

FOREWORD

This Natural Resource Inventory is meant to be a living document

The Lower Township Environmental Commission who developed this document knows that the information contained is not complete. It is the Commission's intention to add information as it becomes available.

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INTRODUCTION

Township Statistics(2000)

Land Area	28.2 Square Mile
Water Area	2.8 Square Mile
Population	22,945(98% Urban, 2% Rural)

Lower Township consists of a number of areas which have developed as it developed over the years. Some of the names can be traced back to Colonial times with new ones coming about as the result of development. The most prominent ones that are in use today are:

Villas: A small fishing community along the Delaware Bay, sprung up in the 40's and 50's and was for most part the summer home of many blue collar Philadelphians.

North Cape May, also along the Delaware Bay is probably the most populated section of Lower Township, is also the main business district of the Township.

Town Bank, once the county seat and a colonial whaling village. The original village and graveyard have disappeared into the bay as erosion resulting from the many storms have taken their toll on the bayfront.

Erma, a thriving family community located between the Garden State Parkway and U.S. route 9.

Cold Spring, a small community which has existed since colonial times. The area is named for a fresh water spring which in the early days was a destination for people from Cape Island (now Cape May City). In the late 1800's and early 1900's trains are reported to have stopped there so that passengers could get a drink of the cold water. The home of Historic Cold Spring Village

Diamond Beach, previously known as Two Mile Beach is an area which in the early 1950's was an area of plants and bushes representative of an island/beach environment. It is now fully developed with condominiums, town houses and single family homes replacing the once "wild environment".

Cape May Harbor and Schellingers Landing, Home to the Lower Township and Cape May fishing fleet, Among the ports which have the largest take of commercial fish on the East Coast.

Higbee Beach, Cape May State Park, and South Cape May Meadows, (all located in Lower Township) a world famous "birding" area located on the Atlantic Flyway which attracts hundreds of thousand of visitors each year.



Lower Township

PHYSICAL CHARACTERISTICS

Lower Township is situated entirely in the outer portions of the geologic province known as the Atlantic Coastal Plain. The sandy plain is characterized by its generally flat contours which are occasionally interrupted by low, very gently rolling land masses. Land elevations within Lower Township rise from sea level to less than thirty (30) feet in the middle-western portion of the township near the Cape May Canal. The low elevations and flat topography do not in themselves pose very significant problems for development. However other factors accompanying these characteristics present definite limitations. A sizeable proportion of the land contained within the municipal boundaries of Lower Township consists of salt water tidal marsh, brackish lowlands, and other swampy areas. The township is bounded on the east by the salt water tidal marsh located between the Garden State Parkway and the barrier beach community of Wildwood Crest. Along its northern border, it is bounded by the salt water tidal marsh which straddles Fishing Creek. These tidal marshes, known as "wetlands," are severely constrained for nearly all forms of development. In addition to obvious physical deterrents, State of New Jersey environmental protection regulations have imposed stringent restrictions on the types and extent of development which can take place in these areas. This has resulted in saving many of the marshes and fresh water wetlands which probably would have been used by developers.

The year is 1976 and as part of Lower Township's celebration of our Nation's 200th Birthday, we are going to tell the story of the beginning up to date, of Lower Township, Cape May County, New Jersey, which is more than 200 years old.

Formed as a precinct on April 2, 1723, it was incorporated as a Township when our country was yet young, on February 21, 1798. As early as 1693, the earliest County Courts were held in the Township, the County having been formed in 1692, with court set up in 1685.

Lower Township was the earliest Town of the southern-most peninsula of New Jersey and the County. In later years, various other towns were formed from the area. Cape Island, now Cape May City, was so formed on March 8, 1848. Cape May Point, also formed from the Township, 1878, incorporated 1891, restored to the Township in 1896 and again re-incorporated from the Township in 1908.

Other nearby areas formed from the Township in 1908, and West Cape May, 1897. Holly Beach, 1885, was re-incorporated in 1890. A borough was formed as North Cape May in 1928 and was returned to the Township in 1945. South Cape May was returned to the Township also in 1945. Wildwood Crest formed from Lower in 1910, again exchanged portions in 1942.

This, the most southern township of New Jersey, was in length — north and south — 8 miles; width, east and west, the same. Bounded on the east and south by the Atlantic Ocean, the north by Middle Township and the west by the Delaware Bay.

Earliest explorers here were Sir Henry Hudson, who in the Half Moon, sailed up the Delaware Bay, then called South Bay, on August 28, 1609, anchoring a few miles north of now Cape May Point. Cornelius Jacobson Mey, who was sent out by the Dutch West India Company in 1621, with a number of settlers, explored the Coast and gave his name to the area. Again on May 5, 1630, Samuel Godyn and



TOWN BANK DEDICATION

On a cold, windy day in November of 1976, Officers and members of the newly formed Lower Township Historical Society, Mayor John T. Lincoln and County and State officials took part in a ceremony for a permanent monument at Town Bank on the Delaware Bay in the approximate area of the first settlement.

It was a combined project of the Lower Township Governing Body and the Lower Township Historical Society to help commemorate our Bicentennial Year.

The Lower Township Historical Society, which was founded in this year of 1976, had as its founding officers and members:

- Mrs. Marie E. Garretson, President
- Joseph McCullough, Vice President
- Mrs. Josephine Mitchell, Secretary
- Mrs. Elsie Anderson, Treasurer
- John T. Lincoln, Honorary Chairman of the Board
- Mrs. Elizabeth Elliott
- Mrs. Helen O'Neill
- Mrs. Eleanor Garretson
- Mrs. Elizabeth Schied
- Frank Warburton
- E. Warren Garretson

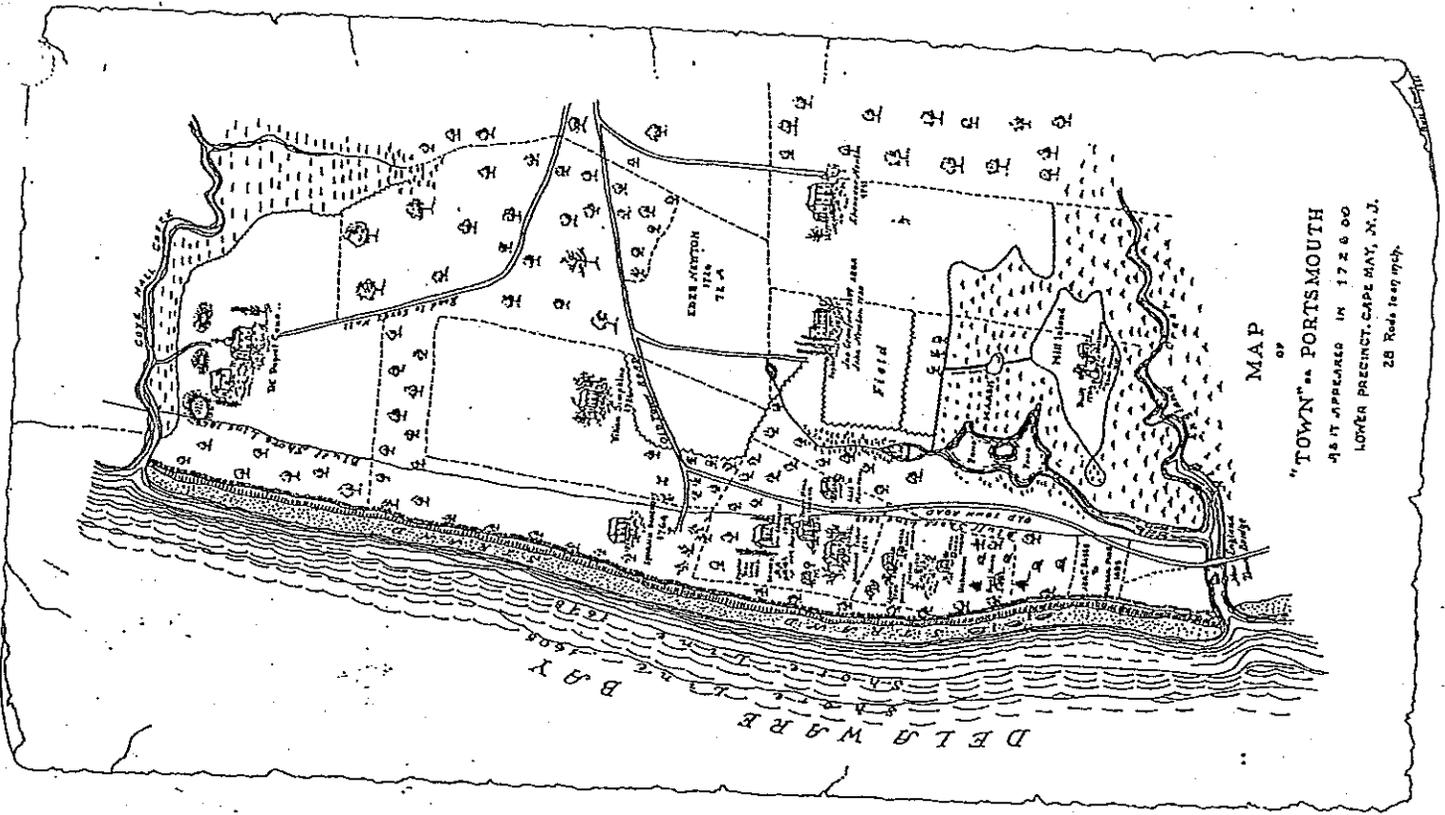
the area and purchased of the Indians a tract of land extending four miles along the bay and four miles inland. In 1631, David Pieterse de Vries, an eminent Dutch explorer, became the first patroon owner when he engaged in whaling in the area. Ten years later, the whole Lower Bay area was purchased from the Indians, our original settlers, the Kechemeches, by Swedish agents.

As early as 1640, the whalers following the mammals south came in February and March to hunt the whales at the now Town Bank section of our Township. At first, they built rude shacks which they abandoned when moving along to follow the whales.

The first permanent settlement of the colonists from Cape Cod and Southampton, Long Island, were English and Dutch and gave the name of New England Town, Portsmouth and Falmouth, old names from New England and old England, to their new home area. We are told that it was a settlement of importance as a whaling and fishing center and for fur trapping. Many whalers, being lucky, were able to retire in a few years from the dangerous occupation. Their first homes were built of logs and stood on a bluff overlooking a spit on the Delaware Bay where docks were quickly built.

The little village settled around the docks, and in a letter dated 1688, Dr. Daniel Coxe speaks of having helped plant a town at the expense of three thousand pounds for the development of the whaling industry. It is notable that among the founders of New England Town was Captain Ezekial Eldredge, who came from Falmouth on Cape Cod. Whether because of the milder South Jersey climate or the freedom of whaling at will, numerous New England captains brought their families to live here. We are told that the docks of New England town are favorable for landing and according to one almanac, the population of the whole county in 1700 was 70 persons, with many of these apparently residing in the town at the Delaware Bay.

The story of our oldest town is both sad and yet romantic. One picture the crude log buildings or cabins as built here on the bluff,



"TOWN" OF PORTSMOUTH
 AS IT APPEARED IN 1726
 LOWER PRECINCT, CAPE MAY, N. J.
 28 Feet to an Inch

and then soon behind the town, a burying ground. Earlier sketches have been seen of this. Dr. Coxe built a large building which he called Coxe Hall, and while never living there, the Hall soon became a gathering place for early worshippers. At the early courts held there, the settlers from other areas of the county — chiefly the English and Dutch — as well as others, came to vote. Our present term of freeholder was derived from the phrase, free men, owners of land, who had a right to vote.

During approximately 35 years of its existence, it was indeed a busy village. Then as the seas began to wash away the ground and larger boats were needed to go farther afield to catch the whales, the docks were no longer large enough to take care of the boats, so the whalers moved on.

Today, the site of the original New England Town, or Town Bank, is hundreds of feet out and under the Delaware Bay. Coxe's Hall cellar and foundation were still visible until the 1930's and stones dug from the old site and foundation were taken away and some of us still have them around our homes.

Historians also claim that it was William Penn who built a house on a strip of ground jutting into the bay out of native white oak, who really named the town, Town Bank. The date was set at 1680. At the time, the village numbered 13 cabins. Penn surveyed the area with the thought of building a new town of Brotherly love, but later moved on and chose the site which is now Philadelphia.

In Historical Collections of the State of New Jersey by John W. Barber and Henry Howe, page five, under Lower Township, it states: "on a plantation owned by Ebenezer Newton," in 1734, Aaron Learning, Esq., born in 1716, states: "he saw the graves," they were then about 50 rods from the bay, and the sand was blown up about them, Samuel Eldredge showed them to him. There were also some signs of the ruins of the houses.

In 1697, an act important to Cape May County was passed. It called for a road to Cape May from Burlington. Progress was slow and

in 1706, Shamgar Hand and William Goldin, commissioners, were just completing the layout of a road from Egg Harbor to Cold Spring and from there to Town Bank, which was completed around 1707.

The Indians, the area's earlier settlers, were members of the Lenni-Lenape (meaning original people) and our local tribe were the Kechemeches. These tribes lived at peace with the settlers.

In Town Bank; on Clubhouse Drive, not too far from the original site of Coxe Hall, is a large colonial type building built by a developer for an office and later left to the Property Owners Association, never to be sold, but to be returned to the heirs if need be. It is the favorite meeting place with many civic and political organizations of Lower Township. Professional offices for dentists, eye doctors and medical doctors are also nearby.

Close by, North Cape May shares the area bordering on the original Town Bank and is one of our fastest growing communities, which started first as Cape May Beach Estates by the Philadelphia Development Company in 1927. By 1930, most of the homes had been moved away to other areas of the township and the population was three persons.

Carl Mitnick next started the development of North Cape May, with a smaller type residence for vacationers with low taxation. Today, the whole area is built up, with Cold Spring Apartments overlooking the Cape Canal, which runs through the township. Here, nearby on Town Bank Road, is the Town Bank Manor which houses both young parents and families with a special section for senior citizens. Along Town Bank Road is housed one of the finest Volunteer Fire Companies for which the township is noted. Here, too, an ambulance of the Lower Township Rescue Squad is housed.

Nearby is Bay Shore West, a delightful community of homes, and the later communities of Bay Shore East, Schooner Landing, Baywood Park and Kechemech Park. North Cape May has a sub-post office, a community swimming pool, a shopping center, branch bank and water supply. Many churches are nearby including: St. John of God, Roman

is the Township's coastal area adjacent to W... It is fast becoming a favorite family vacation spot with several high-rise resort motels.

Another interesting story the author recalls hearing many years ago was that of her husband's uncle, Frank Dickinson, of Fishing Creek, who was born near Erma in 1875. As a young man, he climbed down the well that supplied the water to Coxe Hall and brought home some bricks from the well. His son, Karl A. Dickinson, recently retired Curator of the Cape May County Historical Museum, received these bricks years later from his father and gave six of them to be used when the fireplace was built at the Museum. They were lettered Coxe Hall.

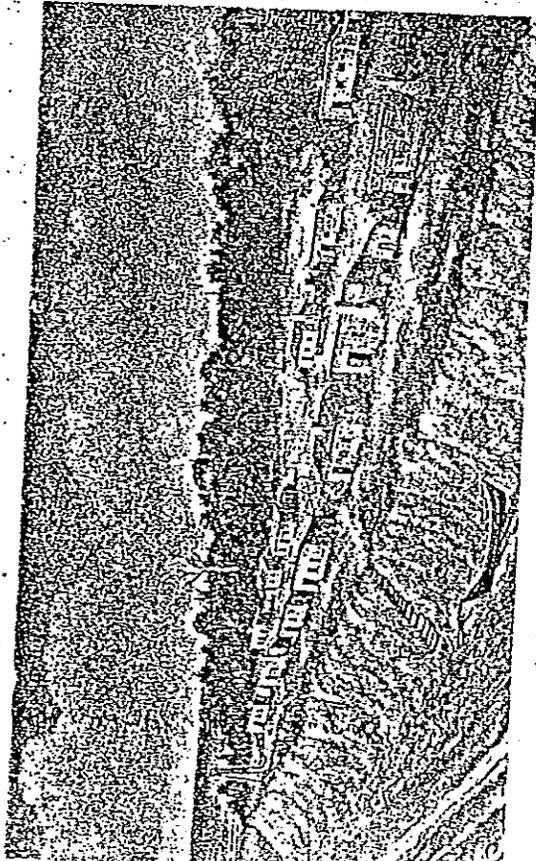
Coxe Hall was thought to have been standing until about 1840 when it was taken apart. One section was recorded as being moved to a house on Old Bayshore Road owned by a Hughes. Between 1870 and 1890, the remainder of it was moved to nearby Jonathon Hoffman Road.

Before 1745, county court cases and other business was held at Coxe Hall. The first county court trial was held there on March 20, 1693. George Taylor was the appointed clerk at a town meeting held at Benjamin Godfrey's on February 7, 1692, it is recorded. Religious services were conducted at the Hall, as well as official business.

An old creek was called Old Petticoat Creek. Nearby here today, we find North Cape May (once part of Town Bank). The creek was filled by several springs and we have been told it was a favorite place for ice skating in the later years.

Today, the Cold Spring Apartments are on the site of where the Old Petticoat Bridge existed. The history of the creek's name is uncertain. But, one of the stories out of the past has it that a young lady, wading across the creek one day, lost her petticoat which floated down the fast stream out of her reach.

Town Bank had for many years been a quiet area, with a sandy trail between Bayshore Road and the Delaware Bay. Beach parties and



ORIGINAL TOWN BANK (PORTSMOUTH)

Catholic Church, on Town Bank Road; South Jersey Baptist Church, on Town Bank Road in Town Bank, and Bayshore Community Church on North Cape May. Buses transport children of the area to the Maude Abrams and Consolidated Elementary Schools, located on Old Shore Road, the Richard Teitelman Middle School and Lower Cape May Regional High School, located on Route 9 in the Township. Parochial schools are also available in the Township such as St. Raymond's the Villas.

The Cape May-Lewes Ferry Terminal is housed in the North Cape May area of our Township with four modern ferries making scheduled trips daily year 'round across the bay to Delaware, a 70-minute trip each way.

Two modern, up-to-date, high bridges cross over the canal at Shore Road, at Route 109 and another at the water thruway to Oldwood Crest - this is a toll road which runs north through coastal towns to Ocean City. It is called the Sea Gull Highway. Diamond

and wild flowers made the trail a popular walk for nature lovers.

During World War I, it was used as a marching area for recruits from the Wissahickon Barracks. This Naval Base was located at the end of where the Garden State Parkway is at present and was the largest of the three bases. The young sailors were marched down Mill Lane (the present Ferry Road) to Town Bank and to the Delaware Bay.

During prohibition years, bootlegging thrived along the Delaware Bay with the rum runners landing their illegal "booze" along the area. Many "old-timers" still living along the bay at Town Bank have related stories of one night in 1932, when a very bad attack was held right off

Town Bank. Quite a few residents of the area heard and went to the bay to investigate as the U. S. Coast Guard cutter forced the rum runners ashore and beached their boat. According to others having seen the encounter, the runners dumped their cargo into the bay, and some of those watching helped unload what remained aboard.

At another time, the author and friends were on a "Scavenger Hunt" — hunting several items (shells, holly, etc.) to take back as their trophies and very narrowly escaped meeting up with rum runners in the Villas area. That night, the runners landed on the beach and were



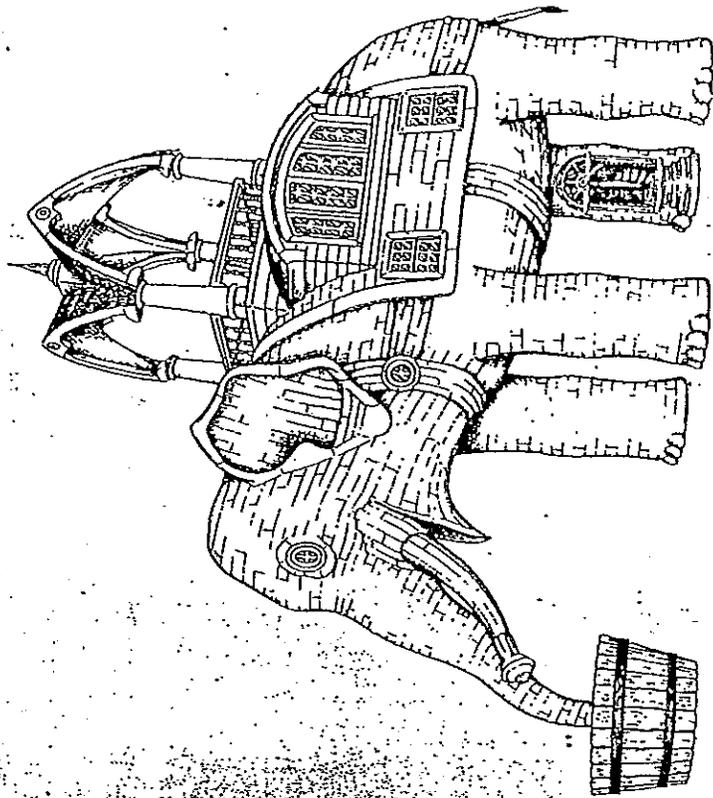
PETTICOAT CREEK BRIDGE

Landing was another favorite spot for them to land their illegal whiskey, too.

We are told that present North Cape May was the haunt of well-known pirates, as well as was Lake Lily in the Cape May Point area of the Township. One can easily imagine pirate ships offshore in the Delaware Bay and that they did bury treasure amid the sand dunes.

We have been told that from 1699 to after 1722, pirates visited along the Cape Point up and to Town Bank. It has also been stated that Higbee's Beach, famous for its "Beach Plum and Beach Plum Jelly," was a favorite spot. This area at one time adjoined the area of present North Cape May and is now separated by the Cape-Lower Township Canal. At Cape May Point, a large cedar tree is known as Captain Kidd Tree.

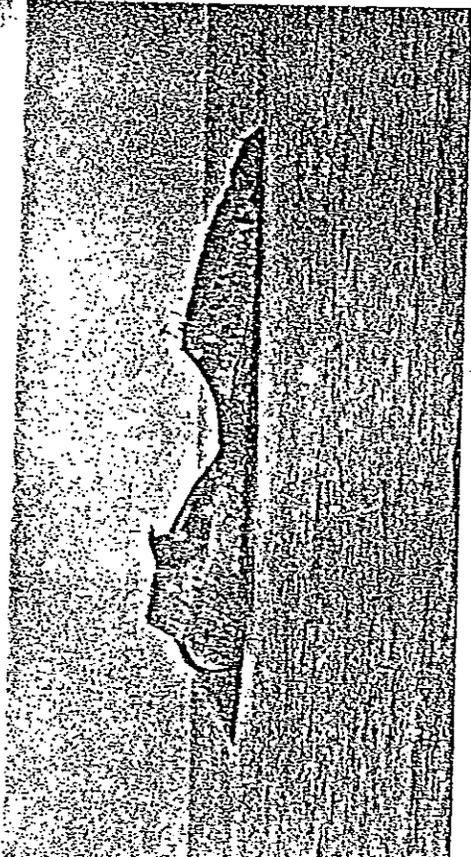
South Cape May, a part of Lower Township, was once the site of a wooden Elephant structure. Remember Margate's "Lucy," the



was one of the similar Elephants and was larger than the one at South Cape May, called the "Light of Asia." The other one of the three was at Coney Island, New York, and was called the "Star of India." I believe her name was changed at one time; also, she might have been destroyed by now in one of the fires that hit the area during the years. South Cape May's structure was reportedly built around 1884; and due to the encroaching of the Atlantic Ocean seas, it was taken down about 1900.

About 1933 or 1935, apartment buildings built farther back from this site, belonging to several local area residents, were ruined during a bad storm. After one storm swept in, the wreckage was so great that the buildings had to be demolished. Located at the corner of Bayshore Road and Sunset Boulevard is the second and third story of one of South Cape May's original homes.

Our early roads were really widened Indian paths; and camps of the Indians were at Fishing Creek, Erma, Cold Spring, Green Splinter and nearby "Leamings" near Route #47 and Fulling Mill Road, sometimes called Nummy Town. Here, it is supposed that King Nummy was buried although no record exists.



CONCRETE SHIP "ATLANTIS"

After the whaling industry departed from Town Bank and with the bay still encroaching on the bluff washing away the ground, many of the whalers did not wish to return to New England and Long Island.

With much fertile farm ground available out in the Township, at Fishing Creek, Cold Spring and Erma, they started to purchase ground for farms. By then, the log houses and burial places of the settlers had disappeared in the bay.

Starting over again here in Lower Township, they built permanent homes and began to farm. Some became ship builders and others opened various type businesses, blacksmith, miller, etc.

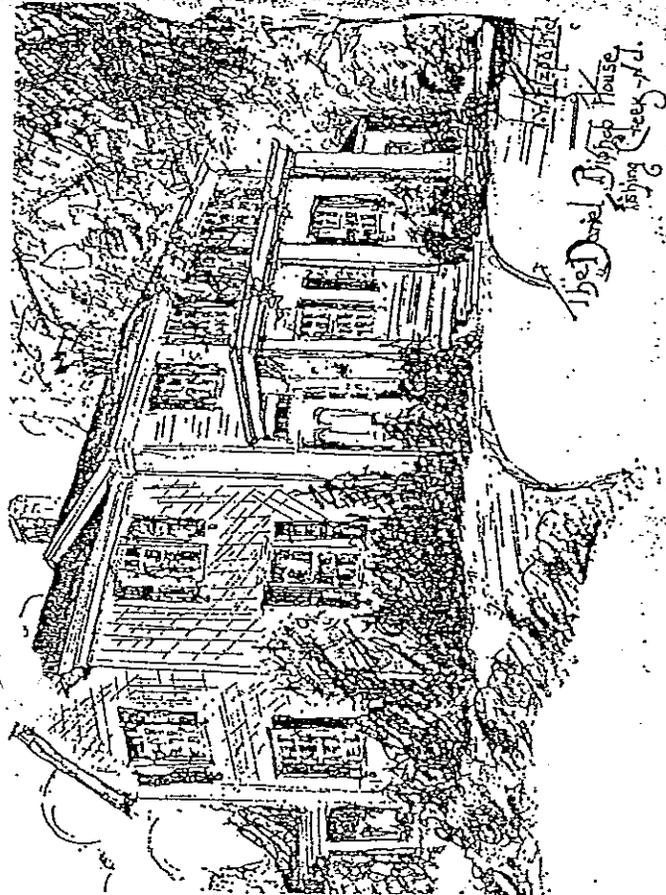
It doesn't seem quite right to call any of the three towns, the second town in Lower Township, as in each area we will find pioneers building homes out of native timber and starting to build churches and soon, schools. We know by the records of earlier historians that a fulling mill was run by Richard Downs (by advertisements in the paper). Also, the mill gave to us the name of the present area called Fulling Mill Road, adjacent to the County Airport, once the U. S. Naval Outlying Station, built during World War II. (This was on the site of Old Bear Swamp where the farmers hunted.) Nearby was once the site of Indian camps and burial grounds and many Indian relics have been found over the years.

Today, we still find the names of the early settlers continue in the area: Matthews, Keans, Hughes, Hands, Shaws, Crowells, Edmunds, Fosters, Eldredges, Crawfords and many more.

With many families building homes in the areas, we will find that town names were taken from the families' names as in Swaintown (now Erma), Crandall Town and Centerville (Cold Spring).

The thriving Villas and other nearby newer communities take in a great deal of the Old Fishing Creek area.

Much activity took place on the waters of the Delaware Bay near



Fishing Creek during the War of 1812. Several historians have told the legends of Fishing Creek and this one concerns a young miss, Abigail Hughes. One day during the War of 1812, we are told that British Warships appeared on the river and enemy barges headed toward shore. The townsmen of Fishing Creek had but one cannon which they dragged to the waterfront and prepared to fire. Young Abigail figured the odds, we suppose, and jumped in front of the cannon and shouted to the men, "You shall not fire, the British may not know we are here and will go elsewhere. But if you fire and miss, we will all be killed."

Again, history records that the boats left the area and headed to town Bank where they stripped the town of all eatables and livestock. In Fishing Creek, the area residents claim Abigail as their heroine. While most of the early farmhouses have now disappeared, one of the fine old showplaces of the neighborhood belongs to Karl A. Dickinson and his wife, the former Emma Munson. It is one of the most charming authentically furnished homes in our Township.

has rounded out 24 years as the custodian of the Cape Mize County Historical Museum and many years of service to the Historical Society. The beautiful Bishop House houses many of the Dickinson collections and boasts two fine old Grandfather clocks. The grounds are attractively landscaped and the house has been open several times at Christmas showing hospitality to members and friends of The Society.

The house, located on Bayshore Road going towards the Villas, set in old Fishing Creek, is not too far from the Town Bank area. It was owned by Karl's father, the first mayor of Lower Township, Mayor Frank Dickinson. The families are descendants of the County and Township pioneers. Karl Dickinson has been a guide and help for us residents who have done genealogy research.

In 1812, British men of war blockaded the entrance to the bay and troubled the residents of the Bayshore communities. Cattle and their other belongings were taken from the farmers. We are told that vessels owned by residents were destroyed by fire and two young sisters returning from Philadelphia on a sloop were taken prisoners and the sloop burnt. It was at this time that an old cannon was given to the residents for protection which proved ineffectual.

We understand that Fishing Creek offered hospitality to General Harrison during his campaign for president. I have heard some of our older residents tell this story. The General and his entourage stopped at the Hughes' Homestead on its way to a rally at Cape Island and were all treated to cider from closeby orchards pressed at Uncle Jerry Kent's cider mill located on Fulling Mill Road.

In 1818, the sixth post office in the county was established with Robert Edmunds named postmaster. Although Fishing Creek was a farming area, it was populated enough for there to be an interest in starting schools, the first being on Fulling Mill Road, and a later one on Bayshore Road, where may be seen a private dwelling complete with curtains and other home-like furnishings, which was the last school.

problem of getting their produce to market.

With the late Walter M. Garretson and his father-in-law, the late George Dickinson, owning one of the large farms from the bay to Bayshore Road, it was necessary for them to take double horse teams hitched to the wagons to get out to Tabernacle Road and Old Seashore Road leaving home at 2:00 A.M. The second team would be sent back and the wagon would go on to Cape May where they served the hotels, arriving late in the morning and being late in the evening making its return home.

While many interesting industries have been mentioned in our Township, one of interest to me was the king crab pound. These, the farmers ground to make fertilizer for their own crops and nearby neighbors benefit. Last summer on the beach at Town Bank, seeing hundreds of these unable to get back in the water, dying and producing nasty odors, had brought to mind the old farmers and their resourcefulness!

In 1863, a farm owned by William Bate of Fishing Creek was put up for sale. It contained 200 acres, half of which was under cultivation, fifteen acres of orchards and 15,000 strawberry vines. The advertisement claimed the "shore is fine for fishing, bathing" and the oysters planted here were claimed the best in the Philadelphia market. In an abundant supply of clams was also on the shore.

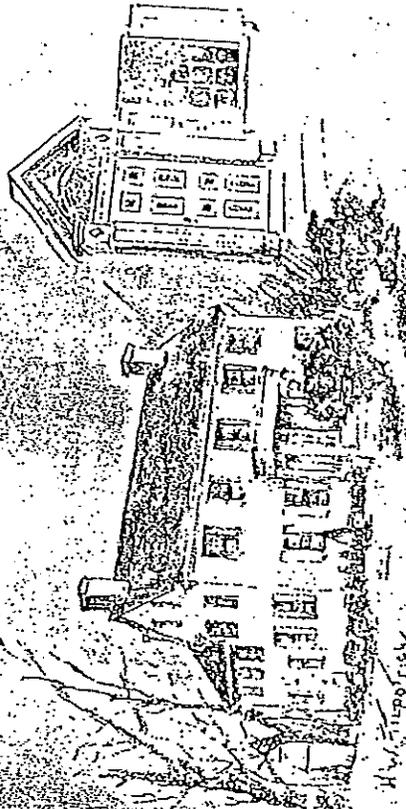
This farm is partly where the Villas is now located. When first developed by Joseph Millman, it was called Wildwood Villas and advertised as an ideal bungalow colony, a country seashore resort. The Fishing Creek Post Office continued for 100 years before was discontinued and in 1931, a new Post Office came into being under the name of "Villas."

The Villas now has several churches including St. Raymond's Roman Catholic Church, St. Barnabas by the Bay Episcopal Church, and Holy Spirit Lutheran Church and also St. Raymond's Catholic

early developer.

The Villas has veterans' service clubs and political clubs (the Chamber of Commerce, Optimist Clubs) and houses the Lower Township Rescue Squad. Out in the more rural section, the Township has a modern recreation center, and nearby, a new up-to-date building houses the Police Department. The banks have local offices located along Bayshore Road. Villas Fire Company No. 1 has modern equipment and fire houses and were the pioneer fire fighters of the Township.

One of the largest turkey farms in the vicinity owned by Leslie Bate was in operation along Bayshore Road until the 1930's. Here one could pick out his own "bird" and have it all ready for the holidays.



The William J. Bate House
Villas
ca. 1846

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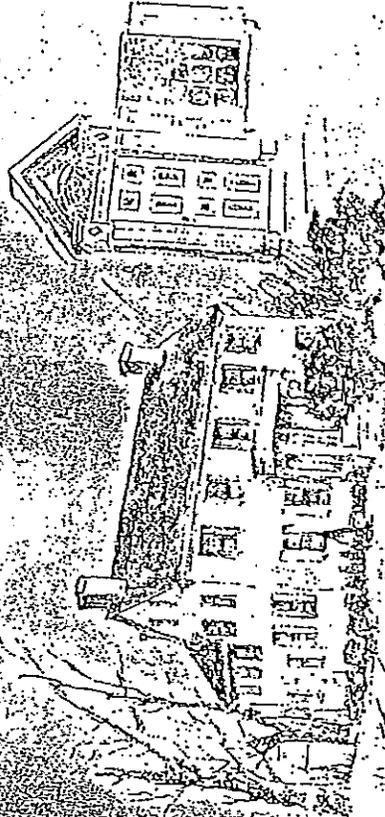
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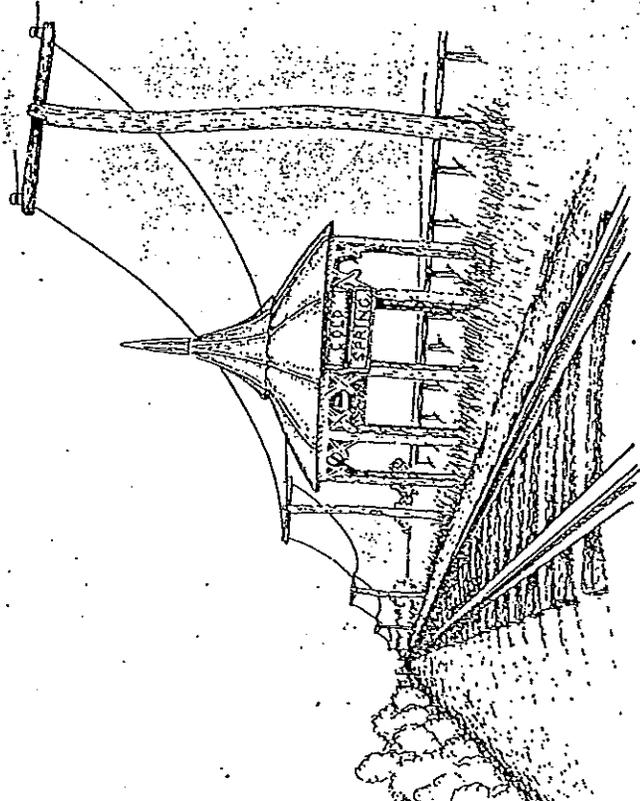


The William J. Bate House
c. 1646
Villas

The Cold Spring Presbyterian Church is the oldest of this denomination in the County of Cape May, being formed we are told by early historians in 1714. The first Church according to records was a log building erected in 1718. The present Church of red brick commands attention as one enters the town along Old Seashore Road and dates from 1823. It is surrounded on three sides by graves of the founders and their descendants and is widely visited by present historians as well as the earlier ones. The oldest gravestone is that of Sarah Spicer, 1742.

Nearby, is the Cold Spring Grange used for many years for meetings, dinners and old-time parties. It is now being restored with the owners planning a museum of local primitives and farm items, among other antiques.

On Shore Road, Route #9, opposite the church site, is a spring



The finest ice cold water which gave the town its name, a Victorian type spring house, it was still used into the 1930's. It was covered over when it was decided it might not be safe to still drink the water.

When walking to Cape May, we rested on the wooden benches and refreshed ourselves with drinking the water. One of the objects of the newly formed Lower Township Historical Society is to restore this landmark, as well as to place a permanent marker at the first village of Town Bank.

Records tell us that the "Cold Spring" was a sparkling spring of bubbling water coming out of the salt marsh. An inlet not far away, connecting the waterways with the ocean, was named "Cold Spring Inlet" for the spring, as was the agricultural neighborhood and village that grew up near it.

In later years, after the founding of Cape Island from Lower Township, the Cold Spring was one of the attractions for summer visitors to Cape Island.

A visitor to Cape Island on August 8, 1823 wrote: "I took advantage yesterday of accommodation constantly to be had here, a Jersey wagon, to ride to Cold Spring, a short distant from here." The curious spring is the source of fresh cold water, a barrel covered it to exclude salt water. While the temperature was 79 degrees, the water was 60 degrees. The spring was adjacent to a road which turned left toward Cold Spring Presbyterian Church, recorded to be the only Church and which was then attended by visitors from Cape Island, part of the Township.

In 1828, the Cold Spring Hotel (three miles north of the island) was stated to be located in the vicinity of a "remarkable spring of fresh cold water."

Again, in that year, another visitor to the Island wrote regarding a carriage he hired and rode to the village of Cold Spring where his party attended worship at the Church, later visiting the Spring.

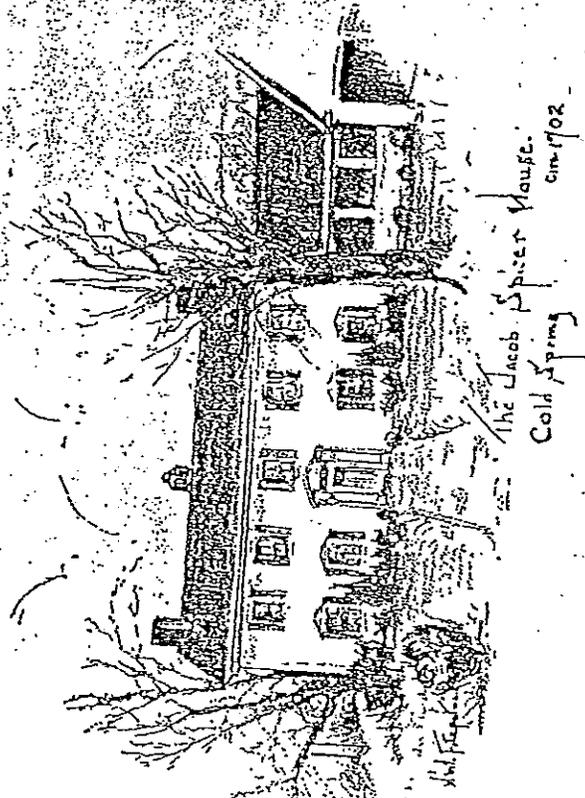
In 1834, the village was described in the "History and Gazetteer"

who came here with the whalers in 1692. When the whaling industry left the area, he decided to purchase farh lands. He bought land from Jeremiah Basse, agent for the West Jersey Society and built a saw mill and a grist mill operating for several years until fire destroyed the mills.

One of his grandson's settled on the plantation at which is now Schellenger's Landing. This was Aaron, who became a boat builder and launched many boats from the landing. He was one of the original trustees of the Church. He purchased cattle, sheep and swine using a common pasture as was the custom. Earmarks were registered with the County Clerk. Common summer pasture was by driving the animals over to the Island for the summer — now The Wildwoods.

Farmers from Cold Spring, Fishing Creek and Erma supplied the Cape Island cottages, boarding houses and hotels with fresh produce all summer. This continued through well into this century. In 1893, the old property of Dr. Eli B. Wales, consisting of more than 106 acres on which were located the famous "bubbling springs," was purchased by the Cold Spring Land Company for development of a new resort. Natural attractions of the locality were advertised to include "sailing, fishing, crabbing and gunning, with the advantages of a country home, pretty lawns, fresh vegetables and chickens." The advertisement promoting the new resort includes data regarding "The Famous Cold Springs."

In 1894, the South Jersey Railroad Company completed the railroad from Tuckahoe (Turkey hoe) to Cape Island, passing 12 to 15 feet west of the Spring. This railroad later became part of Philadelphia and Reading Railroad System. The Cold Spring Station was located just south of Mill Lane (now Ferry Road), about 1/4 mile east of Old Shore Road. The trains did not stop except on signal, mailtrains picking up and dropping off mail. Fare into Cape May was six cents. In the early years of this century, in December 1920, the new Concrete Road, now Shore Road, Route #9, was completed. It



New Jersey as the Post Town of Lower Township, which contained a tavern, two stores, from 15 to 20 dwellings and the Presbyterian church, and was named for a remarkable spring. Ten years later, Cold Spring was described as a "thickly settled agricultural neighborhood containing about 40 houses within a circle of a mile, and an academy, a Methodist Church and a Presbyterian Church."

We find a newspaper correspondent in 1846 writing: "The settlers all around the area came into the Island to take visitors from hotels on the Island, to the Lighthouse, Cold Spring, Higbee's Inn (home of Cape May Diamonds) and to see the Albinose." "The company chartered one of the wagons to go sightseeing; they tell us their service offered to sell them "Cape May Diamonds."

A map published in 1850, showing the vicinity of Cold Spring, was named by name the "Cold Spring House" (hotel) and a "ten pin alley" where visitors came to play, enjoy refreshments and the Spring. One of the settlers of Cold Spring was Cornelius Schellenger,

rossing and N. Lane passed only 12 to 15 feet east of the Spring, second Spring being buried under the road but a pipe carried the water into the Cold Spring.

In 1933, the Pennsylvania Railroad merged with the Philadelphia and Reading Railroad in South Jersey to form the Philadelphia and Reading Seashore Lines. One set of the tracks (P. & R.) were removed. An item in the Cape May Star and Wave, May 28, 1953, noted that: "This Spring has long since fallen into disuse and remains a pleasing memory of the past."

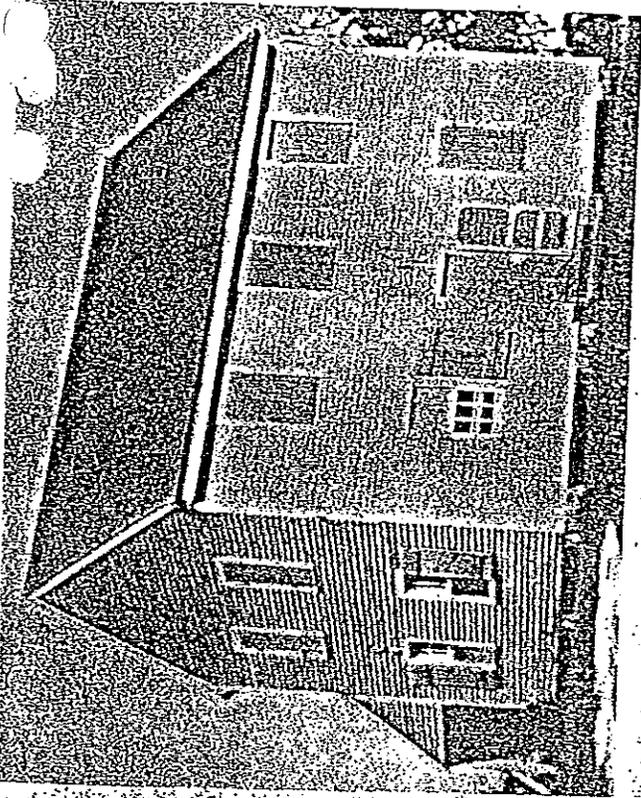
In January, however, the Township Committee of Lower Township appointed an Advisory Board for local planning, with Rev. Samuel A. Parker, D.D., minister of the "Old Brick Presbyterian Church," serving as Chairman.

In July, a recommendation by the Board was that the Cold Spring be restored and was approved. An authorized lease with the railroad for the ground where the Spring was located was for six dollars a year.

In 1954, a circular wall, two feet thick, was built around the Spring. It was constructed of cobblestones and white cement, with a layer of pink cement. The water ran out a metal pipe set in the wall. Cobblestones were supplied by Robert S. Phillips who had ordered them from Delaware to use in building a patio on his home. Water still flows into the Spring today.

