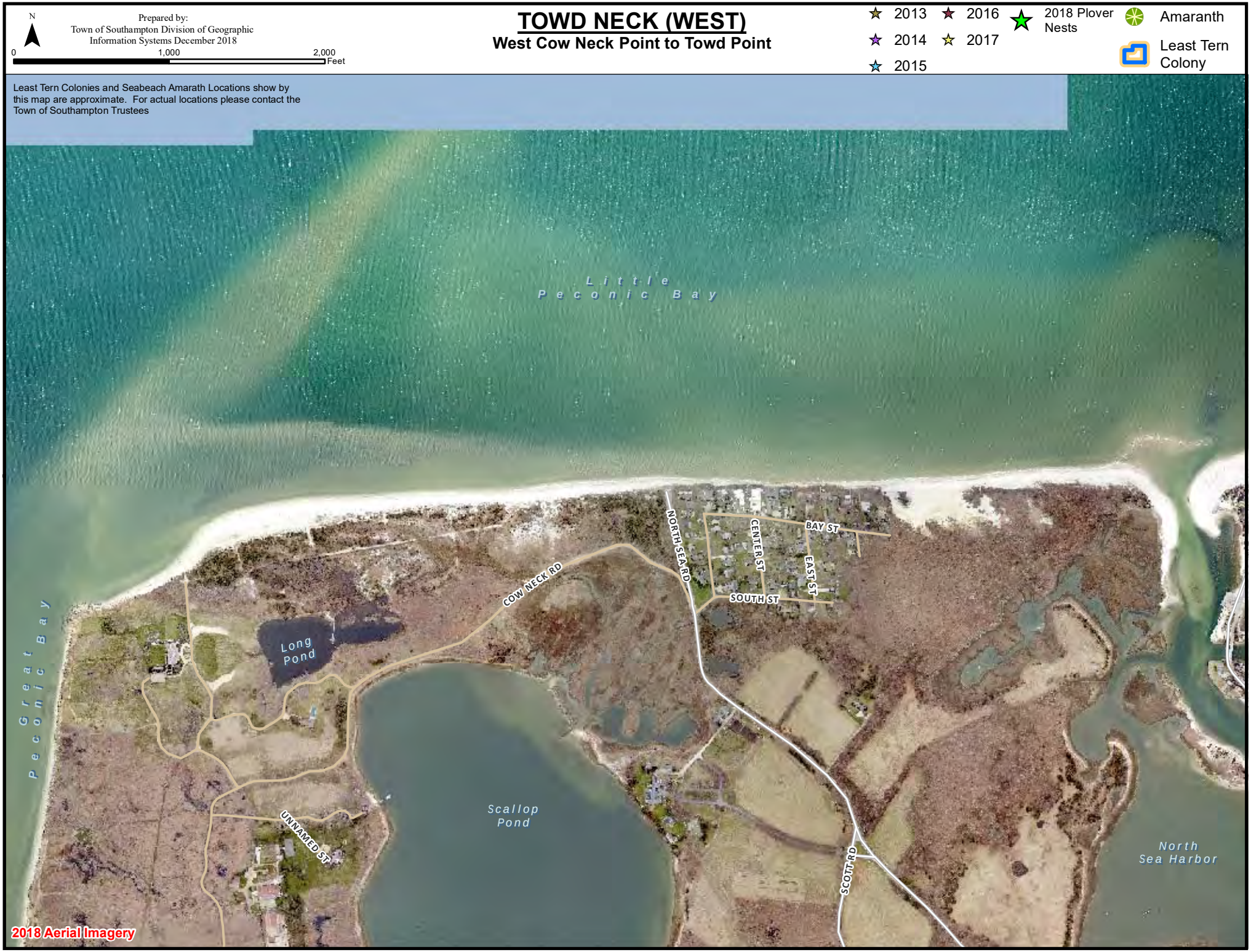

N
Prepared by:
Town of Southampton Division of Geographic
Information Systems December 2018
0
1,250
2,500
Feet
SOUTHAMPTON BEACH (VILLAGE)
Shinnecock East to Road D
2013
2014
2015
2016
2017
2018 Plover Nests
Amaranth
Least Tern Colony
Least Tern Colonies and Seabeach Amarath Locations show by this map are approximate. For actual locations please contact the Town of Southampton Trustees.
Shinnecock Bay East
MEADOW LN
ROAD D
County Park Rd
Shinnecock Inlet
Atlantic Ocean
2018 Aerial Imagery