Among the better known ministers of the Church were Reverend Daniel Lawrence, died 1766 and buried here, the Reverend Moses Williamson, and the Reverend Dr. Samuel Finley who became President of Princeton University. The Church later had a chapel on Gull Hill Road, now Jonathan Hoffman Road.

Here also at Cold Spring was erected in 1699, the earliest water tower in the County, according to records and was owned by John Williams, or Caleb? Today, along Old Seashore Road, south of the Church on the left hand side, one will find the Lower Township



COLD SPRING ACADEMY

Municipal Building, stately in its restored simplicity, with a one-story addition for special offices, including the Mayor's office.

At one time, Henry Ford owned a farm at Cold Spring and would have liked to have built his plant here. But, as the story has been related, he found in another area a more sympathetic welcome for the undertaking. The Ford farm was on Route #9, near where the ferry road enters Route #9 (Mill Lane). Across the road, back in a wooded area, near a stream, is the former site of an early mill. For years, old farm houses stood on these two sites, but recently they were torn down to make way for up-to-date buildings.

A canal crosses over Lower Township through Cold Spring, the results of efforts expended by the late Senator I. Grant Scott. It enters the Delaware Bay at North Cape May, where inside the canal, the Cape May-Lewes Ferry has its terminal and enters Cold Spring Harbor and thence the Atlantic Ocean, not far from the Coastal Sea Gull Highway.

...et is a busy area with the Schellenger Landing locks and several new docks; it has a wide selection of party boats as well as fishing docks.

Cape Island Bridge is no longer open to marine traffic, having been widened and closed permanently, after being operated by the Cape May County Freeholders for years.

Old-timers around the docks in years past had many tales to relate regarding pirates and pirate treasures.

Before leaving Cold Spring, we would like to mention a few more interesting facts.

The Cold Spring Academy was built during Rev. Moses Williamson's pastorate at Cold Spring Presbyterian Church. It was first started as a high school in the Parsonage, then finally erected and conducted at much expense and effort as the academy. It stood on "Crawford's Lane," now known as Academy Road.

It was later used for a meeting place of the Lower Township committee and the district election place. The Academy was torn down several years ago and the site is now part of the burying ground Cold Spring Cemetery. A fuller description of the Academy is in Volume VI, #9, page 544, Cape May County Magazine.

Also of note to our Township history is the Shun Pike, which exists today, running through our Township, but now bisected by RY. Road and the Cape Canal to begin again south of the Canal to Thompson's Lane.

Many tales have been told regarding the "pike" by numerous patriots. Four roads now pass through our Township: Shore Road #9, Old Shore Road, Garden State Parkway and the Old Shun Pike, all leading to Cape Island (Cape May City).

The Pike ran from Cape May Court House to the Island through our Township and was built to avoid paying toll on the pike east of it. Township records say it was built by John Tomlin, who owned a large farm at Goshen, and other neighbors of Middle and Lower Township, had much hay, wood and farm produce to sell to Cape Island. It



was reputed to be built about 1853.

A Post-Office was established at Cold Spring, with Aaron Eldredge appointed post master on October 1, 1809. It was the fourth established in Cape May County, and it was discontinued March 31, 1934 when mail was sent through to Cape May.

As part of the Township boundaries still encompass Sunset Boulevard, the Magnesite Plant and, in early days, all of present Cape May Point, recognition should be given in this book to our Lighthouse.

The English are believed to have built a lighthouse on the point about 1744 — the year one was built across the bay, twelve and a half miles, at Cape Henlopen.

After the Revolutionary War, Congress granted authority for the appointment of commissioners to purchase a site for the erection of a lighthouse on a high bluff at Cape Island. A tract of land was conveyed to the Board of Wardens of the Port of Philadelphia. A letter dated November 12, 1785, confirms the conveyance. No records have been

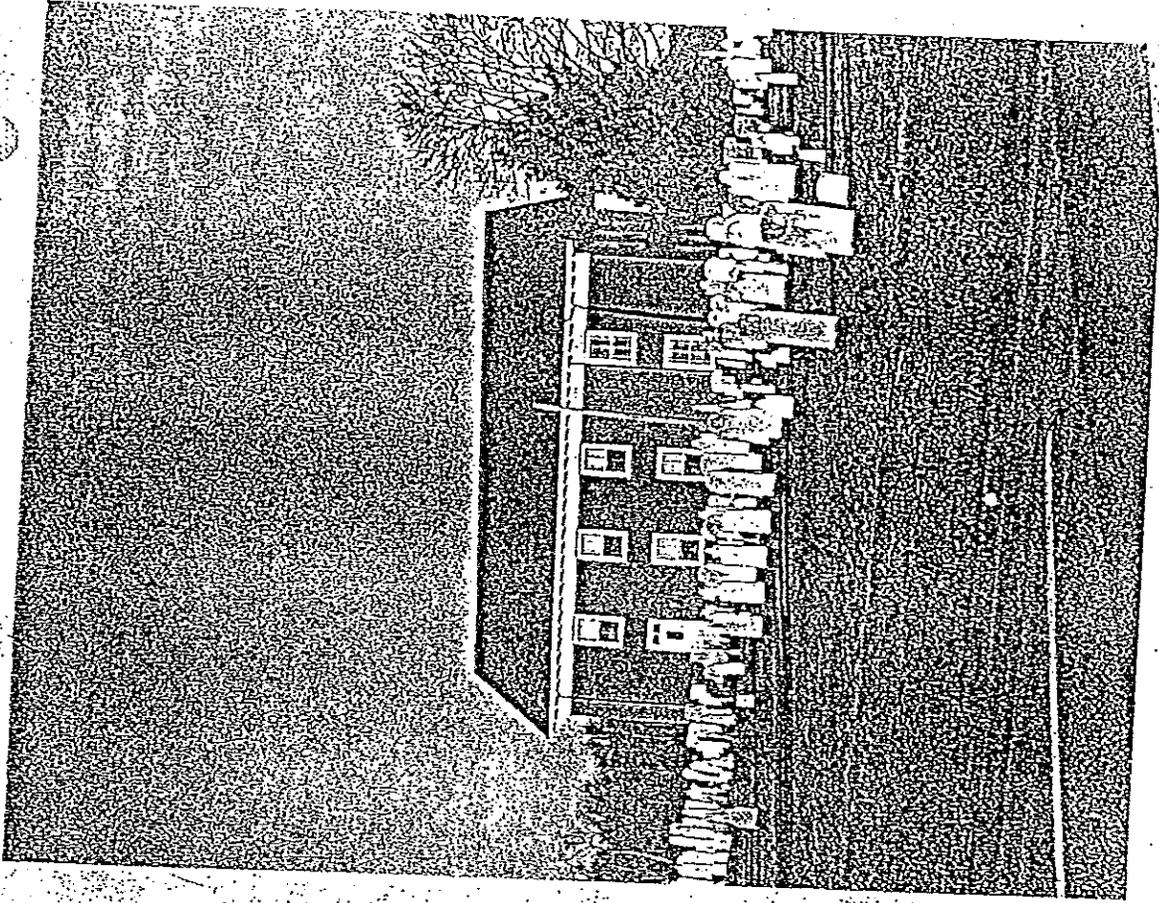
In 182... Congress approved an appropriation for erection of a lighthouse. The site selected was the point of the Cape. Construction was begun in 1822 and was completed October, 1823. The Light was 70 feet high, arched at the top, with revolving light of 15 lamps. One hundred steps led from base of tower to the top, surrounded by iron rail. The wall was of brick brought from Philadelphia and placed on stone foundation.

The Light was discontinued on May 1, 1847, because the sea had encroached and the tower was surrounded by water threatening its foundation. The site is covered by the Ocean, well over 100 yards out. In 1847, the Lighthouse was removed and rebuilt on a high bluff called Great Island, near half a mile from the other position.

Our present Light was built in 1859. The tower described in 1868 was 145 feet high and the Light was 153 feet above sea level. The 1847 lighthouse was torn down. The Cape Light is mentioned in The History of American Lighthouses, by Francis Ross Holland, Jr., since 1716, on page 87.

(Author's note) Having studied the Lighthouses of the Atlantic coast and painted many pictures of famous New England ones, my son and I designed a bottle to be made at Clevenger Glass Works. One side depicts the present Lighthouse and the reverse side, the Concrete Ship, "The Atlantus," at the foot of Sunset Boulevard at the Point. The bottle is in sparkling light sea blue, made in old molds. It is lettered: "Original" by M. E. G., due to my son's courtesy.

"THE OLD BRICK CHURCH"



The pioneers of Cape May County had two notable characteristics: a genuine reliance upon the guidance of God and a strong disposition to look out for themselves. These two traits are not inharmonious, but complimentary. One by one, over the years, men and women have been worshipping in one of the County's oldest and most historic churches,

Brick." Throughout the years, distinguished visitors to this church have included President Harrison, John Wanamaker, Russell Conwell, Reuben Haines and a host of others.

The first service was held at Dr. Daniel Cox's "Coxe Hall" and it was here the church was organized in 1714. The first settled minister was the Rev. John Bradner, a native of Scotland. He was only a candidate for the ministry when invited to Cold Spring and was not authorized to preach until the three nearest ministers, Revs. Davis, Hampton and Henry, took the responsibility of examining and licensing him in March, 1714. Mr. Bradner lived on his estate, and was ordained May 6th, 1715. He gave his name to the little stream on the east side of the church and cemetery, calling it "Bradner's Run," which name it retains to this day, after 262 years.

In 1721, Rev. Bradner removed to Goshen, Orange County, New York, and died before September 1733. His estate at Cold Spring, consisting of some two hundred acres, was purchased from him about the year 1718, and was conveyed by him in perpetuity for the use of the pastor to Humphrey Hughes, George Hand, John Parsons, Joseph Whildin, James Spicer, Shamgar Hand, Joshua Gulickson, Samuel Johnston, Constant Hughes, Cornelius Schellenger, John Hand, Nathaniel Hand, Barnabas Crowell, Jehu Richardson, George Crawford, Benjamin Stites, Jeremiah Hand, Samuel Eldredge, George Crawford, Jonathan Furman, Ezekiel Eldredge, Eleazer Newton, Nathaniel Norton, Nathaniel Rex, Yelverson Crowell, Josiah Crowell, William Mulford, William Matthews, Samuel Bancroft, Eleazer Nocault, Joshua Crawford, Samuel Foster and John Matthews. These thirty-two persons with their descendants and others have been the principle supporters of this church ever since.

The first church was a small log building which stood just a short distance from the road, then a little sandy trail, undoubtedly first made by the Indians (here on this site, historians say, was an Indian burying ground, and nearby are the shell mounds, where wampum was made).

House." The second frame or shingle building, larger than the first, stood

near the gates of the old graveyard, by some very large trees. It was built during the pastorate of Rev. Daniel Lawrence and remained in use from 1762 until 1824. It, too, was called the "Meeting House."

The third church, the present structure, was erected in 1823. It was planned by the Hon. Thomas Hurst Hughes. Others who contributed their services toward its construction were Dr. Samuel S. Marcy and Judge Eli B. Wales. This building was remodeled in 1848 with particular attention to its pews, pulpit, windows and general appearance. Dr. V. M. D. Marcy, Rev. Moses Williamson, David Reeves and others worked on this renovation plan. There are two slave stalls located on the east end of the gallery, where the slaves stood during the lengthy services, for in the days of yore, the hour glass was turned several times during the sermon. Many of the old members had large plantations in the Cold Spring-Cape May area and owned many slaves. In the days of long ago the pews were auctioned off, the main section going to the highest bidder, the gallery to the less affluent. The original pulpit was the high type, enabling the minister to speak with ease to all his congregation.

Rev. Moses Williamson served the church for 44 years as pastor, coming to Cape May August 16, 1829. He was invited to preach at Cold Spring, as there was no established church at Cape Island then and summer visitors and natives attended this church. He was released at his own request from the charge by the Presbytery of West Jersey, on April 18, 1873. During his pastorate 490 persons were added to this church. He married 250 couples and officiated at more than 500 funerals. He died at Cape Island October 30, 1880, at the age of 78, and is buried near the front entrance of the church.

In the adjoining cemetery, the oldest known tombstone is that of Sarah Spicer, born 1677 and died in 1742. Sarah Hand first married Captain Ezeiel Eldredge, who died in 1712 and was buried in a

cemetery located on the Newton Plantation in Town Bank. Later, when a fire threatened to wash the cemetery away, his remains were moved to the Eldredge family plot in Cold Spring cemetery. His widow subsequently married Jacob Spicer and upon her death, she was buried in the family plot of her first husband, Ezekiel Eldredge. Both Jacob and Sarah Spicer were members of Cold Spring Church, but when Jacob Spicer died, he was buried in a family plot on the Spicer plantation which was located on the Old Shore Road, south of the Church.

A cholera epidemic in the area in 1832 caused many deaths and the victims were brought to the cemetery at night and buried in one spot in unmarked graves.

There are more Mayflower descendants buried in the Church cemetery than anywhere else in the country except in Massachusetts.

Eight former pastors are buried in the cemetery, including Daniel Lawrence, James Watts, David Edwards, Moses Williamson, John L. Landis, David H. Laverly, Edward Wright and William Bullock.

The Delaware River Pilot, Page Stites, was a descendant of the Pilgrim, John Howland, and a member of "Old Brick." His son, Edgar Page Stites, composed many hymns, including the well-known "Beulah Land," in 1876.

Mrs. Henry H. Eldredge was the only woman in the history of "Old Brick" to serve as Treasurer (elected 1943) and also the only woman to serve as a member of the Board of Trustees (elected 1944), serving in both capacities until her death in March, 1954. She had charge, on two occasions, of redecorating the Church interior, and was largely instrumental in securing the installation of the present electric chandelier in the sanctuary, which was completed in 1954.

MILESTONES IN THE HISTORY OF COLD SPRING PRESBYTERIAN CHURCH

Founded	1714
First Church built (log building)	1718
Second Church (frame building)	1754
"Old Parsonage" erected	1804
Third Church (present brick building)	1823
Sunday School organized (first in Cape May County)	1832
Cold Spring Academy erected	1837
Brick Church renovated and remodeled	1848
"New Parsonage" erected	1848
Iron fence constructed along cemetery	1875
"New Parsonage" destroyed by fire	1876
Cold Spring Chapel erected	1884
175th Anniversary Service, with address by Reverend Daniel L. Hughes, D.D.	1889
President and Mrs. Benjamin Harrison attended services	1890
200th Anniversary Service, with address by John Wanamaker	1914
250th Anniversary Service, with address by Donald Barnhouse	1964

An early steamboat landing was located two miles above the tip of Cape May on a part of the Delaware Bay known as the Cove. Thomas and Rhoda Forrest operated a tavern here from about 1807 to 1823, when the property was purchased by Joseph S. Higbee, a pilot, who built a hotel called "The Hermitage." Thereafter, this place just south of New England Creek was called Higbee's Landing or Higbee's Beach and is still known by the latter name. A landing was established later nearer Cape May Point, just below the end of present day Sunset Boulevard.

In 1820, the Vesta ran to the landing on Delaware Bay, later the Superior replaced the Vesta. Then the steamboat, Delaware, started with regular trips; it was then that the Superior was withdrawn from service.

The remains of an old hotel stood near (now) Sunset Boulevard and surf casting was popular around that time (1910) at the Point. Visitors carried away relics left in the abandoned hotel, even to taking the legs off the old Chickering Square Piano.

Higbee's Beach became a sightseeing must as the home of the famous Cape May Diamonds and presently, the state is wishing to establish a park there.

THE LITTLE RED SCHOOLHOUSE

One of Lower Township's early schools was located on Town Bank Road, in Cold Spring. It is to be seen today, cut in half, with one part called "The Little Red School House," owned and called home by a Delaware River Pilot, Captain Thomas Cluff and family.

THE ERMA STORY

As the whalers moved farther out into the Township, they bought large amounts of acreages. At Swaintown, named for the settlers of the Swain family, we find nearby meadows also called for them. Erma is located one mile south of Rio Grande.

Other settlers included: Matthews, Whilidons, Shaws; then later, the Woolsons, Prices, Hughes, Olivers, Mukles, Dickinsons, Garretsons, Townsends, Churchs, Taylors and many more. Today, we find these names echoed through the years, showing up in Tabernacle Church activities and community affairs.

Much timber was found in the area which had to be cleared before they could build. Their cattle were earmarked and registered with the County Clerk and then taken to Holly Beach for pasture (a part of Lower Township until April 14, 1885).

There are records of families paying to start a school at Swaintown; later the country school, a one-room building, was built just south of Meadowview Lane. This school served up until Consolidated School was built.

Harvey Hawn, our former local grocer, with a store on Meadowview Road, who had attended the school, bought it and operated it as a grocery store. He later sold it and the Wesleyan Church now holds services there, having added on a Sunday school room and Parsonage. Earlier, a Pilgrim Holiness Church held services there.

The railroad ran along Route #9 and freight trains served the area. At Bennett's Station, Reuben Johnson had a store in a little red building which he had purchased from John Bennett. Before this building was demolished several years ago, numerous kindred spirits helped the author to head up a committee to try to save it, hoping to start a small museum. We were unsuccessful due to the condition of the building. Laws Printing and Coastline Advertising's buildings now stand on the "spot."

Mr. Johnson became postmaster in 1893 when the post office was established. Erma Bennett was a daughter of the Bennett's and

the town, Erma, one of the only towns in our area named after a member of the female gender!

Among the old deeds lost by fire in my home was one which gave boundaries to my grounds, with references to the "sugar cane" farm belonging to the company at Rio Grande. It is hard to believe we raised sugar cane at Erma, but like Connecticut's and Massachusetts tobacco farms, it was so! Sugar cane was also believed to be raised near Stimpson's Lane, Cold Spring, near the site of the old canning factory.

At Weeks' Landing (now crossed by the Garden State Parkway), was an inlet for small boats and a swimming "hole" for the youngsters of the neighborhood. Here, during the Revolutionary War, our local privateers would use the Landing to tie up in out of the way of the British who could not come into the Landing with the bigger boats.

During the War of 1812, George Taylor owned a brig (brigantine) with a brass cannon mounted on the deck. He anchored his ship in the "Folly," a deep hole in the mouth of Taylor's Sound and Swain's Channel. The British came and burned the ship where it lay at anchor. Many years afterwards, fishermen used to catch their nets on something when they fished in this deep hole. They thought it may have been the remains of George Taylor's ship with the brass cannon on the deck, lying where it sunk in the mud in the "Folly." Taylor's Creek and Taylor's Sound both get their names for this George Taylor who owned the brig. (Told to Karl Dickinson by Thomas Taylor, Jr., a direct descendant of George Taylor.)

Lower Township has had many unusual stories lived out here during the years! Aunt Hannah Barnett Thomas, my husband's great aunt, resided with us in 1929 and she was then in her late 80's and was born on a farm in Fishing Creek, one of ten children about 1849. She had a remarkable memory and many stories to tell.

Among them was one regarding dentistry in Lower Township. One day, when needing teeth extracted, went down to a large stump near the Old Blacksmith Shop (Crawford Lane) and was seated there to

have the extraction and then came home in her farm wagon.

Her sister, who lived many years on Week's Landing Road, our grandmother, was Hettie Barnett Dickinson, wife of George Dickinson, known as "Sol." She, too, remembered many old stories and told many old stories and told interesting highlights of "shivvrees" given as celebrations to newly weds. One can find many old headstones at Tabernacle Cemetery Graveyard showing many of the Barnett Family. A well-known member of the family was Captain Eli Barnett, born at Fishing Creek, 1827, who built the first house in Holly Beach, born at Hildreth and Artic Avenues are today. He is mentioned in the history of the Tabernacle Church.

About 1870, this house was moved to Week's Landing Road, in Erma, and became part of his son-in-law George Dickinson's home, he having married Hettie Barnett, Eli's daughter.

Eli next built the Inlet House, the first Hotel on the Island, about 1870 and still standing in 1971 on Rio Grande Avenue, at the foot of the George Redding Bridge.

In the early days, herds of cows were transported from Lower Township to Five Mile Beach by boat and were turned loose on the Island. (Holly Beach was formed from Lower Township, March 31, 1885.) Left to themselves, the animals became wild and the local inhabitants went to the beach occasionally to shoot them. Except when snow covered the ground, the animals could forage for themselves and there were salt ponds there for them (near Rio Grande Avenue and Park Boulevard, Wildwood).

When the ground was covered with snow, Eli Barnett, keeper of the lifesaving station, used to take an ax and cut down the cedars and other trees that covered the Island to give the cows forage. Sometimes a cow would get caught in the mud in the marshes and as it struggled, would sink deeper and deeper. When an animal was discovered in the mud, a rope would be thrown around it so it could be pulled out; often, when the cow reached firm ground, it would turn on its rescuer, who

grateful co.

My husband's great grandfather, Eli Barnett, had related to his grandson, Frank Dickinson, regarding a shipwreck of a barque (bark) named the "Bethany," which was wrecked on March 9, 1877 on Two Mile Beach. Two Mile Beach area was formed from Erma (formerly Swainton).

The crew of eleven was saved; the Captain was Walter I. Bendell of Sidney, New South Wales. The cargo consisted of silks, chinaware, fans, etc., valued at \$600,000. He gave two fine chairs to Captain Barnett, which remained in the family until recently when donated to a historical society.

The old wreck became a favorite spot for local fishermen to catch sheephead, fishing beside the wreck or dropping their lines in the ship's hold. They sold their "catch" at Cape Island. It is said that these fishermen made from \$500 to \$700 a year from the fish caught on the wreck of old "Bethany." On display at the Historical Museum is an old wine bottle taken off the wreck by Captain Barnett.

When the Cape May and Millville Railroad line was laid out, we had a station at Bennett's Crossing, many historians mention this. But few mention the little "Red Station" near my home at Erma. It was in use until 1924 until one of the old iron horse engines ran off the track and demolished the station. The author had pictures of the accident which were lost in her home by fire.

We pulled the train signal and the train stopped, taking us up and into Cape May. The fare was 15¢.

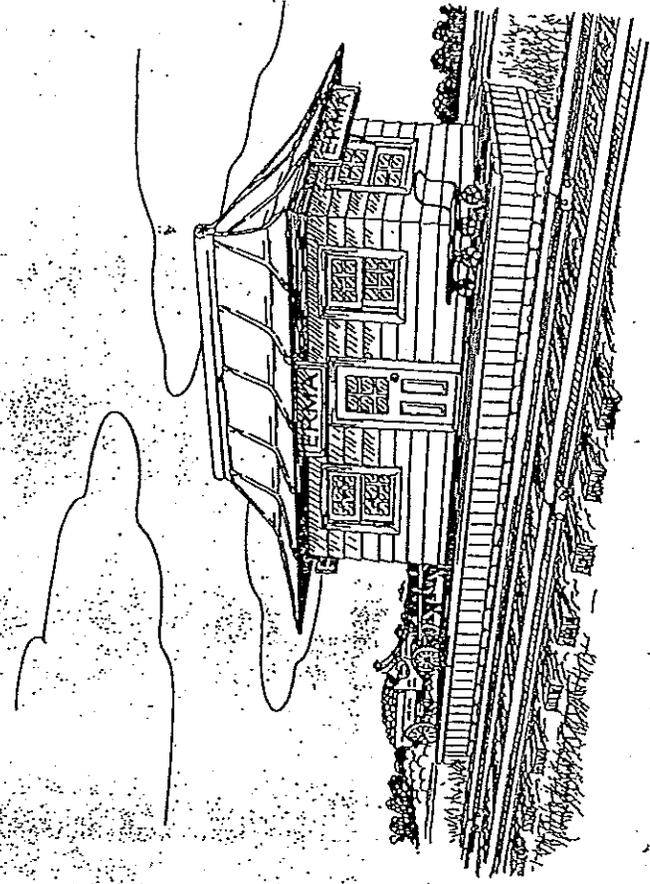
Reuben Johnson bought the Bennett Store and was the first postmaster in 1893 when the post office was established. It was he who named our town Erma in honor of Erma Bennett who married Swain Ludlam.

Back in 1923, we also had a Keystone Telephone exchange which was operated by the late Ida Fraley on Old Seashore Road below Bennett's Station. When we read of "Nature Walks," we should remember

Bennett's Bog, now a Wildlife Sanctuary owned by the New Jersey Audubon Society. This preserve has three bogs — one on the west side of Shun Pike and two others on the east, separated by 200 feet of woodland and connected by an artificial ditch. Southern plants are found there that are claimed to grow nowhere in New Jersey. Also, bird life has been noted that is not found anywhere else on the Cape.

At Sally Marshall's Crossing on Old Seashore Road, we have the Cape May Holiness Association with a campground and cottages, which has its meetings in late August and early September. Also, we have three more Churches in Erma: The Bible Missionary Church, Jehovah's Witnesses, and the Church of the Nazarene.

Erma was the original polling place of district one, the earliest district. For a while, the elections were held at the late Senator Robert E. Hand's mansion on Old Seashore Road, until falling into a bad state of repair. It was demolished and the ground sold. This was a very fine building at one time, with spacious porches.



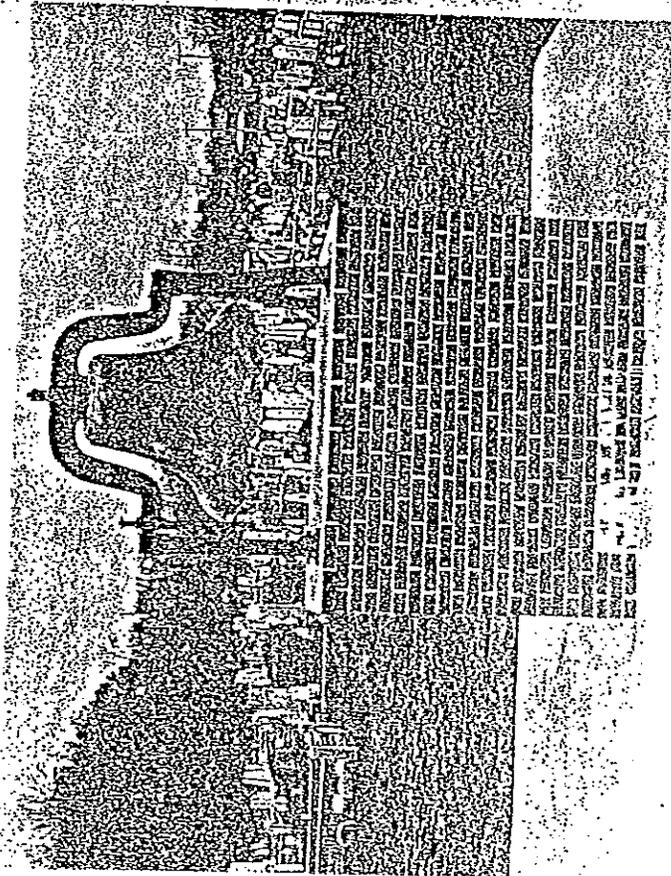
TABERNACLE UNITED METHODIST CHURCH, ERMA

Much has been written about Tabernacle Church. Here is compiled a brief history from articles written by Karl A. Dickinson, former Curator of the Cape May County Museum and my own recollections, having joined the Sunday school about 52 years and later, the Church.

Tabernacle Methodist Church is the venerable Mother of Methodism in Cape May County. In 1778, Benjamin Abbott preached at Abram Woolson's home in Fishing Creek. Mr. Woolson was the first convert to Methodism in this vicinity.

In 1780, the first class was organized at Fishing Creek. The class meeting was held at Mr. Woolson's home near the present Recreation Center.

Edward Price, one of the early "smithys" moved here in 1789 from the Newton Plantation, now known as North Cape May. He and his family became members of Tabernacle Church.



BELL FROM OLD TABERNACLE CHURCH

Richard Swain was one of the early Circuit Riders. In 1796, the Circuit Riders began to reach this part of the circuits more frequently, coming once in four weeks instead of once in six weeks as they started to do in 1771.

In 1803, the first Tabernacle Church was built on the site of the old grey church. The land upon which it was built was given by Memucan Hughes, a descendant of the pilgrim, John Howland. The community was then known as Swaintown. The deed was given by Memucan Hughes and his wife, Rhoda, dated December 31, 1803. The incorporation of Tabernacle Church, Erma, is recorded in the Cape May County Clerk's Office, dated March 22, 1823. The names of the trustees affixed on this document are: Isreal Townsend, David Hildreth, Edward Price, David Oliver and Eli Mickle. Mr. Townsend was ordained a local deacon in 1824.

A contract was taken by Daniel B. Hughes and Swain Hoffman in 1844 for \$900 to build the second church. Albert Matthews was licensed as a local preacher. During the year 1849, preachers on the Cape Circuit were James White, receiving \$362.50 salary and Joseph C. Summerill, salary \$300. A great revival broke out in 1850 under the labors of Rev. Samuel Parker, Mr. Samuel Townsend and Mrs. Eliza Cobb.

Another revival was witnessed in 1856, during which 60 people were saved and joined the Church. Among them were: Mr. and Mrs. Caleb Shaw, Mr. and Mrs. Harvey Snyder, Mr. and Mrs. Israel T. Woolson, Mrs. Priscilla Learning Hughes and Eli Barnett.

A chapel was started at "Teal Town," now Fishing Creek. The trustees were: Parsons Townsend, Swain Shaw, George H. Eldredge, Daniel Busby Hughes and Caleb Woolson. The deed for the chapel was given by Hugh Miller. The chapel was dedicated in autumn, 1857, and Rev. Socrates Townsend preached the sermon.

In 1862, Tabernacle became a station and had Rev. Edward H. Durrell assigned here. The charge had been known as Cold Spring. Tabernacle, Erma and is now listed in conference minutes as Erma Tabernacle.

in 1798). Coburn is Susan, second wife of George May, who died February 3, 1887, and also, George May, Jr.'s grave (dates unreadable). George May, Sr.'s first wife, Harriet Shaw May, was buried in the back of the Old Brick Church about 1867. But, here also in the May plot is the grave of Rachel Shaw, died June 30, 1817. Not far away are the graves of Isaac Cobb, 1908, and his wife, Eliza A. Cobb, 1900. She was very active in the Tabernacle Church and was George May, Sr.'s and Harriet Shaw May's daughter.

Here at last, I had found the missing member of the May family who descended from George H. May, founder of May's Landing, boat builder and land agent for the crown. There are gravestones of this family in May's Landing. His old homestead stood on Old Shore Road, Erma, for years, being demolished about 1950. It was on the ground owned by Harriett Cobb Garretson and her husband, Jonathon Leaming Garretson. Harriett was the daughter of Isaac Cobb and Eliza A. Cobb, who also had lived in the George May Homestead.

Before closing, we should give heed to some of the old homes still left in the area.

On Old Shore Road, north of the Cold Spring Grange Hall, one can see the Hildreth House, built on the lines of a southern mansion. This was in a very depleted condition in 1927-28, when the writer examined it, thinking of purchasing and restoring it. With so much of the foundation in a rotting condition, it was decided to pass it by. However, in later years, Mr. and Mrs. J. Blake Lowe of Baltimore, Maryland, purchased the building and made extensive repairs and afterwards, resided with their family in the lovely home. The house originally was reputed to have been built by a sea captain for whom it was named.

The Jacob Spicer House, built about 1702, still stands in Cold Spring on Old Shore Road. Among residents who helped with restorations over the years were: Colonel and Mrs. George J. B. Fisher; the late Congressman, T. Millet Hand and Mrs. Hand, who

remained here until his death. Later, William Hunt's daughter, and her husband purchased and lived in the home. The inside of the lovely colonial home was a "joy" to behold, with many features of the early years kept intact.

We have already mentioned the former Bishop House, now owned by Karl A. Dickinson. Several smaller homes (more farmhouse type) still stand along Tabernacle Road and are quaint and unusual.

Also, on Tabernacle Road, is the Hedge Gardens created by Gus Yearicks, who started the gardens as a hobby. He has told us that he has more than 160 examples, many taking 40 years to grow. The hedges include shapes in the forms of clipper ships, baseball games, Santa and many more.



The George Hildreth House
Cold Springs, Md.
1816

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* Note: Also personal research in State Library, Trenton; Cape
May County Museum records; Cape May County Records
in Court House and among older residents of the area
for the past 50 years.

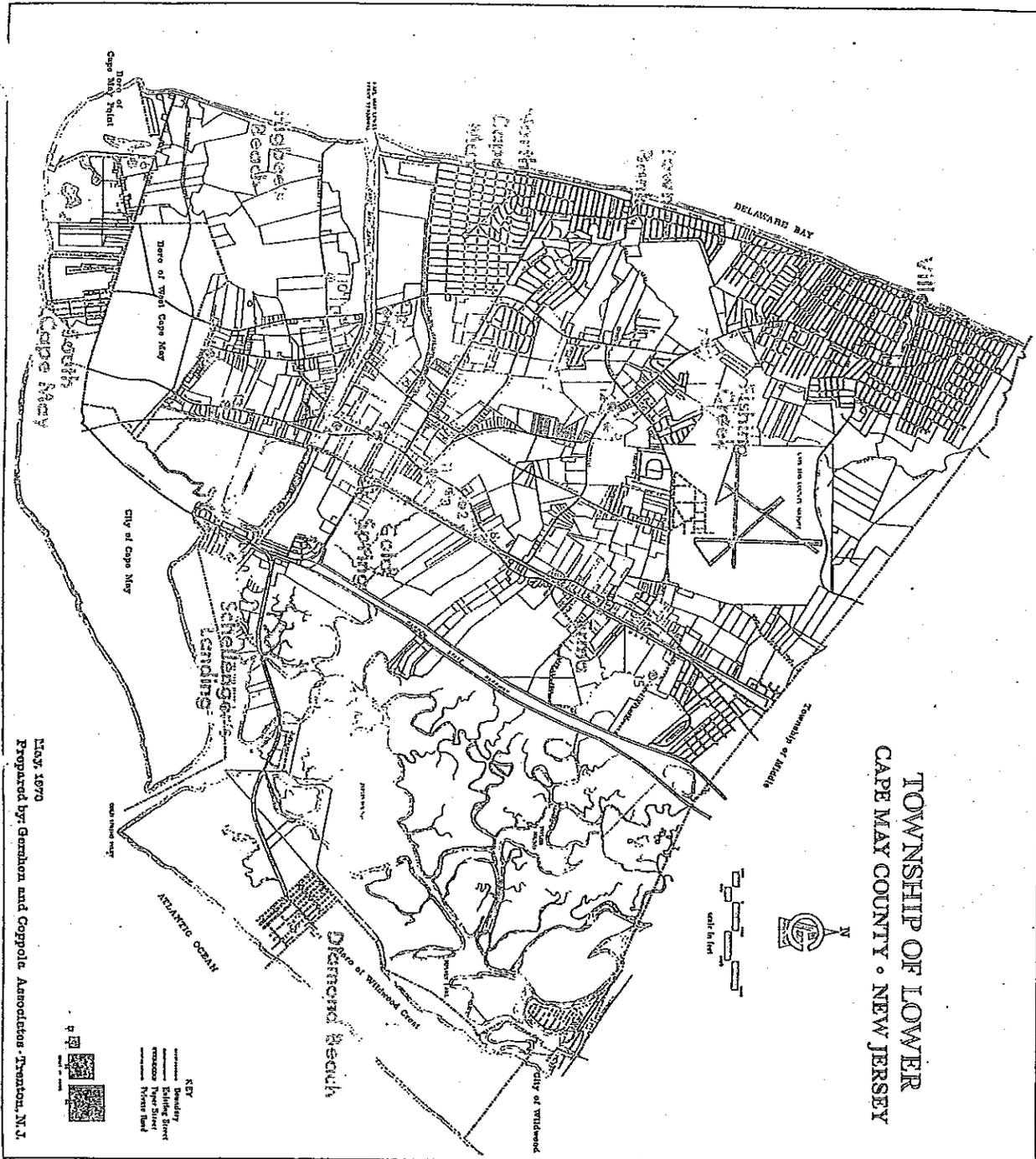


Figure 1

HISTORIC SITES AND LOCATIONS

- | | |
|------------------------------------|-------------------------------------|
| 1. ANDREW HIGGINS REEVES HOUSE | 7. EDWARD WINCHELL HOUSE |
| 2. CAPTAIN GEORGE HILDRETH HOUSE | 8. JACOB SPICER HOUSE |
| 3. MRS. JOHN C. VERMERAN RESIDENCE | 10. JAMES RANEY HUGHES HOUSE |
| 4. DANIEL BEESLEY HUGHES HOUSE | 11. COLD SPRING PRESBYTERIAN CHURCH |
| 5. WILLIAM ERVING HOUSE | 12. JONATHAN HOFFMAN PROPERTY |
| 6. LINDENWOOD | 13. LEMUEL LEAMING HOUSE |
| 9. DANIEL BISHOP HOUSE | 14. ELI TEAL HOUSE |
| | 15. CRESSE HAND HOUSE |

SOURCE: Historic Sites Inventory, 8/28/77, Cape May County Planning Board.

CLIMATE.

Lower Cape May County's mild, pleasant climate plays an extremely important role in Lower Townships economy and quality of life.

Lower Cape May County is one of the coolest places in the region during the summer because of the natural air conditioning system that functions at the shore as heated air over the land rises, a flow of cool air from the ocean surface replaces it. The system works so well that people may need to wear a sweater in the evening in July and August.

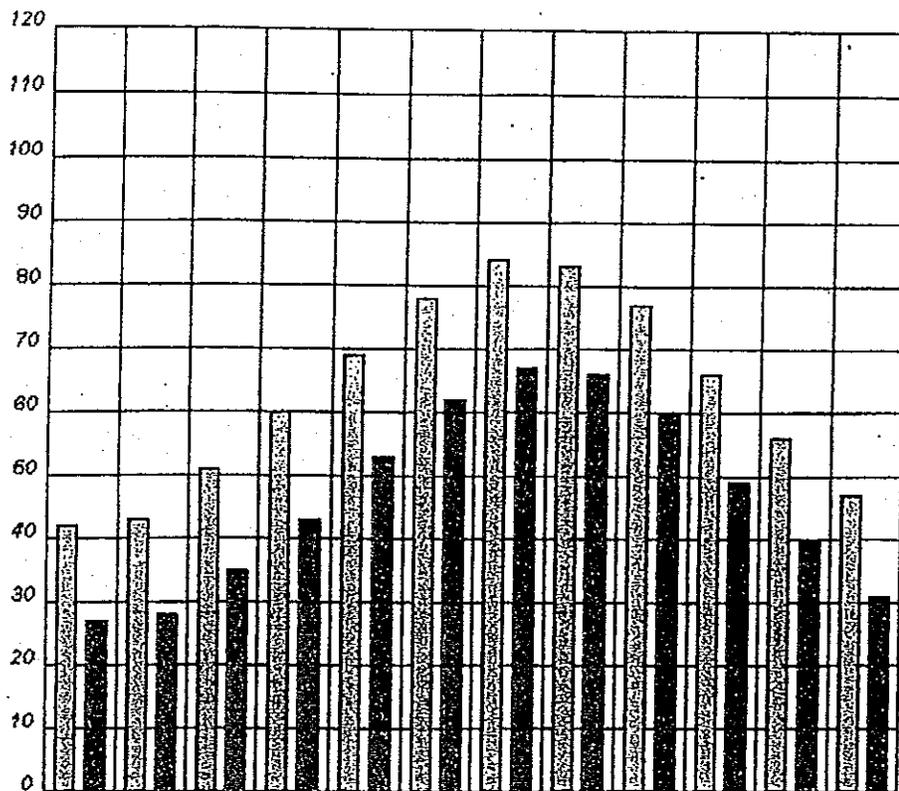
The Lower Cape May County area is the warmest place in New Jersey during the winter in part because the winds as the ocean and bay function as a natural heating system. Temperatures rarely drop below zero degrees Fahrenheit and the area has New Jersey's growing season.

In summer this area is the sunniest place in New Jersey with the lowest amount of rain and the fewest summer thunderstorms however it is also windier and more fogbound than most places in New Jersey.

The accompanying Climate Chart for Cape May, New Jersey is provided through the courtesy of The Weather Channel's web site.

Climate Chart for Cape May, New Jersey.

Average Temperature (°F) High Low
Minimum Period of Record: 30 years



Jan Feb Mar Apr May Jun Jul Aug Sep Oct Nov Dec

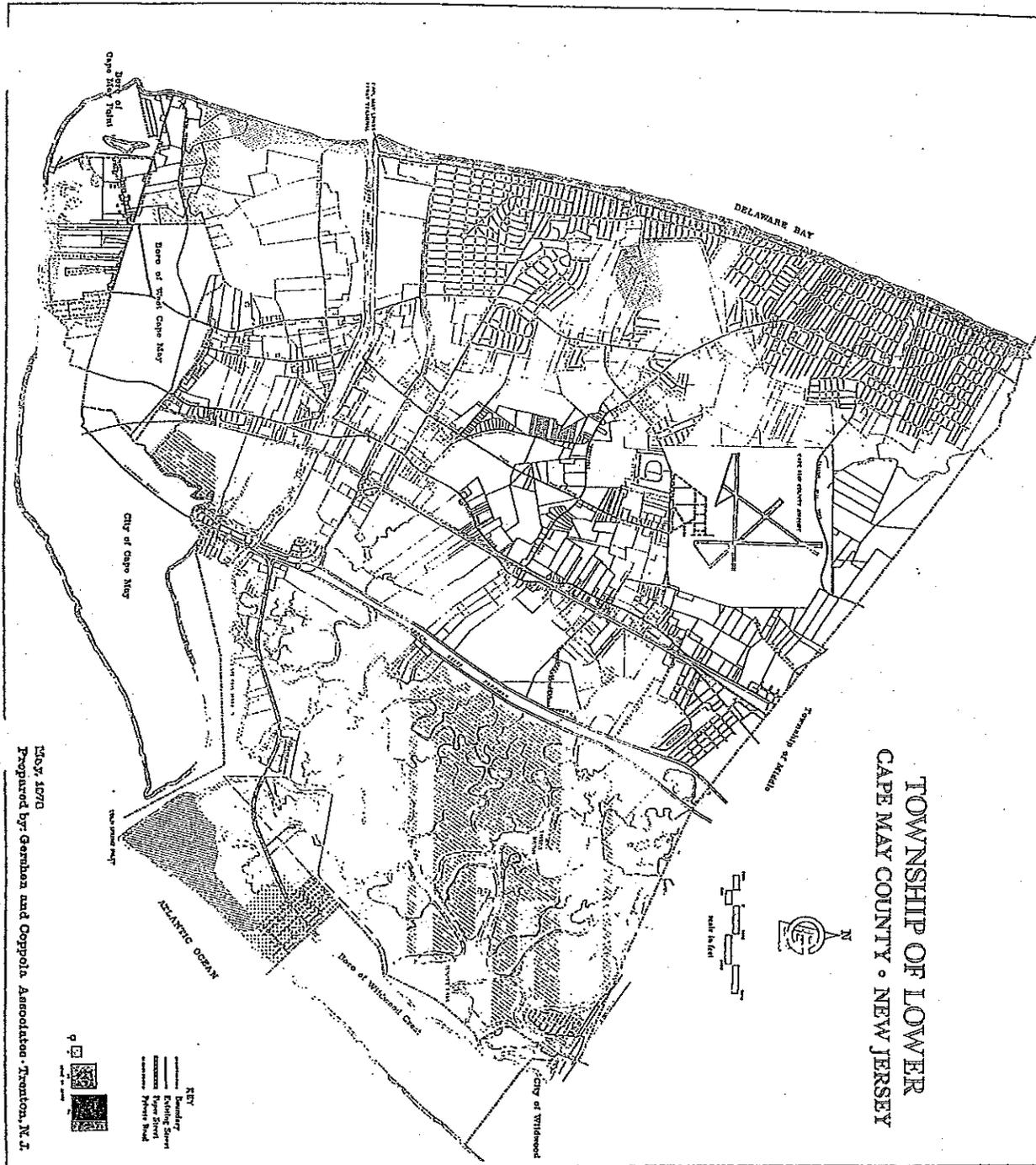
Month	Avg. High	Avg. Low	Mean	Avg. Precip.	Record High	Record Low
Jan	42°F	27°F	34°F	3.68 in.	70°F (1967)	-2°F (1982)
Feb	43°F	28°F	36°F	3.03 in.	71°F (1997)	-1°F (1979)
Mar	51°F	35°F	43°F	4.18 in.	82°F (1990)	10°F (1980)
Apr	60°F	43°F	52°F	3.31 in.	88°F (1985)	22°F (1982)
May	69°F	53°F	61°F	3.65 in.	95°F (1991)	33°F (1992)
Jun	78°F	62°F	70°F	3.01 in.	99°F (1963)	42°F (1956)
Jul	84°F	67°F	75°F	3.39 in.	106°F (1966)	51°F (1962)
Aug	83°F	66°F	74°F	3.78 in.	96°F (1997)	45°F (1986)
Sep	77°F	60°F	69°F	3.31 in.	96°F (1953)	32°F (1967)
Oct	66°F	49°F	58°F	3.41 in.	88°F (1986)	26°F (1950)
Nov	56°F	40°F	48°F	3.11 in.	83°F (1950)	19°F (1967)
Dec	47°F	31°F	39°F	3.53 in.	76°F (1998)	6°F (1983)

GEOLOGY AND GROUNDWATER HYDROLOGY

As discussed in the physiography section of this report, the Township of Lower lies entirely within the outer Atlantic Coastal Plain and is underlain by geologic formations typical of that province. These formations are graphically portrayed on Figure II. The delineation of the various geologic formations is somewhat misleading since the map is limited only to one dimension, or plane. To better understand the geologic composition of the township, each formation should be visualized as a layer of a cake. Each geologic "layer" extends across an entire community (often at varying depths), dipping toward the southeast at the rate of more than ten (10) feet per mile. A crosssection of a community's geology thus resembles a series of bands.

The upper most or youngest geologic layer found in New Jersey is termed the quaternary II system of deposits. In Lower Township the quaternary system includes four kinds of geologic deposits: the Cape May Formation, Beach Sand, Tidal Marsh and Swamp Deposits, and Recent Fill. Of these, only the Cape May Formation has significance as an artesian aquifer, albeit a shallow one. In Lower Township this formation consists primarily of sediments laid down in an estuarine environment (known as the Estuarine Sand facies of the 'Cape May Formation). The remaining three quaternary deposits or beds are collectively called the Holly Beach water bearing zone, a term which refers to the upper fifty (50) feet or so of surficial sands and gravels. Underlying the quaternary deposits throughout Lower Township is the Cohansey Sand, a tertiary deposit which is also an important artesian aquifer. Beneath that, at a depth of from 600 to 700 feet, lies the Kirkwood formation which, contains two water bearing sand strata, neither of which are tapped in Lower Township.

Because of the presence of a relatively impervious clay layer overlying both the Cape May Formation and the Cohansey Sand very little (if any) vertical leakage replenishes these underground water resources. Thus although the formations may contain vast quantities of water, these quantities are by no means unlimited. The Holly Beach aquifer on the other hand, is recharged regularly from rainfall as well as from cesspools, septic tanks, and irrigation.



**Figure 11
GEOLOGY**

Quaternary Geologic Formation

- Qf - RECENT FILL
- Qm - TIDAL MARSH AND SWAMP DEPOSITS
- Qbs - BEACH SAND
- Qcm - CAPE MAY FORMATION

SOURCE: Geology Overlay, New Jersey Atlas Sheet #36.

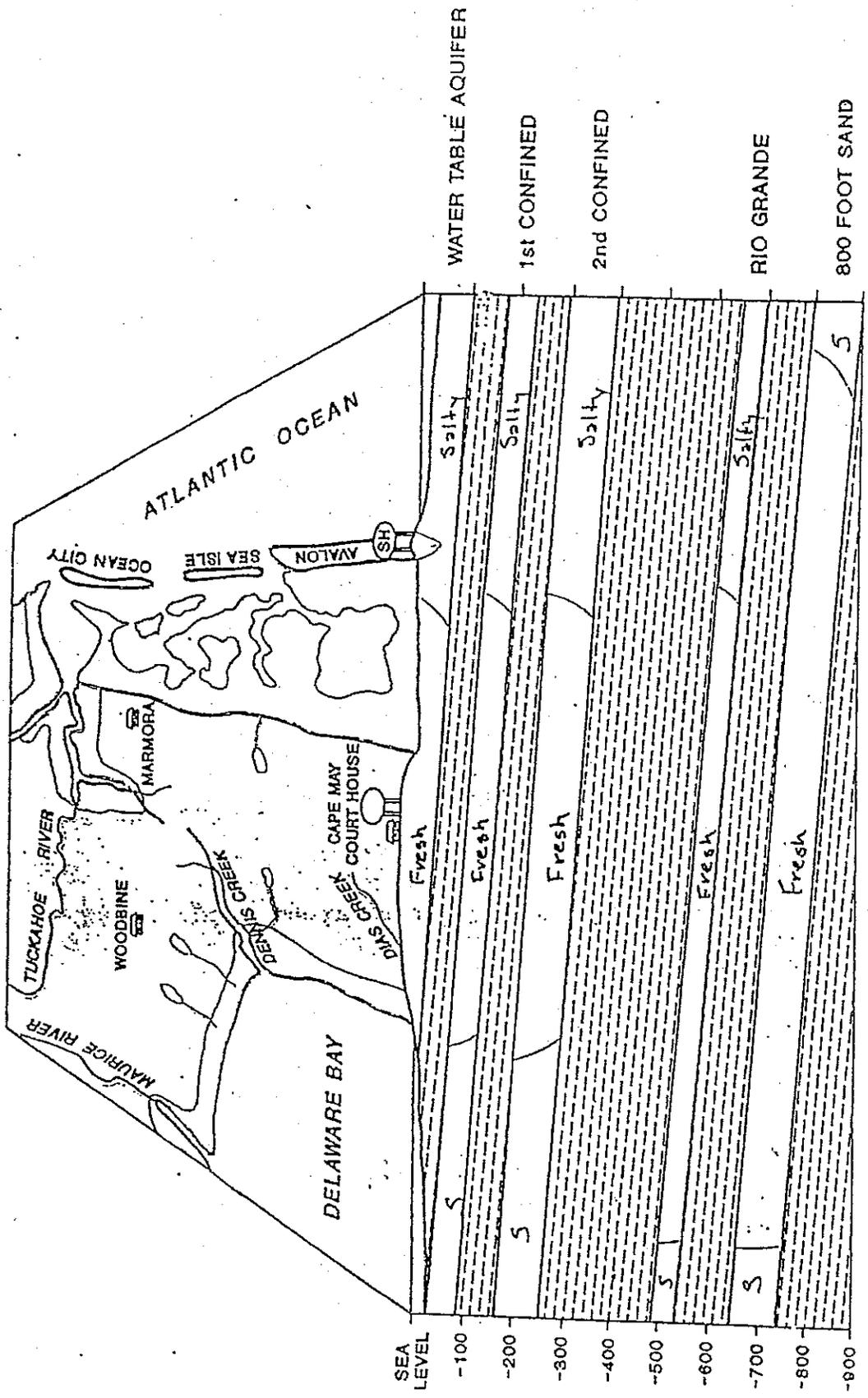


Figure V
Aquifer Locations

SOILS AND COMMUNITY DEVELOPMENT

Soils have inherent characteristics which pose various kinds and degrees of limitations for community development. The Soil Survey of Cape May County, prepared by the U.S. Department of Agriculture, Soil Conservation Service (2001) recognizes five major soil types in Lower Township. Unfortunately the soils map is on CD ROM and is difficult to copy without a large suite of computer equipment. As a result Figures VI and VII included here are based on the previous Soil Survey of Cape May County (1977). The classification of the soils in the new survey has changed somewhat from the 1977 survey but the information shown in Figures VI and VII is still representative of the soil types. The General Soil Map Units and their characteristics are included as part of this discussion and readers of this document are encouraged to become familiar with this information.

A word of caution in applying the classifications: mapping of soils contained in any document requires a certain degree of generalization. The generalized maps serve as useful guidelines to the development suitability of different portions of the township but whenever more specific information regarding a particular tract is desired the need to take field sample of the soil and test its capabilities remains.

The criteria used for rating development suitability of soils are as follows:

1) Dwellings

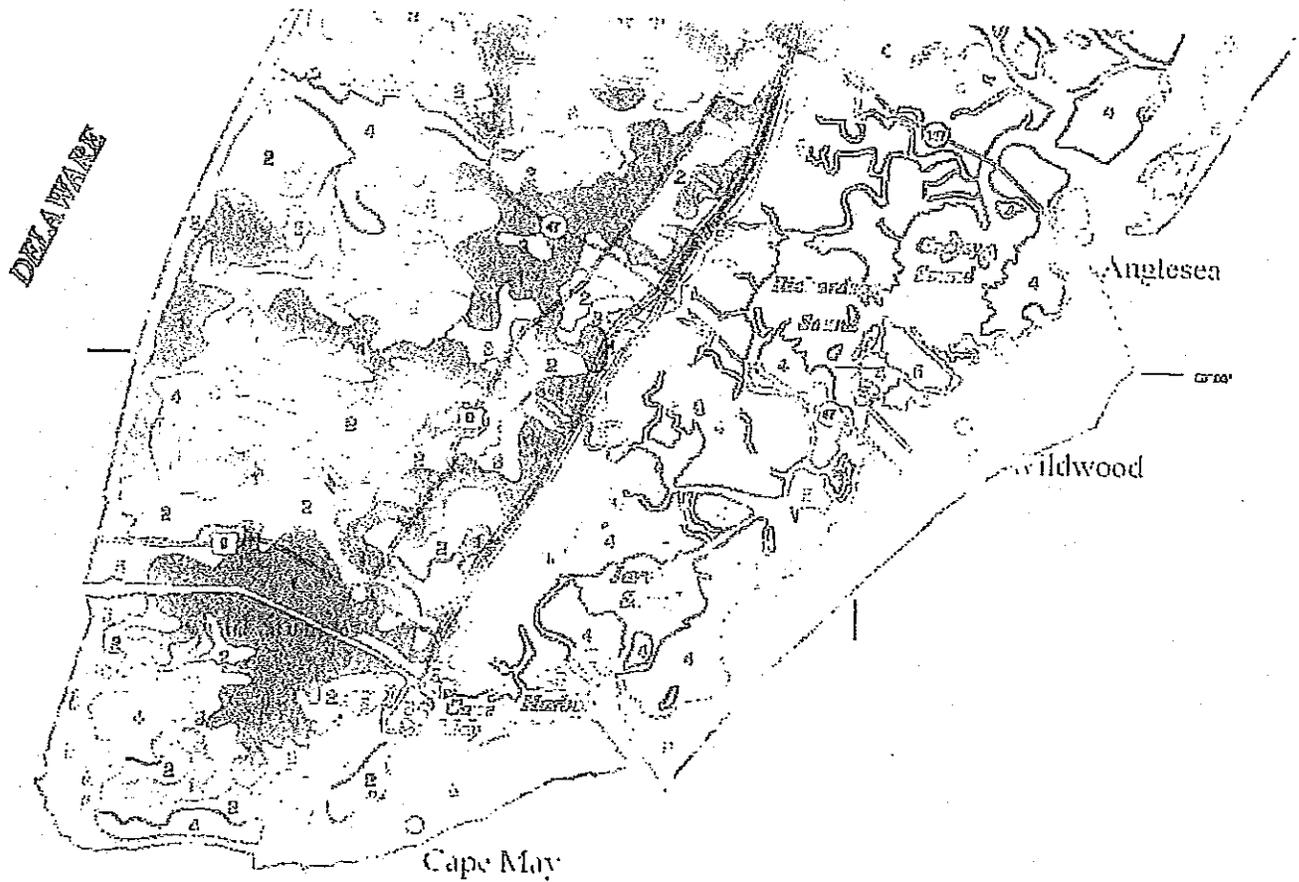
This rating is based on undisturbed soils to a depth of five feet, assuming use for single family dwellings or other structures with similar foundation requirements. Excluded are buildings more than three stories high or buildings with foundation loads in excess of those equal to three-story dwellings. Criteria used in the ratings are susceptibility to loading, depth to water table, allowable soil pressure and slope. On-site investigations are needed for specific placements of buildings and utility lines and for detailed design of foundation.

2) Septic Filter Fields

In parts of Lower Township not served by sanitary sewers, special attention must be given to the ability of the soil to adequately accommodate septic disposal systems. To function properly, septic systems require soils with good, but not excessive, drainage which can absorb the septic effluent, yet filter it sufficiently to prevent contamination of groundwater.

The septic suitability of Lower Township's soils is presented on Figure VIII. Since the depth of seasonal high water from the soil surface depends somewhat on the type of soils below the surface and also affect the suitability of soil for septic systems Figure IX showing the distance from the surface to seasonal high water is included. The criteria which have been used to rate the degree of limitation (slight, moderate or restrictive) for septic systems is based

on the seasonally high water table, the susceptibility of *the* area to flooding, permeability and slope of the soils on the site. Rapid permeability on the site permits a hazard of groundwater pollution, which although of serious concern, was not assumed to restrict septic suitability since the risk of such hazard varies for any given pH, depending on the permeability of the substratum or, in the case of Fill Land, with the source of the fill. Soils with only moderately high water table levels are rated as having moderate limitations with the assumption that deep drainage will be needed to lower the water table. Percolation tests performed in accordance with the standards set forth in Chapter 199 of the Public Laws of New Jersey are helpful not only in determining the suitability of a specific homesite for on-site sewage disposal, but also in suggesting the proper design of a septic system.



SOIL LEGEND*

- Downer-Ingalls-Swalton Association
- 2 Hammondt Association
- Barryland and Middle-Marchessin Association
- 3 Transquaring-Apperquahink-Micropilfor-Potzabick Association
- 4 Urban land-Pearson-Gordon Association
- 5 Water

*The units on this legend are described in the text under the heading "General Soil Map Units."
Compiled 1989

Figure VI

General Soils Map Units

General Soil Map Units

The general soil map shows broad areas that have a distinctive pattern of soils, relief, and drainage. Each map unit on the general soil map is a unique natural landscape. Typically, it consists of one or more major soils or miscellaneous areas and some minor soils or miscellaneous areas. It is named for the major soils or miscellaneous areas. The components of one map unit can occur in another but in a different pattern.

The general soil map can be used to compare the suitability of large areas for general land uses. Areas of suitable soils can be identified on the map. Likewise, areas where the soils are not suitable can be identified.

Because of its small scale, the map is not suitable for planning the management of a farm or field or for selecting a site for a road or a building or other structure. The soils in any one map unit differ from place to place in slope, depth, drainage, and other characteristics that affect management.

1. Downer-Ingleside-Swainton

Nearly level and gently sloping, well drained soils that are very deep and have a loamy subsoil and a dominantly loamy or sandy substratum; formed in mineral coastal plain sediments

Setting

Location in the survey area: Mainly the central and northeastern parts of the county

Landform position: Summits and side slopes (fig. 2)

Slope range: 0 to 5 percent

Composition

Percent of the survey area: 20

Downer soils: 41 percent

Ingleside soils: 29 percent

Swainton soils: 10 percent

Minor soils (including Evesboro, Fort Mott, Aura, and Dennisville soils): 20 percent

Typical Profile

Downer

Surface layer:

0 to 10 inches—dark grayish brown loamy sand

Subsoil:

10 to 16 inches—yellowish brown loamy sand

16 to 36 inches—yellowish brown sandy loam

Substratum:

36 to 48 inches—yellowish brown loamy sand

48 to 72 inches—light yellowish brown sand

Ingleside

Surface layer:

0 to 12 inches—dark grayish brown sandy loam

Subsoil:

12 to 17 inches—yellowish brown sandy loam

17 to 27 inches—strong brown sandy loam

27 to 38 inches—yellowish brown sandy loam

38 to 48 inches—yellowish brown sandy loam that has yellowish red iron accumulations

Substratum:

48 to 66 inches—yellow sand that has light brownish gray iron depletions

66 to 72 inches—brownish yellow fine sandy loam that has light brownish gray iron depletions

Swainton

Surface layer:

0 to 1 inch—dark reddish brown sandy loam

1 to 2 inches—dark grayish brown sandy loam

Subsurface layer:

2 to 3 inches—light grayish brown sandy loam

Subsoil:

3 to 4 inches—yellowish red sandy loam

4 to 12 inches—strong brown sandy loam

12 to 23 inches—yellowish brown sandy loam

23 to 35 inches—yellowish red gravelly loamy sand

Substratum:

35 to 47 inches—yellowish red gravelly sand

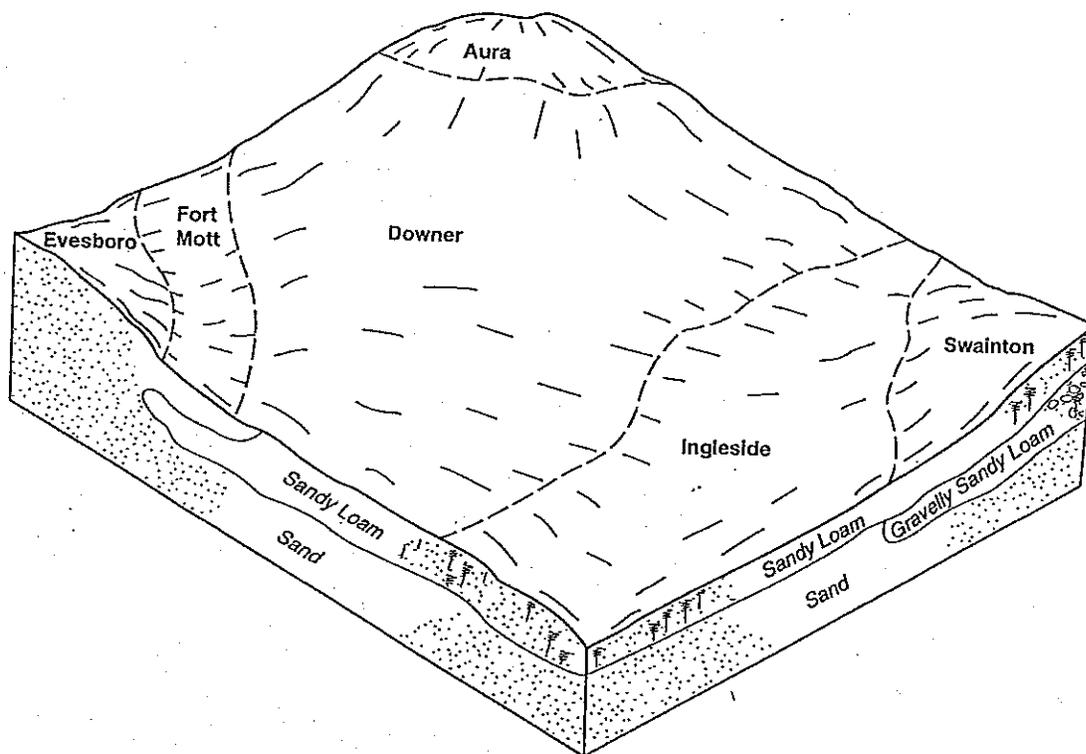


Figure 2.—The relationship of soils, landform position, and underlying material in the Downer-Ingleside-Swainton general soil map unit. Evesboro, Fort Mott, and Aura soils are minor components in the map unit.

47 to 58 inches—yellow sand that has strata of sandy loam

58 to 74 inches—very pale brown fine sand

Soil Properties and Qualities

Downer

Drainage class: Well drained

Permeability: Moderately rapid

Slope class: Nearly level or gently sloping

Available water capacity: Moderate

Organic matter content of the surface layer: Low

Hazard of water erosion: None to moderate

Hazard of wind erosion: Moderate

Rock fragments on the surface: 0 to 15 percent, by volume, quartzose gravel

Depth to high water table: More than 6 feet

Soil reaction: Extremely acid to strongly acid throughout the profile, except in limed areas

Ingleside

Drainage class: Well drained

Permeability: Moderately rapid

Slope class: Nearly level or gently sloping

Available water capacity: Moderate

Organic matter content of the surface layer: Low

Hazard of water erosion: None to moderate

Hazard of wind erosion: Severe

Rock fragments on the surface: 0 to 15 percent, by volume, quartzose gravel

Depth to high water table: 3.5 to 6 feet

Soil reaction: Extremely acid or very strongly acid throughout the profile, except in limed areas

Swainton

Drainage class: Well drained

Permeability: Moderate rapid

Slope class: Nearly level

Available water capacity: Low

Organic matter content of the surface layer: Low

Hazard of water erosion: None to moderate

Hazard of wind erosion: Moderate

Rock fragments on the surface: 0 to 15 percent, by volume, quartzose gravel

Depth to high water table: More than 6 feet

Soil reaction: Extremely acid or very strongly acid throughout the profile, except in limed areas

Minor Soils

- The sandy Evesboro soils in randomly scattered areas
- Fort Mott soils, which have thick sandy surface layers; in randomly scattered areas
- Aura soils, which have a fragipan; in the higher areas
- Dennisville soils, which are deep to a high water table; in the lower areas

Agricultural Development

Crops and pasture

Management concerns: Soil blowing, erodibility, and droughtiness of the surface layer for soils having a surface layer of loamy sand; erodibility on slopes of more than 2 percent

Woodland

Management concerns: Seedling mortality for soils having a surface layer of loamy sand

Urban Development

Dwellings

Management concerns: No significant limitations

Local roads and streets

Management concerns: No significant limitations

Septic tank absorption fields

Management concerns: Downer and Swainton—poor filtering capacity; Ingleside—wetness

2. Hammonton

Nearly level and gently sloping, moderately well drained soils that are very deep and have a loamy and sandy subsoil and a dominantly sandy substratum; formed in mineral coastal plain sediments

Setting

Location in the survey area: Mainly the central and northeastern parts of the county

Landform position: Side slopes, depressions, and foot slopes (fig. 3)

Slope range: 0 to 5 percent

Composition

Percent of the survey area: 15

Hammonton soils: 88 percent

Minor soils (including Galloway, Downer, Berryland, Mullica, and Manahawkin soils): 12 percent

Typical Profile

Organic layer:

0 to 2 inches—dark reddish brown moderately decomposed forest litter

2 to 3 inches—highly decomposed forest litter

Surface layer:

3 to 4 inches—dark grayish brown sandy loam

Subsurface layer:

4 to 5 inches—light yellowish brown sandy loam

Subsoil:

5 to 6 inches—strong brown sandy loam

6 to 27 inches—yellowish brown sandy loam

27 to 30 inches—yellowish brown loamy sand

Substratum:

30 to 39 inches—yellowish brown loamy sand that has light brownish gray iron depletions

39 to 43 inches—gray sand that has yellowish brown iron accumulations

43 to 72 inches—gray gravelly sand that has yellowish brown iron accumulations

Soil Properties and Qualities

Drainage class: Moderately well drained

Permeability: Moderate

Slope class: Nearly level or gently sloping

Available water capacity: Moderate

Organic matter content of the surface layer: Low

Hazard of water erosion: None to moderate

Hazard of wind erosion: Moderate

Rock fragments on the surface: 0 to 10 percent, by volume, quartzose gravel

Depth to high water table: 1.5 to 3.5 feet

Soil reaction: Extremely acid to strongly acid, except in limed areas

Minor Soils

- The sandy Galloway soils in randomly scattered areas
- The well drained Downer soils in the higher areas
- The very poorly drained Berryland, Mullica, and Manahawkin soils in the lower areas

Agricultural Development

Crops and pasture

Management concerns: Soil blowing, erodibility, and droughtiness of the surface layer for soils having a

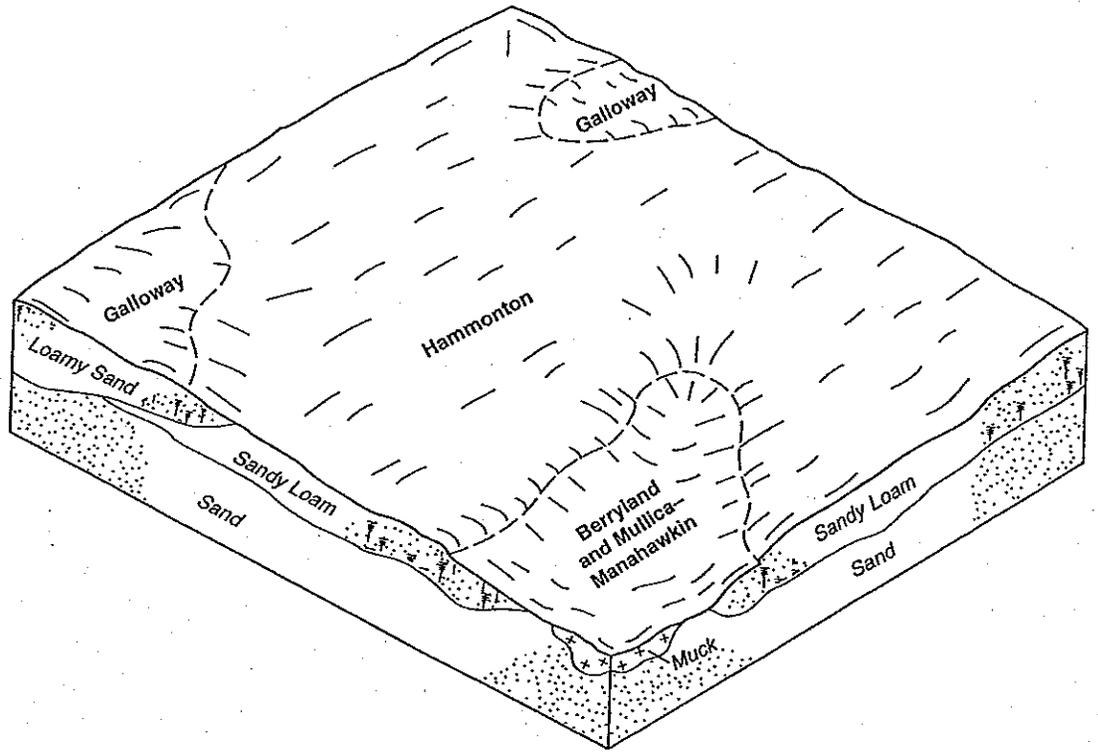


Figure 3.—The relationship of soils, landform position, and underlying material in the Hammonton general soil map unit. Galloway soils are a minor component in sandy areas. The Berryland and Mullica-Manahawkin general soil map unit occurs in the adjacent lower areas.

surface layer of loamy sand; crop selection restrictions for soils having a surface layer of sandy loam

Woodland

Management concerns: Seedling mortality for soils having a surface layer of loamy sand

Urban Development

Dwellings

Management concerns: Wetness

Local roads and streets

Management concerns: Wetness

Septic tank absorption fields

Management concerns: Wetness in areas of the Hammonton soils

3. Berryland and Mullica-Manahawkin

Level, very poorly drained soils that are very deep and range from sandy mineral material to mucky organic material over a sandy substratum; formed in mineral and organic coastal plain sediments

Setting

*Location in the survey area: Mainly the central and northeastern parts of the county
Landform position: Freshwater flats, drainageways, and depressions (fig. 4); the soils are associated with landscapes subject to flooding
Slope range: 0 to 1 percent*

Composition

*Percent of the survey area: 18
Berryland and Mullica soils: 65 percent
Manahawkin soils: 25 percent
Minor soils (including Hammonton soils): 10 percent*

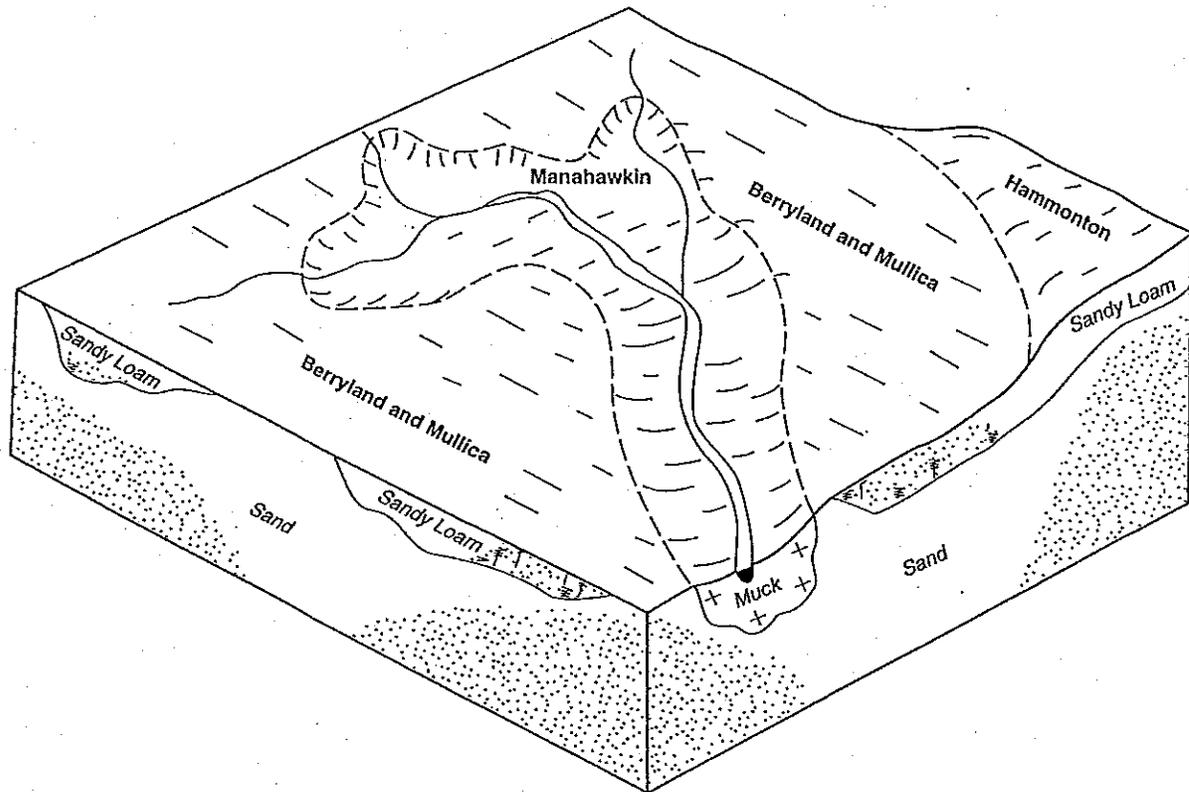


Figure 4.—The relationship of soils, landform position, and underlying material in the Berryland and Mullica-Manahawkin general soil map unit. The Hammonton general soil map unit occurs in the adjacent higher areas.

Typical Profile

Berryland

Surface layer:

0 to 11 inches—black sand

Subsoil:

11 to 19 inches—dark reddish brown sand

19 to 32 inches—gray sand that has pale yellow iron accumulations

32 to 40 inches—dark reddish brown sand

Substratum:

40 to 44 inches—gray sand

44 to 72 inches—stratified gray sand and sandy loam

Mullica

Surface layer:

0 to 12 inches—black sandy loam

Subsoil:

12 to 31 inches—grayish brown sandy loam that has yellow iron accumulations

31 to 36 inches—light brownish gray loamy sand

Substratum:

36 to 72 inches—light brownish gray sand

Manahawkin

Surface layer:

0 to 35 inches—black muck

Substratum:

35 to 72 inches—gray sand

Soil Properties and Qualities

Berryland

Drainage class: Very poorly drained

Permeability: Moderately rapid

Slope class: Level

Available water capacity: Low

Organic matter content of the surface layer: Moderate

Hazard of water erosion: None or slight

Hazard of wind erosion: None or slight

Flooding: Occasional for brief to long periods

Rock fragments on the surface: 0 to 15 percent, by volume, quartzose gravel

High water table: 0.5 foot above the soil surface to 0.5 foot below

Soil reaction: Very strongly acid or extremely acid throughout the profile

Mullica

Drainage class: Very poorly drained

Permeability: Moderate

Slope class: Level

Available water capacity: Moderate

Organic matter content of the surface layer: Moderate

Hazard of water erosion: None or slight

Hazard of wind erosion: None or slight

Flooding: Occasional for brief to long periods

Rock fragments on the surface: 0 to 15 percent, by volume, quartzose gravel

Depth to high water table: 0 to 0.5 foot

Soil reaction: Very strongly acid or extremely acid throughout the profile

Manahawkin

Drainage class: Very poorly drained

Permeability: Rapid in the organic layers and moderately rapid in the mineral horizons

Slope class: Level

Available water capacity: Very high

Organic matter content of the surface layer: Very high

Hazard of water erosion: None or slight

Hazard of wind erosion: None or slight

Flooding: Frequent for long periods

High water table: 0 to 0.5 foot above the soil surface

Soil reaction: Extremely acid or very strongly acid throughout the profile

Minor Soils

- The moderately well drained Hammonton soils in the higher areas

Agricultural Development

Management concerns: Wetness and flooding

Urban Development

Management concerns: Wetness and flooding

4. Transquaking-Appoquinimink-Mispillion-Pawcatuck

Level, very poorly drained soils that are very deep and range from silty mineral material to mucky organic material over a sandy or silty substratum; formed in mineral and organic coastal plain sediments

Setting

Location in the survey area: Mainly in the eastern third

of the county and in some smaller areas in the northeastern and western parts; the soils are associated with rivers and bays subject to daily tides

Landform position: Tidal flats and drainageways

Slope range: 0 to 1 percent

Composition

Percent of the survey area: 23

Transquaking soils: 39 percent

Appoquinimink soils: 23 percent

Mispillion soils: 21 percent

Pawcatuck soils: 17 percent

Typical Profile

Transquaking

Surface layer:

0 to 60 inches—dark reddish brown mucky peat

Substratum:

60 to 90 inches—dark gray silt loam

Appoquinimink

Surface layer:

0 to 12 inches—very dark gray mucky silt loam

Substratum:

12 to 30 inches—dark gray silt loam

30 to 72 inches—dark reddish brown mucky peat

Mispillion

Surface layer:

0 to 10 inches—very dark grayish brown mucky peat

10 to 26 inches—very dark grayish brown muck

Substratum:

26 to 90 inches—dark gray silt loam

Pawcatuck

Surface layer:

0 to 12 inches—black mucky peat

12 to 45 inches—dark reddish brown mucky peat

Substratum:

45 to 50 inches—dark gray loamy sand

50 to 72 inches—gray sand

Soil Properties and Qualities

Transquaking

Drainage class: Very poorly drained

Permeability: Moderately rapid or rapid in the organic deposits and moderately slow in the mineral material

Slope class: Level

Available water capacity: Very high

Organic matter content of the surface layer: Very high
Hazard of water erosion: None or slight; however, the hazard of streambank caving from wave action is severe

Hazard of wind erosion: None or slight

Flooding: Very frequent for very brief periods

High water table: 0 to about 1 foot above the soil surface

Soil reaction: Moist soil—slightly acid to mildly alkaline; dry soil—strongly acid to ultra acid

Appoquinimink

Drainage class: Very poorly drained

Permeability: Moderately rapid or rapid in the organic deposits and moderately slow in the mineral material

Slope class: Level

Available water capacity: High

Organic matter content of the surface layer: Moderate or high

Hazard of water erosion: None or slight; however, the hazard of streambank caving from wave action is severe

Hazard of wind erosion: None or slight

Flooding: Very frequent for very brief periods

High water table: 0 to about 1 foot above the soil surface

Soil reaction: Moist soil—slightly acid to mildly alkaline; dry soil—strongly acid to ultra acid

Misplillon

Drainage class: Very poorly drained

Permeability: Moderately rapid or rapid in the organic deposits and moderately slow in the mineral material

Slope class: Level

Available water capacity: Very high

Organic matter content of the surface layer: Very high

Hazard of water erosion: None or slight; however, the hazard of streambank caving from wave action is severe

Hazard of wind erosion: None or slight

Flooding: Very frequent for very brief periods

High water table: 0 to about 1 foot above the soil surface

Soil reaction: Moist soil—slightly acid to mildly alkaline; dry soil—strongly acid to ultra acid

Pawcatuck

Drainage class: Very poorly drained

Permeability: Moderately rapid or rapid in the organic deposits and moderately slow in the mineral material

Slope class: Level

Available water capacity: Very high

Organic matter content of the surface layer: Very high
Hazard of water erosion: None or slight; however, the hazard of streambank caving from wave action is severe

Hazard of wind erosion: None or slight

Flooding: Very frequent for very brief periods

High water table: 0 to about 1 foot above the soil surface

Soil reaction: Moist soil—slightly acid to mildly alkaline; dry soil—strongly acid to ultra acid

Agricultural Development

Management concerns: Excessive wetness and flooding

Urban Development

Management concerns: Excessive wetness and flooding

5. Urban land-Psamments-Beaches

Miscellaneous land, such as beaches; areas of impervious surfaces, such as asphalt and buildings; and areas where the natural soils have been filled

Setting

Location in the survey area: Mainly along a narrow strip on the eastern side of the county adjacent to the Atlantic Ocean

Slope range: 0 to 5 percent

Composition

Percent of the survey area: 11

Urban land: 55 percent

Psamments: 20 percent

Beaches: 19 percent

Minor soils (including Downer and Hammonton soils): 6 percent

Typical Profile

Urban land

Urban land consists of areas where much of the soil surface is covered with asphalt, concrete, buildings, or other impervious material.

Psamments

Psamments consist of fill material that commonly ranges from 2 to 4 feet in thickness and is commonly over soils such as Appoquinimink, Transquaking, Misplillon, Pawcatuck, Berryland, Mullica, and Manahawkin soils. The upper part of the soil profile is commonly sand, fine sand, or loamy sand fill material.



Figure 5.—Beach dune restoration in an area of the Urban land-Psamments-Beaches general soil map unit. Planting American beachgrass helps to minimize flood damage caused by storm surges.

The lower part is mainly silty materials that have a high content of organic material; is sand, sandy loam, or loamy sand; or is mucky organic materials.

Beaches

Beaches are areas consisting of sandy materials that are constantly being reworked by ocean waves and tides. The soil material is very fine sand to coarse sand and commonly contains many shell fragments.

Minor Soils

- Natural areas of the sandy Hooksan soils; on adjacent sand dunes
- Randomly scattered areas of Pits or open excavations from which sand or gravel has been removed

- Randomly scattered areas of Udorthents that have been used for sanitary landfills

Use and Management

Areas of Beaches and Psamments

Management concerns: Flooding, variable soil properties that require onsite investigation to determine specific management concerns (fig. 5)

Areas of Urban land and Psamments

Management concerns: Excessive runoff from urban areas which can increase the hazard of flooding, subsidence and flooding, variable soil properties that require onsite investigation to determine specific management concerns

6. Water

Bays, estuaries, lakes, ponds, and streams

of the county; smaller bodies of water are scattered throughout the county

Setting

Location in the survey area: Mainly in the eastern part

Composition

Percent of the survey area: 13

WETLANDS

The Wetlands Act of 1970 (N. J. S.A. 13:9A-1 et seq.) and accompanying Wetlands Order is the more restrictive of the State's environmental protection controls discussed here. Figure X shows the approximate location of wetland areas, as defined in the Act within Lower Township. The precise properties affected by the Wetlands Act are recorded in the office of the Cape May County Registrar of Deeds and indexed as a judgement. A copy of the order and notification of the wetlands determination has been sent to owners of all properties so affected. Interested persons may inspect official county records at the Cape May County Courthouse.

Activities which now or may in the future take place on wetlands fall into two general categories both of which require permits from the Commissioner of the New Jersey Department of Environmental Protection, (A third category consists of "prohibited activities" for which no permission will be granted and includes waste and sewage disposal and, with some exceptions, the application, disposal, or storage of pesticides.)

Regulated activities, requiring a permit are differentiated on the basis of their potential impact on the wetlands. Those which pose only a minimal threat to the environment are termed Type A activities. They include:

1. Cultivation and harvesting of naturally occurring agriculture and horticulture products
2. The excavation for a small boat ramps
3. The maintenance or repair of bridges, roads or utilities
4. Repairs necessitated by a natural disaster do not require a permit; however, the Commissioner must be notified within ten days after their initiation..

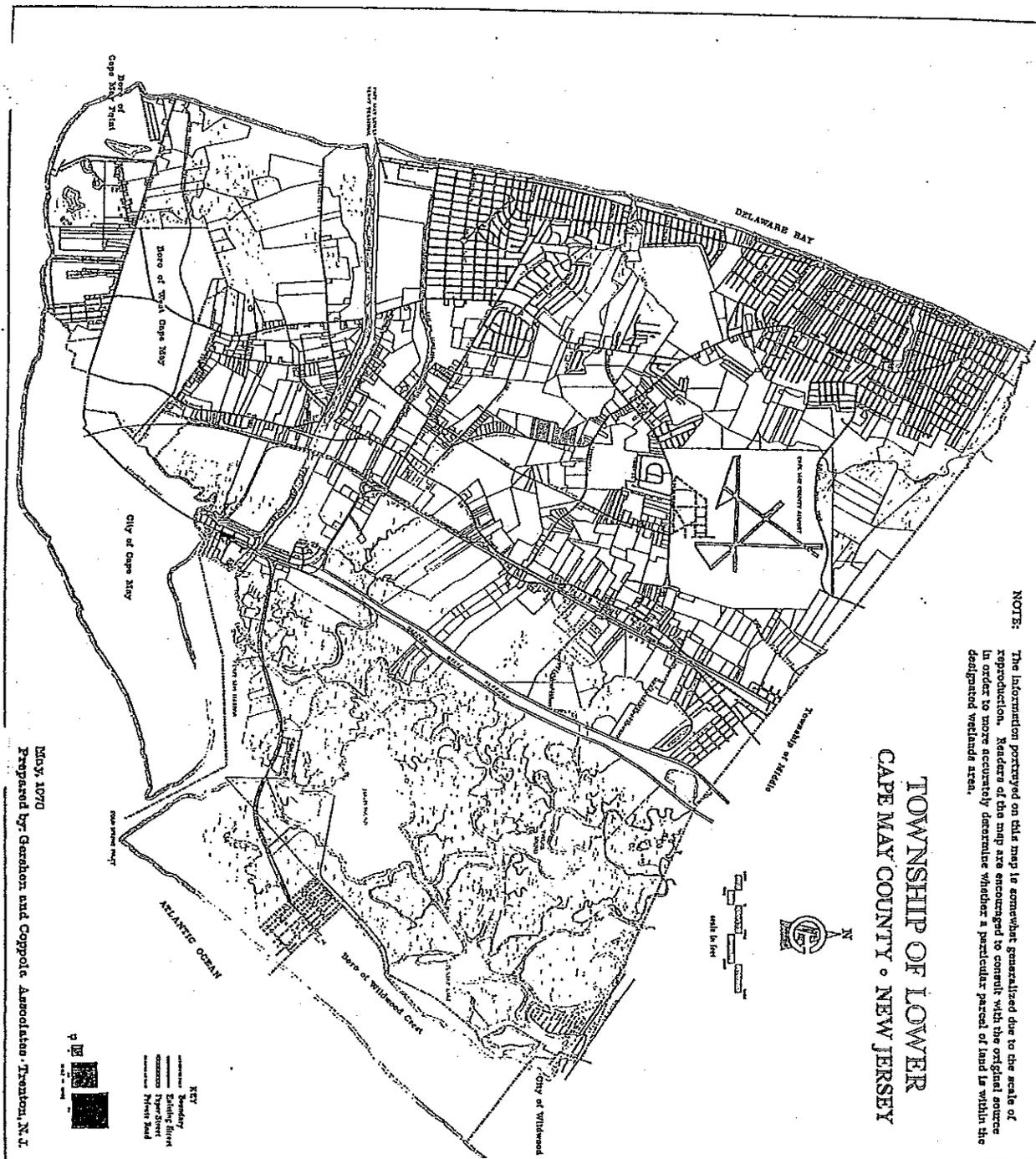
Regulated activities which have the potential of disrupting the environment to a greater degree are classified as Type B and include:

1. The installation of utilities.
2. Excavation of boat channels and mooring basins.
3. The construction of impoundments
4. The construction of sea walls.

The permit application procedure for Type A activities is abbreviated. Essentially it requires the applicant to notify the local governing body of the municipality in which the property is located, describing the proposed activity. A copy of this notification is then sent with the completed application form to the Department of Environmental Protection.

Since Type B activities pose greater threats to the wetlands environment a more detailed application procedure is required. In addition to the information contained in Type A applications, applicants for a Type B permit are required to submit a detailed environmental impact statement, and a public hearing is held by the Department of Environmental Protection.