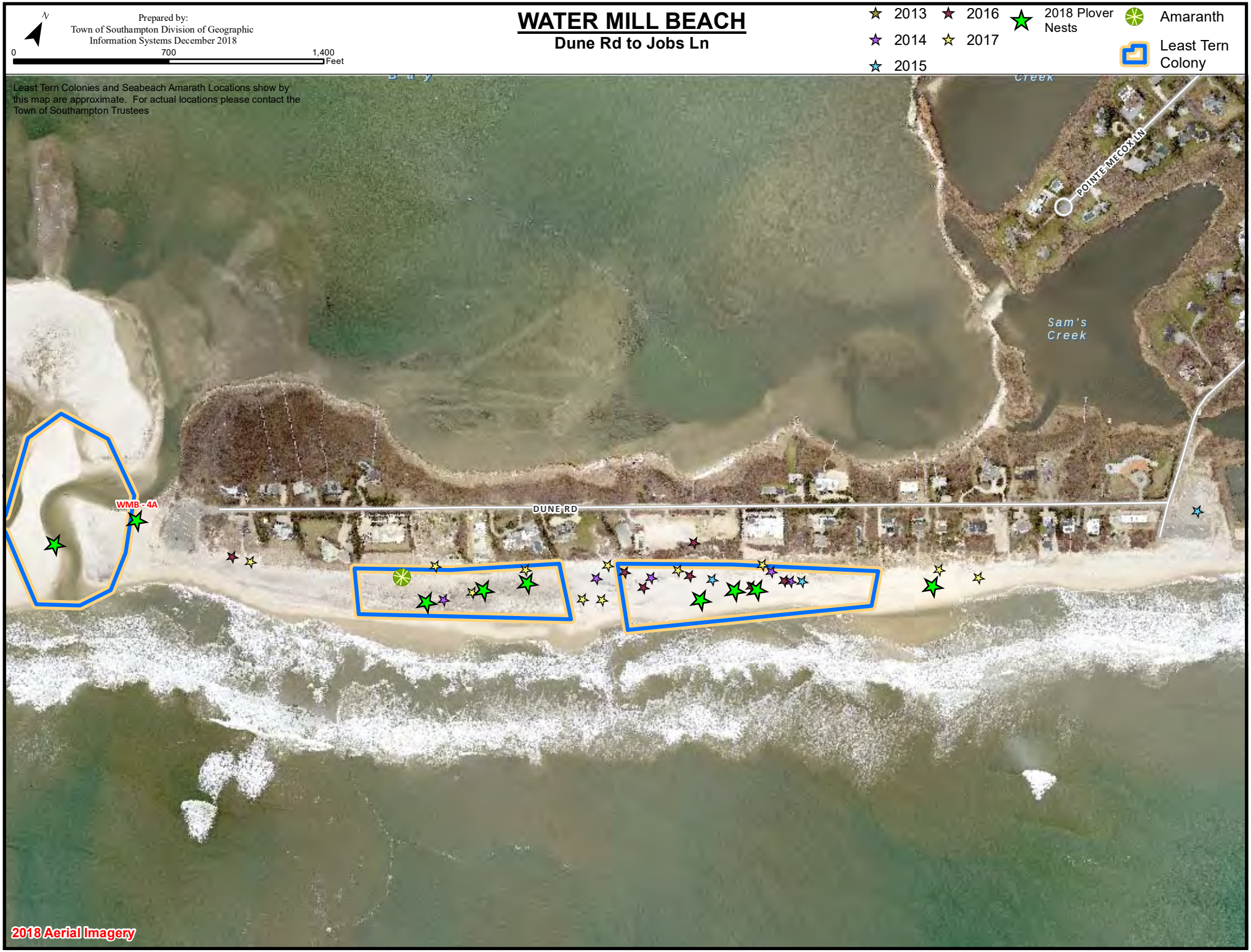

N
Prepared by:
Town of Southampton Division of Geographic
Information Systems December 2018
0
1,350
2,700
Feet
SOUTHAMPTON BEACH (VILLAGE)
Road D to Halsey Neck Lane
2013
2014
2015
2016
2017
2018 Plover Nests
Amaranth
Least Tern Colony
Least Tern Colonies and Seabeach Amarath Locations show by this map are approximate. For actual locations please contact the Town of Southampton Trustees
Heady Creek
Shinnecock Bay East
MEADOW LN
SHV - 6A
SHV - 3B
SHV - 2B
Atlantic Ocean
2018 Aerial Imagery