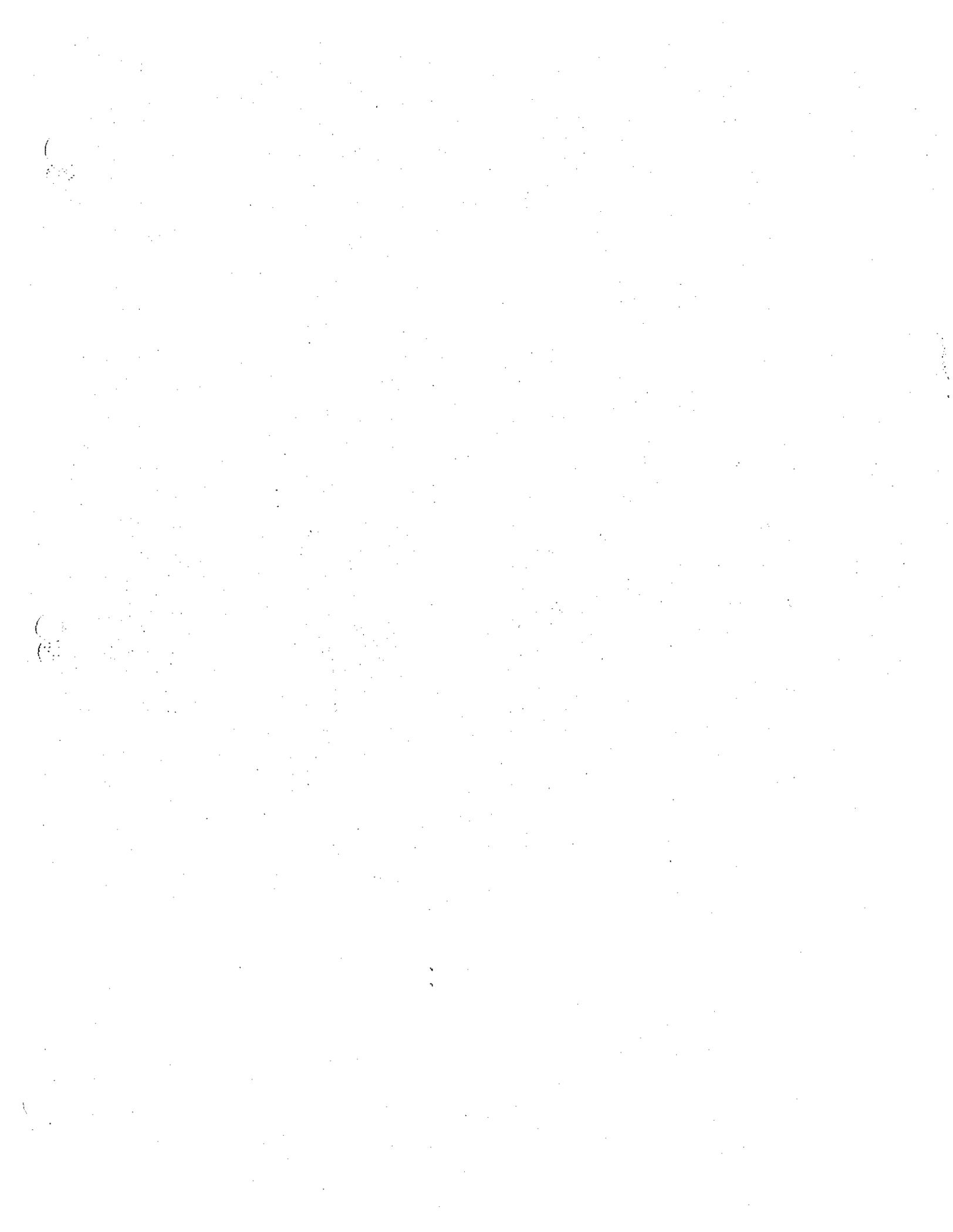
Permit applications are either approved or denied or approved subject to any conditions deemed necessary to effectuate the purpose of the Wetlands Act. It is to be noted that local ordinances may be more restrictive than the Wetlands Act in their effect on wetland properties



**Figure X
WETLANDS**

(APPROXIMATELY 5234 ACRES)

SOURCE: Plan of Lands Affected, Wetlands Map, index # 2-5, 1-5, 1-6, 2-6, N.J. Dept. of Environmental Protection, and planimetric measurement by Gershon and Coppola Associates.



COASTAL AREA FACILITIES REVIEW REQUIREMENTS

The statute which affects a large portion of Lower Township is the Coastal Areas Facilities Review Act (N. J. S. A. 13:9-1 et seq.). The limited area of Lower Township which is exempted from the Act's jurisdiction is noted on Figure XI. Although the area encompassed by C. A. F. R. A. is greater than that subject to the Wetlands Act, the Coastal Area Facilities Review Act's regulations are not nearly as stringent as are those of the Wetlands Act. The Commissioner of the New Jersey Department of Environmental Protection is charged with creating an "environmental design strategy" and initiate regulations for the construction of any facility in the designated coastal area. Regulated facilities requiring a permit from the Department of Environmental Protection include the following major operations: .

Facilities for power generation

Food and food by -products processing.

Incineration of wastes.

Paper production.

Agri -chemical production.

Inorganic salts manufacture.

Mineral products mining and manufacture.

Chemical processes.

Storage and handling of bulk materials.

Metallurgical processes.

Marine terminal and cargo handling facilities.

Public facilities and housing. In regards to housing, only developments or additions to existing developments that consist of 25 units or more are included in the facilities category.

An Environmental Impact Statement must be included with any permit application, and a public hearing is required to be held by the Department. Approval is granted if it is found that the proposed facility: conforms with all applicable air, water and radiation emission and effluent standards as well as all applicable water quality criteria and air quality standards.

Prevents air emissions and water effluent in excess of the existing dilution, assimilation and recovery capacities of the air and water environments at the site and within the surrounding region.

Provide for the handling and disposal of litter, trash and refuse in such a manner as to minimize adverse environmental effects and the threat to the public health, safety and welfare.

Would result in minimal feasible impairment of the regenerative capacity of water aquifers or other ground or surface water supplies.

Would cause minimal feasible interference with the natural functioning of plant, animal,

fish and human life processes at the site and within the surrounding region.

Is located or constructed so as to neither endanger human life or property nor otherwise impair the public health, safety and welfare.

Would result in minimal practicable degradation of unique or irreplaceable land types, historical or archeological areas and existing scenic and aesthetic attributes at the site and within the surrounding region.

The Coastal Area Facilities Review Act supplements other State statutes and local ordinances; it does not pertain to areas already covered by the Wetlands Act nor does it supercede municipal zoning ordinances. Rather, it provides an additional layer of land use regulation in coastal areas.

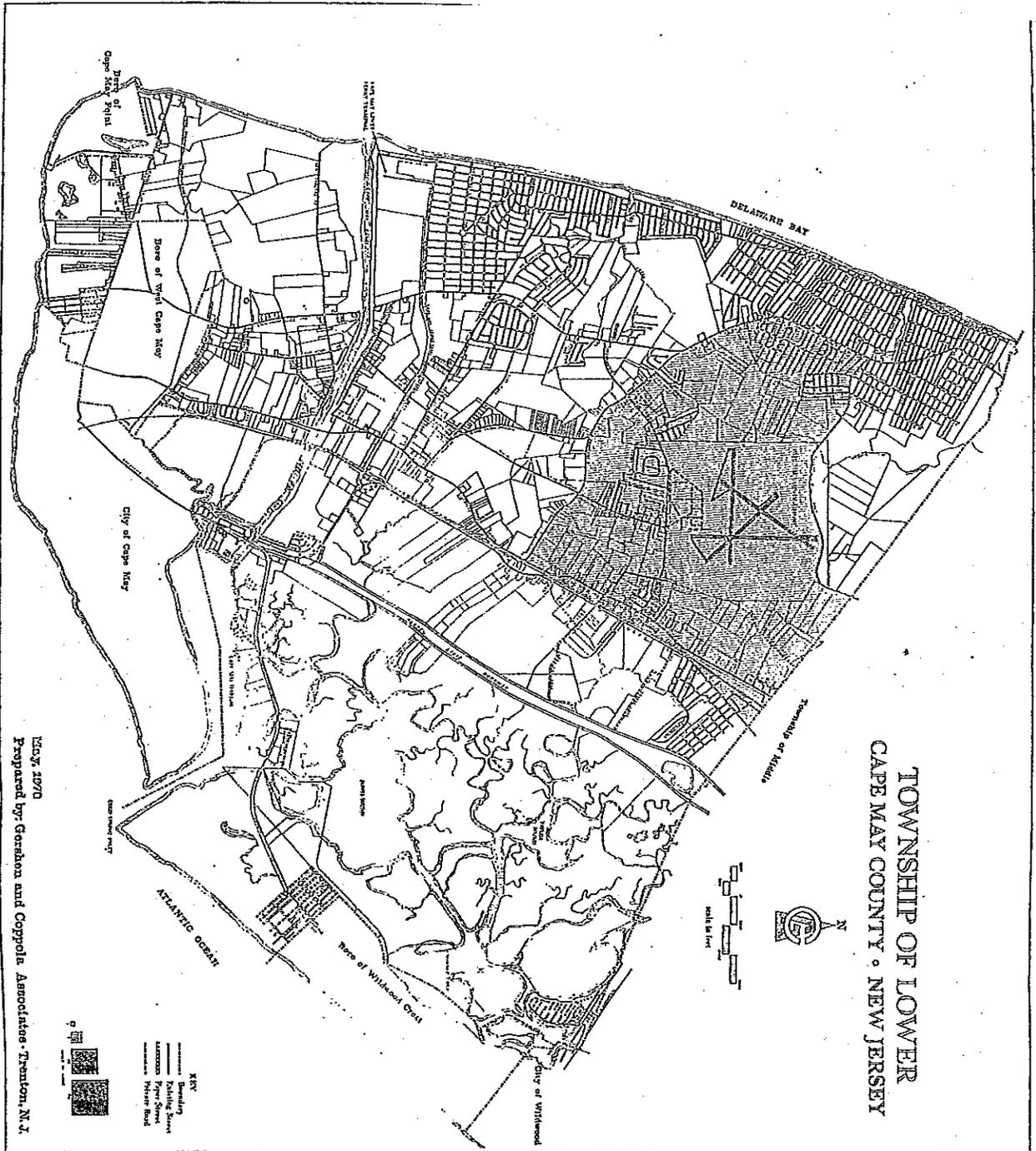


Figure XI
EXTENT OF JURISDICTION
COASTAL AREAS FACILITIES REVIEW ACT
AREAS EXEMPTED

SOURCE: Mapping by Cape May County Planning Board (Revised 1972).

FLOOD AREAS

Storms which pass *over* the Jersey Cape characteristically are accompanied by extremely high tides, strong winds and high waves and breakers. The huge *waves* and breakers quickly erode the barrier beaches, dunes and roads; damage boardwalks, seawalls, jetties and other protective barriers; undermine buildings; flood streets; contaminate water and food; and disrupt power and communications systems. Short circuits caused by high water often result in fires that also destroy property. In addition, to monetary losses associated with the destruction of property, floods and storms take a toll in human *lives*.

Essentially, there are two ways to reduce the damage from such storms:

- 1) construct protective works such as bulkheads and sea walls
- 2) regulate development in areas subject to flooding.

Generally, a combination of both approaches is necessary, particularly when development has already occurred. In areas which are not yet developed ordinance controls can and should be used to regulate future development in flood prone areas to, minimize potential damage to life and property.

Figure 12 delineates the areas of Lower Township which are potentially subject to flooding as determined by the U. S. Army Corps of Engineers calculation of the "standard project tide" a "hypothetical flood which may be expected from the most severe combination of meteorologic and hydrologic conditions that are considered reasonably characteristic of the geographical region involved, including extremely rare combinations. The standard project tide is distinguished from and, in fact, exceeds both the maximum tide of record and the intermediate regional tide (the latter having an estimated probability of occurring once in every hundred years or a 1% chance of occurring in any *given* year). The standard project tide thus encompasses some areas which may never yet have flooded, although they could do so in the future.

The Federal Insurance Administration of the U. S. Department of Housing and Urban Development has designated certain areas as flood hazard areas, based on a "Flood Insurance Study" conducted as part of the National Flood Insurance Program promulgated under the National Flood Insurance Act of 1968. These areas are also shown on Figure.12 Delineated areas are those which would be inundated by the flood of a one hundred year storm.. These flood hazard area delineations are used by the federal government to determine flood insurance rates. However, in order for a property owner in the flood hazard area to obtain the federally subsidized flood insurance, the municipality in which his property lies must adopt ordinances regulating the extent of land development in the delineated areas according to standards set by the federal government.

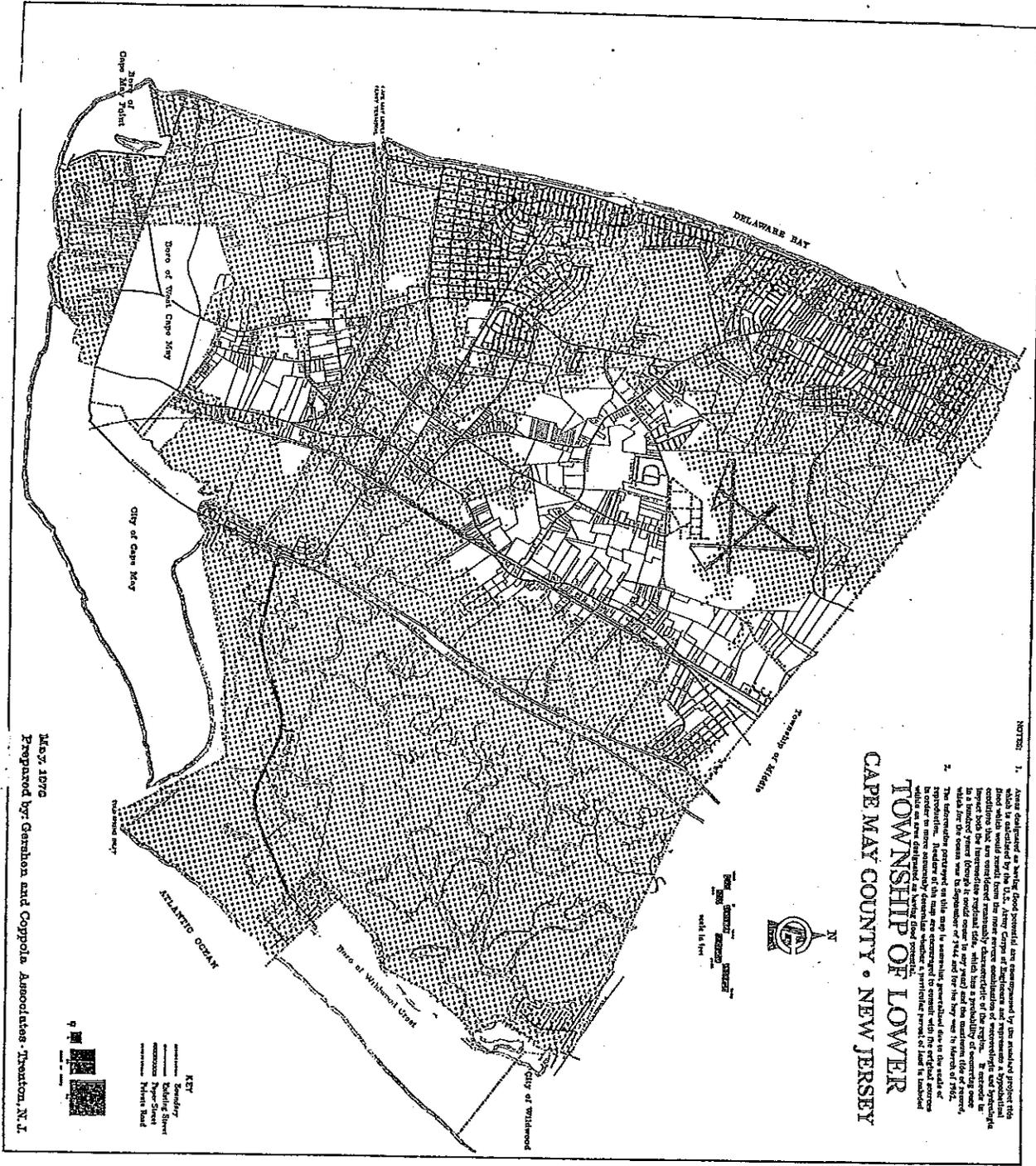


Figure XII

FLOOD AREAS
POTENTIALLY FLOODABLE AREAS
FLOOD HAZARD AREAS QUALIFYING
FOR FEDERAL FLOOD INSURANCE

SOURCE: Flood Hazard Boundary Maps (No. H 0-1 to 14), Department of Housing and Urban Development, Federal Insurance Administration, July 19, 1974, and Flood Plain Information, Tidal Lands of Cape May County, New Jersey, U.S. Army Corps of Engineers, Philadelphia, Penna. District, June, 1968.

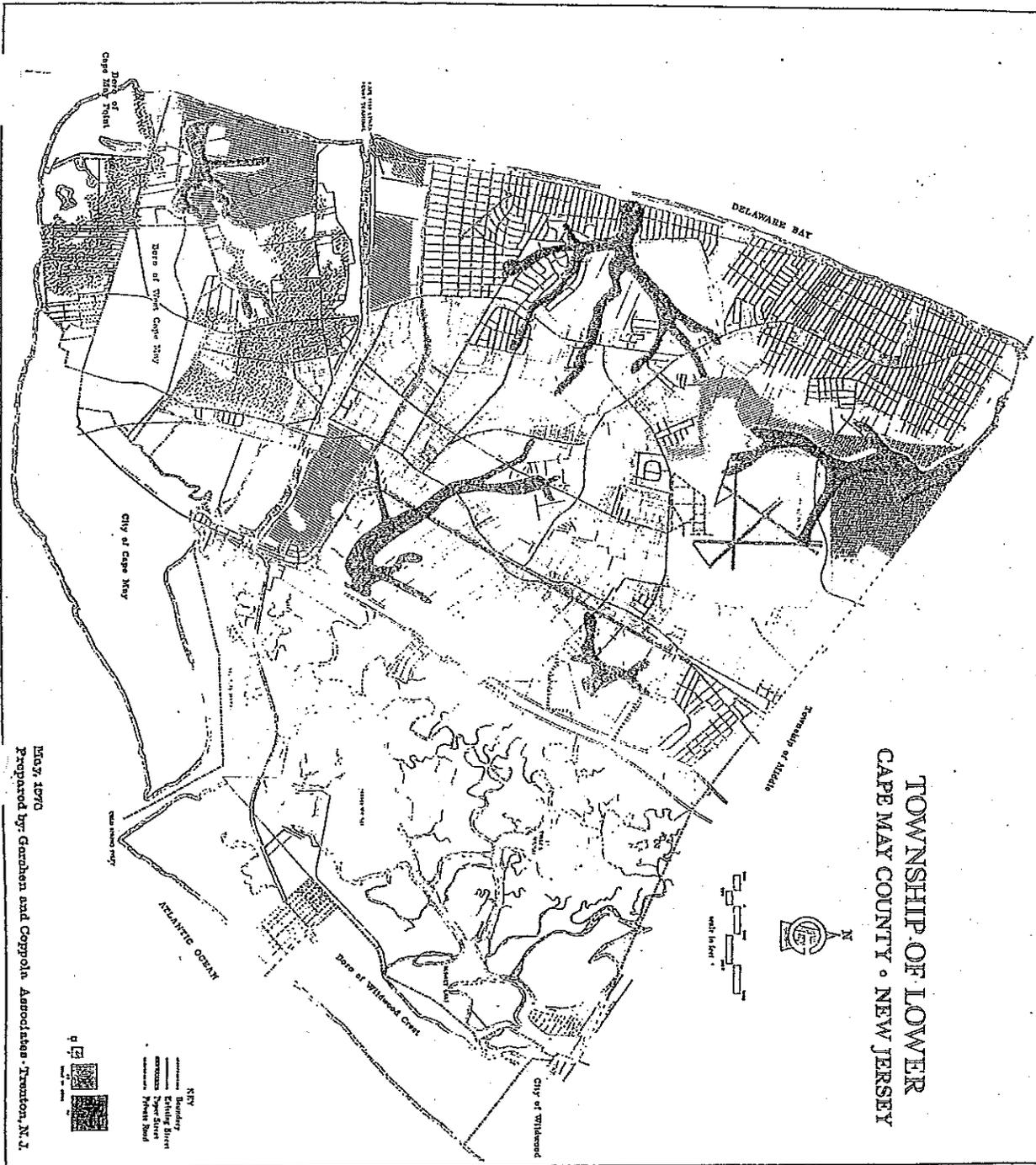
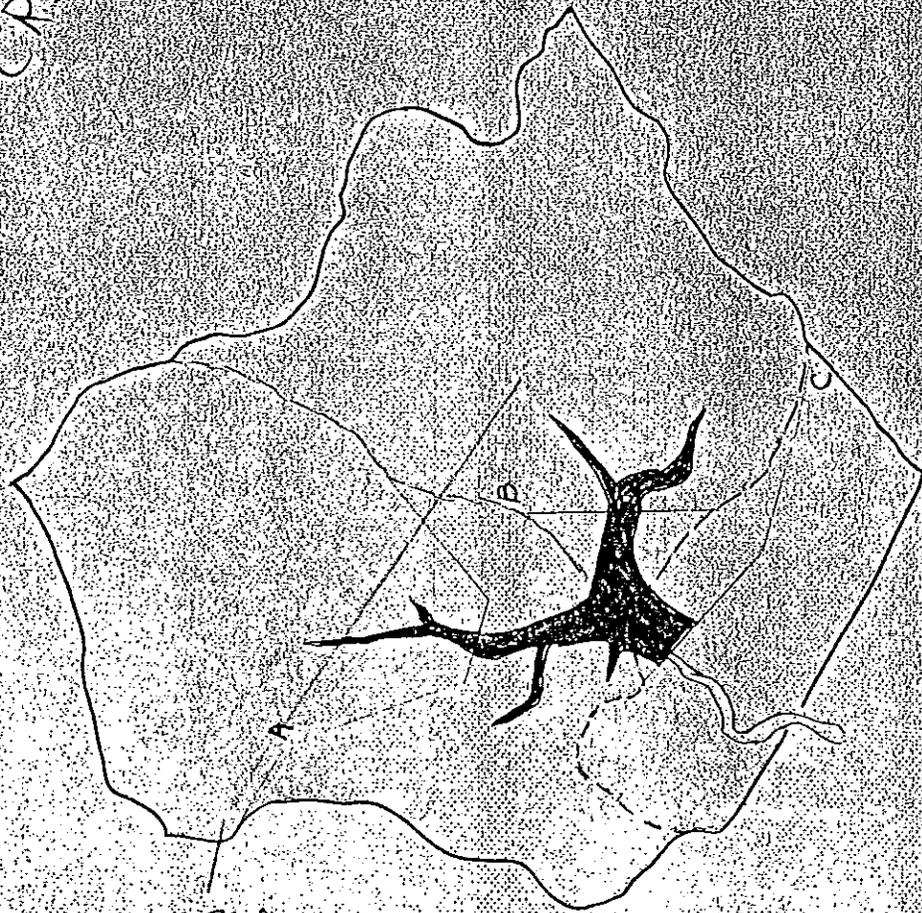


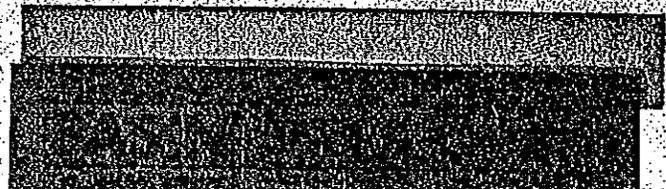
Figure IV
 Floodways of Major Watersheds
 In
 Lower Township

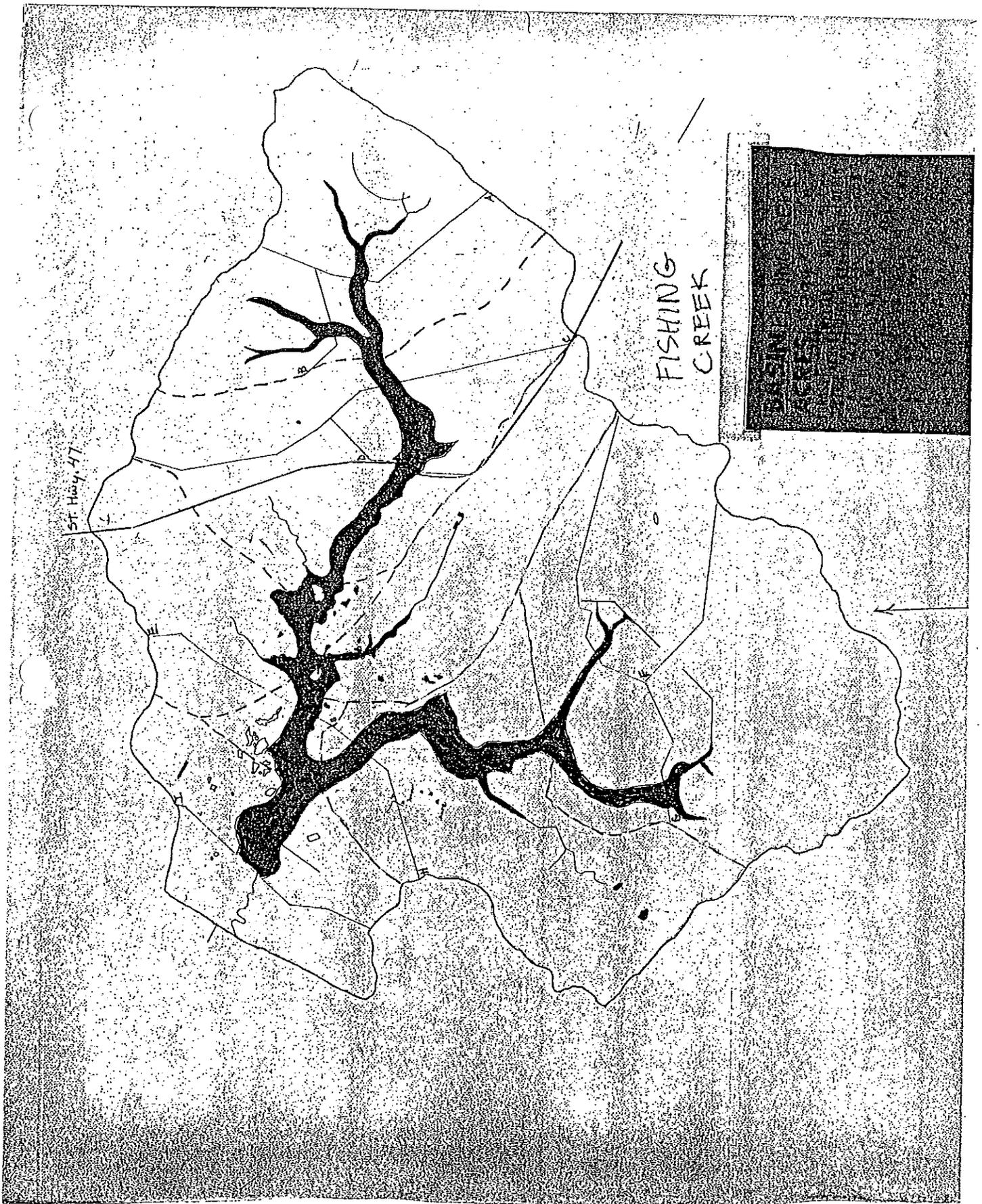
 FLOODWAYS

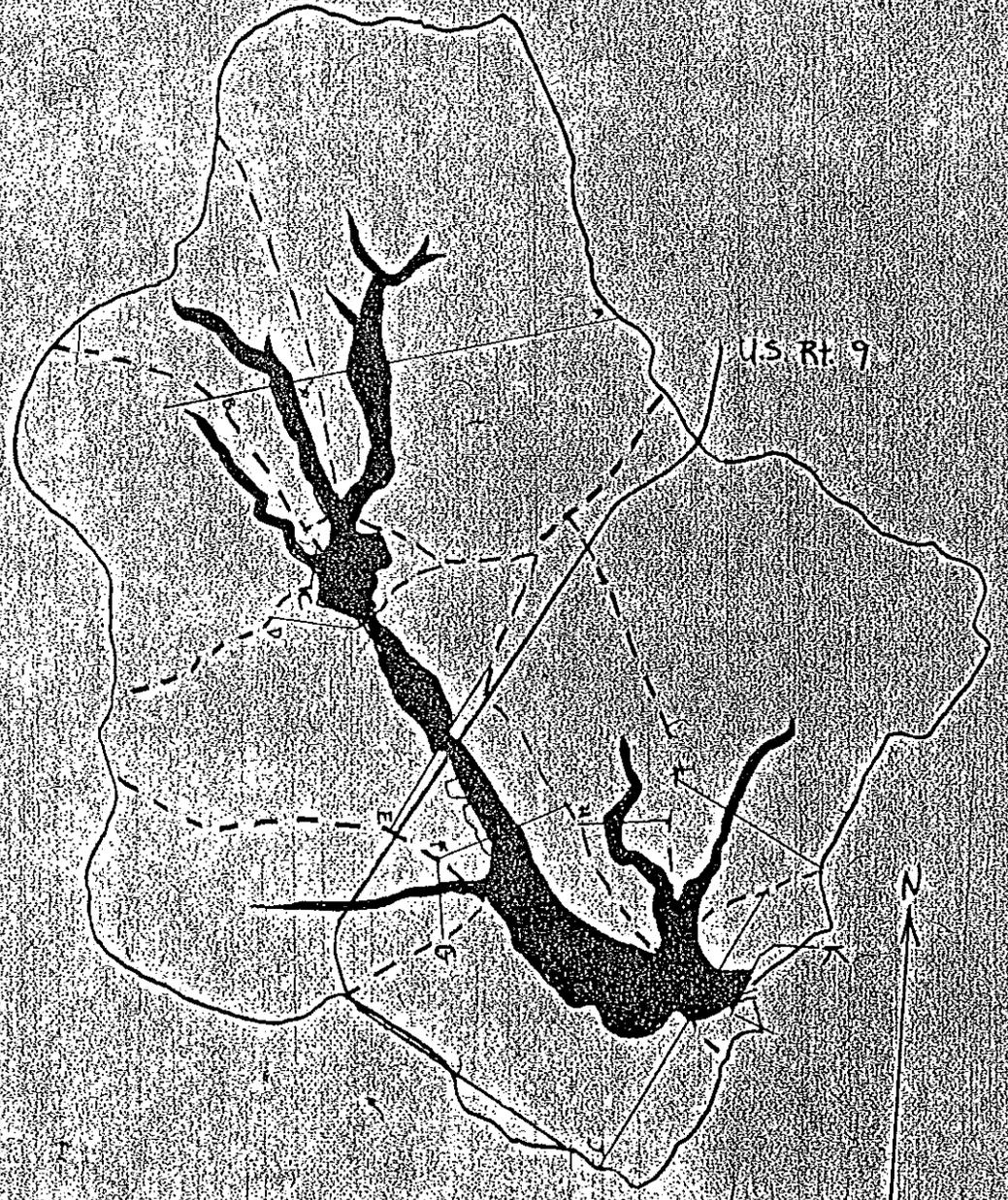
JONES CREEK



U.S. Rt. 7







MILL CREEK
(COLD SPRING)



WILDLIFE

Lower Township is part of an international eco-system. The combination of ocean, fresh and saltwater wetlands, and the Township's geographic location on the Atlantic flyway make it one of the most important migratory stopovers in the world for butterflies, dragonflies, birds of prey, shorebirds, songbirds and water fowl, as well as an important breeding area for rare and common birds. It is considered by Federal, State and private organizations to be one of the foremost avian viewing areas in North America. Estimates conclude that approximately 60,000 raptors and 1,000,000 seabirds migrate through the Township each year. Although various species are present in and around Lower Township throughout the year, the most spectacular display of species is during the late summer/fall migration.

MIGRATORY BIRD HABITAT

According to the New Jersey Audubon Society (NJAS), ecotourism pours over \$46 million per year into the lower Cape May County economy. It is critical that decisions regarding the environment reflect this reality not only in the three main internationally recognized migratory bird habitat areas of South Cape May Meadow, Cape May Point State Park and Higbee Beach Wildlife Refuge but in the surrounding area. All residents, visitors and decision makers must recognize that wildlife does not know where the boundaries of the recognized and protected habitats are and that anything done in a much larger area along the Delaware Bay and Atlantic Ocean directly affects the movement of, and possibly the health, of migratory and resident birds.

When birders and botanists use the term "Let's go to Cape May", this does not mean Cape May City. The term really says, "Let's go to Cape May Point State Park, South Cape May Meadows or Higbee's Beach", all of which are located in Lower Township. Many famous naturalists have visited these sites along with other areas in Lower Township, Townbank, New England Creek, Pond Creek and Two Mile Beach.

Below is a brief list of well known people in their field who made trips to the above locations to study birds, plants, insects, shells and the history of the Township. Bennett's Bogs located at Shunpike and Tabernacle Roads is the single most famous botanical site in New Jersey and throughout the east.

<u>David devries</u>	1633 saw hundreds of thousands of passenger pigeons, now extinct
<u>Master Evelin</u>	1648 thousands of geese, fowl and turkey's cranes
<u>Peter Kalm</u>	1716-79 Botany
<u>Alexander Wilson</u>	17__ father of American Ornithology - made six visits to Cape Island Shot and named <u>Wilson's Plover</u> at South Cape May, Lower Township
<u>Ruben Peale</u> <u>Titan Peale</u>	Friends of Wilson, came to Cape Island, son's of Charles Wilson Peale
<u>George Ord</u>	in 1812 - shot a warbler here and given name "Cape May Warbler" by Wilson
<u>Marcus Canby</u>	Botany
<u>William Bartrum</u>	Botany
<u>Thomas Nuttle</u>	Botany
<u>Frederick Pursh</u>	Botany
<u>Thomas Cassin</u>	Birds, Academy of Natural Science, Phila.
<u>Spence and</u> <u>William Baird</u>	1843
<u>George S. Morris</u>	1884 - Birds
<u>Witmer Stone</u>	18__ - 1937, Birds, Botany - Academy of Natural Science, Phila. Plants of South Jersey and birds studies at "Old Cape May"

Otway Brown Close friend of Stone and foremost botany expert of Lower Township and Cape May County. Lived Bayshore & New England Roads. 1877-1946

H. Walker Hand 1870-1932 - Botany

John Parker Conchology

Dr. Horace Richard 1906-84 Geology-Paleontology

Dr. C. Brooke Worth 1908-84 Entomologist-Zoologist

Dr. John Fogg Botany- Provost University of Pennsylvania

Dr. Francis Pennal Curator of plants - Academy of Natural Science, Phila.

Dr. Ernest Choate Teacher, Phila.

Norman McDonald Erma - Academy of Natural Science, Phila.

Dr. Bernard Brinton University of Pennsylvania

Dr. Edgar Wherry Botany - University of Pennsylvania

Dr. Henry Fox Entomologist

Louis Hand Botany

Baynard Long Botany

Dr. Robert King Botany - Smithsonian Institute

Frank McLaughlin Stopped Hawk killing as president of New Jersey Audubon - Lived in Lower Township

Olin Pettingill Birds

Don Ekleberry Birds - artist, warden at Stone Bird Sanctuary

David Sibley Birds, author and artist - live in Lower Township

Roger Tory Peterson Bird, author and artist

James Bond Birds - Academy of Natural Science, Phila.

Dr. Alexander Wetmore Smithsonian

William Rusling

Charles Kellogg

Earle Pool

Richard Pough Founder Nature Conservancy

Allan Cruikshank

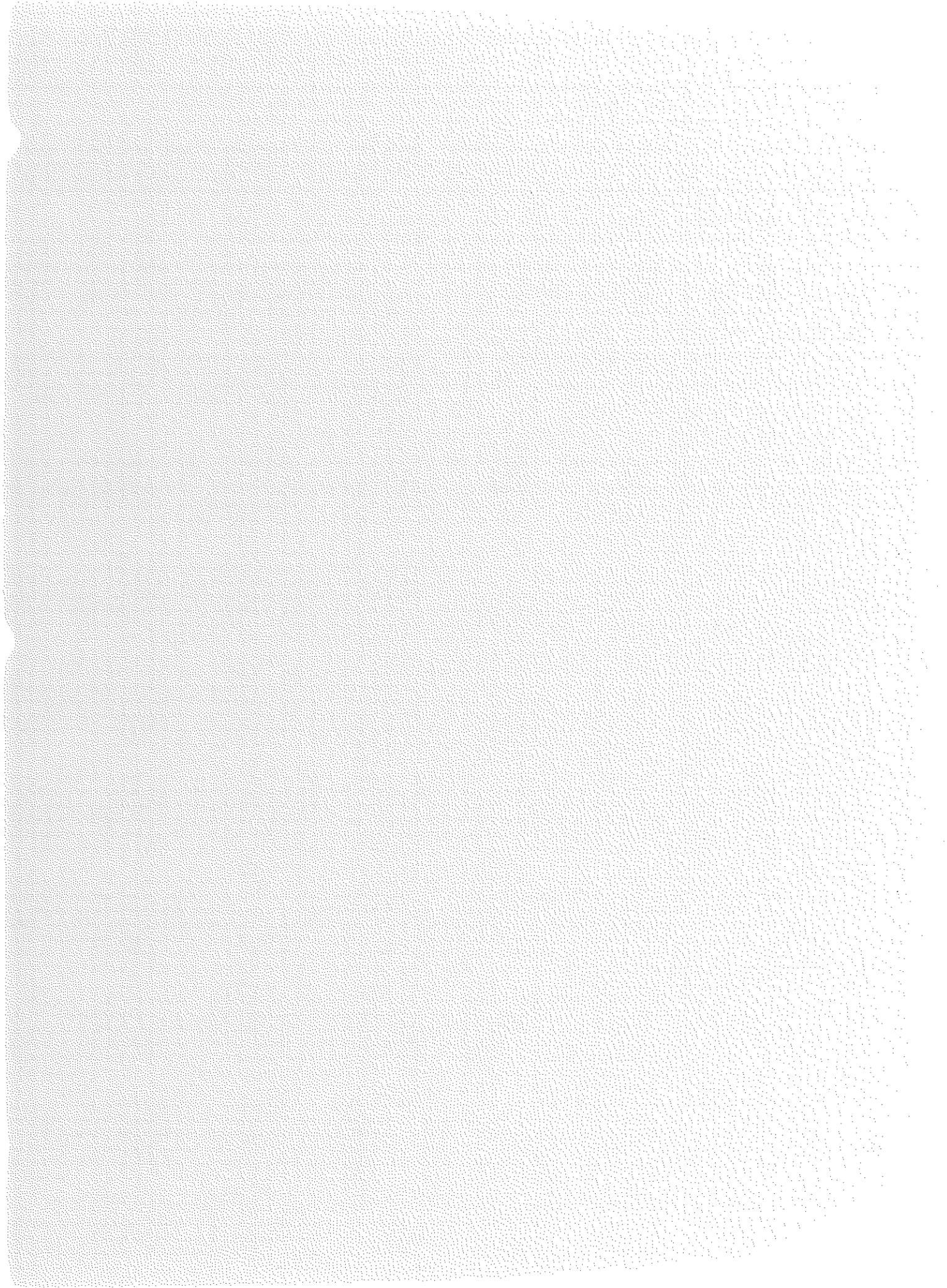
James Tanner

Ludlow Griscom

Arthur Bent

John Bartram

Dr. Frank Chapman



BENNETT BOG

Robert C. Alexander

The turnpike between Cape May Court House and Cape Island, the old name for Cape May City, was completed in 1858. It was constructed at a time when traffic had greatly increased and there was a need for better roads. But some of the inhabitants of the lower part of the county resented having to pay toll to it. For the most part the road was probably only wagon tracks going through deep woods. However, it became a popular highway for farmers and landowners traveling from the lower end of the county through Cold Spring as far as Cape May Court House who used it to avoid paying toll on the pike. The road still keeps the name reminiscent of its humble origin---Shunpike!

A short distance south of Tabernacle Road, Shunpike goes through a district where there are some bogs that used to be filled with water but are often dry now. Two or three small houses stand on each side of the road, and, on the west side, the woodland north of Fishing Creek Road is replaced by cultivated fields. The horseshoe-shaped bog west of Shunpike with its ends reaching almost to the roadside looks like a part of the fields on its outer border; and the bogs east of Shunpike appear to be merely clearings in the woods. There is nothing distinctive about the appearance of these bogs, but the plant life living in some of them is remarkable. Distinguished botanists have traveled far to observe the plants that grow there.

The first Negro settlement in the southern part of Cape May County was located in this vicinity. Alexander Winlock, one of the Negro settlers who was brought to Cape May from Kentucky by a white family, owned a farm here including the bog west of Shunpike and his house stood inside the horseshoe formed by the bog. Alec Winlock was a familiar figure in this part of the county. He was caretaker of Union Bethel Church in the settlement, a gravedigger and handy man; but his chief trade was charcoal burning. He made the charcoal near his house in the same way it has been made for centuries--cutting pine logs in the nearby wood, stacking them, setting them on fire, covering them with turf and sand to make them burn slowly, and tending them until the wood turned to charcoal. The hotels in Cape May bought his charcoal to use for broiling fish and steaks. Alec also picked the cranberries that grew in his bog and sold them in Cape May where, sixty years ago, they brought fifty cents a bushel.

The larger of the two bogs a few yards from the roadside on the other side of Shunpike used

to be called Teal Pond, presumably because Aaron Teal owned it many years ago, and it may also be the "flax pond" mentioned in old deeds. It is the largest bog here, covering three and a half acres. Farmers used to come here in the wintertime to cut ice which they stored away in little ice houses on their farms. It was a favorite spot for ice skating, sometimes over a hundred skaters from all around the countryside coming here at once. A bonfire made of dead wood gathered in the woods surrounding the bog supplied light and heat for the skaters at night. Later on, the wood bonfire was replaced sometimes by a bonfire made of a worn-out rubber automobile tire soaked with kerosene and set on fire. Although not as pleasant to smell, the old tires made a hot fire and burned for a long time. There was duck shooting as well as ice skating both at Teal Pond and the smaller bog covering an acre and a half about sixty yards south of it.

Among the trees and bushes growing at the edge of these woodland bogs are Arrow-wood, *Viburnum dentatum* L.; Bayberry, *Myrica pensylvanica* Loisel.; Swamp Blueberry, *Vaccinium corymbosum* L.; Flowering Dogwood, *Cornus florida* L.; Sour Gum, *Nyssa sylvatica* Marsh.; Sweet Gum, *Liquidambar styraciflua* L.; Holly, *Ilex opaca* Ait.; White Swamp Honeysuckle, *Rhododendron viscosum* (L.) Torr.; Inkberry, *Ilex glabra* (L.) Gray; Swamp Magnolia, *Magnolia virginiana* L.; Red Maple, *Acer rubrum* L.; Willow Oak, *Quercus phellos* L.; Sweet Pepperbush, *Clethra alnifolia* L.; Pitch Pine, *Pinus rigida* Mill.; Swamp Rose, *Rosa palustris* Marsh.; Dwarf Sumac, *Rhus copallina* L.; and Winterberry, *Ilex verticillata* (L.) Gray.

The Clay Pits, so-called because the peculiar gray clay underlying this area was dug here in the past reputedly to make bricks, covers almost an acre in the woodland southeast of Teal Pond, and can be reached by path from Tabernacle Road. When it is nearly dry, hollows or pits are exposed from which clay has been taken. Bricks were made in this locality a century ago in two bricks kilns that stood in a field on the Billy Buck farm on the north side of Crawford Road .6 mile west of Shunpike. A mound of earth and red brick rubble entirely overgrown with vines and bushes is said to be the remains of one of the kilns; and the other one is supposed to have stood only a few yards away at a spot covered by a dense thicket directly across a lane. Clay for these kilns might have been brought from the Clay Pits over a mile away, but the same kind of clay could have been dug from the low wet ground within fifty yards of the kilns. Depressions in the ground here suggest that it was. The bricks for White Hall, a small hotel erected at Cape Island in 1850 by Samuel Sumner Marcy, M.D., were made in these kilns. For many years, Dr. Marcy owned the tract of land on which

they Clay Pits is located.

The first white settlers in this locality were Swains--Richard, Jr., Ebenezer, Silas Isaac, and Daniel--and it was called Swaintown. James Hawn recalls attending the Swaintown school about seventy years ago. The one room schoolhouse was built of logs and stood on a slight rise of ground known as "the hill" on the north side of Tabernacle Road .3 mile east of Shunpike. There was one teacher for seventy-five or eighty pupils. While the teacher was busy with one group of pupils, the others would gaze through the cracks between the logs in the walls or do almost anything--except study. In autumn, the children often played hooky from Sunday School to clear the Clay Pits of tall grasses, rushes and bushes so that when the bog froze over the ice would be smooth for skating. They had a path from the schoolhouse on "the hill" through the woods to the Clay Pits and, at recess time and after school was out, they grabbed their skates and went to the Clay Pits less than five minutes away to skate. There used to be duck hunting here too, the gunners hiding behind bushes and trees at the edge of the clearing and shooting the ducks as they flew in to feed. Another little bog is located in the woods a few yards south of Tabernacle Road but neither it nor the Clay Pits has the rich and unique plant life of the other three bogs.