N
Prepared by:
Town of Southampton Division of Geographic Information Systems December 2018
0
875
1,750
Feet
SOUTHAMPTON BEACH (VILLAGE)
Halsey Neck Lane to S Main St
2013
2014
2015
2016
2017
2018 Plover Nests
Amaranth
Least Tern Colony
Least Tern Colonies and Seabeach Amarath Locations show by this map are approximate. For actual locations please contact the Town of Southampton Trustees
BOYESEN RD
HALSEY NECK LN
EILEEN DR
MEADOWMERE LN
BOATMANS LN
MEADOWMERE PL
COOPERS NECK LN
FIRST NECK LN
GIN LN
CRYDER LN
MEADOW LN
Agawam Lake
Taylor Creek
Halsey Neck Pond
Coopers Neck Pond
SHV - 4A
SHV - 5A
SHV - 5A
Atlantic Ocean
2018 Aerial Imagery

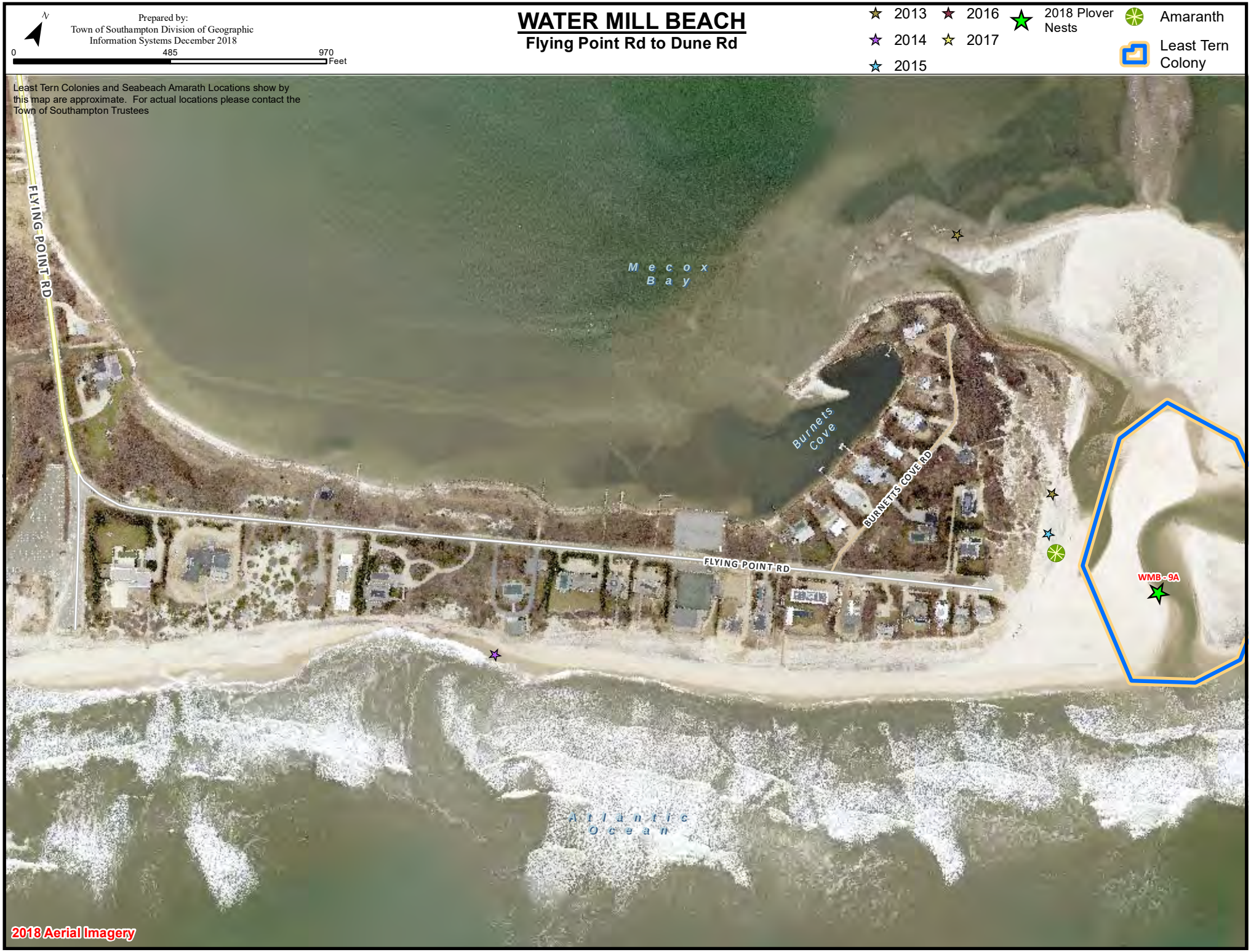

N
Prepared by:
Town of Southampton Division of Geographic
Information Systems December 2018
0
287.5
575
Feet
SQUIRES POND
Hampton Bays
2013
2014
2015
2016
2017
2018 Plover Nests
Amaranth
Least Tern Colony
Least Tern Colonies and Seabeach Amarath Locations show by this map are approximate. For actual locations please contact the Town of Southampton Trustees
WEST LANDING RD
PETREL LN
Great Peconic Bay
Squires Pond
EAST LANDING RD
2018 Aerial Imagery

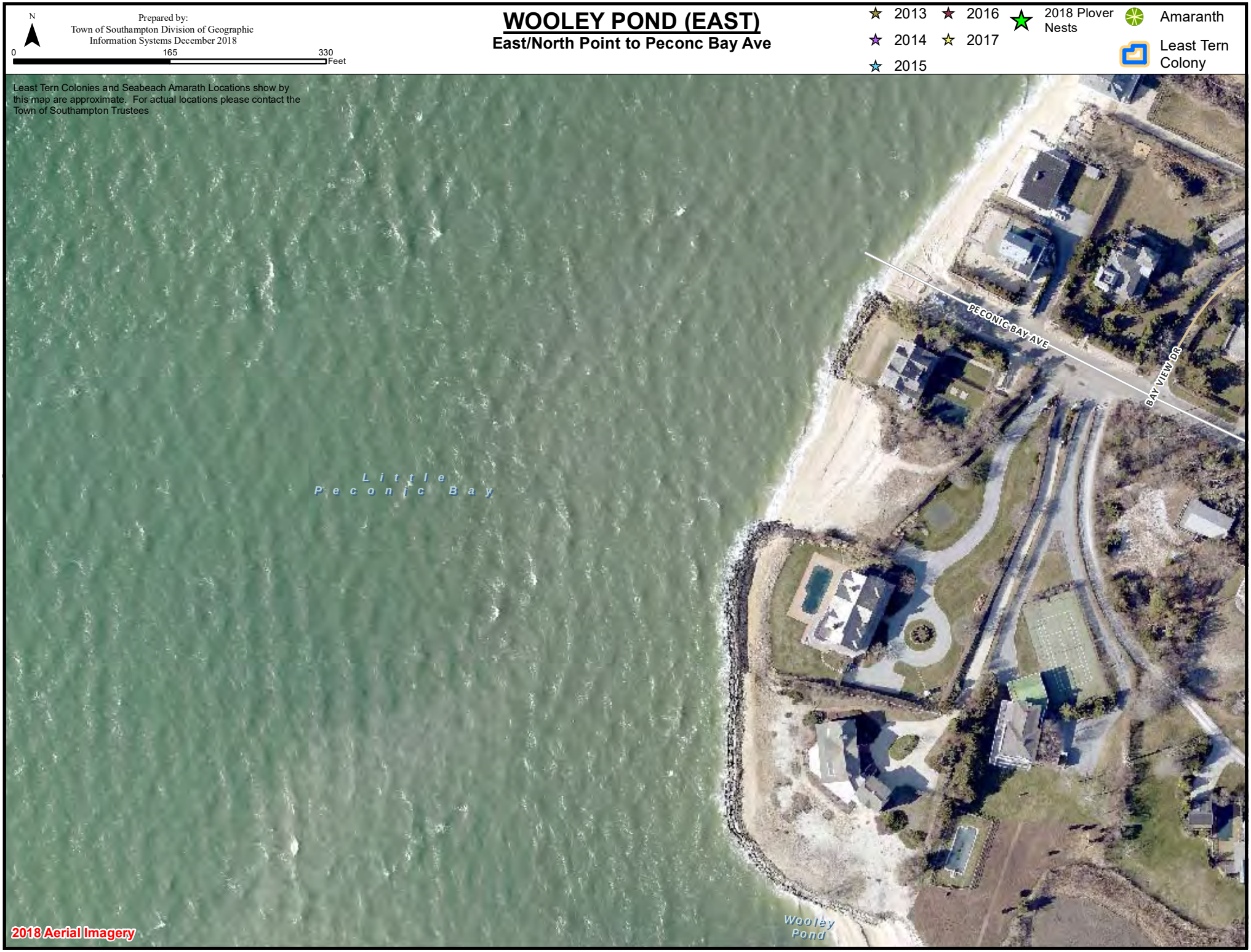

N
Prepared by:
Town of Southampton Division of Geographic
Information Systems December 2018
0
550
1,100
Feet
TOWD NECK (EAST)
East Towd Point (Inlet) to Scotts Landing Rd
2013
2014
2015
2016
2017
2018 Plover Nests
Amaranth
Least Tern Colony
Least Tern Colonies and Seabeach Amarath Locations show by this map are approximate. For actual locations please contact the Town of Southampton Trustees
Little Peconic Bay
W BEACH DR
TWIN VIEW DR
Turtle Cove
Towd - 1B
Davis Creek
SEAWEED RD
2018 Aerial Imagery