The first important botanical discovery at the bogs did not occur until after the turn of the century. It came as a result of the systematic investigation undertaken by members of the Philadelphia Botanical Club of all the bogs in the southern part of New Jersey marked on maps. Until that time, the beautiful Snowy Orchis, a flower that grows in the South, was not known to live this far north.

Bayard Long, who first identified this flower at the bogs, wrote "While botanizing near Bennett, Cape May County, N.J., July 24, 1907, in company with Mr. S. S. Van Pelt, I found a number of orchids growing in a very wet bog. While these were as yet only in early bud, I took them to be *Gymnadeniopsis (Habenaria) nivea* on account of the slenderness of the leaves and the appearance of the old flower stalks, a few of which were still standing." A subsequent visit on August 13 by S. S. Van Pelt and Witmer Stone revealed the plants just beginning to bloom, while on September 4 of that year they were in full bloom and were found to be far more plentiful than at first supposed, their spikes of white flowers rising above the grass all over the bog where they were discovered and in adjoining bogs as well.

Witmer Stone said of the discovery, "It was hard to imagine that in a region so frequently

scoured by botanists an undetected and conspicuous orchid had been blooming all these years, and yet such was the case. The explanation probably lies in the fact that the bogs in which the plant grows are off the usual line of travel and directly away from the sea and the salt marshes, which seem always to have attracted the botanists who visited they region. Then, again, the late blooming of this species was doubtless also a factor in concealing its presence, as the usual conspicuous bog flowers are, for the most part, over before it starts to blossom."

Bayard Long discovered the aster-like *Boltonia* here the same day he found the Snowy Orchis. He wrote, "Another plant that occurred with it (Snowy Orchis), unquestionably native, is *Boltonia asteroides* (var. *glastifolia*), heretofore known only as an introduced species in New Jersey." Other notable discoveries at the bogs followed. The Few-flowered Beaked-rush, *Rhynchospora railroad* (Michx.) Will., was found by Witmer Stone on August 4, 1907; the Wrinkled Gama Grass, *Manisuris rugosa* (Nutt.) Ktze., by Otway H. Brown in August, 1908; Small's Yellow-eyed Grass, *Xyris Smalliana* Nash, by C. S. Williamson on September 13, 1908; and Harper's Sedge, *Carex leptalea* var. *Harperi* Fern. Stone, by Bayard Long on June 19, 1909. On June 30, 1909, Witmer Stone and other found Wright's Panic Grass, *Panicum Wrightianum* Scribn., and the Spreading Pogonia, *Cleistes divaricata* (L.) Ames, a species that had been collected only at Batsto., 1860 (?), and Quaker Bridge, July 7, 1864, in New Jersey with no further record of its existence until this time. The Maiden-cane, *Panicum hemitomom* Schultes, was found by O. H. Brown on August 12, 1909; Grisebach's Panic Grass, *Panicum aciculare* Desv., by Stone on September 11, 1910; Britton's Spike-rush, *Eleocharis Brittonii* Svenson, by Long on September 21, 1910; the Thread-leaved Beaked-rush, *Rhynchospora filifolia* Gray, by Long on August 11, 1911; the Short-beaked Bald-rush, *Psilocarya nitens* (Vahl) Wood, by Otway H. Brown and the Low Pine-barren Milkwort, *Polygala ramosa* Ell., by Mary A. Brown both on August 12, 1913.

All of these are typically southern plants. Only four of them--Wright's Panic Grass, the Short-beaked Bald-rush, Harper's Sedge, and the Spreading Pogonia--have been found north of Cape May County. The Wrinkled Gama Grass, Small's Yellow-eyed Grass, Snowy Orchis, Low Pine-barren Milkwort, and Britton's Spike-rush are known in New Jersey only from Bennett Bog which is, of course, the northern limit of their distribution. The nearest place to Bennett Bog that Britton's Spike-rush has been collected is in North Carolina. Most remarkable of all, however, was the discovery of the Black-based Quillwort, *Isoetes melanopoda* Gay & Dur., at the bogs by Otway H.

Brown on August 22, 1915. This plant, growing in certain sections of the West, has not been found anywhere else east of the Mississippi River except in Illinois.

During the period when these botanical discoveries were being made, botanists coming from the city usually took the train from Camden and got off at Bennett Station which was the local starting point for most of the early trips to the bogs. Although they visited the other bogs, these botanists did most of their collecting in the large bog. They described the location of the bogs as "near Bennett," "in the vicinity of Bennett," and "about one mile west of Bennett Station." it was only a matter of time before it was called simply Bennett Bog.

Bennett Station, the botanists' way station and landmark, was named for Elijah Bennett, and the surrounding area was called Bennett; but the post office established on April 7, 1893, and located in the store in the station building was named Erma in honor of Miss Erma Bennett, the granddaughter of Elijah Bennett. When Bennett Station was abandoned by the railroad, the building continued to be used for a store until finally it was torn down. The entire district is called Erma now, although the post office for which it is named has been discontinued. Erma has taken the place of Bennett and of Swaintown too. But as long as the bogs remain, it is likely that this spot will be known to botanists as Bennett Bog.

Farmers have cut hay in the bogs, the three with the greatest variety of plant life in them, almost every year for at least twenty years; and as long ago as 1910, Witmer Stone noted that a farmer's scythe passed within a couple of feet of the Spreading Pogonias he had found growing among grasses and sedges at the edge of one of the bogs and they narrowly missed being transformed into hay. Last summer, flowers bloomed more abundantly in the half of Teal Pond where hay was cut than in the half that has never been mowed. The annual mowing does not appear to have done any harm.

Curious holes in the bogs usually with a small tower built with lumps of clay surrounding the entrance, sometimes attributed to animals or reptiles, are made by crawfish, nocturnal crustaceans inhabiting the bogs, seldom seen in the daytime. In the 1930's when Shunpike was widened and graded and the Cape May County Mosquito Commission received aid from the Public Works Administration to do away with potential breeding places of the notorious Jersey mosquito, ditches were dug to drain the bogs. On numerous occasions since then, the clay turrets of the crawfish that used to be covered with two or three feet of water have stood on dry land and lily pads in the lowest

parts of the bogs have withered away on the ground. Apparently there has been enough water just below the surface to sustain the bog life up to now, but draining is a real danger because water is essential to the existence of the plants and the creatures living in the bogs.

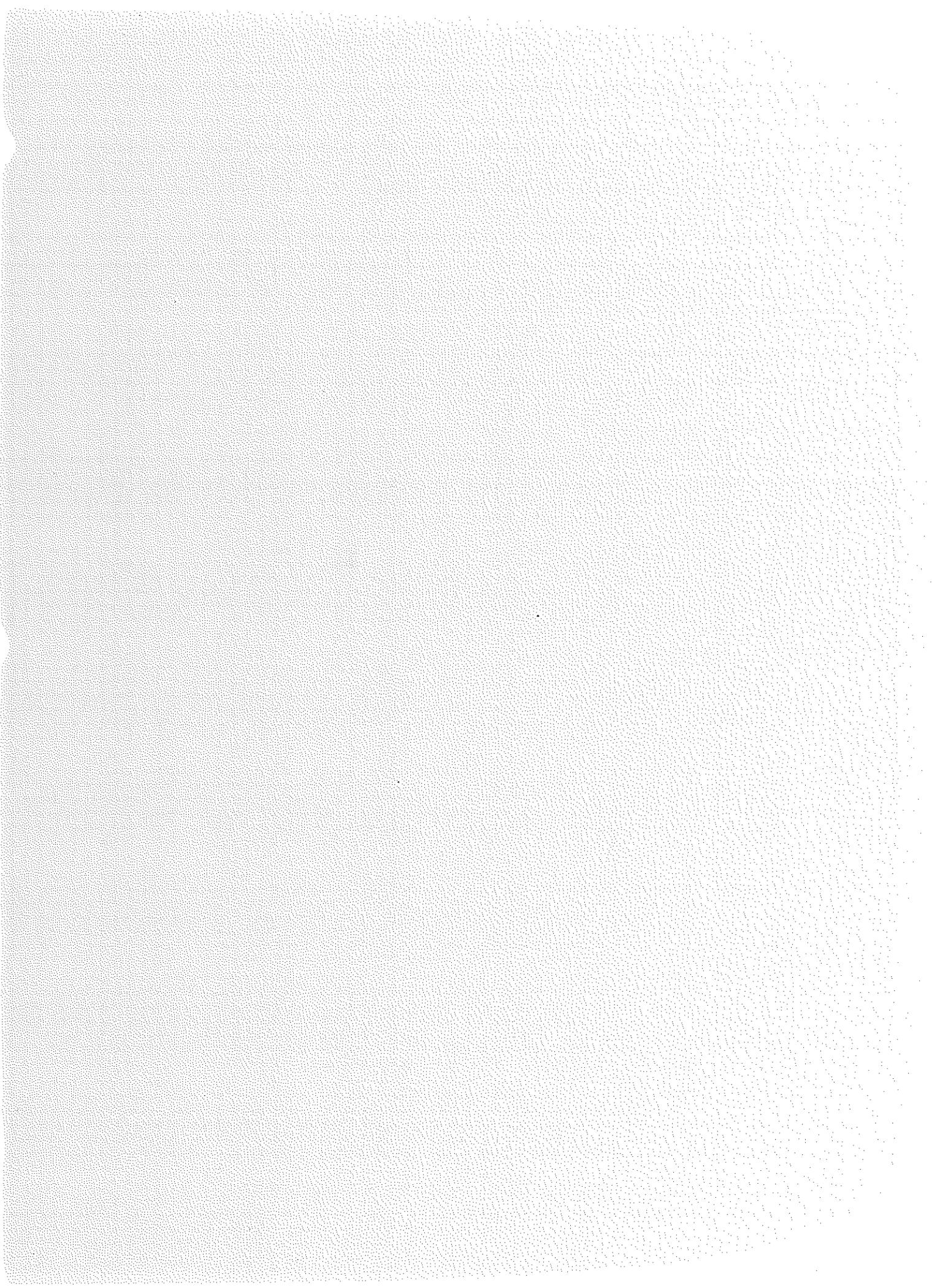
The plants that attract the most attention here are generally those with conspicuous flowers, not the grasses, rushes, and sedges. The following plants, most of them with conspicuous flowers, are representative of the bog flora, of course, not all blooming at the same time: Aster-like Boltonia, *Boltonia asteroides* var. *glastifolia* (Hill) Fern.; White-bracted Boneset, *Eupatorium leucolepis* (DC.) T. & G.; Lance leaved Centaury, *Sabatia difformis* (L.) Druce; Cranberry, *Vaccinium macrocarpon* Ait.; Grass-leaved Ladies' Tresses, *Spiranthes praecox* (Walt.) S. Wats.; Nodding Ladies' Tresses, *Spiranthes cernua* (L.) Richard; Downy Lobelia, *Lobelia puberula* Michx.; Nuttall's Lobelia, *Lobelia Nuttallii* R. & S.; Meadow Beauty or Deergrass, *Rhexia virginica* L.; Maryland Meadow Beauty, *Rhexia mariana* L.; Cross-leaved Milkwort, *Polygala cruciate* L.; Orange Milkwort, *Polygala lutea* L.; Snowy Orchis, *Habenaria nivea* (Nutt.) Spreng; White Fringed Orchis, *Habenaria blephariglottis* (Willd.) Hook.; Umbellate March Pennywort, *Hydrocotyle umbellate* L.; Rattlesnake master *Eryngium aquaticum* L.; Coppery St. John's-wort, *Hypericum denticulate* Walt.; Marsh St. John's-wort, *Hypericum virginicum* L.; Sclerolepis, *Sclerolepis uniflora* (Walt.) BSP.; Spatulate-leaved Sundew, *Drosera intermedia* Hayne; Lance-leaved Violet, *Viola lanceolata* L.

Other members of the Orchis family recorded from Bennett Bog besides those already mentions are the Yellow Fringed Orchis, *Habenaria ciliaris* (L.) R. Br.; Ragged or Green Fringed Orchis, *Habenaria lacera* (Michx.) Lodd.; and Rose Pogonia, *Pogonia ophioglossoides* (L.) Ker., including the form with white flowers.

On October 24, 1949, a summery autumn day when Lance leaved Violets were blooming in the bogs for the second time that year, J. d'Arcy Northwood scattered seeds of the Fringed Gentian, *Gentiana crinite* Froel., at the south edge of the bog west of Shunpike--seeds he had collected from the plants growing in the boggy meadow beside a brook in Little Falls, N.J., where the species seemed to be threatened with extermination. If they should grow, a third species with North Jersey ancestry will be added to two of the most treasured flowers native to Bennett Bog--the Pine-barren Gentian, *Gentiana autumnalis* L., and the Soapwort Gentian,

Gentiana Saponaria L.

All of the bogs are privately owned; and last year, the New Jersey Audubon Society established a sanctuary in half of Teal Pond and all of the smaller bog near it. Every person who visit's the bogs should help to protect and preserve them because here in this small spot in the southern part of Cape May County grow some of the most unique plants in this whole region.



BUTTERFLIES OF LOWER TOWNSHIP

Pipeline Swallowtail

E. Tiger Swallowtail

Black Swallowtail

Spicebush Swallowtail

WHITES & SULPHURS

Checkered White

Falcate Orange Tip

Orange Sulphur

Little Yellow

Cabbage White

Clouded Sulphur

Cloudless Sulphur

Sleepy Orange

HARVESTER, COPPERS, HAIRSTREAKS & BLUES

Harvester

Bronze Copper

Coral Hairstreak

Striped Hairstreak

Brown Elfin

Henry's Elfin

'Olive' Juniper Hairstreak

Gray Hairstreak

Eastern Tailed Blue

Coastal Holly Azure

American Copper

Great Purple Hairstreak

Banded Hairstreak

Southern (No.) Hairstreak

Frosted Elfin

Eastern Pine Elfin

White M Hairstreak

Red-Banded Hairstreak

'Northern' Spring Azure

Summer Azure

SNOUTS

American Snout

BRUSHFOOT

Gulf Fritillary

Great Spangled Fritillary

Question Mark

Compton Tortoise Shell

American Lady

Variegated Fritillary

Pearl Crescent

Eastern Comma

Mourning Cloak

Painted Lady

BRUSHFOOT (Con't)

Red Admiral

Red-Spotted Purple

Common Buckeye

Viceroy

HACKBERRY BUTTERFLIES

Hackberry Emperor

Tawny Emperor

SATYRS & WOOD NYMPHS

Appalachian Brown

Common Wood Nymph

Little Wood Satyr

MILKWEED BUTTERFLIES

Monarch

SKIPPERS

Silver-Spotted Skipper

Hoary Edge

Northern Cloudywing

Juvenal's Duskywing

Wind Indigo Duskywing

Common Sootywing

Clouded Skipper

European Skipper

Cobweb Skipper

Tawny-edged Skipper

Whirlabout

Little Glassywing

Delaware Skipper

Aaron's Skipper

Dun Skipper

Brazilian Skipper

Ocola Skipper

Long-Tailed Skipper

Southern Cloudywing

Hayhurst's Scallopwing

Horace's Duskywing

Common Checkered Skipper

Swarthy Skipper

Least Skipper

Fiery Skipper

Peck's Skipper

Crossline Skipper

Northern Broken Dash

Sachem

Zabulon Skipper

Broad-winged Skipper

Eufala Skipper

Salt Marsh Skipper

Common Tree Species of Lower Township

Common Names Botanical Names	introduced /native	traits/height	Deer Resistant
American Basswood <i>Tilia Americana</i>	native	S-D/60'	*
Autumn Olive <i>Elaeagnus umbelatta</i>	native	S-D/10'	
Black Cherry <i>Prunus serrotina</i>	native	S-D/50'	
Black gum <i>Nyssa sylvatica</i>	native	S-D-WS/40-50'	
Black Japanese Pine <i>Pinus Thunbergiana</i>	introduced	S-E/35'	
Black Willow <i>Salix nigra</i>	native	S-D/30-40'	
Blue Atlas cedar <i>Cedrus atlantica</i>	introduced	S-E/50-60'	
Blue Spruce <i>Picea glauca</i>	introduced	S-E/50-60'	
Callery Pear, <i>Pyrus calleryana</i> var. 'Bradford'	introduced	S-D/30'	
Catalpa <i>Catalpa bignonioides</i> Crepe Myrtle	native	S-D/40-50'	*

Key:
 S - Sun
 SH - Shade
 E - Evergreen
 WS - Wet Site
 N/A - Not Available

Common Tree Species of Lower Township

Common Names Botanical Names	introduced /native	traits/height	Deer Resistant
Chinese Elm <i>Ulmus spp.</i>	N/A	N/A	N/A
Crepe Myrtle	N/A	N/A	N/A
Dogwood <i>Cornus florida</i>	native	S-SH-D/25'	*
Flowering Plum <i>Prunus spp.</i>	introduced	S-SH-D/35'	
Green Ash <i>Fraxinus pennsylvanica</i>	native	S-D/70-80'	*
Common Hornbeam <i>Carpinus betulus</i>	native	S-SH-WS-D/10-30'	*
Eastern Hophornbeam <i>Ostrya virginiana</i>	native	S-SH-WS-D/20-30'	*
Kwansan Cherry <i>Prunus spp. (cv.)</i>	introduced	S-D/30'	
Larch, Japanese <i>Larix kaempferi</i>	introduced	S-D/40-80'	*
Leland Cypress <i>Cupressocyparis leylandii</i>	introduced	S-E/60-80'	
Nelly Steven Holly <i>Ilex x 'Nellie R. Stevens'</i>	native/cv.	S-SH-E/50'	

Key:
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Common Tree Species of Lower Township

Common Names Botanical Names	introduced /native	traits/height	Deer Resistant
American Holly <i>Ilex opaca</i>	native	S-E/50'	*
Persimmons <i>Diospyros virginiana</i>	native	S-D/30-50'	*
Pond Pine <i>Pinus spp.</i>	N/A	N/A	N/A
White Poplar <i>Populus alba</i>	native	S-D/50'	*
Sassafras <i>Sassafras albidum</i>	native	S-D/40-50'	*
Sweet gum <i>Liquidambar styraciflua</i>	native	S-D-WS/50-70'	
Honey Locust <i>Gleditsia triacanthos</i>	native	S-D/40-60'	*
Mockernut Hickory <i>Carya tomentosa</i>	native	S-D/50-75'	*
White Mulberry <i>Morus alba</i>	introduced	S-D/40-50'	*

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Common Tree Species of Lower Township

Common Names Botanical Names	introduced /native	traits/height	Deer Resistant
Norway Maple <i>Acer platanoides</i>	native	S-D/40-60'	
Red Maple <i>Acer rubrum</i>	native	S-WS-D/50-70'	
Silver Maple <i>Acer saccharinum</i>	native	S-D/40-70'	
Crimson Maple <i>Acer platanoides</i> introduced/cv. 'Crimson Maple'	introduced/cv. 35-40'	S-D/35-40'	*
Mimosa <i>Albizia julibrissin</i>	introduced	S-D/30'	*
Post Oak <i>Quercus stellata</i>	native	S-D/50-60'	
Pin Oak <i>Quercus palustris</i>	native	S-D/60-80'	
Southern Magnolia <i>Magnolia spp.</i>	native	S-E/60-70'	*
Sycamore <i>Platanus occidentalis</i>	native	S-D/75-125'	*
White Spruce <i>Picea glauca</i>	native	S-E/45-50'	*

Key:
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WS - Wet Site
N/A - Not Available

Common Shrub Species of Lower Township

Common Names Botanical Names	introduced /native	traits/height	Deer Resistant
Arrowwood Spirea Spirea spp.	N/A	N/A	N/A
Elderberry Sambucus canadensis	native	S-WS-D/6-8'	
Groundsel Baccharis halimifolia	native	S-D-WS/8-10'	
Honeysuckle Lonicera Americana	native	S-D/climber	
Polygonia Mexican Bamboo	N/A	N/A	N/A
Sumac Rhus spp.	native	S-D/8-10'	
Wax Myrtle Myrica cerifera	native	S-SH-semi E/25'	
Wild rose (multiflora) Rosa multiflora	native	S-D/climber	
Boxwood Buxus sempervirens	introduced	S-SH-E/3-8'	
Bridal Wreath Spirea Spirea prunifolia	native	S-SH-D/3-10'	

Key:
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Common Shrub Species of Lower Township

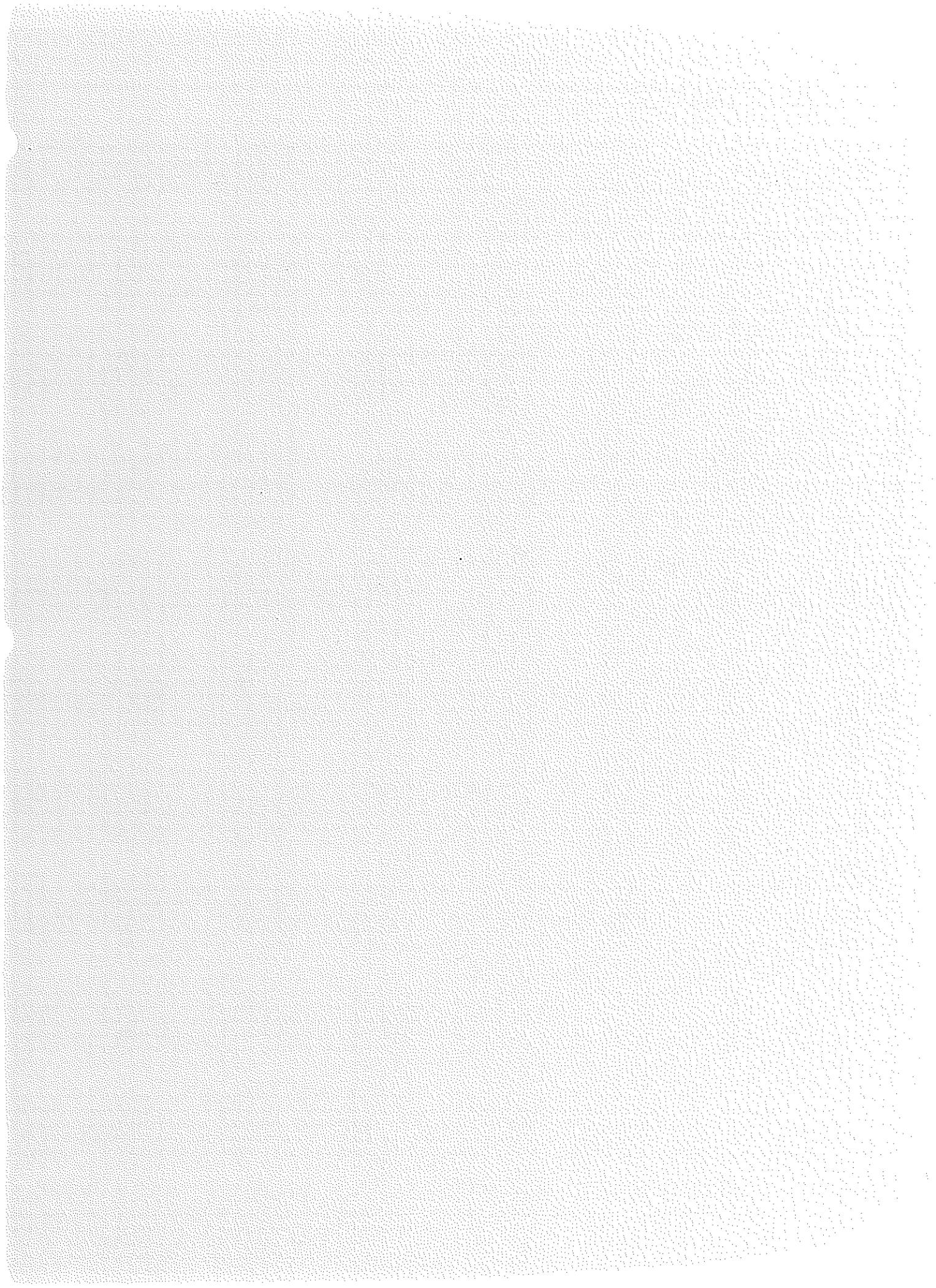
Common Names Botanical Names	introduced /native	traits/height	Deer Resistant
Butterfly Bush Buddleia spp.	introduced	S-D/5-15'	*
Euonymus Euonymus spp.	introduced	S-E/3-10'	
Lilac Common Syringa vulgaris	native	S-D/8-10'	
California Privet Ligustrum ovalifolium	introduced	S-D/5-20'	
Rugosa Rose Rugosa spp.	introduced	S-D/3-8'	
Vitex Vitex agnus-castus	introduced	S-D/8-15'	
Narrow Leaf Arborvitae Arborvitae spp.	N/A	N/A	N/A

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Common Vine Species of Lower Township

Common Names Botanical Names	introduced /native	traits/height	Deer Resistant
Blackberry Bramble spp.	native	S-D/3-6'	
Carolina rose	N/A	N/A	N/A
Fox grape Vitis labrusca Greenbrier	native	S-D/climber	
Pasture rose	N/A	N/A	N/A
Trumpet vine Campsis radicans	native	S-D/climber	
Virginia creeper Parthenocissus quinquefolia	native	S-D/climber	
White Avens	N/A	N/A	N/A
Wild Clematis Clematis spp. 'Autumn sweet'	native	S-D/climber	*
Wild Grapevine Vitis spp.	native	S-D/climber	*
Wild Sweet Pea Legume spp.	native	S/climber	

Key:
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MIGRATORY AND RESIDENT BIRDS SEEN IN LOWER TOWNSHIP
AND ITS SURROUNDING WATERS IN THE LAST 50 YEARS

LOONS to CORMORANTS

Red-throated Loon	Common Loon
<u>B</u> Pied-billed Grebe	Horned Grebe
Red-necked Grebe	Cory's Shearwater
Greater Shearwater	Sooty Shearwater
Audubon's Shearwater	Wilson's Storm-Petrel
Northern Gannet	Brown Pelican
Double-crested Cormorant	Great Cormorant

BITTERNs to VULTURES

<u>B</u> American Bittern	<u>B</u> Least Bittern
Great Blue Heron	Great Egret
Snowy Egret	Little Blue Heron
Tricolored Heron	Cattle Egret
<u>B</u> Green Heron	Black-crowned Night-Heron
<u>B</u> Yellow-crowned Night-Heron	Glossy Ibis
Black Vulture	Turkey Vulture

WATERFOWL

Snow Goose	<u>B</u> Canada Goose
Brant	<u>B</u> Mute Swan
Tundra Swan	<u>B</u> Wood Duck
<u>B</u> Gadwall	Eurasian Wigeon
American Wigeon	<u>B</u> American Black Duck
<u>B</u> Mallard	Blue-winged Teal
Northern Shoveler	Northern Pintail
Green-winged Teal	Canvasback
Redhead	Ring-necked Duck

B = Breeding

WATERFOWL (Con't)

Greater Scaup	Lesser Scaup
King Eider	Common Eider
Harlequin Duck	Surf Scoter
White-winged Scoter	Black Scoter
Longed-tailed Duck	Bufflehead
Common Goldeneye	Hooded Merganser
Common Merganser	Red-breasted Merganser
Ruddy Duck	

DIURNAL RAPTORS

<u>B</u> Osprey	Mississippi Kite
Bale Eagle	Northern Harrier
<u>B</u> Sharp-shinned Hawk	Cooper's Hawk
Northern Goshawk	Red-shouldered Hawk
<u>B</u> Broad-winged Hawk	Swainson's Hawk
<u>B</u> Red-tailed Hawk	Rough-legged Hawk
Golden Eagle	American Kestrel
Merlin	Peregrine Falcon

GROUSE to CRANES

Ring-necked Pheasant	<u>B</u> Ruffed Grouse
Wild Turkey	<u>B</u> Northern Bobwhite
Black Rail	<u>B</u> Clapper Rail
King Rail	<u>B</u> Virginia Rail
Sora	Common Moorhen
American Coot	Sandhill Crane

B = Breeding

SHOREBIRDS

Black-bellied Plover
Semipalmated Plover
B Killdeer
Black-necked Stilt
Greater Yellowlegs
Solitary Sandpiper
Spotted Sandpiper
Whimbrel
Marbled Godwit
Red Knot
Semipalmated Sandpiper
Least Sandpiper
Baird's Sandpiper
Purple Sandpiper
Stilt Sandpiper
Ruff
Long-billed Dowitcher
B American Woodcock
Red-necked Phalarope

JAEGERS to ALCIDS

Pomarine Jaeger
B Laughing Gull
Black-headed Gull
Ringbilled Gull
Iceland Gull
Glaucous Gull
Black-legged Kittiwake
Caspian Tern

American Golden-Plover
B Piping Plover
B American Oystercatcher
American Avocet
Lesser Yellowlegs
B Willet
Upland Sandpiper
Hudsonian Godwit
Ruddy Turnstone
Sanderling
Western Sandpiper
White-rumped Sandpiper
Pectoral Sandpiper
Dunlin
Buff-breasted Sandpiper
Short-billed Dowitcher
Wilson's Snipe
Wilson's Phalarope
Red Phalarope

Parasitic Jaeger
Little Gull
Bonaparte's Gull
B Herring Gull
Lesser Black-backed Gull
Great Black-backed Gull
Gull-billed Tern
Royal Tern

B = Breeding

JAEGERS to ALCIDS (Con't)

Sandwich Tern

Common Tern

B Foster's Tern

Black Tern

Dovekie

Roseate Tern

Arctic Tern

B Least Tern

Black Skimmer

Razorbill

PIGEONS to WOODPECKERS

B Rock Pigeon

Black-billed Cuckoo

Barn Owl

B Great Horned Owl

Barred Owl

Short-eared Owl

Common Nighthawk

B Whip-poor-will

B Ruby-throated Hummingbird

Red-headed Woodpecker

Yellow-bellied Sapsucker

B Hairy Woodpecker

B Mourning Dove

B Yellow-billed Cuckoo

Eastern Screech-Owl

Snowy Owl

Long-eared Owl

Northern Saw-whet Owl

B Chuck-will's-widow

B Chimney Swift

B Belted Kingfisher

B Red-bellied Woodpecker

B Downy Woodpecker

B Norther Flicker

FLYCATCHERS to VIREOS

Olive-sided Flycatcher

Yellow-bellied Flycatcher

B Alder Flycatcher

Least Flycatcher

B Great Crested Flycatcher

B Eastern Kingbird

Yellow-throated Vireo

Warbling Vireo

Red-eyed Vireo

B = Breeding

B Eastern Wood-Pewee

Acadian Flycatcher

Willow Flycatcher

B Eastern Phoebe

Western Kingbird

B White-eyed Vireo

Blue-headed Vireo

Philadelphia Vireo

JAYS to WREN

B Blue Jay
B Fish Crow
B Purple Martin
B No. Rough-winged Swallow
Cliff Swallow
B Barn Swallow
B Tufted Titmouse
White-breasted Nuthatch
B Carolina Wren
Winter Wren
B Marsh Wren

B American Crow
Horned Lark
B Tree Swallow
Bank Swallow
Cave Swallow
B Carolina Chickadee
Red-breasted Nuthatch
Brown Creeper
B House Wren
Sedge Wren

KINGLETS to WAXWINGS

Golden-crowned Kinglet
B Blue-gray Gnatcatcher
Verry
Bicknell's Thrush
Hermit Thrush
B American Robin
B Northern Mockingbird
B European Starling
Cedar Waxwing

Ruby-crowned Kinglet
B Eastern Bluebird
Gray-cheeked Thrush
Swainson's Thrush
B Wood Thrush
B Gray Catbird
B Brown Thrasher
American Pipit

WARBLERS

Blue-winged Warbler
Tennessee Warbler
Nashville Warbler
Yellow Warbler
Magnolia Warbler
Black-throated Blue Warbler
Black-throated Green Warbler
Yellow-throated Warbler
Prairie Warbler
Bay-breasted Warbler
Cerulean Warbler
American Redstart
Worm-eating Warbler
Northern Waterthrush
Kentucky Warbler
Mourning Warbler
Hooded Warbler
Canada Warbler
Golden-winged Warbler
Orange-Crowned Warbler
B Northern Parula
Chestnut-sided Warbler
Cape May Warbler
Yellow-rumped Warbler
Blackburnian Warbler
Pine Warbler
Palm Warbler
Blackpoll Warbler
Black-and-White Warbler
B Prothonotary Warbler
B Ovenbird
Louisiana Waterthrush
Connecticut Warbler
B Common Yellowthroat
Wilson's Warbler
B Yellow-breasted Chat

TANAGERS to BUNTINGS

B Summer Tanager
B Eastern Towhee
Chipping Sparrow
B Field Sparrow
Lark Sparrow
Grasshopper Sparrow
Saltmarsh Sharp-tailed Sparrow
Fox Sparrow
Lincoln's Sparrow
B Scarlet Tanager
American Tree Sparrow
Clay-colored Sparrow
Vesper Sparrow
Savannah Sparrow
Nelson's Sharp-tailed Sparrow
B Seaside Sparrow
B Song Sparrow
Swamp Sparrow

B = Breeding

TANAGERS to BUNTINGS (Con't)

White-throated Sparrow

Dark-eyed Junco

Snow Bunting

Rose-breasted Grosbeak

B Indigo Bunting

White-crowned Sparrow

Lapland Longspur

B Northern Cardinal

B Blue Grosbeak

Dickcissel

BLACKBIRDS to OLD WORLD SPARROWS

Bobolink

Eastern Meadowlark

Rusty Blackbird

B Boat-tailed Grackle

B Orchard Oriole

Purple Finch

Common Redpoll

B American Goldfinch

B House Sparrow

B Red-winged Blackbird

Yellow-headed Blackbird

B Common Grackle

B Brown-headed Cowbird

B Baltimore Oriole

B House Finch

Pine Siskin

Evening Grosbeak

RARITIES

Eared Grebe

White Ibis

Wood Stork

Greater White-fronted Goose

Yellow Rail

Wilson's Plover

Franklin's Gull

Bridled Tern

White-winged Dove

Pileated Woodpecker

Ash-throated Flycatcher

American White Pelican

White-faced Ibis

Fulvous Whistling-Duck

Swallow-tailed Kite

Purple Gallinule

Long-tailed Jaeger

Sabine's Gull

Common Murre

Rufous Hummingbird

Say's Phoebe

Scissor-tailed Flycatcher

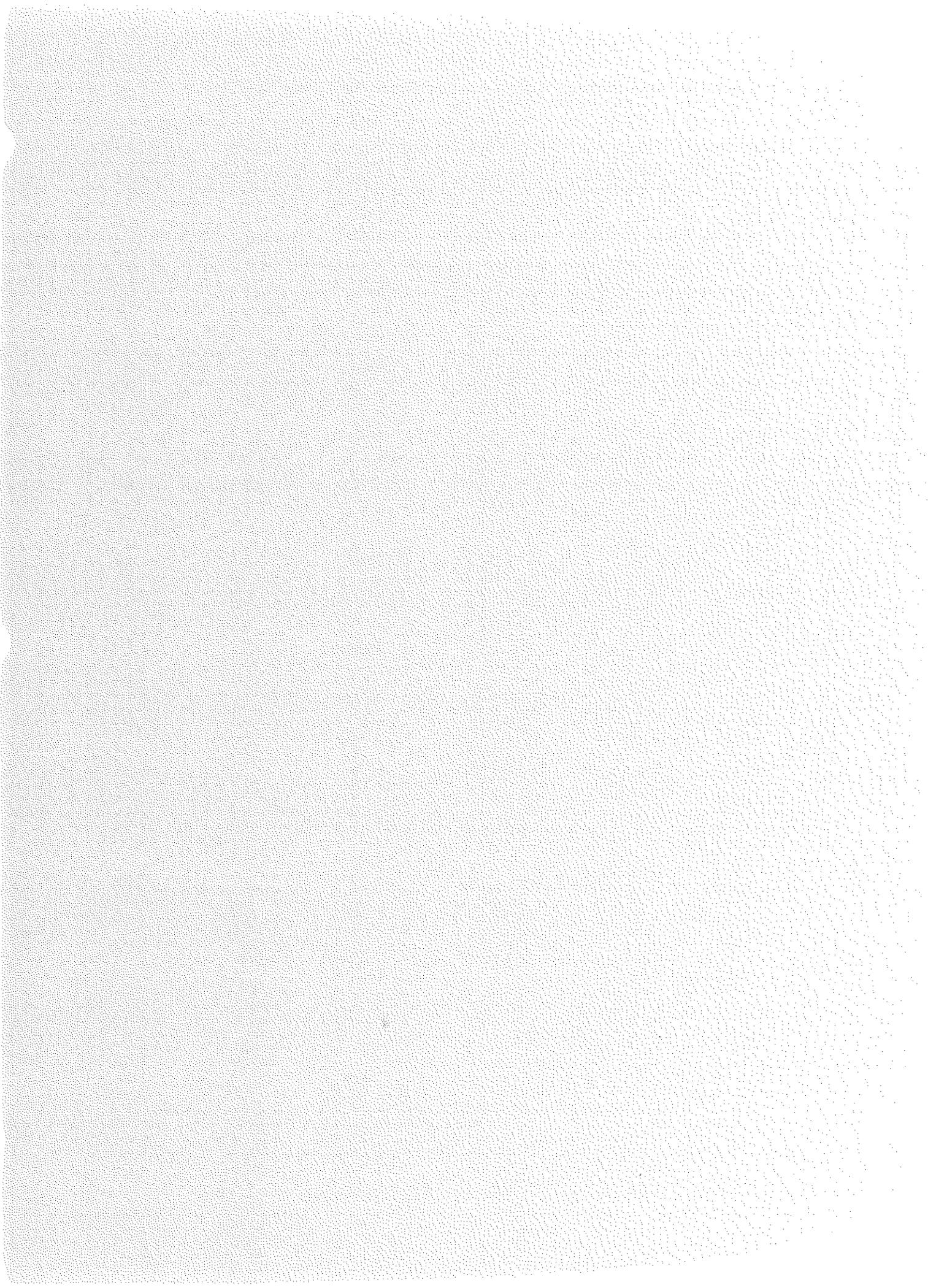
B = Breeding

RARITIES (Con't)

Ford-tailed Flycatcher
Northern Shrike
Northern Wheatear
Swainson's Warbler
Henslow's Sparrow
Black-headed Grosbeak
Brewer's Blackbird
White-winged Crossbill
Yellow-nosed Albatross
Leach's Storm-Petrel
Brown Booby
Magnificent Frigatebird
White-tailed Kite
Gyr Falcon
Red-necked Stint
Eurasian Woodcock
Thayer's Gull
Whiskered Tern
Eurasian Collared-Dove
Calliope Hummingbird
Black-backed Woodpecker
Bell's Vireo
Violet-green Swallow
Mountain Bluebird
MacGillivray's Warbler
Lark Bunting
Golden-crowned Sparrow
Chestnut-collared Longspur
Masked Booby

Loggerhead Shrike
Common Raven
Black-throated Gray Warbler
Western Tanager
Le Conte's Sparrow
Painting Bunting
Red Crossbill
European Green-wing Teal
Black-capped Petrel
Band-rumped Storm-Petrel
Anhinga
Ross's Goose
Eurasian Kestrel
Long-billed Curlew
Little Stint
Black-tailed Gull
White-winged Tern
Black Guillemot
Black-chinned Hummingbird
Allen's Hummingbird
Gray Kingbird
Brown-chested Martin
Rock Wren
Townsend's Warbler
Spotted Towhee
Harris's Sparrow
Smith's Longspur
Trumpeter Swan

B = Breeding



ANIMALS, AMPHIBIANS AND REPTILES
OF LOWER TOWNSHIP

White Tailed Deer

Flying Squirrel

Raccoon

Grey Fox

Muskrat

Chipmunk

Coyote

Skunk

Red Bat

House Mouse

Eastern Mole

Meadow Vole

Short Tailed Shrew

Norway Rat

Grey Squirrel

Opossum

Red Fox

River Otter

Beaver

Rabbit

Long Tailed Weasel

Little Brown Bat

Hoary Bat

White Booted Mouse

Star Nosed Mole

Least Shrew

Black Bear - 1866

Bull Frog

Southern Grey Tree Frog

Leopard Frog

Spring Peeper

Chorus Frog

Fowler's Toad

Tiger Salamander

Marbled Salamander

Five Lined Skink

Green Frog

Northern Grey Tree Frog

Wood Frog

Cricket Frog

Spade Foot Toad

Barking Tree Frog - 1944

Lead-Backed Salamander

Fence Lizard

Painted Turtle

Spotted Turtle

Snapping Turtle

Red-Bellied Turtle

Mud Turtle

Diamond Back Terrapin

Red-Eared Slider

King Snake

North Water Snake

Ringnecked Snake

Rough Green Tree Snake

Racer

Earth Snake

Rat Snake

Hognosed Snake

Ribbon Snake

Garter Snake

Brown Snake

Worm Snake

SHELLS RECORDED IN LOWER TOWNSHIP

UNIVALVES (GASTROPODS)

<i>Buccinum undatum</i> (Linne)	English Whelk
<i>Crepidula convexa</i> (Say)	Convex Boat Shell
<i>Crepidula Plana</i> (Say)	White Slipper Shell
<i>Colus pubesens</i> (Verrill)	
<i>Curcibulum striatum</i> (Say)	Cup-and-Saucer Limpet
<i>Eupleura caudata</i> (Say)	Oyster drill
<i>Mitrella lunata</i> (Say)	
<i>Nassa acuta</i> (Say)	
<i>Nassa obsoleta</i> (Say)	Mud-flat Snail
<i>Nassa gravitate</i> (Say)	Sand-flat Snail
<i>Neptunea stonei</i> (Pilsbry)	Stone's Whelk
<i>Polinices duplicata</i> (Say)	Southern Sand-collar Snail
<i>Polinices Heros</i> (Say)	Northern Sand-collar Snail
<i>Thais floridana</i> (Conrad)	Florida Drill
<i>Urosalpinx cinereus</i> (Say)	Oyster Drill

BIVALVES (PELECYPODS)

<i>Arca transversa</i> Say	Transverse Ark
<i>Astarte castanea</i> (Say)	Chestnut Clam
<i>Macoma balthica</i> (Linne)	
<i>Macoma calcarea</i> (Gmelin)	
<i>Mesodesma arctatum</i> (Conrad)	
* <i>Modiolus demissus</i> (Dillwyn)	Ribbed Horse Mussel
<i>Modiolus modiolus</i> (Linne)	Horse Mussel
<i>Mulinia lateralis</i> (Say)	
<i>Mya arenaria</i> (Linne)	Softshell Clam
<i>Noetia ponderosa</i> (Say)	Ponderous Ark
<i>Ostrea virginica</i> (Gmelin)	Oyster

BIVALVES (PELECYPODS) - Con't

<i>Petricola pholadiformis</i> (Lamarck)	Small Angel's Wings
<i>Spisula solidissima</i> (Dillwyn)	Surf Clam
<i>Venericardia borealis</i> (Conrad)	Cod Clam
<i>Venus campechiensis</i> (Gmelin)	
*Not fossil	

The following additional species complete the list of fossil shells that have been found at the Cape May Canal:

UNIVALVES (GASTROPODS)

<i>Busycon canaliculatum</i> (Linne)	Channeled Conch or Whelk
<i>Busycon carica</i> (Gmelin)	Knobbed Conch or Whelk
<i>Crepidula fornicata</i> (Linne)	Boat Shell
<i>Nassa vibex</i> (Say)	Lash Snail
<i>Olivella mutica</i> (Say)	
<i>Turbonilla conradi</i> (Bush)	

BIVALVES (PELECYPODS)

<i>Corbula contracta</i> (Say)	Basket Clam
<i>Crenella glandula</i> (Totten)	
<i>Diplodonta punctata</i> (Say)	
<i>Ensis directur</i> (Conrad)	Razor Clam
<i>Gemma gemma</i> (Totten)	Gem Shell
<i>Mesodesma deauratum</i> (Turton)	
<i>Mytilus edulis</i> (Linne)	Edible Mussel
<i>Nucula major</i> (Richards)	
<i>Pandora trilineata</i> (Say)	
<i>Phacoides</i> sp.	
<i>Venericardia tridentate</i> (Say)	

July 5 and August 16 - South Cape May beach walks to study sea shells and other forms of marine life. Leaders: Dr. Horace G. Richard and Robert Alexander. Species found:

UNIVALVES (GASTROPODS)

<i>Crepidula fornicata</i> (Linne)	Boat Shell
<i>Crepidula plana</i> (Say)	White Slipper Shell
<i>Littorina irrorata</i> (Say)	Salt March Periwinkle
<i>Nassa obsoleta</i> (Say)	Mud-flat Snail
<i>Nassa gravitate</i> (Say)	Sand-flat Snail
<i>Polinices duplicata</i> (Say)	Southern Sand-collar Snail
<i>Urosalpinx cinereus</i> (Say)	Oyster Drill

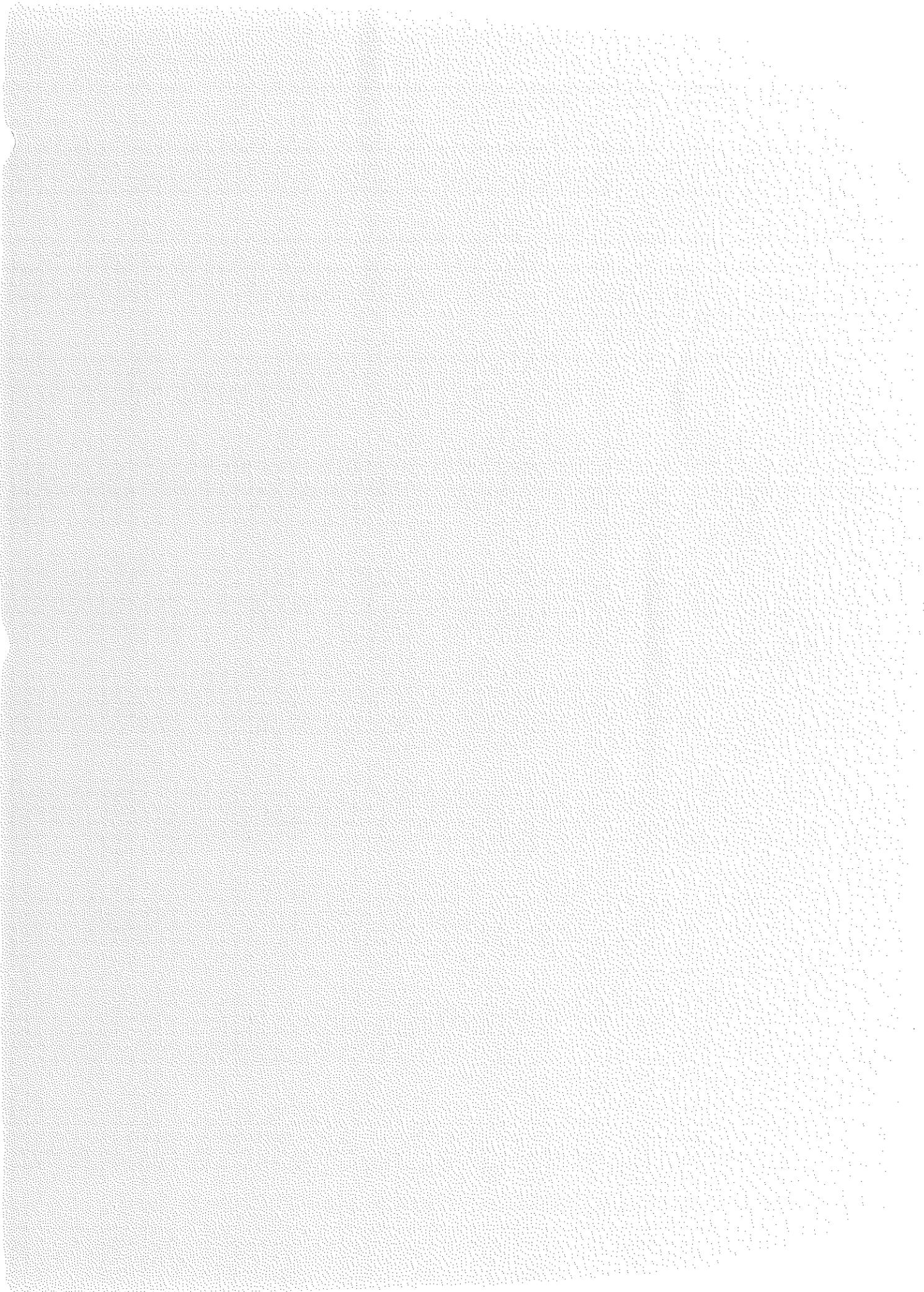
BIVALVES (PELECYPODS)

<i>Anomia simplex</i> (d'Orb.)	Jingle
<i>Arca pexata</i> (Say)	Bloody Clam
<i>Barnea truncata</i> (Say)	Truncated Piddock
<i>Donax fossor</i> (Say)	Wedge Clam
<i>Ensis directus</i> (Conrad)	Razor Clam
<i>Modiolus demissus</i> (Dillwyn)	Ribbed Horse Mussel
<i>Mya arenaria</i> (Linne)	Softshell Clam
<i>Mytilus edulis</i> (Linne)	Edible Mussel
<i>Ostrea virginica</i> (Gmelin)	Oyster
<i>Pecten irradians</i> (Lamarck)	Bay Scallop
<i>Petricola pholadiformis</i> (Lamarck)	Small Angel's Wings
<i>Spisula solidissima</i> (Dillwyn)	Surf Clam
<i>Tagelus gibbus</i> (Spengler)	Short Razor Clam
<i>Teredo navalis</i> (Linne)	Shipworm
<i>Venus mercenaria</i> (Linne)	Hardshell Clam

OTHER INVERTEBRATES AND SEaweEDS

* <i>Craniella crania</i> (Muller)	"Potato" Sponge
<i>Emerita talpoida</i> (Say)	Sand Bug
<i>Fucus vesiculosus</i> (Linne)	Crabgrass, Rockweed
<i>Libinia emarginata</i> (Leach)	Spider Crab, Sea Spider
<i>Microciona prolifera</i> (Ellis & Solander)	Red Sponge
<i>Pagurus longicarpus</i> (Say)	Small Hermit Crab
<i>Ocypoda albicans</i> (Bosc)	Ghost Crab
<i>Ovalipes ocellatus</i> (Herbst)	Lady Crab
<i>Ulva lactuca</i> (Linne)	Sea Lettuce

* First record from New Jersey



**LIST OF TREES, SHRUBS, FLOWERING PLANTS INCLUDING GRASSES, SEDGES
AND RUSHES THAT HAVE BEEN RECORDED IN LOWER TOWNSHIP
SINCE 1900-2005**

1880-2006 Trees of Lower Township that have been recorded at one time or another

Red Cedar	Catalpa
Yellow Pine	Western Catalpa
Pitch Pine	Japanese Black Pine
Pond Pine	White Poplar
Loblolly Pine	Domestic Pear
Virginia Pine	Red Maple
<u>U</u> River Birch	Blue Beech
Bitternut Hickory	Pignut Hickory
Mockernut Hickory	Hackberry
Alternate Dogwood	Silvery Dogwood
Flowering Dogwood	Persimmon
<u>U</u> American Beech	Red Ash
American Holly	Sweet Gum
Tulip Tree	Swamp Magnolia
Red Mulberry	White Mulberry
Sour Gum	Black Cherry
Narrow Leaf Crab Apple	White Oak
Scarlet Oak	Spanish Oak
Black Jack Oak	Water Oak
Pin Oak	Willow Oak
Chestnut Oak	Red Oak
Post Oak	Dwarf Sumac
Smooth Sumac	<u>U</u> Poison Sumac
Pussy Willow	Sassafras
Black Walnut	Silver Poplar

U = Unknown - not seen by Seager or known to be seen since 1970

1880-2006 Trees of Lower Township that have been recorded at one time or another
(Con't)

Large Tooth Aspen	Quaking Aspen
Weeping Willow	Scrub Willow
<u>U</u> Osage Orange	Honey Locust
Black Locust	Tree of Haven
Silver Maple	Norway Maple
Sycamore Maple	Field Maple
Swamp Maple	Box Elder
<i>Royal Powalena</i>	

Shrubs recorded in Lower Township

Common Alder	<u>U</u> Dwar Thorn
Swamp Service Berry	St. Andrew's Cross
<u>U</u> Stagger Thorn	St. Peter's Wort
Wild Privet	Groundsel Tree
Dangle Berry	<u>U</u> New Jersey Tea
Black Huckleberry	Buttonbush
Southern Huckleberry	Sweet Pepperbush
Low Blueberry	Sweet Fern
Grey Dogwood	Elderberry Bush
<u>U</u> Dwarf Thorn	Swamp Loosestrife
Trailing Arbutus	Strawberry Bush
Hudsonia - Woolly	Inkberry
Smooth Winterberry	Winterberry
Marsh Elder	Common Juniper
<u>U</u> Fetterbush	Spicebush
Maleberry	Wax Myrtle
Evergreen Bayberry	Bayberry
Beach Plum	Red Chokeberry
Purple Chokeberry	Pink Azalea

U = Unknown - not seen by Seager or known to be seen since 1970

Shrubs recorded in Lower Township (Con't)

Swamp Azalea	Poison Oak
Swamp Rose	Pasture Rose
Tall Blackberry	<u>U</u> Sand Blackberry
<u>U</u> Leafy Blackberry	Dewberry
Black Raspberry	<u>U</u> Prairie Willow
Heart Leaf Willow	Dwarf Willow
Common Elder	<u>U</u> Meadow Sweet
<u>U</u> Steeple Bush	Black Highbush Blueberry
Glaucous Blueberry	New Jersey Blueberry
Cranberry	Maple Leaved Arrowwood
Wild Raisin	Downy Arrowwood
Naked Witherod	<u>U</u> Large Withe Rd
<u>U</u> Black Haw	Common Arrowwood
Black Chockberry	Shadbush
Serviceberry	<u>U</u> Wild Hawthorn

Climbing Shrubs - Vines recorded in Lower Township

Trumpet Creeper	Bittersweet
Virgin's Bower	Coral Honeysuckle
<u>U</u> Canada Moonseed	Virginia Creeper
Poison Ivy	Glaucous Greenbrier
Laurel Leaved Greenbrier	Common Greenbrier
<u>U</u> Red-berried Greenbrier	Summer Grape
N. Fox Grape	Swamp Honeysuckle
Glaucous Honeysuckle	Japanese Honeysuckle

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Orchids recorded in Lower Township

	<u>Last Seen</u>
Snowy Orchid	2004
Lace-lipped Ladies Tress	1985
Pink Ladies Slipper	2005
Crane-Fly Orchid	2005
Yellow Crested Orchid	1950's
Nodding Ladies Tress	2005
Fragrant Ladies Tress	2005
Large Twayblade	1983
Bog Twayblade	1981
Rattlesnake Plaintain	1983
Green Woodland Orchid	2005
Ragged Fringed Orchid	2005
White Fringed Orchid	2004
Whorled Pogonia	Pre 1960
Spreading Pogonia	1970
Rose Pogonia	Pre 1960
Spring Ladies Tress	2005
Grass Leaved Ladies Tress	Pre 1960
Spotted Coral Root	Pre 1945
Late Coral Root	Pre 1945
Yellow Fringed Orchid	1965
Arethvsa	Pre 1945
Beck's Ladies Tress	Pres 1945
Slender Ladies Tress	1975

Club Moss - Ferns of Lower Township

Rattlesnake Grape Fern	Ternate Grape Fern
Cinnamon Fern	Royal Fern
Sensitive Fern	<u>U</u> Ostrich Fern
<u>U</u> Christmas Fern	Marsh Fern
New York Fern	Crested Shield Fern
Spinulose Shield Fern	Virginia Chain Fern
Net-Veined Chain Fern	Ebony Spleenwort
Lady Fern	Bracken
Horsetail	<u>U</u> Shining Club Moss
Fox Tail Club Moss	<u>U</u> Carolina Club Moss
Ground Pine	<u>U</u> Low Club Moss
Bog Quillwork - Last Seen 1960's	

Plants of Lower Township - (1880-2006)

Narrowleaf Cattail	Common Cattail
Bur-reed, Shining	<u>U</u> Oaks Pondweed
Pennsylvania Pondweed	Spotted Pondweed
Duckweed	Small Pondweed
Sea Grass	<u>U</u> Eel Grass
Common Plantain	Englemann's Arrowhead
Broad-Leaved Arrowhead	<u>U</u> Long-Beaked Arrowhead
<u>U</u> Grass Leaved Arrowhead	<u>U</u> Nuttall's Waterweed
Gama Grass	<u>U</u> Indian Corn
<u>U</u> Swamp Beard Grass	Broom Grass
Beard Grass - Elliott's	Beard Grass - Southern
Beard Grass - Forked	<u>U</u> Beard Grass - Sea Coast
Broom Sedge	Wrinkled Gama Grass
Plume Grass	Indian Grass
Johnson Grass	American Crab Grass

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Plants of Lower Township - (1880-2006)

Smooth Crab Grass	Hairy Crab Grass
Millet Grass	Walter's Paspalum
Engelmann's Paspalum	Southern Paspalum
Smooth Paspalum	Round Leaved Paspalum
Hairy Paspalum	Muhlenberg Paspalum
Slender Paspalum	Prostrate Paspalum
Leconte's Paspalum	Barnyard Grass
Cockspur Millet	American Cockspur
Saltmarsh Cockspur	Narrow-spiked Panic Grass
Spreading Witch Grass	Woodland Witch Grass
Common Witch Grass	Millet Witch Grass
Switch Grass	Red Top
Long Leaved Panic Grass	Warty Panic Grass
Beaked Panic Grass	Starved Panic Grass
Bristling Panic Grass	Narrow Leaved Panic Grass
Bicknell's Panic Grass	Barbed Panic Grass
Forked Panic Grass	Small Barbed Panic Grass
Wright's Panic Grass	Eaton's Panic Grass
Lindheimer's Panic Grass	Auburne Panic Grass
Tennessee Panic Grass	Downy Panic Grass
Wooly Panic Grass	Ashe Panic Grass
Hemlock Panic Grass	Common's Panic Grass
Brown's Panic Grass	American Panic Grass
Sand Panic Grass	Britton's Panic Grass
Three Leaved Panic Grass	Round Fruited Panic Grass
Velvety Panic Grass	Tall Rough Panic Grass
Variable Panic Grass	Few Fruited Panic Grass
Dear Tongue Panic Grass	Porter's Panic Grass
Villous Panic Grass	Ditch Panic Grass

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Plants of Lower Township - (1880-2006)

Fall Witch Grass	Foxtail Panic Grass
Perennial Foxtail	Italian Millet
Giant American Foxtail	Smaller Sandbur
Larger Sandbur	White Grass
Rice Cut Grass	Sweet Grass
Black Oak Grass	Poverty Grass
Triple-Awned Grass	Arrow Grass
Wooly Poverty Grass	Nimble Will
Awned Dropseed	Sheathed Rush Grass
Rough Rush Grass	Long Leaved Rush Grass
Flat-Stemmed Drop Seed	Wood Reed Grass
Upland Bent	Tall Bent
Silk Grass	Blue-Joint Grass
Nuttall's Reed Grass	Sea-Sand Reed
Velvet Grass	Silvery Hair Grass
Wavy Hair Grass	Wild Oak Grass
Bermuda Grass	Tallslough Grass
Salt Reed Grass	Salt Hay Grass
Salt Grass	Smooth Salt Grass
Short-Leaved Gymnopogon	Common Reed
Purple Top	Sand Grass
Hairy Love Grass	American Love Grass
Low Love Grass	Tickle Grass
Coast Love Grass	Bunch Grass
Paleeatonia	Marsh Oak Grass
Slender Spike Grass	Salt Marsh spike Grass
Swamp Blue Grass	Short-Leaved Spear Grass
Blunt Manna Grass	Fowl Meadow Grass
Pale Manna Grass	Floating Manna Grass

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Plants of Lower Township - (1880-2006)

Clustered Meadow Grass	Sand Fescue
Red Fescue	Sheep Fescue
Wild Rye	Slender Wild Rye
Yellow Sedge	Low Sedge
Shining Sedge	Nuttall's Sedge
Small Toothed Sedge	Nut Sedge
Red-rooted Sedge	Michaux's Sedge
Straw-colored Sedge	Rough Sedge
Pine Barren Sedge	Round Headed Sedge
Slender Sedge	Gray's Sedge
Quadrangular Rush	Triangular Rush
Pale Spike Rush	Green Spike Rush
Obtuse Rush	E. halophila Rush
Glaucous Spike Rush	Needle Spike Rush
Twisted Spike Rush	Tubercled Spike Rush
Small Spike Rush	Black Fruited Spike Rush
Three-ribbed Spike Rush	Slender Spike Rush
Beaked Spike Rush	Umbrella Grass
Hair Sedge	Chestnut Sedge
Autumnal Sedge	Bald Rush
Southern Bald Rush	Cotton Grass - VA
Rough Cotton Grass	American Three Square
American Bull Rush	Pale Marsh Bulrush
Salt Marsh Bulrush	Dark Green Bulrush
Wool Grass	Smooth Fuirena
Bristly Fuirena	Horned Rush
Beaked Rush	Slender Beaked Rush
Clustered Beaked Rush	Brown Beaked Rush
Grass-Leaved Beaked Rush	Torrey's Beaked Rush

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Plants of Lower Township - (1880-2006)

Few Flowered Beaked Rush	Twig Rush
Nut Rush	Slender Nut Rush
Reticulated Nut Rush	Torrey's Nut Rush
<u>U</u> Pappilos Nut Rush	Whorled Nut Rush
Muhlenbergs Sedge - Carey	Yellowish Fox Sedge - Carey
Common Fox Sedge - Carey	Shining Sedge - Carey
Silvery Sedge - Carey	Howe's Sedge - Carey
Prickly Sedge - Carey	Broom Sedge - Carey
Clustered Broom Sedge - Carey	Eastern Prickly Sedge - Carey
Straw Sedge - Carey	Fescue Sedge - Carey
Marsh Straw Sedge - Carey	Broad-Winged Sedge - Carey
Sea-beach Sedge - Carey	Carey Longi Sedge
Carey Harperi Sedge	Carey Pennsylvania Sedge - Carey
Carey Bicknell Sedge - Carey	Carey Marginata
Carey Umbellate	Carey Abscondita
Carey Striate	Carey Britton
Carey debilis	Carey Swanii
Carey Hirsutella	<u>U</u> Carey Buxbaumii
<u>U</u> Carey Barratti	Carey Strict
Carey Crinita	Carey Gynandra
Carey Lacustris	Carey Walter's
Carey Vestita	Carey Lanuginosa
Carey Long's	Carey Bullata
Carey Lurida	Carey Comosa
Carey Bladder	Carey Hop
Jack-in Pulpit	Arrow Arum
Skunk Cabbage	<u>U</u> Golden Club
Sweet Flag	Giant Duckweed
Lesser Duckweed	Xyris Torta

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Plants of Lower Township - (1880-2006)

<u>Xyris Carolina</u>	Xyris Elata
Asiatic Dayflower	<u>Pickerel Weed</u>
Juncus Joori	Juncus Effusus
Juncus Bufonius	Juncus Gerardii
Juncus Tenus	Juncus dichotomus
Juncus Setaceus	Juncus Marginatus
Juncus Pelocarpus	Juncus Articulatus
Juncus Brachycarpus	Juncus Scirpoides
Juncus Canadensis	Juncus Debilis
Wood Rush	Helonias-Swamp Pink Fed Protection
Hellebore	Wild Garlic
Meadow Garlic	Turk's Cap Lilly
<u>Star Grass-yellow</u>	Colie Root
Dogtooth Violet	<u>Carrion Flower</u>
Downy Carrion Flower	<u>Halberd Leaved Carrion Flower</u>
Smilax Glauca	Smilax Rotundifolia
Smilax Laurifolia	<u>Smilax Walteri</u>
Red Root	False Solomon's Seal
Solomon's Seal-Star Flowered	<u>Tall Seal-Star Flowered</u>
<u>Wild Lily-Valley</u>	Bellwort-Sessile Leaved
Indian Cucumber Root	<u>Nodding Trillium</u>
Wild Downy Yam	<u>Smooth Wild Yam</u>
Large Blue Iris	<u>Slender Blue Iris</u>
Yellow Iris	Eastern Blue-Eyed Grass
Grass-Leaved Blue-Eyed Grass	Lizard's Tail
Stinging Nettle	Coolweed
<u>Bastard Toad Flax</u>	<u>Virginia Snakeroot</u>
Sheep Sorrel	Swamp Dock
Tall Dock	Seaside Knotweed

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Plants of Lower Township - (1880-2006)

Broad-Leaved Knotweed	Common Knotweed
Sand Knotweed	Salt Marsh Knotweed
Erect Knotweed	Slender Knotweed
Swamp Smartweed	Smooth Swamp Smartweed
Pennsylvania Smartweed	Smooth Smartweed
Water Pepper	Green Water Pepper
Dotted Water Pepper	Robust Water Pepper
Bristly Water Pepper	<u>U</u> Arrow Leaved Tear Thumb
<u>U</u> Halberd Leaved Tear Thumb	Japanese Knotweed
Buckwheat	Coast Jointweed
Pigweed	Red Pigweed
Spreading Pigweed	Creeping Amaranth
White Amaranth	Coast Amaranth - Rare 2004
Salt Marsh Water Hemp	Stinking Goosefoot
Lamb's Quarter	Green Pigweed
Wood Goosefoot	Slender Goosefoot
Salt March Orache	Seaside Orache
Winged Pigweed	Hairy Sea Blite
Slender Glasswort	Bigelow's Glasswort
Creeping Glasswort	Tall Sea Blite
Low Sea Blite	Saltwort
Pokeweed	Sandwort
Sea Purslane - Rare	Indian Chickweed
Forked Chickweed	Common Purslane
Stitchwort	Mouse-Ear Chickweed
Meadow Chickweed	Pearlwort
Seabeach Sandwort - Rare 2004	Corn Spurrey
Winter Spurrey	Viscid Spurrey
Saltmarsh Sand Spurry	Alsine Rubra

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Plants of Lower Township - (1880-2006)

Bladder Campion	Starry Campion
<u>U</u> Wild Pink	Sleepy Catchfly
Creeping Catchfly	Bouncing Bet
Doubled Flowered Bouncing Bet	Deptford Pink
Childing Pink	Horweed
<u>U</u> Watershield	Pond Lily
<u>U</u> Black Snakeroot	Wild Columbine
<u>U</u> Yellow Columbine	Fennel Flower
Tail Anemone	Canada Windflower
Wood Anemone	Cursed Crowfoot
<u>U</u> Rough Crowfoot	Meadow Buttercup
Creeping Buttercup	Swamp Buttercup
Hairy Buttercup	Corn Buttercup
Early Meadow Rue	Waxy Meadow Rue
Tall Meadow Rue	Virgin's Bower
May Apple	Canada Moonseed
White Prickly Poppy	<u>U</u> Blood Root
Fumitory	Whitlow Grass
Hoary Alyssum	Shepherds Purse
Ball Mustard	Wood Cress
Marsh Yellow Cress	Common Water Cress
Pepper Grass, Common	Pepper Grass, Perennial
Penny Cress	Hedge Mustard
Hare's-Ear Mustard	Dame's Rocket
Mouse-Ear Cress	Bitter Cress, Common
Bitter Cress, Erect	Winter Cress
Penna Bitter Cress	Sand Bitter Cress
Moonwort	Wild Mustard
Black Mustard	Rape

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Plants of Lower Township - (1880-2006)

Sea Rocket	Spiny Spider Flower
<u>U</u> Pitcher Plant	Round Leaved Sundew
Spatulate-Leaved Sundew	<u>U</u> Tread Leaved Sundew - 1980
Hen and Chicken	<u>U</u> Virginia Saxifrage
<u>U</u> Tall Saxifrage	Meadow Sweet
Dwarf Cinquefoil	Common Cinquefoil
Rough Cinquefoil	Wild Strawberry
Pine Strawberry	Soft Agrimony
White Avens	Cream Colored Avens
Red Raspberry	Black Raspberry
Bramble	Sand Blackberry
Swamp Blackberry	Tall Blackberry
Pink Flower Blackberry	Dewberry
Swamp Dewberry	Sweetbrier
Wildbrier	Pasture Rose
Swamp Rose	Cinnamon Rose
Maryland Senna	Sensitive Pea
Partridge Pea	Wild Indigo
Rattlebox Pea	<u>U</u> Wild Lupine
<u>U</u> Scotch Broom	Alfalfa
Hop Clover	White Sweet Clover
Yellow Sweet Clover	Least Hop Clover
Low Hop Clover	Crimson Hop Clover
Rabbit Foots Clover	Red Clover
Zigzag Clover	Alsike Clover
White Clover	Kidney Vetch
Goat's Rue	Crown Vetch
Naked-Flowered Tick-Trefoil	Hoary Tick-Trefoil
Panicled Tick-Trefoil	Narrow-Leaved Trefoil

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Plants of Lower Township - (1880-2006)

Dillen's Tick-Trefoil	Rigid Tick-Trefoil
Smooth Tick-Trefoil	Hairy Tick-Trefoil
Creeping Bush Clover	Trailing Bush Clover
Violet Bush Clover	Pink Bush Clover
Downy Bush Clover	Wand-like Bush Clover
Slender Bush Clover	Hairy Bush Clover
Rounded Headed Bush Clover	Narrow Leaved Bush Clover
Japanese Clover	Blue Vetch
Hairy Vetch	Slender Vetch
Common Vetch	Yellow Vetch
Low Vetch	Everlasting Pea
Tuberous-Rooted Pea	Yellow Vetchling
<u>U</u> Butterly Pea - 1977	Ground Nut
Hog Peanut	Hairy Peanut
Creeping Milk Pea	Climbing Milk Pea
Trailing Wild Bean	Pink Wild Bean
Red Robin	Spotted Cranesbill
Long-Stalked Cranesbill	Carolina Cranesbill
Small Flowered Cranesbill	Dove's Foot Cranesbill
Stork's Bill	Jewelweed
Orange Milkwort	<u>U</u> Yellow Milkwort
Cross-Leaved Milkwort	Whorled Milkwort
Field Mildwort	Maryland Milkwort
Nuttall's Milkwort	Three Seeded Mercury
Seaside Knotweed	Milk Purslane
Field Spurge	Ipecac Spurge
Cypress Spurge	Darlington's Spurge - Frd. 1940's
Field Mallow	Wood Starwort
Large Water Starwort	Cheeses

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Plants of Lower Township - (1880-2006)

Sida	Marsh Mallow - "Kosteletzky"
Rose Mallow	Crimson-Eyed Mallow
Rose of Sharon	St. Peter's Wort
St. Andrew's Wort	Barton's St. John's Wort
<u>U</u> Orange St. John's Wort	Common St. John's Wort
Spotted St. John's Wort	Northern St. John's Wort
Dwarb St. John's Wort	Canada St. John's Wort
Orange Grass	Marsh St. John's Wort
S. Frostweed	Frostweed
Wooly Hudsonia	Thyme-Leaved Pinweed
Oblong Fruited Pinweed	Hairy Pinweed
Beach Pinweed	<u>U</u> Birdfoot Violet
Three-Lobed Violet	Marsh Violet
Blue Violet	<u>U</u> Coast Violet
Ovate Leaved Violet	Arrow Leaved Violet
Pectinate-Leaved Violet	Lance-Leaved Violet
Primrose-Leaved Violet	American Dog Violet
Field Pansy	Pansy Violet
Prickly Pear	Tooth Cup
Swamp Loosestrife	Clammy Cuphaea
Purple Loosestrife	Maryland Meadow Beauty
Virginia Meadow Beauty	Marsh Purslane
<u>U</u> Globe Fruited Ludwigia	<u>U</u> Harry Ludwigia
Seedbox	Hairy Gaura
<u>U</u> Fireweed	Purple-Leaved Willow Herb
C. Eveny Primrose	Large Evening Primrose
Sand Evening Primrose	Cut Leaved Primrose
Seaside Leaved Primrose	Large Flowered Cut-Leaved Evening Primrose
Sundrops	C. Mermaid Weed

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Plants of Lower Township - (1880-2006)

Makenzie's Mermaid Weed	Cut-Leaved Mermaid Weed
Pinnate Water Milfoil	Small Water Milfoil
Wild Sassparilla	<u>U</u> Black Sankeroot
Short Sanicle	Queen Ann's Lace
Erect Hedge Parsley	Wild Parsnip
Hairy Angelica	Water Hemlock-Cowbane
Long-Leaved Cowbane	Meadow Parsnip
Sweet Fennel	Umbellate Marsh Pennywort
Marsh Pennywort	Whorled Marsh Pennywort
Water Hemlock	Mock Bishop Weed
<u>U</u> Spotted Hemlock	Rattlesnake Master
<u>U</u> One-Sided Wintergreen	Round Leaved Wintergreen
Spotted Wintergreen	Indian Pipe Wintergreen
<u>U</u> Pinesap	<u>U</u> Teaberry
Water Pimpernel	<u>U</u> Narrow-Leaved Loosestrife
Whorled Loosestrife	Spiked Loosestrife
<u>U</u> Spotted Loosestrife	<u>U</u> Creeping Loosestrife
<u>U</u> Star Flower	Scarlet Pimpernel
Sea Lavander	Marsh Trefoil
Branching Centaury	<u>U</u> Lanch Leaved Centaury - 1990
Rose Pink	Marsh Pink
Slender Marsh Pink	<u>U</u> Large Marsh Pink
Pine Barrow Gentian	<u>U</u> Soapwort Gentian - 1995
Twisted Stem	Yellow Bartonina
Common Doghane	Amsonia
Periwinkle	Gree Milkweed
Butterfly Weed	<u>U</u> Slende-Leaved Orange Milkweed - 1975
Purple Milkweed	Swamp Milkweed
White Milkweed	Common Milkweed

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Plants of Lower Township - (1880-2006)

Small Morning Glory	Common Morning Glory
Ivy Leaved Morning Glory	Wild Sweet Potato
Hedge Bindweed	Hairy Bindweed
Field Bindweed	Button Bush Dodder
Swamp Dodder	Field Dodder
Tree Dodder	Indiscreet Love Vine
Sweet William	Moss Pink
Eastern Water Leaf	Virginia Stickseed
For-get-me-not	Field For-get-me-not
Corn Gromwell	Viper's Bugloss
<u>U</u> Fogfruit	Blue Vervain
Narrow-Leaved Vervain	Nettled-Leaved Vervain
Blue Curles	Slender Blue Curles
<u>U</u> Blue Skullcap	<u>U</u> Hairy Skullcap
Large Skullcap	<u>U</u> Hooded Skullcap
Common Hoarhound	Catnip
Ground Ivy	Heal All
Henbit	Rough Hedge Nettle
Rabb's Ear	<u>U</u> Lyre-Leaved Sage
<u>U</u> Narrow-Leaved Sage	Field Sage
<u>U</u> Red Bergamot	Horse Mint
American Pennyroyal	<u>U</u> Basilweed
Perilla	<u>U</u> Slender Mountain Mint
<u>U</u> Hoary Mountain Mint	Dittany Mountain Mint
Bugleweed	N. Bugleweed
Sessile-Leaved Water Hoarhound	Stalked Water Hoarhound
Cut-Leaved Water Hoarhound	<u>U</u> Spearmint
<u>U</u> Hairy Mint	European Mint
Wooly Mint	<u>U</u> Smooth Ground Cherry

U = Unknown - not seen by Seager or known to be seen since 1970

Plants of Lower Township - (1880-2006)

Virginia Ground Cherry	<u>U</u> Clammy Ground Cherry
Bitter Nightshade	Black Nightshade
Horse Nettle	Prickly Nightshade
Jimson Weed	Common Mullein
Moth Mullein	White Mullein
Butter & Eggs	Blue Toad Fax
Turtlehead	<u>U</u> Blue Monkey Flower
Virginia Hedge Hyssop	<u>U</u> Round Fruited Hedge Hyssop
<u>U</u> Golden Hedge Hyssop - 1975	Hairy Hedge Hyssop
False Pimpernel	Short-Stalked Pimpernel
Common Speedwell	Purslane Speedwell
Field Speedwell	Culver's Root
<u>U</u> Purple Foxglove	<u>U</u> Fern-Leaved Foxgloves
<u>U</u> Downy Foxgloves - 1970's	Large Purple Gerardia
Salt Marsh Gerardia	Slender Gerardia
Bristle-Leaved Gerardia	<u>U</u> Swamp Lousewort
Wood Betony	<u>U</u> Cow Wheat
<u>U</u> Humped Bladderwort	<u>U</u> Great Bladderwort
Inflated Bladderwort	<u>U</u> Purple Bladderwort
<u>U</u> ZigZag Bladderwort	<u>U</u> Pin-like Bladderwort
Horned Bladderwort	<u>U</u> Rush Bladderwort
<u>U</u> Fairy-Wand Bladderwort	Large Inflated Bladderwort
<u>U</u> Broomrape	<u>U</u> Hairy Ruellia - 1940's
Lopseed	Common Plantain
Salt Marsh Plantain	Pale Plantain
Large Bracked Plantain	Field Plantain
Slender Plantain	Sand Plantain
Clustered Bluets	Partridge Berry
Rough Buttonweed	Large Buttonweed

U = Unknown - not seen by Seager or known to be seen since 1970

Plants of Lower Township - (1880-2006)

Yellow Bedstraw	Hairy Bedstraw
Pine Barren Bedstraw	Northern Bedstraw
Sweet Scented Bedstraw	Erect Bedstraw
Slibb Marsh Bedstraw	Swamp Bedstraw
Coast Bedstraw	Cleavers
Wild Liquorice	Feverwort
Common Valerian	Beaked Corn Salad
Wild Cucumber	Marsh Bellflower
Venus Looking Glass	Cardinal Flower
<u>U</u> Gt. Blue Lobelia	Downy Lobelia
Indian Tobacco	Nuttall's Lobelia
Chicory	Dwarf Dandelion
Tuberous-rooted Dandelion	Cat's Ear Dandelion
Hairy Hawbit	Oyster Plant
Common Dandelion	Red-seeded Dandelion
Skeleton Weed	Sow Thistle
Corn Sow Thistle	Wild Lettuce
Hairy Lettuce	Tall Wild Lettuce
Tall Blue Lettuce	Smooth Hawk's Beard
Rough Hawkweed	Rattlesnake Weed
Leafy-Stemmed Rattlesnake Weed	Maryland Hawkweed
Orange Hawkweed	Rattlesnake Root
Common Rattlesnake Root	Horse Weed
Common Ragweed	Spiny Clotbur
Beach Clotbur	Northern Clotbur
Common Clotbur	New York Ironweed
Button Flower; Bog	Joe-Pye Weed
Spotted Joe-Pye Weed	White-Bracted Bonset
White Bonset	Few-Veined Bonset

U = Unknown - not seen by Seager or known to be seen since 1970

Plants of Lower Township - (1880-2006)

Fine-Leaved Bonset	Rough Bonset
Hairy Bonset	Dog Fennel
Common Bonset	White Snakeroot
Blue Bonset, Mist Flower	Golden Aster
Climbing Bonset	<u>U</u> Blazing Star
Tarweed	Maryland Golden Aster
Blue-Stemmed Golden Rod	Erect Golden Rod
Downy Golden Rod	Seaside Golden Rod
Anis-Scented Golden Rod	<u>U</u> Large Leaved Golden Rod
<u>U</u> Early Wrinkled-Leaved Golden Rod	Rough Golden Rod
Hairy Golden Rod	<u>U</u> Elliott's Golden Rod
Early Sharp Toothed Golden Rod	Tall Golden Rod
<u>U</u> Blue Golden Rod	<u>U</u> Gray Golden Rod
Stiff Golden Rod	Bushy Golden Rod
Slender Golden Rod	Aster Like Boltonia
Slender White Topped Aster	Toothed White Topped Aster
Wood Aster	<u>U</u> Wavy-Leaved Aster
<u>U</u> Late Purple Aster	New England Aster
Purple Stemmed Aster	New York Aster
Salt Marsh Aster	Slender New York Aster
<u>U</u> Silky Aster	<u>U</u> Showy Aster
Calico Aster	Small White Aster
Bushy Aster	<u>U</u> Tall White Aster
Frostweed, Heath Aster	<u>U</u> Pilose Heath Aster
Hoary Heath Aster	<u>U</u> Dwarf Blue Aster
Stiff	Annual Salt Marsh Aster
Flat Topped Aster	Robin's Plaintain
Philadelphia Fleabane	Daisy Fleabane
Rayless Fleabane	Horseweed

U = Unknown - not seen by Seager or known to be seen since 1970

Plants of Lower Township - (1880-2006)

Slender Horsetweed	Salt Marsh Fleabane
<u>U</u> Stinking Fleabane	Everlasting
Tall Everlasting	Plantain-Leaved Everlasting
Field Everlasting	Smaller Catfoot
Cudweed	Marsh Cudweed
Purplish Cudweed	Compass Plant
Ox-Eye	Yerbe-de-tajo
Black-Eyed Susan	<u>U</u> Orange Cone Flower
Common Sunflower	Narrow-Leaved Sunflower
Willow-Leaved Sunflower	Tall Sunflower
Jerusalem Artichoke	<u>U</u> Broad-Leaved Sunflower
<u>U</u> Lance-Leaved Coreopsis	Large Bur Marigold
Leafy-Bracted Beggar Tick	<u>U</u> Eared Coreopsis
Small Beggar Tick	Common Beggar Tick
Spanish Needles	Tickseed Sunflower
Narrow-Leaved Tickseed	Nodding Bur Marigold
Slender Galinsoga	Yellow Swamp Sunflower (Sneeze Weed)
<u>U</u> Purple-Headed Sneeze Weed	Common Yarrow
White Tansy	Chamomile
Field Chamomile	Pineapple Weed
Ox-Eye Daisy	Tansy
Common Wormwood	Sweet Fern
Cudweed Mugwort	Southernwood
<u>U</u> Dusty Miller	Pilewort
Common Groundsel	Golden Ragwort
Wooly Squaw Weed	Small Burdock
Bull Thistle	Field Thistle
Yellow Thistle	Swamp Thistle
Canada Thistle	Curled Thistle

U = Unknown - not seen by Seager or known to be seen since 1970

Plants of Lower Township - (1880-2006)

U Cornflower

U Brown Knapweed

U Black Knapweed

Slender Knapweed

Obedient Plant

Herb Sherard

Rough Hedge Nettle

Coontail

Drummond's Rock Cress

Yucca

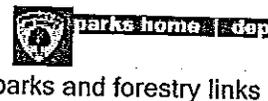
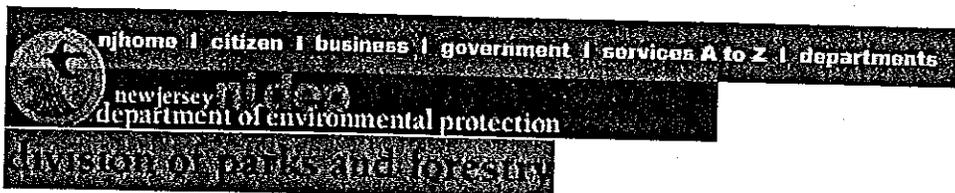
Squirrel Grass

Coast Germander

U = Unknown - not seen by Seager or known to be seen since 1970

Compiled February 25, 2006 by Keith Seager from notes of Otway Brown of Lower Township died 1946 with added species from David Snyder and Keith Seager.

Approximately 75+ species of forms, subspecies and plants found on dumps, escapes from garden. Some alien plants are not included



Special Plants of NJ - Appendix I - Categories & Definitions

Contents

- [Federal Status Codes](#)
- [State Status Codes](#)
- [Other Status Codes](#)
- [Global Element Ranks](#)
- [State Element Ranks](#)

FEDERAL STATUS CODES

The following U.S. Fish and Wildlife Service categories and their definitions of endangered and threatened plants and animals have been modified from the U.S. Fish and Wildlife Service (F.R. Vol. 50 No. 188; Vol. 61, No. 40; F.R. 50 CFR Part 17). Federal Status codes reported for species follow the most recent listing.

LE Taxa formally listed as endangered.

LT Taxa formally listed as threatened.

PE Taxa already proposed to be formally listed as endangered.

PT Taxa already proposed to be formally listed as threatened.

C Taxa for which the Service currently has on file sufficient information on biological vulnerability a threat(s) to support proposals to list them as endangered or threatened species.

S/A Similarity of appearance species

STATE STATUS CODES

Animals:

Two animal lists provide state status codes after the Endangered and Nongame Species Conservation Act of 1973 (N.J.A.C. 23:2A-13 et. seq.): the list of endangered species (N.J.A.C. 7:25-4.13) and the defining status of indigenous, nongame wildlife species of New Jersey (N.J.A.C. 7:25-4.17(a)). The status of animal species is determined by the Endangered and Nongame Species Program (ENSP), with the review and approval of the Endangered and Nongame Species Advisory Committee.

The state status codes and definitions provided reflect the most recent lists that were revised in the New Jersey Register, Monday, June 3, 1991.

EX -- Extirpated species-a species that formerly occurred in New Jersey, but is not now known to exist within the state.

E -- Endangered species-an endangered species is one whose prospects for survival within the state are in immediate danger due to one or many factors - a loss of habitat, over exploitation, predation

competition, disease. An endangered species requires immediate assistance or extinction will probably follow.

T -- Threatened species-a species that may become endangered if conditions surrounding the species begin to or continue to deteriorate.

D -- Declining species-a species which has exhibited a continued decline in population numbers over the years.

S -- Stable species-a species whose population is not undergoing any long-term increase/decrease within its natural cycle.

INC -- Increasing species-a species whose population has exhibited a significant increase, beyond its normal range of its life cycle, over a long term period.

P -- Peripheral species-a species whose occurrence in New Jersey is at the extreme edge of its present natural range.

U -- Undetermined species-a species about which there is not enough information available to determine the status.

I -- Introduced species-a species not native to New Jersey that could not have established itself here without the assistance of man.

Status for animals separated by a slash(/) indicate a dual status. First status refers to the state breeding population, and the second status refers to the migratory or winter population.

Plants:

Plant taxa listed as endangered are from New Jersey's official Endangered Plant Species List (N.J.A. 7:5C - 5.1).

E Native New Jersey plant species whose survival in the State or nation is in jeopardy.

OTHER STATUS CODES FOR PLANTS

LP Indicates taxa listed by the Pinelands Commission as endangered or threatened within their legal jurisdiction. Not all species currently tracked by the Pinelands Commission are tracked by the Natural Heritage Program. A complete list of endangered and threatened Pineland species is included in the New Jersey Pinelands Comprehensive Management Plan.

HL Indicates taxa or ecological communities protected by the Highlands Water Protection and Planning Act within the jurisdiction of the Highlands Preservation Area.

EXPLANATION OF GLOBAL AND STATE ELEMENT RANKS

The Nature Conservancy developed a ranking system for use in identifying elements (rare species, ecological communities) of natural diversity most endangered with extinction. Each element is ranked according to its global, national, and state (or subnational in other countries) rarity. These ranks are used to prioritize conservation work so that the most endangered elements receive attention first. Definitions for element ranks are after The Nature Conservancy (1982: Chapter 4, 4.1-1 through 4.4.1.3-3).

GLOBAL ELEMENT RANKS

G1 Critically imperiled globally because of extreme rarity (5 or fewer occurrences or very few remaining individuals or acres) or because of some factor(s) making it especially vulnerable to extinction.

G2 Imperiled globally because of rarity (6 to 20 occurrences or few remaining individuals or acres) because of some factor(s) making it very vulnerable to extinction throughout its range.

G3 Either very rare and local throughout its range or found locally (even abundantly at some of its locations) in a restricted range (e.g., a single western state, a physiographic region in the East) or because of other factors making it vulnerable to extinction throughout its range; with the number occurrences in the range of 21 to 100.

G4 Apparently secure globally; although it may be quite rare in parts of its range, especially at the periphery.

G5 Demonstrably secure globally; although it may be quite rare in parts of its range, especially at periphery.

GH Of historical occurrence throughout its range i.e., formerly part of the established biota, with the expectation that it may be rediscovered.

GU Possibly in peril range-wide but status uncertain; more information needed.

GX Believed to be extinct throughout range (e.g., passenger pigeon) with virtually no likelihood that it will be rediscovered.

G? Species has not yet been ranked.

GNR Species has not yet been ranked.

STATE ELEMENT RANKS

S1 Critically imperiled in New Jersey because of extreme rarity (5 or fewer occurrences or very few remaining individuals or acres). Elements so ranked are often restricted to very specialized conditions or habitats and/or restricted to an extremely small geographical area of the state. Also included are elements which were formerly more abundant, but because of habitat destruction or some other critical factor of its biology, they have been demonstrably reduced in abundance. In essence, these elements are for which, even with intensive searching, sizable additional occurrences are unlikely to be discovered.