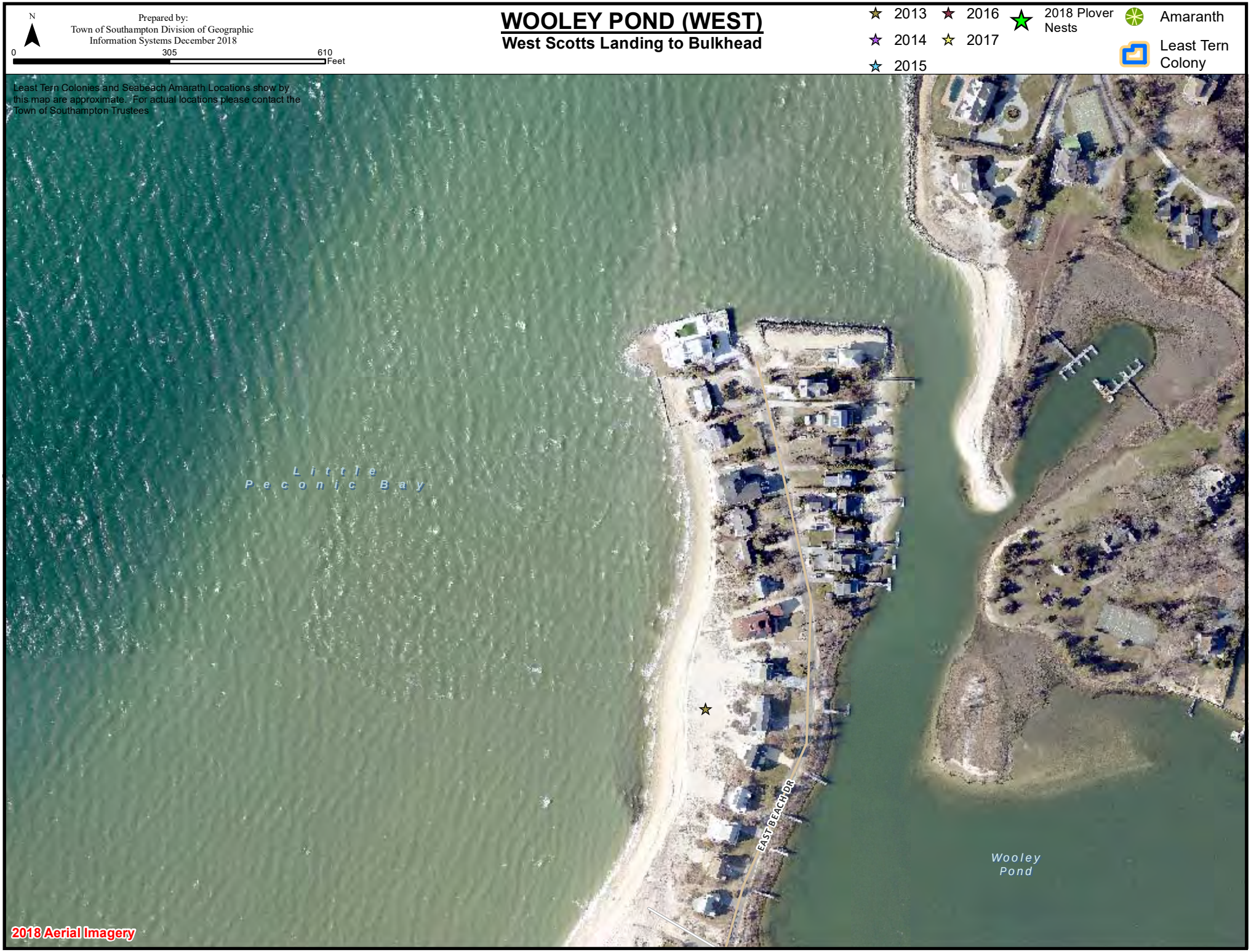

N
Prepared by:
Town of Southampton Division of Geographic
Information Systems December 2018
0
1,000
2,000
Feet
TOWD NECK (WEST)
West Cow Neck Point to Towd Point
2013
2014
2015
2016
2017
2018 Plover Nests
Amaranth
Least Tern Colony
Least Tern Colonies and Seabeach Amarath Locations show by this map are approximate. For actual locations please contact the Town of Southampton Trustees
Little Peconic Bay
Great Peconic Bay
Long Pond
Scallop Pond
North Sea Harbor
COW NECK RD
NORTH SEA RD
BAY ST
CENTER ST
EAST ST
SOUTH ST
UNNAMED ST
SCOTT RD
2018 Aerial Imagery


Prepared by:
Town of Southampton Division of Geographic Information Systems December 2018
0
700
1,400
Feet
WATER MILL BEACH
Dune Rd to Jobs Ln
2013
2014
2015
2016
2017
2018 Plover Nests
Amaranth
Least Tern Colony
Least Tern Colonies and Seabeach Amarath Locations show by this map are approximate. For actual locations please contact the Town of Southampton Trustees
POINTE MECOX LN
Sam's Creek
DUNE RD
WMB - 4A
2018 Aerial Imagery


Prepared by:
Town of Southampton Division of Geographic Information Systems December 2018
0
600
1,200
Feet
WATER MILL BEACH
Fowlers St to Flying Pt Rd
2013
2014
2015
2016
2017
2018 Plover Nests
Amaranth
Least Tern Colony
Least Tern Colonies and Seabeach Amarath Locations show by this map are approximate. For actual locations please contact the Town of Southampton Trustees
CHANNEL POND CT
JULE POND DR
FOWLER ST
FLYING POINT RD
Mecox Bay
Jule Pond