S2 Imperiled in New Jersey because of rarity (6 to 20 occurrences). Historically many of these elements may have been more frequent but are now known from very few extant occurrences, primarily because of habitat destruction. Diligent searching may yield additional occurrences.

S3 Rare in state with 21 to 100 occurrences (plant species and ecological communities in this category have only 21 to 50 occurrences). Includes elements which are widely distributed in the state but with small populations/acreage or elements with restricted distribution, but locally abundant. Not yet imperiled in state but may soon be if current trends continue. Searching often yields additional occurrences.

S4 Apparently secure in state, with many occurrences.

S5 Demonstrably secure in state and essentially ineradicable under present conditions.

SA Accidental in state, including species (usually birds or butterflies) recorded once or twice or only very great intervals, hundreds or even thousands of miles outside their usual range; a few of these species may even have bred on the one or two occasions they were recorded; examples include European strays or western birds on the East Coast and vice-versa.

SE Elements that are clearly exotic in New Jersey including those taxa not native to North America (introduced taxa) or taxa deliberately or accidentally introduced into the State from other parts of North America (adventive taxa). Taxa ranked SE are not a conservation priority (viable introduced occurrences of G1 or G2 elements may be exceptions).

SH Elements of historical occurrence in New Jersey. Despite some searching of historical occurrence and/or potential habitat, no extant occurrences are known. Since not all of the historical occurrences have been field surveyed, and unsearched potential habitat remains, historically ranked taxa are considered possibly extant, and remain a conservation priority for continued field work.

SP Element has potential to occur in New Jersey, but no occurrences have been reported.

SR Elements reported from New Jersey, but without persuasive documentation which would provide basis for either accepting or rejecting the report. In some instances documentation may exist, but as of yet, its source or location has not been determined.

SRF Elements erroneously reported from New Jersey, but this error persists in the literature.

SU Elements believed to be in peril but the degree of rarity uncertain. Also included are rare taxa of uncertain taxonomical standing. More information is needed to resolve rank.

SX Elements that have been determined or are presumed to be extirpated from New Jersey. All historical occurrences have been searched and a reasonable search of potential habitat has been completed. Extirpated taxa are not a current conservation priority.

SXC Elements presumed extirpated from New Jersey, but native populations collected from the wild exist in cultivation.

SZ Not of practical conservation concern in New Jersey, because there are no definable occurrences although the taxon is native and appears regularly in the state. An SZ rank will generally be used for long distance migrants whose occurrences during their migrations are too irregular (in terms of repeated visitation to the same locations), transitory, and dispersed to be reliably identified, mapped and protected. In other words, the migrant regularly passes through the state, but enduring, mappable element occurrences cannot be defined.

Typically, the SZ rank applies to a non-breeding population (N) in the state - for example, birds on migration. An SZ rank may in a few instances also apply to a breeding population (B), for example certain lepidoptera which regularly die out every year with no significant return migration.

Although the SZ rank typically applies to migrants, it should not be used indiscriminately. Just because a species is on migration does not mean it receives an SZ rank. SZ will only apply when the migrant occurs in an irregular, transitory and dispersed manner.

B Refers to the breeding population of the element in the state.

N Refers to the non-breeding population of the element in the state.

T Element ranks containing a "T" indicate that the infraspecific taxon is being ranked differently than

the full species. For example *Stachys palustris* var. *homotricha* is ranked "G5T? SH" meaning the full species is globally secure but the global rarity of the var. *homotricha* has not been determined; in New Jersey the variety is ranked historic.

Q Elements containing a "Q" in the global portion of its rank indicates that the taxon is of questionable, or uncertain taxonomical standing, e.g., some authors regard it as a full species, while others treat it at the subspecific level.

.1 Elements documented from a single location.

Note: To express uncertainty, the most likely rank is assigned and a question mark added (e.g., G1G2, S1S3). A range is indicated by combining two ranks (e.g., G1G2, S1S3).

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Department of Environmental Protection
P. O. Box 402
Trenton, NJ 08625-0402

Last Updated: June 20, 2005

LOCATION OF RARE AND THREATENED SPECIES OF LOWER TOWNSHIP

- 1 - BALD EAGLE - nest found on Garden State Parkway at pond south of Rio Grande exit
- 2 - PIED-BILLED GREBE - C.M.P. State Park
- 3 - RED-SHOULDERED HAWK - Fishing Creek Park and south of canal near Hidden Valley Ranch
- 4 - COOPERS HAWK - Higbee Beach - Hidden Valley
- 5 - OSPREY - Salt marsh area.
- 6 - BARRED OWL - Higbee Beach - Hidden Valley
- 7 - BLACK CROWNED NIGHT HERON - Edge of salt marsh east of Weeks Landing
- 8 - YELLOW CROWNED NIGHT HERON - In Seashore Campground
- 9 - PIPING PLOVER - South Cape May Meadow, Two Mile Beach and beach front
- 10 - SEDGE WREN - S.C.M.
- 11 - LITTLE BLUE HERON - Salt Marsh and edge of marsh
- 12 - TRI-COLORED HERON - Salt Marsh and edge of marsh
- 13 - SNOWY EGRET - Salt March and edge of marsh
- 14 - BLACK RAIL - S.C.M.and salt marsh
- 15 - GLOSSY IBIS - Edge of salt marsh
- 16 - LEAST TERN - S.C.M.and Two Mile Beach
- 17 - TIGER SALAMANDER - Ponds in back of Acme shopping center and Higbee Beach
- 18 - COPE'S GRAY TREEFROG - Bennett Bog, woods along Fishing Creek Road, S.C.M. Higbee Beach, Fishing Creek Park, Ponderlodge Woods, old brick church property on Shunpike & Fishing Creeks
- 19 - HENRY'S ELFIN - Higbee Beach
- 19A - FROSTED ELFIN
- 20 - CHECKED WHITE - Higbee Beach

PLANTS

- 21 - SEABEACH AMARANTH - S.M.C. beach to State Park
- 22 - DRUMMOND'S ROCK CRESS - H.B.
- 23 - ORANGE MILKWEED - Edge of salt marsh south of canal & railroad tracks
- 24 - WHITE MILKWEED - H.B.
- 25 - ASTER like boltonia - B.B.
- 26 - CAREX JOORI - B.B.
- 27 - SPINY COONTAIL - H.B.
- 28 - SPREADING POGONIA - B.B.
- 29 - BUTTERFLY PEA - C.M.P.S.P.
- 30 - COLLARED DODDER - S.C.M.
- 31 - COAST FLAT SEDGE - In back of Channel Apartments
- 32 - LARGE BUTTONWEED - S.C.M. and marker -0- at Garden State Parkway
- 33 - ELEOCHARIS MELANOCARPA - B.B.
- 34 - ELEOCHARIS QUADRANGULATA - B.B.
- 35 - RATTLESNAKE MASTER - B.B.
- 36 - DOG FENNEL - South of Cold Springs Spring and private property on Socks Lane
- 37 - COAST BEDSTRAW - H.B.
- 38 - PINE BARREN GENTIAN - B.B.
- 39 - GRATIOLA VIRGINIANA - H.B.
- 40 - SWAMP PINK - West side of Bayshore Road, Mickel Run & might be on Ponderlodge property

- 41 - WHORLED MARSH PENNYWORT - S.C.M. & C.M.P.S.P.
- 42 - BARTON'S ST. JOHN'S WORT - B.B.
- 43 - BLACK BASE QUILLWORT - B.B. not since 1980
- 44 - AWL-LEAVED RUSH - S.C.M. and Cape Island Creek Preserve
- 45 - TORRY'S RUSH - South of Cold Springs Springs
- 46 - PINE BARREN SMOKE GRASS - B.B.
- 47 - CUTLEAF WATER-MILFOIL - S.C.M.

PLANTS

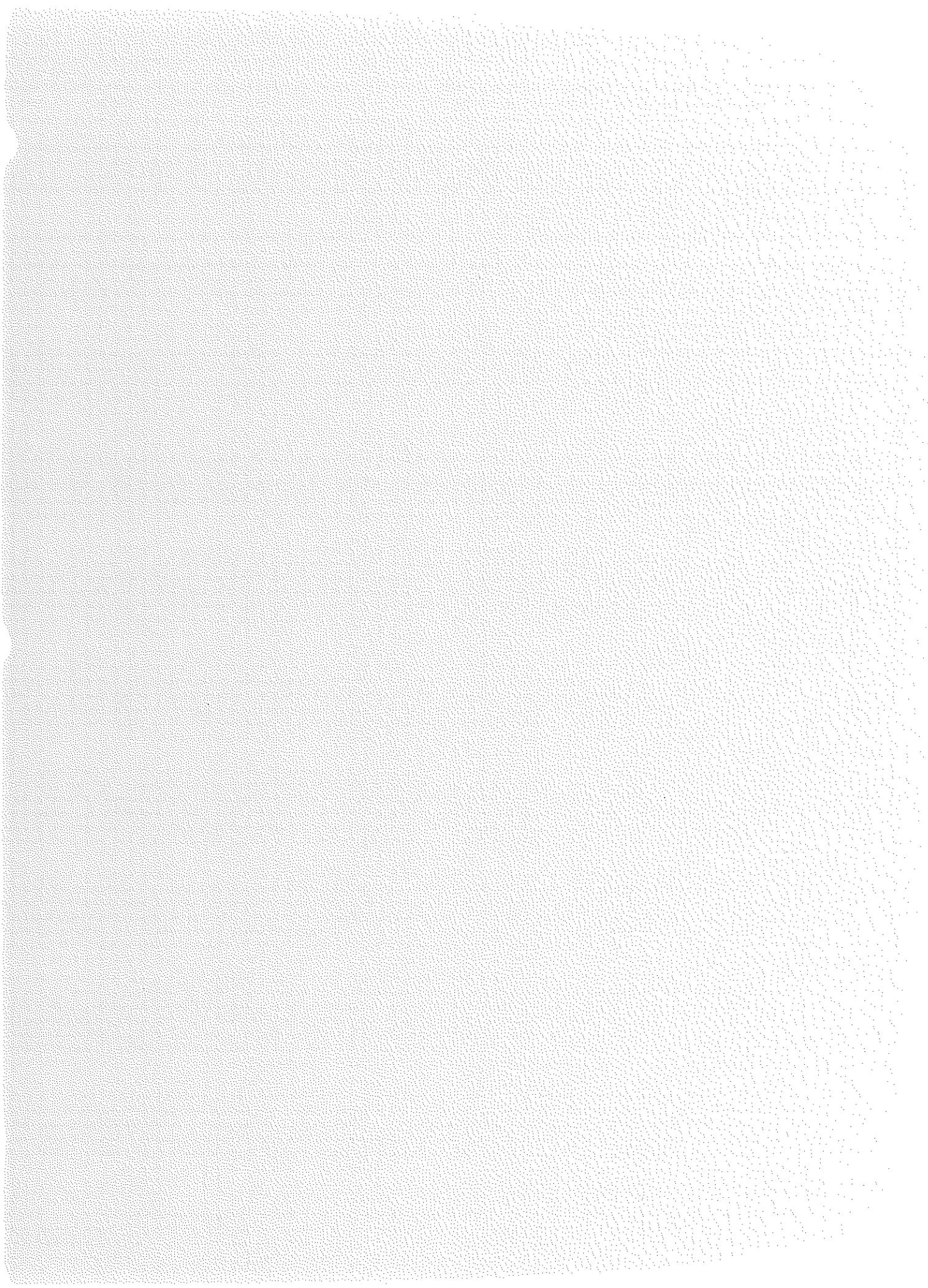
- 48 - SEA-BEACH EVENING PRIMROSE
- 49 - MAIDEN-CANE - B.B.
- 50 - WRIGHTI PANIC GRASS - B.B.
- 51 - SEASIDE PLATAIN - Salt marsh edge
- 52 - CRESTED YELLOW ORCHID - North side of Fulling Mill Road
- 53 - SNOWY ORCHID - B.B.
- 54 - MARYLAND MILWORT - Church property eastside Shunpike
- 55 - BRISTLY SMARTWEED - Stream south of Cresse Avenue
- 56 - WATER OAK - Shunpike and gravel pits of Cresse Avenue
- 57 - RHYNCHOSPORA FILIFOLIA - B.B.
- 58 - RHYNCHOSPORA RARIFLORA - B.B.
- 59 - RUELLIA CAROLINIENSIS - East side of Parkway - last seen 1950's
- 60 - SPIRANTHES LACINIATA - B.B.
- 61 - SPIRANTHES ODORATA - B.B.
- 62 - TIPULARIA DISCOLOR - B.B. and woods along Fishing Creek Road, woods east of Route 9, probably Ponderlodge Park
- 63 - PUMPKIN ASH - Fulling Mill

B.B. = Bennet Bog

H.B. = Higbee Beach

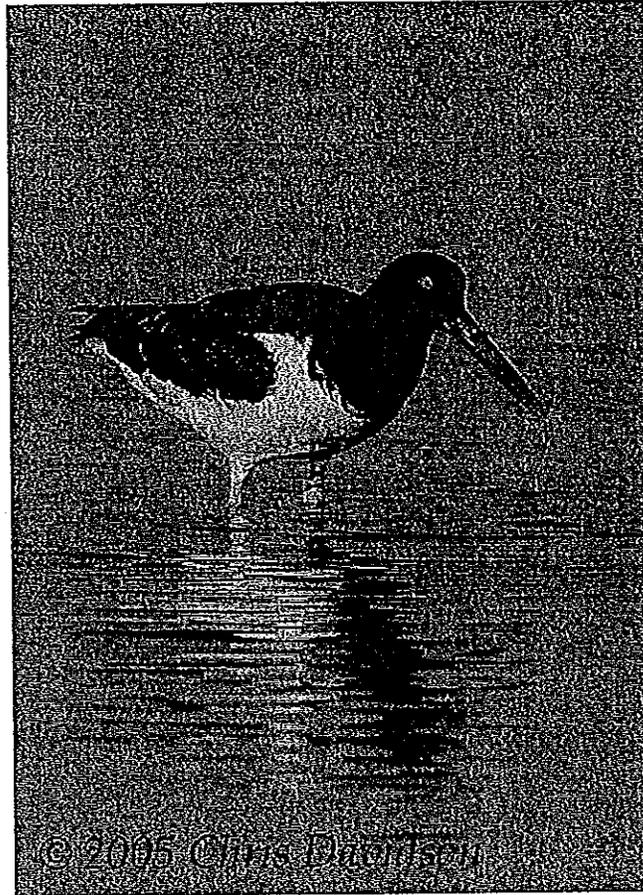
S.C.M. = South Cape May Preserve

C.M.P.S.P. = Cape May Point State Park



New Jersey's Landscape Project

Lower Township



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Materials prepared by Patrick Woerner (NJDEP Endangered and Nongame Species Program) for the Lower Township Environmental Commission



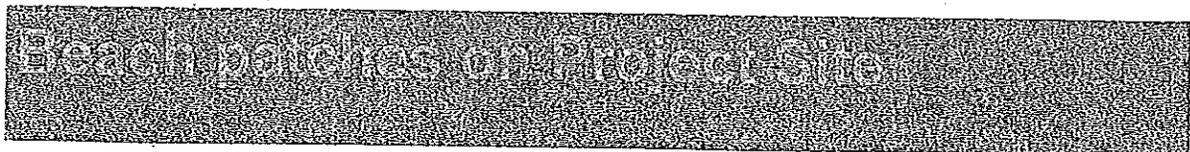
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LINK	COMNAME	COUNT
202	BEACH SUITABLE	1
203	BEACH SUITABLE	1
204	BEACH SUITABLE	1
205	BEACH SUITABLE	1
252	BLACK SKIMMER	1
	PIPING PLOVER	1
	LEAST TERN	1
	BEACH SUITABLE	1
253	PIPING PLOVER	1
	BEACH SUITABLE	1
	LEAST TERN	1
254	BEACH SUITABLE	1
255	LEAST TERN	1
	BEACH SUITABLE	1
	PIPING PLOVER	1
256	BEACH SUITABLE	1
	PIPING PLOVER	1

LINK	COMNAME	COUNT
	LEAST TERN	1
257	BEACH SUITABLE	1
258	PIPING PLOVER	1
	BEACH SUITABLE	1
259	BEACH SUITABLE	1
	MIGRATORY SHOREBIRD CONCENTRATION SITE	8
	RED KNOT	7
263	BEACH SUITABLE	1
264	LEAST TERN	1
	BEACH SUITABLE	1
265	BLACK SKIMMER	1
	RED KNOT	1
	BEACH SUITABLE	1
266	BEACH SUITABLE	1
	RED KNOT	1
283	BEACH SUITABLE	1
	PIPING PLOVER	1
284	BEACH SUITABLE	1

Emergent patches on Project Site

LINK	COMNAME	COUNT
268	EMERGENT SUITABLE	1
	MIGRATORY RAPTOR CONCENTRATION SITE	1
	COPE'S GRAY TREEFROG	1
271	COPE'S GRAY TREEFROG	1
	EMERGENT SUITABLE	1
	MIGRATORY RAPTOR CONCENTRATION SITE	1
272	EMERGENT SUITABLE	1
	MIGRATORY RAPTOR CONCENTRATION SITE	1
273	EMERGENT SUITABLE	1
	MIGRATORY RAPTOR CONCENTRATION SITE	1
274	MIGRATORY RAPTOR CONCENTRATION SITE	1
	EMERGENT SUITABLE	1
275	EMERGENT SUITABLE	1
	MIGRATORY RAPTOR CONCENTRATION SITE	1
276	COPE'S GRAY TREEFROG	1

LINK	COMNAME	COUNT
	EMERGENT SUITABLE	1
	MIGRATORY RAPTOR CONCENTRATION SITE	1
277	MIGRATORY RAPTOR CONCENTRATION SITE	1
	EMERGENT SUITABLE	1
	BLACK-CROWNED NIGHT-HERON FORAGING HABITAT	1
	COLONIAL WATERBIRD FORAGING HABITAT	1
	COPE'S GRAY TREEFROG	1
278	EMERGENT SUITABLE	1
	MIGRATORY RAPTOR CONCENTRATION SITE	1
279	EMERGENT SUITABLE	1
	MIGRATORY RAPTOR CONCENTRATION SITE	1
280	COPE'S GRAY TREEFROG	1
	EMERGENT SUITABLE	1
	MIGRATORY RAPTOR CONCENTRATION SITE	1
281	MIGRATORY RAPTOR CONCENTRATION SITE	1
	EMERGENT SUITABLE	1
282	EMERGENT SUITABLE	1
	-MIGRATORY RAPTOR CONCENTRATION SITE	1
283		

LINK	COMNAME	COUNT
	EMERGENT SUITABLE	1
	MIGRATORY RAPTOR CONCENTRATION SITE	1
284	EMERGENT SUITABLE	1
	MIGRATORY RAPTOR CONCENTRATION SITE	1
285	EMERGENT SUITABLE	1
	MIGRATORY RAPTOR CONCENTRATION SITE	1
286	EMERGENT SUITABLE	1
	MIGRATORY RAPTOR CONCENTRATION SITE	1
287	EMERGENT SUITABLE	1
	COPE'S GRAY TREEFROG	1
	COLONIAL WATERBIRD FORAGING HABITAT	1
	BLACK-CROWNED NIGHT-HERON FORAGING HABITAT	1
	MIGRATORY RAPTOR CONCENTRATION SITE	1
288	EMERGENT SUITABLE	1
	MIGRATORY RAPTOR CONCENTRATION SITE	1
289	EMERGENT SUITABLE	1
	MIGRATORY RAPTOR CONCENTRATION SITE	1
290	EMERGENT SUITABLE	1

LINK	COMNAME	COUNT
	MIGRATORY RAPTOR CONCENTRATION SITE	1
291	HERPTILE PRIORITY SPECIES	1
	MIGRATORY RAPTOR CONCENTRATION SITE	1
	EMERGENT SUITABLE	1
292	MIGRATORY RAPTOR CONCENTRATION SITE	1
	EMERGENT SUITABLE	1
293	COPE'S GRAY TREEFROG	1
	EMERGENT SUITABLE	1
	MIGRATORY RAPTOR CONCENTRATION SITE	1
294	EMERGENT SUITABLE	1
	MIGRATORY RAPTOR CONCENTRATION SITE	1
295	EMERGENT SUITABLE	1
	MIGRATORY RAPTOR CONCENTRATION SITE	1
296	EMERGENT SUITABLE	1
	MIGRATORY RAPTOR CONCENTRATION SITE	1
297	MIGRATORY RAPTOR CONCENTRATION SITE	1
	EMERGENT SUITABLE	1
298		

LINK	COMNAME	COUNT
	EMERGENT SUITABLE	1
	MIGRATORY RAPTOR CONCENTRATION SITE	1
299	TERN SPECIES FORAGING HABITAT	1
	BLACK-CROWNED NIGHT-HERON FORAGING HABITAT	1
	COLONIAL WATERBIRD FORAGING HABITAT	1
	EMERGENT SUITABLE	1
	HERPTILE PRIORITY SPECIES	1
	MIGRATORY RAPTOR CONCENTRATION SITE	1
300	MIGRATORY RAPTOR CONCENTRATION SITE	1
	COPE'S GRAY TREEFROG	1
	EMERGENT SUITABLE	1
301	MIGRATORY RAPTOR CONCENTRATION SITE	1
	BLACK-CROWNED NIGHT-HERON FORAGING HABITAT	1
	COLONIAL WATERBIRD FORAGING HABITAT	1
	COPE'S GRAY TREEFROG	3
	EMERGENT SUITABLE	1
	HERPTILE PRIORITY SPECIES	1
302	EMERGENT SUITABLE	1
	MIGRATORY RAPTOR CONCENTRATION SITE	1
	HERPTILE PRIORITY SPECIES	1
	COPE'S GRAY TREEFROG	3

LINK	COMNAME	COUNT
	BLACK-CROWNED NIGHT-HERON FORAGING HABITAT	1
	COLONIAL WATERBIRD FORAGING HABITAT	1
303	COPE'S GRAY TREEFROG	1
	EMERGENT SUITABLE	1
	HERPTILE PRIORITY SPECIES	1
	MIGRATORY RAPTOR CONCENTRATION SITE	1
304	COPE'S GRAY TREEFROG	1
	EMERGENT SUITABLE	1
	MIGRATORY RAPTOR CONCENTRATION SITE	1
305	COPE'S GRAY TREEFROG	3
	MIGRATORY RAPTOR CONCENTRATION SITE	1
	EMERGENT SUITABLE	1
	HERPTILE PRIORITY SPECIES	1
306	COPE'S GRAY TREEFROG	1
	EMERGENT SUITABLE	1
	MIGRATORY RAPTOR CONCENTRATION SITE	1
307	MIGRATORY RAPTOR CONCENTRATION SITE	1
	COPE'S GRAY TREEFROG	2
	EMERGENT SUITABLE	1
	HERPTILE PRIORITY SPECIES	3

LINK	COMNAME	COUNT
308	MIGRATORY RAPTOR CONCENTRATION SITE	1
	HERPTILE PRIORITY SPECIES	3
	COPE'S GRAY TREEFROG	2
	EMERGENT SUITABLE	1
309	BLACK-CROWNED NIGHT-HERON FORAGING HABITAT	1
	COLONIAL WATERBIRD FORAGING HABITAT	1
	COPE'S GRAY TREEFROG	1
	EMERGENT SUITABLE	1
	HERPTILE PRIORITY SPECIES	2
	LEAST TERN FORAGING HABITAT	1
	MIGRATORY RAPTOR CONCENTRATION SITE	1
310	BLACK-CROWNED NIGHT-HERON FORAGING HABITAT	1
	MIGRATORY RAPTOR CONCENTRATION SITE	1
	HERPTILE PRIORITY SPECIES	2
	COLONIAL WATERBIRD FORAGING HABITAT	1
	EMERGENT SUITABLE	1
311	MIGRATORY RAPTOR CONCENTRATION SITE	1
	BLACK-CROWNED NIGHT-HERON FORAGING HABITAT	1
	COLONIAL WATERBIRD FORAGING HABITAT	1
	EMERGENT SUITABLE	1
312		

LINK	COMNAME	COUNT
	MIGRATORY RAPTOR CONCENTRATION SITE	1
	HERPTILE PRIORITY SPECIES	2
	EMERGENT SUITABLE	1
	COPE'S GRAY TREEFROG	1
313		
	COPE'S GRAY TREEFROG	1
	EMERGENT SUITABLE	1
	HERPTILE PRIORITY SPECIES	2
	MIGRATORY RAPTOR CONCENTRATION SITE	1
314		
	COPE'S GRAY TREEFROG	15
	MIGRATORY RAPTOR CONCENTRATION SITE	1
	EMERGENT SUITABLE	1
	COLONIAL WATERBIRD FORAGING HABITAT	1
	BLACK-CROWNED NIGHT-HERON FORAGING HABITAT	1
	HERPTILE PRIORITY SPECIES	2
315		
	COPE'S GRAY TREEFROG	15
	EMERGENT SUITABLE	1
	HERPTILE PRIORITY SPECIES	2
	MIGRATORY RAPTOR CONCENTRATION SITE	1
316		
	COPE'S GRAY TREEFROG	1
	EMERGENT SUITABLE	1
	BLACK-CROWNED NIGHT-HERON FORAGING HABITAT	1

LINK	COMNAME	COUNT
	MIGRATORY RAPTOR CONCENTRATION SITE	1
	COLONIAL WATERBIRD FORAGING HABITAT	1
317	BLACK-CROWNED NIGHT-HERON FORAGING HABITAT	1
	COLONIAL WATERBIRD FORAGING HABITAT	1
	COPE'S GRAY TREEFROG	15
	EMERGENT SUITABLE	1
	HERPTILE PRIORITY SPECIES	2
	MIGRATORY RAPTOR CONCENTRATION SITE	1
318	EMERGENT SUITABLE	1
	MIGRATORY RAPTOR CONCENTRATION SITE	1
319	COLONIAL WATERBIRD FORAGING HABITAT	1
	COPE'S GRAY TREEFROG	42
	EMERGENT SUITABLE	1
	HERPTILE PRIORITY SPECIES	2
	LEAST TERN FORAGING HABITAT	2
	MIGRATORY RAPTOR CONCENTRATION SITE	1
	BLACK-CROWNED NIGHT-HERON FORAGING HABITAT	1
320	EMERGENT SUITABLE	1
	MIGRATORY RAPTOR CONCENTRATION SITE	1
	HERPTILE PRIORITY SPECIES	2
	BLACK-CROWNED NIGHT-HERON FORAGING HABITAT	1

LINK	COMNAME	COUNT
	COLONIAL WATERBIRD FORAGING HABITAT	1
	COPE'S GRAY TREEFROG	27
321	BLACK-CROWNED NIGHT-HERON FORAGING HABITAT	1
	COLONIAL WATERBIRD FORAGING HABITAT	1
	COPE'S GRAY TREEFROG	2
	EMERGENT SUITABLE	1
	HERPTILE PRIORITY SPECIES	2
	MIGRATORY RAPTOR CONCENTRATION SITE	1
13707	BLACK-CROWNED NIGHT-HERON FORAGING HABITAT	1
	TERN SPECIES FORAGING HABITAT	7
	RED KNOT	1
	MIGRATORY RAPTOR CONCENTRATION SITE	1
	HERPTILE PRIORITY SPECIES	2
	EMERGENT SUITABLE	1
	COLONIAL WATERBIRD FORAGING HABITAT	1
	BLACK SKIMMER FORAGING AREA	6
	COPE'S GRAY TREEFROG	3
13726	TERN SPECIES FORAGING HABITAT	1
	EMERGENT SUITABLE	1
	RED KNOT	1
13730	EMERGENT SUITABLE	1

LINK	COMNAME	COUNT
	BLACK-CROWNED NIGHT-HERON FORAGING HABITAT	1
	COLONIAL WATERBIRD FORAGING HABITAT	1
13742	EMERGENT SUITABLE	1
	MIGRATORY RAPTOR CONCENTRATION SITE	1
	RED KNOT	1
	TERN SPECIES FORAGING HABITAT	2
13744	TERN SPECIES FORAGING HABITAT	2
	BLACK-CROWNED NIGHT-HERON FORAGING HABITAT	1
	COLONIAL WATERBIRD FORAGING HABITAT	1
	EMERGENT SUITABLE	1
13759	TERN SPECIES FORAGING HABITAT	1
	MIGRATORY RAPTOR CONCENTRATION SITE	1
	EMERGENT SUITABLE	1
	COLONIAL WATERBIRD FORAGING HABITAT	1
	BLACK SKIMMER FORAGING AREA	1
	BLACK-CROWNED NIGHT-HERON FORAGING HABITAT	1
13765	EMERGENT SUITABLE	1
	BLACK-CROWNED NIGHT-HERON FORAGING HABITAT	1
	TERN SPECIES FORAGING HABITAT	2
	MIGRATORY RAPTOR CONCENTRATION SITE	1
	COLONIAL WATERBIRD FORAGING HABITAT	1

LINK	COMNAME	COUNT
	BLACK SKIMMER FORAGING AREA	2
	COPE'S GRAY TREEFROG	1
13772	EMERGENT SUITABLE	1
	MIGRATORY RAPTOR CONCENTRATION SITE	1
13774	EMERGENT SUITABLE	1
	MIGRATORY RAPTOR CONCENTRATION SITE	1
	COPE'S GRAY TREEFROG	1
	COLONIAL WATERBIRD FORAGING HABITAT	1
	BLACK-CROWNED NIGHT-HERON FORAGING HABITAT	1
13775	BLACK-CROWNED NIGHT-HERON FORAGING HABITAT	1
	COLONIAL WATERBIRD FORAGING HABITAT	1
	EMERGENT SUITABLE	1
	MIGRATORY RAPTOR CONCENTRATION SITE	1
	TERN SPECIES FORAGING HABITAT	1
	BLACK SKIMMER FORAGING AREA	1
13777	COLONIAL WATERBIRD FORAGING HABITAT	1
	TERN SPECIES FORAGING HABITAT	1
	MIGRATORY RAPTOR CONCENTRATION SITE	1
	EMERGENT SUITABLE	1
	BLACK-CROWNED NIGHT-HERON FORAGING HABITAT	1
	BLACK SKIMMER FORAGING AREA	1

LINK	COMNAME	COUNT
	COPE'S GRAY TREEFROG	1
13778	MIGRATORY RAPTOR CONCENTRATION SITE	1
	TERN SPECIES FORAGING HABITAT	1
	EMERGENT SUITABLE	1
	COLONIAL WATERBIRD FORAGING HABITAT	1
	BLACK-CROWNED NIGHT-HERON FORAGING HABITAT	1
	BLACK SKIMMER FORAGING AREA	1
13781	MIGRATORY RAPTOR CONCENTRATION SITE	1
	EMERGENT SUITABLE	1
13782	BLACK-CROWNED NIGHT-HERON FORAGING HABITAT	1
	COLONIAL WATERBIRD FORAGING HABITAT	1
	EMERGENT SUITABLE	1
	MIGRATORY RAPTOR CONCENTRATION SITE	1
13783	EMERGENT SUITABLE	1
	TERN SPECIES FORAGING HABITAT	1
	MIGRATORY RAPTOR CONCENTRATION SITE	1
	BLACK-CROWNED NIGHT-HERON FORAGING HABITAT	1
	BLACK SKIMMER FORAGING AREA	1
	COLONIAL WATERBIRD FORAGING HABITAT	1
13784	BLACK-CROWNED NIGHT-HERON FORAGING HABITAT	1

LINK	COMNAME	COUNT
	COLONIAL WATERBIRD FORAGING HABITAT	1
	EMERGENT SUITABLE	1
	MIGRATORY RAPTOR CONCENTRATION SITE	1
13785	EMERGENT SUITABLE	1
	MIGRATORY RAPTOR CONCENTRATION SITE	1
	COLONIAL WATERBIRD FORAGING HABITAT	1
	BLACK-CROWNED NIGHT-HERON FORAGING HABITAT	1
	BLACK SKIMMER FORAGING AREA	2
	TERN SPECIES FORAGING HABITAT	2
13787	EMERGENT SUITABLE	1
	MIGRATORY RAPTOR CONCENTRATION SITE	1
13793	BLACK-CROWNED NIGHT-HERON FORAGING HABITAT	1
	COLONIAL WATERBIRD FORAGING HABITAT	1
	EMERGENT SUITABLE	1
	MIGRATORY RAPTOR CONCENTRATION SITE	1
13794	EMERGENT SUITABLE	1
	MIGRATORY RAPTOR CONCENTRATION SITE	1
13796	EMERGENT SUITABLE	1
	MIGRATORY RAPTOR CONCENTRATION SITE	1
13798		

LINK	COMNAME	COUNT
	LEAST TERN FORAGING HABITAT	1
	YELLOW-CROWNED NIGHT-HERON NESTING HABITAT	2
	YELLOW-CROWNED NIGHT-HERON FORAGING HABITAT	1
	YELLOW-CROWNED NIGHT-HERON	3
	TERN SPECIES FORAGING HABITAT	2
	BIRD PRIORITY SPECIES	3
	MIGRATORY RAPTOR CONCENTRATION SITE	1
	HERPTILE PRIORITY SPECIES	1
	EMERGENT SUITABLE	1
	COLONIAL WATERBIRD NESTING HABITAT	2
	COLONIAL WATERBIRD FORAGING HABITAT	1
	BLACK-CROWNED NIGHT-HERON NESTING HABITAT	2
	BLACK-CROWNED NIGHT-HERON FORAGING HABITAT	1
	BLACK-CROWNED NIGHT-HERON	3
	BLACK SKIMMER FORAGING AREA	2
	OSPREY	15
13800		
	LEAST TERN FORAGING HABITAT	2
	TERN SPECIES FORAGING HABITAT	2
	OSPREY	3
	BLACK-CROWNED NIGHT-HERON FORAGING HABITAT	1
	MIGRATORY RAPTOR CONCENTRATION SITE	1
	YELLOW-CROWNED NIGHT-HERON FORAGING HABITAT	1
	COLONIAL WATERBIRD FORAGING HABITAT	1
	BLACK SKIMMER FORAGING AREA	1

LINK	COMNAME	COUNT
	BIRD PRIORITY SPECIES	2
	EMERGENT SUITABLE	1
	HERPTILE PRIORITY SPECIES	1
13801		
	EMERGENT SUITABLE	1
	MIGRATORY RAPTOR CONCENTRATION SITE	1
	COLONIAL WATERBIRD FORAGING HABITAT	1
	BLACK-CROWNED NIGHT-HERON FORAGING HABITAT	1
	TERN SPECIES FORAGING HABITAT	1
13807		
	BLACK-CROWNED NIGHT-HERON FORAGING HABITAT	1
	COLONIAL WATERBIRD FORAGING HABITAT	1
	EMERGENT SUITABLE	1
	MIGRATORY RAPTOR CONCENTRATION SITE	1
13810		
	MIGRATORY RAPTOR CONCENTRATION SITE	1
	HERPTILE PRIORITY SPECIES	1
	RED KNOT	1
	COPE'S GRAY TREEFROG	1
	COLONIAL WATERBIRD FORAGING HABITAT	1
	BLACK-CROWNED NIGHT-HERON FORAGING HABITAT	1
	TERN SPECIES FORAGING HABITAT	5
	EMERGENT SUITABLE	1
13811		
	EMERGENT SUITABLE	1

LINK	COMNAME	COUNT
	HERPTILE PRIORITY SPECIES	1
	MIGRATORY RAPTOR CONCENTRATION SITE	1
13816	COPE'S GRAY TREEFROG	2
	EMERGENT SUITABLE	1
	COLONIAL WATERBIRD FORAGING HABITAT	1
	BLACK-CROWNED NIGHT-HERON FORAGING HABITAT	1
	MIGRATORY RAPTOR CONCENTRATION SITE	1
13817	BIRD PRIORITY SPECIES	1
	BLACK SKIMMER FORAGING AREA	2
	BLACK-CROWNED NIGHT-HERON FORAGING HABITAT	1
	COLONIAL WATERBIRD FORAGING HABITAT	1
	COPE'S GRAY TREEFROG	2
	EMERGENT SUITABLE	1
	LEAST TERN FORAGING HABITAT	1
	MIGRATORY RAPTOR CONCENTRATION SITE	1
	TERN SPECIES FORAGING HABITAT	2
13819	EMERGENT SUITABLE	1
	MIGRATORY RAPTOR CONCENTRATION SITE	1
13821	BLACK SKIMMER FORAGING AREA	1
	BLACK-CROWNED NIGHT-HERON FORAGING HABITAT	1
	COLONIAL WATERBIRD FORAGING HABITAT	1

LINK	COMNAME	COUNT
	EMERGENT SUITABLE	1
	HERPTILE PRIORITY SPECIES	1
	LEAST TERN FORAGING HABITAT	1
	MIGRATORY RAPTOR CONCENTRATION SITE	1
	TERN SPECIES FORAGING HABITAT	1
	YELLOW-CROWNED NIGHT-HERON FORAGING HABITAT	1
13822	EMERGENT SUITABLE	1
	MIGRATORY RAPTOR CONCENTRATION SITE	1
	BLACK-CROWNED NIGHT-HERON FORAGING HABITAT	1
	COLONIAL WATERBIRD FORAGING HABITAT	1
	COPE'S GRAY TREEFROG	1
13823	HERPTILE PRIORITY SPECIES	1
	TERN SPECIES FORAGING HABITAT	1
	BLACK SKIMMER FORAGING AREA	1
	LEAST TERN FORAGING HABITAT	1
	EMERGENT SUITABLE	1
	COLONIAL WATERBIRD FORAGING HABITAT	1
	BLACK-CROWNED NIGHT-HERON FORAGING HABITAT	1
	YELLOW-CROWNED NIGHT-HERON FORAGING HABITAT	1
	MIGRATORY RAPTOR CONCENTRATION SITE	1
13824	LEAST TERN FORAGING HABITAT	1
	YELLOW-CROWNED NIGHT-HERON FORAGING HABITAT	1

LINK	COMNAME	COUNT
	TERN SPECIES FORAGING HABITAT	1
	MIGRATORY RAPTOR CONCENTRATION SITE	1
	EMERGENT SUITABLE	1
	COLONIAL WATERBIRD FORAGING HABITAT	1
	BLACK SKIMMER FORAGING AREA	1
	BLACK-CROWNED NIGHT-HERON FORAGING HABITAT	1
	HERPTILE PRIORITY SPECIES	1
13826	HERPTILE PRIORITY SPECIES	1
	YELLOW-CROWNED NIGHT-HERON FORAGING HABITAT	1
	TERN SPECIES FORAGING HABITAT	1
	OSPREY	1
	LEAST TERN FORAGING HABITAT	1
	EMERGENT SUITABLE	1
	COLONIAL WATERBIRD FORAGING HABITAT	1
	BLACK-CROWNED NIGHT-HERON FORAGING HABITAT	1
	BLACK SKIMMER FORAGING AREA	1
	MIGRATORY RAPTOR CONCENTRATION SITE	1
13828	LEAST TERN FORAGING HABITAT	1
	YELLOW-CROWNED NIGHT-HERON FORAGING HABITAT	1
	TERN SPECIES FORAGING HABITAT	1
	OSPREY	2
	MIGRATORY RAPTOR CONCENTRATION SITE	1
	EMERGENT SUITABLE	1

LINK	COMNAME	COUNT
	COLONIAL WATERBIRD FORAGING HABITAT	1
	BLACK-CROWNED NIGHT-HERON FORAGING HABITAT	1
	BLACK SKIMMER FORAGING AREA	1
	HERPTILE PRIORITY SPECIES	1
13829		
	EMERGENT SUITABLE	1
	MIGRATORY RAPTOR CONCENTRATION SITE	1
13830		
	MIGRATORY RAPTOR CONCENTRATION SITE	1
	BLACK-CROWNED NIGHT-HERON FORAGING HABITAT	1
	COLONIAL WATERBIRD FORAGING HABITAT	1
	EMERGENT SUITABLE	1
13831		
	MIGRATORY RAPTOR CONCENTRATION SITE	1
	EMERGENT SUITABLE	1
	HERPTILE PRIORITY SPECIES	1
13832		
	EMERGENT SUITABLE	1
	MIGRATORY RAPTOR CONCENTRATION SITE	1
13833		
	EMERGENT SUITABLE	1
	MIGRATORY RAPTOR CONCENTRATION SITE	1
13834		
	LEAST TERN FORAGING HABITAT	1
	BLACK SKIMMER FORAGING AREA	1

LINK	COMNAME	COUNT
	TERN SPECIES FORAGING HABITAT	1
	YELLOW-CROWNED NIGHT-HERON FORAGING HABITAT	1
	MIGRATORY RAPTOR CONCENTRATION SITE	1
	EMERGENT SUITABLE	1
	BLACK-CROWNED NIGHT-HERON FORAGING HABITAT	1
	COLONIAL WATERBIRD FORAGING HABITAT	1
	HERPTILE PRIORITY SPECIES	1
13835	EMERGENT SUITABLE	1
	YELLOW-CROWNED NIGHT-HERON FORAGING HABITAT	3
	TERN SPECIES FORAGING HABITAT	3
	MIGRATORY RAPTOR CONCENTRATION SITE	1
	HERPTILE PRIORITY SPECIES	1
	COLONIAL WATERBIRD FORAGING HABITAT	3
	BLACK-CROWNED NIGHT-HERON FORAGING HABITAT	3
	BLACK SKIMMER FORAGING AREA	3
	LEAST TERN FORAGING HABITAT	3
13836	MIGRATORY RAPTOR CONCENTRATION SITE	1
	COLONIAL WATERBIRD FORAGING HABITAT	1
	TERN SPECIES FORAGING HABITAT	1
	BLACK SKIMMER FORAGING AREA	1
	LEAST TERN FORAGING HABITAT	1
	BLACK-CROWNED NIGHT-HERON FORAGING HABITAT	1
	EMERGENT SUITABLE	1

LINK	COMNAME	COUNT
13837	HERPTILE PRIORITY SPECIES	1
	YELLOW-CROWNED NIGHT-HERON FORAGING HABITAT	1
	TERN SPECIES FORAGING HABITAT	1
	OSPREY	3
	LEAST TERN FORAGING HABITAT	1
	EMERGENT SUITABLE	1
	COLONIAL WATERBIRD FORAGING HABITAT	1
	BLACK-CROWNED NIGHT-HERON FORAGING HABITAT	1
	BLACK SKIMMER FORAGING AREA	1
	MIGRATORY RAPTOR CONCENTRATION SITE	1
13838	OSPREY	20
	LEAST TERN FORAGING HABITAT	1
	TERN SPECIES FORAGING HABITAT	1
	MIGRATORY RAPTOR CONCENTRATION SITE	1
	EMERGENT SUITABLE	1
	COLONIAL WATERBIRD FORAGING HABITAT	1
	YELLOW-CROWNED NIGHT-HERON FORAGING HABITAT	1
	BLACK-CROWNED NIGHT-HERON FORAGING HABITAT	1
	BLACK SKIMMER FORAGING AREA	1
	HERPTILE PRIORITY SPECIES	1
13839	OSPREY	1
	TERN SPECIES FORAGING HABITAT	1

LINK	COMNAME	COUNT
	MIGRATORY RAPTOR CONCENTRATION SITE	1
	LEAST TERN FORAGING HABITAT	1
	COLONIAL WATERBIRD FORAGING HABITAT	1
	BLACK-CROWNED NIGHT-HERON FORAGING HABITAT	1
	BLACK SKIMMER FORAGING AREA	1
	YELLOW-CROWNED NIGHT-HERON FORAGING HABITAT	1
	EMERGENT SUITABLE	1
13841		
	COLONIAL WATERBIRD FORAGING HABITAT	1
	TERN SPECIES FORAGING HABITAT	1
	MIGRATORY RAPTOR CONCENTRATION SITE	1
	COPE'S GRAY TREEFROG	3
	BLACK-CROWNED NIGHT-HERON FORAGING HABITAT	1
	BLACK SKIMMER FORAGING AREA	1
	EMERGENT SUITABLE	1
13842		
	EMERGENT SUITABLE	1
	TERN SPECIES FORAGING HABITAT	1
	YELLOW-CROWNED NIGHT-HERON FORAGING HABITAT	1
	LEAST TERN FORAGING HABITAT	1
	BLACK-CROWNED NIGHT-HERON FORAGING HABITAT	1
	BLACK SKIMMER FORAGING AREA	1
	MIGRATORY RAPTOR CONCENTRATION SITE	1
	COLONIAL WATERBIRD FORAGING HABITAT	1
13844		