Little Jule Pond
Channel Pond
WMB - 8A
WMB - 13A
Atlantic Ocean
2018 Aerial Imagery


Prepared by:
Town of Southampton Division of Geographic
Information Systems December 2018
0
485
970
Feet
WATER MILL BEACH
Flying Point Rd to Dune Rd
2013
2014
2015
2016
2017
2018 Plover Nests
Amaranth
Least Tern Colony
Least Tern Colonies and Seabeach Amarath Locations show by this map are approximate. For actual locations please contact the Town of Southampton Trustees
FLYING POINT RD
Mecox Bay
Burnetts Cove
BURNETTS COVE RD
FLYING POINT RD
WMB - 9A
Atlantic Ocean
2018 Aerial Imagery


N
Prepared by:
Town of Southampton Division of Geographic
Information Systems December 2018
0
165
330
Feet
WOOLEY POND (EAST)
East/North Point to Peconc Bay Ave
2013
2014
2015
2016
2017
2018 Plover Nests
Amaranth
Least Tern Colony
Least Tern Colonies and Seabeach Amarath Locations show by this map are approximate. For actual locations please contact the Town of Southampton Trustees
PECONIC BAY AVE
BAY VIEW DR
Little Peconic Bay
Wooley Pond
2018 Aerial Imagery


N
Prepared by:
Town of Southampton Division of Geographic
Information Systems December 2018
0
305
610
Feet
WOOLEY POND (WEST)
West Scotts Landing to Bulkhead
2013
2014
2015
2016
2017
2018 Plover Nests
Amaranth
Least Tern Colony
Least Tern Colonies and Seabeach Amarath Locations show by this map are approximate. For actual locations please contact the Town of Southampton Trustees
Little Peconic Bay
EAST BEACH DR
Wooley Pond
2018 Aerial Imagery