LINK	COMNAME	COUNT
	HERPTILE PRIORITY SPECIES	1
	YELLOW-CROWNED NIGHT-HERON FORAGING HABITAT	1
	TERN SPECIES FORAGING HABITAT	1
	OSPREY	2
	LEAST TERN FORAGING HABITAT	1
	EMERGENT SUITABLE	1
	COLONIAL WATERBIRD FORAGING HABITAT	1
	BLACK-CROWNED NIGHT-HERON FORAGING HABITAT	1
	BLACK SKIMMER FORAGING AREA	1
	MIGRATORY RAPTOR CONCENTRATION SITE	1
13845	TERN SPECIES FORAGING HABITAT	1
	LEAST TERN FORAGING HABITAT	1
	YELLOW-CROWNED NIGHT-HERON FORAGING HABITAT	1
	MIGRATORY RAPTOR CONCENTRATION SITE	1
	EMERGENT SUITABLE	1
	COLONIAL WATERBIRD FORAGING HABITAT	1
	BLACK-CROWNED NIGHT-HERON FORAGING HABITAT	1
	BLACK SKIMMER FORAGING AREA	1
	HERPTILE PRIORITY SPECIES	1
13846	TERN SPECIES FORAGING HABITAT	1
	BLACK SKIMMER FORAGING AREA	1
	YELLOW-CROWNED NIGHT-HERON FORAGING HABITAT	1
	MIGRATORY RAPTOR CONCENTRATION SITE	1

LINK	COMNAME	COUNT
	LEAST TERN FORAGING HABITAT	1
	EMERGENT SUITABLE	1
	COLONIAL WATERBIRD FORAGING HABITAT	1
	BLACK-CROWNED NIGHT-HERON FORAGING HABITAT	1
	HERPTILE PRIORITY SPECIES	1
13848		
	MIGRATORY RAPTOR CONCENTRATION SITE	1
	EMERGENT SUITABLE	1
13849		
	EMERGENT SUITABLE	1
	MIGRATORY RAPTOR CONCENTRATION SITE	1
	COPE'S GRAY TREEFROG	1
13850		
	MIGRATORY RAPTOR CONCENTRATION SITE	1
	OSPREY	2
	TERN SPECIES FORAGING HABITAT	1
	YELLOW-CROWNED NIGHT-HERON	2
	YELLOW-CROWNED NIGHT-HERON NESTING HABITAT	1
	LEAST TERN FORAGING HABITAT	1
	YELLOW-CROWNED NIGHT-HERON FORAGING HABITAT	1
	EMERGENT SUITABLE	1
	COLONIAL WATERBIRD NESTING HABITAT	1
	COLONIAL WATERBIRD FORAGING HABITAT	1
	BLACK-CROWNED NIGHT-HERON NESTING HABITAT	1
	BLACK-CROWNED NIGHT-HERON FORAGING HABITAT	1

LINK	COMNAME	COUNT
	BLACK SKIMMER FORAGING AREA	1
	BLACK-CROWNED NIGHT-HERON	2
	HERPTILE PRIORITY SPECIES	1
13851		
	YELLOW-CROWNED NIGHT-HERON FORAGING HABITAT	1
	YELLOW-CROWNED NIGHT-HERON NESTING HABITAT	1
	TERN SPECIES FORAGING HABITAT	1
	MIGRATORY RAPTOR CONCENTRATION SITE	1
	LEAST TERN FORAGING HABITAT	1
	HERPTILE PRIORITY SPECIES	1
	COLONIAL WATERBIRD NESTING HABITAT	1
	COLONIAL WATERBIRD FORAGING HABITAT	1
	BLACK-CROWNED NIGHT-HERON NESTING HABITAT	1
	BLACK SKIMMER FORAGING AREA	1
	BLACK-CROWNED NIGHT-HERON FORAGING HABITAT	1
	EMERGENT SUITABLE	1
13852		
	COLONIAL WATERBIRD NESTING HABITAT	1
	YELLOW-CROWNED NIGHT-HERON NESTING HABITAT	1
	YELLOW-CROWNED NIGHT-HERON FORAGING HABITAT	1
	YELLOW-CROWNED NIGHT-HERON	1
	TERN SPECIES FORAGING HABITAT	1
	MIGRATORY RAPTOR CONCENTRATION SITE	1
	LEAST TERN FORAGING HABITAT	1
	BLACK SKIMMER FORAGING AREA	1

LINK	COMNAME	COUNT
	EMERGENT SUITABLE	1
	COLONIAL WATERBIRD FORAGING HABITAT	1
	BLACK-CROWNED NIGHT-HERON NESTING HABITAT	1
	BLACK-CROWNED NIGHT-HERON FORAGING HABITAT	1
	BLACK-CROWNED NIGHT-HERON	1
	HERPTILE PRIORITY SPECIES	1
13853		
	MIGRATORY RAPTOR CONCENTRATION SITE	1
	EMERGENT SUITABLE	1
	YELLOW-CROWNED NIGHT-HERON FORAGING HABITAT	1
	TERN SPECIES FORAGING HABITAT	1
	OSPREY	2
	HERPTILE PRIORITY SPECIES	1
	BLACK SKIMMER FORAGING AREA	1
	COLONIAL WATERBIRD FORAGING HABITAT	1
	BLACK-CROWNED NIGHT-HERON FORAGING HABITAT	1
	LEAST TERN FORAGING HABITAT	1
13854		
	EMERGENT SUITABLE	1
	MIGRATORY RAPTOR CONCENTRATION SITE	1
	COLONIAL WATERBIRD FORAGING HABITAT	1
	BLACK-CROWNED NIGHT-HERON FORAGING HABITAT	1
	BLACK SKIMMER FORAGING AREA	1
	TERN SPECIES FORAGING HABITAT	1
13855		

LINK	COMNAME	COUNT
	EMERGENT SUITABLE	1
	MIGRATORY RAPTOR CONCENTRATION SITE	1
13856	HERPTILE PRIORITY SPECIES	1
	LEAST TERN FORAGING HABITAT	1
	YELLOW-CROWNED NIGHT-HERON FORAGING HABITAT	1
	TERN SPECIES FORAGING HABITAT	1
	OSPREY	4
	EMERGENT SUITABLE	1
	COLONIAL WATERBIRD FORAGING HABITAT	1
	BLACK-CROWNED NIGHT-HERON FORAGING HABITAT	1
	BLACK SKIMMER FORAGING AREA	1
	MIGRATORY RAPTOR CONCENTRATION SITE	1
13857	EMERGENT SUITABLE	1
	YELLOW-CROWNED NIGHT-HERON FORAGING HABITAT	1
	TERN SPECIES FORAGING HABITAT	1
	OSPREY	2
	MIGRATORY RAPTOR CONCENTRATION SITE	1
	HERPTILE PRIORITY SPECIES	1
	COLONIAL WATERBIRD FORAGING HABITAT	1
	BLACK-CROWNED NIGHT-HERON FORAGING HABITAT	1
	BLACK SKIMMER FORAGING AREA	1
	LEAST TERN FORAGING HABITAT	1

13858

LINK	COMNAME	COUNT
	LEAST TERN FORAGING HABITAT	1
	TERN SPECIES FORAGING HABITAT	1
	OSPREY	3
	MIGRATORY RAPTOR CONCENTRATION SITE	1
	EMERGENT SUITABLE	1
	COLONIAL WATERBIRD FORAGING HABITAT	1
	BLACK-CROWNED NIGHT-HERON FORAGING HABITAT	1
	BLACK SKIMMER FORAGING AREA	1
	YELLOW-CROWNED NIGHT-HERON FORAGING HABITAT	1
	HERPTILE PRIORITY SPECIES	1
13859		
	EMERGENT SUITABLE	1
	YELLOW-CROWNED NIGHT-HERON FORAGING HABITAT	1
	TERN SPECIES FORAGING HABITAT	1
	OSPREY	13
	MIGRATORY RAPTOR CONCENTRATION SITE	1
	HERPTILE PRIORITY SPECIES	1
	COLONIAL WATERBIRD FORAGING HABITAT	1
	BLACK-CROWNED NIGHT-HERON FORAGING HABITAT	1
	BLACK SKIMMER FORAGING AREA	1
	LEAST TERN FORAGING HABITAT	1
13860		
	LEAST TERN FORAGING HABITAT	1
	HERPTILE PRIORITY SPECIES	1
	YELLOW-CROWNED NIGHT-HERON FORAGING HABITAT	1

LINK	COMNAME	COUNT
	TERN SPECIES FORAGING HABITAT	1
	OSPREY	5
	EMERGENT SUITABLE	1
	COLONIAL WATERBIRD FORAGING HABITAT	1
	BLACK-CROWNED NIGHT-HERON FORAGING HABITAT	1
	BLACK SKIMMER FORAGING AREA	1
	MIGRATORY RAPTOR CONCENTRATION SITE	1
13861	HERPTILE PRIORITY SPECIES	1
	YELLOW-CROWNED NIGHT-HERON FORAGING HABITAT	1
	TERN SPECIES FORAGING HABITAT	1
	OSPREY	1
	LEAST TERN FORAGING HABITAT	1
	EMERGENT SUITABLE	1
	COLONIAL WATERBIRD FORAGING HABITAT	1
	BLACK-CROWNED NIGHT-HERON FORAGING HABITAT	1
	BLACK SKIMMER FORAGING AREA	1
	MIGRATORY RAPTOR CONCENTRATION SITE	1
13862	EMERGENT SUITABLE	1
	MIGRATORY RAPTOR CONCENTRATION SITE	1
13863	EMERGENT SUITABLE	1
	TERN SPECIES FORAGING HABITAT	1
	MIGRATORY RAPTOR CONCENTRATION SITE	1

LINK	COMNAME	COUNT
	YELLOW-CROWNED NIGHT-HERON FORAGING HABITAT	1
	COLONIAL WATERBIRD FORAGING HABITAT	1
	BLACK-CROWNED NIGHT-HERON FORAGING HABITAT	1
	BLACK SKIMMER FORAGING AREA	1
	LEAST TERN FORAGING HABITAT	1
	HERPTILE PRIORITY SPECIES	1
13864	EMERGENT SUITABLE	1
	YELLOW-CROWNED NIGHT-HERON NESTING HABITAT	1
	YELLOW-CROWNED NIGHT-HERON FORAGING HABITAT	1
	YELLOW-CROWNED NIGHT-HERON	2
	TERN SPECIES FORAGING HABITAT	4
	MIGRATORY RAPTOR CONCENTRATION SITE	1
	HERPTILE PRIORITY SPECIES	1
	COLONIAL WATERBIRD NESTING HABITAT	1
	COLONIAL WATERBIRD FORAGING HABITAT	1
	BLACK-CROWNED NIGHT-HERON NESTING HABITAT	1
	BLACK-CROWNED NIGHT-HERON FORAGING HABITAT	1
	BLACK-CROWNED NIGHT-HERON	2
	BLACK SKIMMER FORAGING AREA	4
	BIRD PRIORITY SPECIES	4
	LEAST TERN FORAGING HABITAT	4
13865	BLACK SKIMMER FORAGING AREA	1
	LEAST TERN FORAGING HABITAT	1

LINK	COMNAME	COUNT
	YELLOW-CROWNED NIGHT-HERON FORAGING HABITAT	1
	YELLOW-CROWNED NIGHT-HERON NESTING HABITAT	1
	YELLOW-CROWNED NIGHT-HERON	1
	TERN SPECIES FORAGING HABITAT	1
	MIGRATORY RAPTOR CONCENTRATION SITE	1
	EMERGENT SUITABLE	1
	COLONIAL WATERBIRD NESTING HABITAT	1
	COLONIAL WATERBIRD FORAGING HABITAT	1
	BLACK-CROWNED NIGHT-HERON NESTING HABITAT	1
	BLACK-CROWNED NIGHT-HERON	1
	HERPTILE PRIORITY SPECIES	1
	BLACK-CROWNED NIGHT-HERON FORAGING HABITAT	1
13866		
	COPE'S GRAY TREEFROG	1
	MIGRATORY RAPTOR CONCENTRATION SITE	1
	EASTERN TIGER SALAMANDER	2
	EMERGENT SUITABLE	1
13867		
	LEAST TERN FORAGING HABITAT	2
	BLACK SKIMMER FORAGING AREA	2
	BLACK-CROWNED NIGHT-HERON FORAGING HABITAT	4
	COLONIAL WATERBIRD FORAGING HABITAT	4
	COPE'S GRAY TREEFROG	3
	EASTERN TIGER SALAMANDER	1
	MIGRATORY RAPTOR CONCENTRATION SITE	1

LINK	COMNAME	COUNT
	RED KNOT	1
	MIGRATORY RAPTOR CONCENTRATION SITE	1
	EMERGENT SUITABLE	1
	COLONIAL WATERBIRD FORAGING HABITAT	1
	HERPTILE PRIORITY SPECIES	1
	COPE'S GRAY TREEFROG	1
13872		
	EMERGENT SUITABLE	1
	YELLOW-CROWNED NIGHT-HERON NESTING HABITAT	1
	YELLOW-CROWNED NIGHT-HERON FORAGING HABITAT	1
	TERN SPECIES FORAGING HABITAT	1
	MIGRATORY RAPTOR CONCENTRATION SITE	1
	HERPTILE PRIORITY SPECIES	1
	COLONIAL WATERBIRD FORAGING HABITAT	1
	BLACK-CROWNED NIGHT-HERON FORAGING HABITAT	1
	BLACK SKIMMER FORAGING AREA	1
	LEAST TERN FORAGING HABITAT	1
13873		
	LEAST TERN FORAGING HABITAT	1
	EMERGENT SUITABLE	1
	TERN SPECIES FORAGING HABITAT	1
	COLONIAL WATERBIRD FORAGING HABITAT	1
	BLACK SKIMMER FORAGING AREA	1
	BLACK-CROWNED NIGHT-HERON FORAGING HABITAT	1
	MIGRATORY RAPTOR CONCENTRATION SITE	1

LINK	COMNAME	COUNT
13874	EASTERN TIGER SALAMANDER	1
	TERN SPECIES FORAGING HABITAT	1
	EMERGENT SUITABLE	1
	COPE'S GRAY TREEFROG	2
	COLONIAL WATERBIRD FORAGING HABITAT	1
	BLACK-CROWNED NIGHT-HERON FORAGING HABITAT	1
	BLACK SKIMMER FORAGING AREA	1
	MIGRATORY RAPTOR CONCENTRATION SITE	1
13875	COPE'S GRAY TREEFROG	1
	EMERGENT SUITABLE	1
	MIGRATORY RAPTOR CONCENTRATION SITE	1
13876	LEAST TERN FORAGING HABITAT	2
	EASTERN TIGER SALAMANDER	1
	MIGRATORY RAPTOR CONCENTRATION SITE	1
	EMERGENT SUITABLE	1
	COLONIAL WATERBIRD FORAGING HABITAT	1
	TERN SPECIES FORAGING HABITAT	2
	BLACK-CROWNED NIGHT-HERON FORAGING HABITAT	1
	BLACK SKIMMER FORAGING AREA	2
	COPE'S GRAY TREEFROG	2
13877	MIGRATORY RAPTOR CONCENTRATION SITE	1

LINK	COMNAME	COUNT
	TERN SPECIES FORAGING HABITAT	3
	LEAST TERN FORAGING HABITAT	3
	LEAST TERN	1
	EMERGENT SUITABLE	1
	COPE'S GRAY TREEFROG	11
	COLONIAL WATERBIRD FORAGING HABITAT	1
	BLACK-CROWNED NIGHT-HERON FORAGING HABITAT	1
	HERPTILE PRIORITY SPECIES	1
13878		
	COPE'S GRAY TREEFROG	1
	TERN SPECIES FORAGING HABITAT	2
	MIGRATORY RAPTOR CONCENTRATION SITE	1
	LEAST TERN FORAGING HABITAT	3
	BLACK-CROWNED NIGHT-HERON FORAGING HABITAT	1
	EMERGENT SUITABLE	1
	COLONIAL WATERBIRD FORAGING HABITAT	1
	HERPTILE PRIORITY SPECIES	1
13879		
	EASTERN TIGER SALAMANDER	1
	LEAST TERN FORAGING HABITAT	1
	TERN SPECIES FORAGING HABITAT	1
	MIGRATORY RAPTOR CONCENTRATION SITE	1
	EMERGENT SUITABLE	1
	BLACK-CROWNED NIGHT-HERON FORAGING HABITAT	1
	COLONIAL WATERBIRD FORAGING HABITAT	1

LINK	COMNAME	COUNT
	HERPTILE PRIORITY SPECIES	1
13880	EASTERN TIGER SALAMANDER	1
	EMERGENT SUITABLE	1
	HERPTILE PRIORITY SPECIES	1
	MIGRATORY RAPTOR CONCENTRATION SITE	1
13881	COLONIAL WATERBIRD FORAGING HABITAT	2
	MIGRATORY RAPTOR CONCENTRATION SITE	1
	LEAST TERN FORAGING HABITAT	1
	LEAST TERN	1
	HERPTILE PRIORITY SPECIES	1
	EMERGENT SUITABLE	1
	COPE'S GRAY TREEFROG	9
	TERN SPECIES FORAGING HABITAT	1
	BLACK-CROWNED NIGHT-HERON FORAGING HABITAT	2
	EASTERN TIGER SALAMANDER	1
13882	EMERGENT SUITABLE	1
	MIGRATORY RAPTOR CONCENTRATION SITE	1
	HERPTILE PRIORITY SPECIES	1
	COPE'S GRAY TREEFROG	3
	BLACK-CROWNED NIGHT-HERON FORAGING HABITAT	1
	COLONIAL WATERBIRD FORAGING HABITAT	1
	EASTERN TIGER SALAMANDER	1

LINK	COMNAME	COUNT
13883	HERPTILE PRIORITY SPECIES	1
	TERN SPECIES FORAGING HABITAT	1
	LEAST TERN FORAGING HABITAT	1
	EMERGENT SUITABLE	1
	COLONIAL WATERBIRD FORAGING HABITAT	1
	BLACK-CROWNED NIGHT-HERON FORAGING HABITAT	1
	MIGRATORY RAPTOR CONCENTRATION SITE	1
13884	HERPTILE PRIORITY SPECIES	1
	OSPREY	2
	TERN SPECIES FORAGING HABITAT	1
	MIGRATORY RAPTOR CONCENTRATION SITE	1
	LEAST TERN FORAGING HABITAT	1
	COLONIAL WATERBIRD FORAGING HABITAT	1
	BLACK-CROWNED NIGHT-HERON FORAGING HABITAT	1
	BLACK SKIMMER FORAGING AREA	1
	YELLOW-CROWNED NIGHT-HERON FORAGING HABITAT	1
	BLACK SKIMMER	1
	BIRD PRIORITY SPECIES	1
	EMERGENT SUITABLE	1
13885	OSPREY	2
	TERN SPECIES FORAGING HABITAT	1
	MIGRATORY RAPTOR CONCENTRATION SITE	1

LINK	COMNAME	COUNT
	LEAST TERN FORAGING HABITAT	1
	COLONIAL WATERBIRD FORAGING HABITAT	1
	BLACK SKIMMER FORAGING AREA	1
	BLACK-CROWNED NIGHT-HERON FORAGING HABITAT	1
	EMERGENT SUITABLE	1
13886	COLONIAL WATERBIRD FORAGING HABITAT	1
	OSPREY	5
	MIGRATORY RAPTOR CONCENTRATION SITE	1
	BIRD PRIORITY SPECIES	1
	EMERGENT SUITABLE	1
	BLACK-CROWNED NIGHT-HERON FORAGING HABITAT	1
	BLACK SKIMMER FORAGING AREA	1
	TERN SPECIES FORAGING HABITAT	1
	LEAST TERN FORAGING HABITAT	1
13887	LEAST TERN FORAGING HABITAT	1
	OSPREY	2
	TERN SPECIES FORAGING HABITAT	1
	MIGRATORY RAPTOR CONCENTRATION SITE	1
	COLONIAL WATERBIRD FORAGING HABITAT	2
	BLACK SKIMMER FORAGING AREA	1
	BLACK-CROWNED NIGHT-HERON FORAGING HABITAT	1
	EMERGENT SUITABLE	1
13888		

LINK	COMNAME	COUNT
	MIGRATORY RAPTOR CONCENTRATION SITE	1
	TERN SPECIES FORAGING HABITAT	2
	LEAST TERN FORAGING HABITAT	2
	HERPTILE PRIORITY SPECIES	1
	EMERGENT SUITABLE	1
	COLONIAL WATERBIRD FORAGING HABITAT	1
	BLACK-CROWNED NIGHT-HERON FORAGING HABITAT	1
13889		
	COLONIAL WATERBIRD FORAGING HABITAT	1
	EMERGENT SUITABLE	1
	HERPTILE PRIORITY SPECIES	1
	LEAST TERN FORAGING HABITAT	2
	MIGRATORY RAPTOR CONCENTRATION SITE	1
	TERN SPECIES FORAGING HABITAT	2
	BLACK-CROWNED NIGHT-HERON FORAGING HABITAT	1
13890		
	MIGRATORY RAPTOR CONCENTRATION SITE	1
	TERN SPECIES FORAGING HABITAT	1
	EMERGENT SUITABLE	1
	COLONIAL WATERBIRD FORAGING HABITAT	1
	HERPTILE PRIORITY SPECIES	1
13891		
	COPE'S GRAY TREEFROG	1
	EMERGENT SUITABLE	1
	HERPTILE PRIORITY SPECIES	1

LINK	COMNAME	COUNT
	MIGRATORY RAPTOR CONCENTRATION SITE	1
13892		
	COPE'S GRAY TREEFROG	1
	EMERGENT SUITABLE	1
	COLONIAL WATERBIRD FORAGING HABITAT	1
	BLACK-CROWNED NIGHT-HERON FORAGING HABITAT	1
	MIGRATORY RAPTOR CONCENTRATION SITE	1
13893		
	OSPREY	1
	BLACK-CROWNED NIGHT-HERON FORAGING HABITAT	1
	COLONIAL WATERBIRD FORAGING HABITAT	1
	EMERGENT SUITABLE	1
	LEAST TERN FORAGING HABITAT	1
	MIGRATORY RAPTOR CONCENTRATION SITE	1
13894		
	LEAST TERN FORAGING HABITAT	1
	TERN SPECIES FORAGING HABITAT	1
	MIGRATORY RAPTOR CONCENTRATION SITE	1
	EMERGENT SUITABLE	1
	COLONIAL WATERBIRD FORAGING HABITAT	1
	BLACK SKIMMER FORAGING AREA	1
	BLACK-CROWNED NIGHT-HERON FORAGING HABITAT	1
13895		
	BIRD PRIORITY SPECIES	2
	BLACK SKIMMER FORAGING AREA	1

LINK	COMNAME	COUNT
	BLACK-CROWNED NIGHT-HERON FORAGING HABITAT	1
	COLONIAL WATERBIRD FORAGING HABITAT	1
	EMERGENT SUITABLE	1
	LEAST TERN FORAGING HABITAT	1
	MIGRATORY RAPTOR CONCENTRATION SITE	1
	TERN SPECIES FORAGING HABITAT	1
13896		
	LEAST TERN FORAGING HABITAT	3
	MIGRATORY RAPTOR CONCENTRATION SITE	1
	TERN SPECIES FORAGING HABITAT	3
	COLONIAL WATERBIRD FORAGING HABITAT	1
	BLACK SKIMMER FORAGING AREA	3
	BLACK-CROWNED NIGHT-HERON FORAGING HABITAT	1
	EMERGENT SUITABLE	1
13897		
	LEAST TERN FORAGING HABITAT	1
	BLACK SKIMMER FORAGING AREA	1
	YELLOW-CROWNED NIGHT-HERON FORAGING HABITAT	1
	MIGRATORY RAPTOR CONCENTRATION SITE	1
	HERPTILE PRIORITY SPECIES	1
	EMERGENT SUITABLE	1
	COLONIAL WATERBIRD FORAGING HABITAT	1
	BLACK-CROWNED NIGHT-HERON FORAGING HABITAT	1
	TERN SPECIES FORAGING HABITAT	1
13898		

LINK	COMNAME	COUNT
	EMERGENT SUITABLE	1
	MIGRATORY RAPTOR CONCENTRATION SITE	1
13899		
	EMERGENT SUITABLE	1
	MIGRATORY RAPTOR CONCENTRATION SITE	1
13900		
	EMERGENT SUITABLE	1
	TERN SPECIES FORAGING HABITAT	1
	LEAST TERN FORAGING HABITAT	1
	BLACK-CROWNED NIGHT-HERON FORAGING HABITAT	1
	BLACK SKIMMER FORAGING AREA	1
	COLONIAL WATERBIRD FORAGING HABITAT	1
	MIGRATORY RAPTOR CONCENTRATION SITE	1
13901		
	TERN SPECIES FORAGING HABITAT	1
	BLACK SKIMMER FORAGING AREA	1
	BLACK-CROWNED NIGHT-HERON FORAGING HABITAT	1
	COLONIAL WATERBIRD FORAGING HABITAT	1
	EMERGENT SUITABLE	1
	LEAST TERN FORAGING HABITAT	1
	MIGRATORY RAPTOR CONCENTRATION SITE	1
13902		
	TERN SPECIES FORAGING HABITAT	1
	MIGRATORY RAPTOR CONCENTRATION SITE	1
	LEAST TERN FORAGING HABITAT	1

LINK	COMNAME	COUNT
	EMERGENT SUITABLE	1
	COLONIAL WATERBIRD FORAGING HABITAT	1
	BLACK SKIMMER FORAGING AREA	1
	BLACK-CROWNED NIGHT-HERON FORAGING HABITAT	1
13903		
	LEAST TERN FORAGING HABITAT	2
	YELLOW-CROWNED NIGHT-HERON FORAGING HABITAT	1
	YELLOW-CROWNED NIGHT-HERON	1
	TERN SPECIES FORAGING HABITAT	2
	MIGRATORY RAPTOR CONCENTRATION SITE	1
	COLONIAL WATERBIRD FORAGING HABITAT	1
	BLACK-CROWNED NIGHT-HERON FORAGING HABITAT	1
	BLACK-CROWNED NIGHT-HERON	1
	BLACK SKIMMER FORAGING AREA	2
	BIRD PRIORITY SPECIES	1
	EMERGENT SUITABLE	1
13904		
	COLONIAL WATERBIRD FORAGING HABITAT	1
	TERN SPECIES FORAGING HABITAT	1
	MIGRATORY RAPTOR CONCENTRATION SITE	1
	EMERGENT SUITABLE	1
	BLACK-CROWNED NIGHT-HERON FORAGING HABITAT	1
	BLACK SKIMMER FORAGING AREA	1
	LEAST TERN FORAGING HABITAT	1
13905		

LINK	COMNAME	COUNT
	EMERGENT SUITABLE	1
	MIGRATORY RAPTOR CONCENTRATION SITE	1
13906	LEAST TERN FORAGING HABITAT	1
	MIGRATORY RAPTOR CONCENTRATION SITE	1
	TERN SPECIES FORAGING HABITAT	1
	COLONIAL WATERBIRD FORAGING HABITAT	1
	YELLOW-CROWNED NIGHT-HERON FORAGING HABITAT	1
	BLACK-CROWNED NIGHT-HERON FORAGING HABITAT	1
	BLACK SKIMMER FORAGING AREA	1
	EMERGENT SUITABLE	1
13907	LEAST TERN FORAGING HABITAT	1
	TERN SPECIES FORAGING HABITAT	1
	MIGRATORY RAPTOR CONCENTRATION SITE	1
	EMERGENT SUITABLE	1
	BLACK SKIMMER FORAGING AREA	1
	RED KNOT	1
13908	BLACK SKIMMER	1
	LEAST TERN FORAGING HABITAT	5
	TERN SPECIES FORAGING HABITAT	11
	YELLOW-CROWNED NIGHT-HERON FORAGING HABITAT	1
	RED KNOT	1
	MIGRATORY RAPTOR CONCENTRATION SITE	1

LINK	COMNAME	COUNT
	LEAST TERN	1
	EMERGENT SUITABLE	1
	COLONIAL WATERBIRD FORAGING HABITAT	1
	BLACK SKIMMER FORAGING AREA	11
	BLACK-CROWNED NIGHT-HERON FORAGING HABITAT	1
13909		
	LEAST TERN FORAGING HABITAT	1
	YELLOW-CROWNED NIGHT-HERON FORAGING HABITAT	1
	MIGRATORY RAPTOR CONCENTRATION SITE	1
	COLONIAL WATERBIRD FORAGING HABITAT	1
	BLACK-CROWNED NIGHT-HERON FORAGING HABITAT	1
	BLACK SKIMMER FORAGING AREA	1
	EMERGENT SUITABLE	1
	TERN SPECIES FORAGING HABITAT	1
13910		
	COLONIAL WATERBIRD FORAGING HABITAT	1
	MIGRATORY RAPTOR CONCENTRATION SITE	1
	EMERGENT SUITABLE	1
	TERN SPECIES FORAGING HABITAT	1
	BLACK-CROWNED NIGHT-HERON FORAGING HABITAT	1
	BLACK SKIMMER FORAGING AREA	1
	LEAST TERN FORAGING HABITAT	1
13911		
	LEAST TERN FORAGING HABITAT	1
	YELLOW-CROWNED NIGHT-HERON FORAGING HABITAT	1

LINK	COMNAME	COUNT
	TERN SPECIES FORAGING HABITAT	1
	MIGRATORY RAPTOR CONCENTRATION SITE	1
	EMERGENT SUITABLE	1
	COLONIAL WATERBIRD FORAGING HABITAT	1
	BLACK-CROWNED NIGHT-HERON FORAGING HABITAT	1
	BLACK SKIMMER	1
	BLACK SKIMMER FORAGING AREA	1
13912		
	BLACK-CROWNED NIGHT-HERON FORAGING HABITAT	1
	MIGRATORY RAPTOR CONCENTRATION SITE	1
	YELLOW-CROWNED NIGHT-HERON FORAGING HABITAT	1
	BLACK SKIMMER	1
	COLONIAL WATERBIRD FORAGING HABITAT	1
	EMERGENT SUITABLE	1
13913		
	YELLOW-CROWNED NIGHT-HERON FORAGING HABITAT	1
	BLACK SKIMMER FORAGING AREA	1
	BLACK-CROWNED NIGHT-HERON FORAGING HABITAT	1
	COLONIAL WATERBIRD FORAGING HABITAT	1
	EMERGENT SUITABLE	1
	LEAST TERN FORAGING HABITAT	1
	MIGRATORY RAPTOR CONCENTRATION SITE	1
	TERN SPECIES FORAGING HABITAT	1
13914		
	TERN SPECIES FORAGING HABITAT	1

LINK	COMNAME	COUNT
	MIGRATORY RAPTOR CONCENTRATION SITE	1
	LEAST TERN FORAGING HABITAT	1
	EMERGENT SUITABLE	1
	COLONIAL WATERBIRD FORAGING HABITAT	1
	BLACK SKIMMER FORAGING AREA	1
	BLACK-CROWNED NIGHT-HERON FORAGING HABITAT	1
13915	LEAST TERN	1
	TERN SPECIES FORAGING HABITAT	2
	YELLOW-CROWNED NIGHT-HERON FORAGING HABITAT	1
	MIGRATORY RAPTOR CONCENTRATION SITE	1
	LEAST TERN FORAGING HABITAT	2
	COLONIAL WATERBIRD FORAGING HABITAT	1
	BLACK-CROWNED NIGHT-HERON FORAGING HABITAT	1
	BLACK SKIMMER	1
	BLACK SKIMMER FORAGING AREA	2
	EMERGENT SUITABLE	1
13916	LEAST TERN	1
	TERN SPECIES FORAGING HABITAT	5
	LEAST TERN FORAGING HABITAT	5
	HERPTILE PRIORITY SPECIES	2
	EMERGENT SUITABLE	1
	COLONIAL WATERBIRD FORAGING HABITAT	1
	BLACK-CROWNED NIGHT-HERON FORAGING HABITAT	1

LINK	COMNAME	COUNT
	MIGRATORY RAPTOR CONCENTRATION SITE	1
13917		
	EMERGENT SUITABLE	1
	MIGRATORY RAPTOR CONCENTRATION SITE	1
13918		
	COPE'S GRAY TREEFROG	1
	EMERGENT SUITABLE	1
	MIGRATORY RAPTOR CONCENTRATION SITE	1
13919		
	COLONIAL WATERBIRD FORAGING HABITAT	1
	MIGRATORY RAPTOR CONCENTRATION SITE	1
	TERN SPECIES FORAGING HABITAT	1
	BLACK SKIMMER FORAGING AREA	1
	LEAST TERN FORAGING HABITAT	1
	BLACK-CROWNED NIGHT-HERON FORAGING HABITAT	1
	EMERGENT SUITABLE	1
13920		
	MIGRATORY RAPTOR CONCENTRATION SITE	1
	OSPREY	1
	LEAST TERN FORAGING HABITAT	1
	EMERGENT SUITABLE	1
	COLONIAL WATERBIRD FORAGING HABITAT	1
	BLACK-CROWNED NIGHT-HERON FORAGING HABITAT	1
	BLACK SKIMMER FORAGING AREA	1
	TERN SPECIES FORAGING HABITAT	1

LINK	COMNAME	COUNT
13921	BLACK SKIMMER FORAGING AREA	1
	BLACK-CROWNED NIGHT-HERON FORAGING HABITAT	1
	COLONIAL WATERBIRD FORAGING HABITAT	1
	EMERGENT SUITABLE	1
	LEAST TERN FORAGING HABITAT	1
	MIGRATORY RAPTOR CONCENTRATION SITE	1
	TERN SPECIES FORAGING HABITAT	1
13922	EMERGENT SUITABLE	1
	LEAST TERN FORAGING HABITAT	1
	COLONIAL WATERBIRD FORAGING HABITAT	1
	BLACK-CROWNED NIGHT-HERON FORAGING HABITAT	1
	MIGRATORY RAPTOR CONCENTRATION SITE	1
13923	MIGRATORY RAPTOR CONCENTRATION SITE	1
	TERN SPECIES FORAGING HABITAT	1
	LEAST TERN FORAGING HABITAT	1
	EMERGENT SUITABLE	1
	COLONIAL WATERBIRD FORAGING HABITAT	1
	BLACK-CROWNED NIGHT-HERON FORAGING HABITAT	1
	BLACK SKIMMER FORAGING AREA	1
13924	COPE'S GRAY TREEFROG	2
	EMERGENT SUITABLE	1

LINK	COMNAME	COUNT
	HERPTILE PRIORITY SPECIES	2
	MIGRATORY RAPTOR CONCENTRATION SITE	1
	COLONIAL WATERBIRD FORAGING HABITAT	1
13925		
	OSPREY	1
	LEAST TERN FORAGING HABITAT	2
	TERN SPECIES FORAGING HABITAT	2
	MIGRATORY RAPTOR CONCENTRATION SITE	1
	COLONIAL WATERBIRD FORAGING HABITAT	1
	BLACK-CROWNED NIGHT-HERON FORAGING HABITAT	1
	BLACK SKIMMER FORAGING AREA	2
	EMERGENT SUITABLE	1
13926		
	COPE'S GRAY TREEFROG	1
	EMERGENT SUITABLE	1
	MIGRATORY RAPTOR CONCENTRATION SITE	1
13927		
	LEAST TERN FORAGING HABITAT	1
	MIGRATORY RAPTOR CONCENTRATION SITE	1
	EMERGENT SUITABLE	1
	COPE'S GRAY TREEFROG	3
	COLONIAL WATERBIRD FORAGING HABITAT	1
	BLACK-CROWNED NIGHT-HERON FORAGING HABITAT	1
	TERN SPECIES FORAGING HABITAT	2
13928		

LINK	COMNAME	COUNT
	TERN SPECIES FORAGING HABITAT	1
	BLACK SKIMMER FORAGING AREA	1
	BLACK-CROWNED NIGHT-HERON FORAGING HABITAT	1
	COLONIAL WATERBIRD FORAGING HABITAT	1
	EMERGENT SUITABLE	1
	LEAST TERN FORAGING HABITAT	1
	MIGRATORY RAPTOR CONCENTRATION SITE	1
13929		
	TERN SPECIES FORAGING HABITAT	1
	MIGRATORY RAPTOR CONCENTRATION SITE	1
	LEAST TERN	1
	LEAST TERN FORAGING HABITAT	1
	COLONIAL WATERBIRD FORAGING HABITAT	1
	BLACK-CROWNED NIGHT-HERON FORAGING HABITAT	1
	BLACK SKIMMER	1
	BLACK SKIMMER FORAGING AREA	1
	EMERGENT SUITABLE	1
13930		
	BLACK SKIMMER FORAGING AREA	1
	BLACK-CROWNED NIGHT-HERON FORAGING HABITAT	1
	COLONIAL WATERBIRD FORAGING HABITAT	1
	EMERGENT SUITABLE	1
	LEAST TERN FORAGING HABITAT	1
	MIGRATORY RAPTOR CONCENTRATION SITE	1
	TERN SPECIES FORAGING HABITAT	1

LINK	COMNAME	COUNT
13931	MIGRATORY RAPTOR CONCENTRATION SITE	1
	TERN SPECIES FORAGING HABITAT	1
	LEAST TERN FORAGING HABITAT	1
	COLONIAL WATERBIRD FORAGING HABITAT	1
	BLACK-CROWNED NIGHT-HERON FORAGING HABITAT	1
	BLACK SKIMMER FORAGING AREA	2
	EMERGENT SUITABLE	1
13932	TERN SPECIES FORAGING HABITAT	1
	BLACK-CROWNED NIGHT-HERON FORAGING HABITAT	1
	COLONIAL WATERBIRD FORAGING HABITAT	1
	EMERGENT SUITABLE	1
	LEAST TERN FORAGING HABITAT	1
	MIGRATORY RAPTOR CONCENTRATION SITE	1
	BLACK SKIMMER FORAGING AREA	1
13933	TERN SPECIES FORAGING HABITAT	5
	MIGRATORY RAPTOR CONCENTRATION SITE	1
	LEAST TERN FORAGING HABITAT	5
	EMERGENT SUITABLE	1
	COLONIAL WATERBIRD FORAGING HABITAT	1
	BLACK SKIMMER FORAGING AREA	5
	BLACK-CROWNED NIGHT-HERON FORAGING HABITAT	1
13934		

LINK	COMNAME	COUNT
	EMERGENT SUITABLE	1
	MIGRATORY RAPTOR CONCENTRATION SITE	1
13935	EMERGENT SUITABLE	1
	HERPTILE PRIORITY SPECIES	2
	COLONIAL WATERBIRD FORAGING HABITAT	1
	BLACK-CROWNED NIGHT-HERON FORAGING HABITAT	1
	MIGRATORY RAPTOR CONCENTRATION SITE	1
	COPE'S GRAY TREEFROG	2
13936	EMERGENT SUITABLE	1
	TERN SPECIES FORAGING HABITAT	2
	LEAST TERN FORAGING HABITAT	2
	COLONIAL WATERBIRD FORAGING HABITAT	1
	BLACK-CROWNED NIGHT-HERON FORAGING HABITAT	1
	BLACK SKIMMER FORAGING AREA	3
	MIGRATORY RAPTOR CONCENTRATION SITE	1
13937	BIRD PRIORITY SPECIES	1
	HERPTILE PRIORITY SPECIES	2
	MIGRATORY RAPTOR CONCENTRATION SITE	1
	LEAST TERN FORAGING HABITAT	3
	LEAST TERN	1
	EMERGENT SUITABLE	1
	COPE'S GRAY TREEFROG	3

LINK	COMNAME	COUNT
	BLACK-CROWNED NIGHT-HERON FORAGING HABITAT	1
	TERN SPECIES FORAGING HABITAT	4
	COLONIAL WATERBIRD FORAGING HABITAT	1
13938		
	LEAST TERN FORAGING HABITAT	1
	MIGRATORY RAPTOR CONCENTRATION SITE	1
	TERN SPECIES FORAGING HABITAT	1
	COLONIAL WATERBIRD FORAGING HABITAT	1
	BLACK SKIMMER FORAGING AREA	1
	BLACK-CROWNED NIGHT-HERON FORAGING HABITAT	1
	EMERGENT SUITABLE	1
13939		
	COPE'S GRAY TREEFROG	5
	EMERGENT SUITABLE	1
	MIGRATORY RAPTOR CONCENTRATION SITE	1
13940		
	COLONIAL WATERBIRD FORAGING HABITAT	1
	MIGRATORY RAPTOR CONCENTRATION SITE	1
	COPE'S GRAY TREEFROG	5
	BLACK-CROWNED NIGHT-HERON FORAGING HABITAT	1
	EMERGENT SUITABLE	1
13941		
	EMERGENT SUITABLE	1
	MIGRATORY RAPTOR CONCENTRATION SITE	1
13942		

LINK	COMNAME	COUNT
	EMERGENT SUITABLE	1
	MIGRATORY RAPTOR CONCENTRATION SITE	1
	TERN SPECIES FORAGING HABITAT	1
	HERPTILE PRIORITY SPECIES	2
	COLONIAL WATERBIRD FORAGING HABITAT	1
	BLACK-CROWNED NIGHT-HERON FORAGING HABITAT	1
	LEAST TERN FORAGING HABITAT	1
	COPE'S GRAY TREEFROG	28
13943		
	TERN SPECIES FORAGING HABITAT	2
	BLACK-CROWNED NIGHT-HERON FORAGING HABITAT	1
	COLONIAL WATERBIRD FORAGING HABITAT	1
	COPE'S GRAY TREEFROG	31
	EMERGENT SUITABLE	1
	HERPTILE PRIORITY SPECIES	2
	LEAST TERN FORAGING HABITAT	1
	MIGRATORY RAPTOR CONCENTRATION SITE	1
13944		
	TERN SPECIES FORAGING HABITAT	1
	MIGRATORY RAPTOR CONCENTRATION SITE	1
	LEAST TERN FORAGING HABITAT	1
	EMERGENT SUITABLE	1
	COLONIAL WATERBIRD FORAGING HABITAT	1
	BLACK SKIMMER FORAGING AREA	1
	BLACK-CROWNED NIGHT-HERON FORAGING HABITAT	1

LINK	COMNAME	COUNT
13945	HERPTILE PRIORITY SPECIES	2
	COLONIAL WATERBIRD FORAGING HABITAT	1
	TERN SPECIES FORAGING HABITAT	2
	MIGRATORY RAPTOR CONCENTRATION SITE	1
	LEAST TERN FORAGING HABITAT	3
	COPE'S GRAY TREEFROG	48
	BIRD PRIORITY SPECIES	1
	BLACK-CROWNED NIGHT-HERON FORAGING HABITAT	1
	EMERGENT SUITABLE	1
13946	MIGRATORY RAPTOR CONCENTRATION SITE	1
	TERN SPECIES FORAGING HABITAT	1
	LEAST TERN FORAGING HABITAT	1
	EMERGENT SUITABLE	1
	COPE'S GRAY TREEFROG	4
	COLONIAL WATERBIRD FORAGING HABITAT	1
	BLACK-CROWNED NIGHT-HERON FORAGING HABITAT	1
13947	EMERGENT SUITABLE	1
	LEAST TERN FORAGING HABITAT	1
	MIGRATORY RAPTOR CONCENTRATION SITE	1
	TERN SPECIES FORAGING HABITAT	1
	BLACK SKIMMER FORAGING AREA	1
13948		

LINK	COMNAME	COUNT
	LEAST TERN FORAGING HABITAT	1
	COPE'S GRAY TREEFROG	19
	TERN SPECIES FORAGING HABITAT	1
	MIGRATORY RAPTOR CONCENTRATION SITE	1
	EMERGENT SUITABLE	1
	BLACK-CROWNED NIGHT-HERON FORAGING HABITAT	1
	COLONIAL WATERBIRD FORAGING HABITAT	1
	HERPTILE PRIORITY SPECIES	2
13949		
	LEAST TERN FORAGING HABITAT	1
	MIGRATORY RAPTOR CONCENTRATION SITE	1
	HERPTILE PRIORITY SPECIES	2
	EMERGENT SUITABLE	1
	COPE'S GRAY TREEFROG	10
	COLONIAL WATERBIRD FORAGING HABITAT	1
	BLACK-CROWNED NIGHT-HERON FORAGING HABITAT	1
	TERN SPECIES FORAGING HABITAT	1
13950		
	BLACK-CROWNED NIGHT-HERON FORAGING HABITAT	1
	COLONIAL WATERBIRD FORAGING HABITAT	1
	COPE'S GRAY TREEFROG	8
	EMERGENT SUITABLE	1
	HERPTILE PRIORITY SPECIES	2
	LEAST TERN FORAGING HABITAT	1
	MIGRATORY RAPTOR CONCENTRATION SITE	1

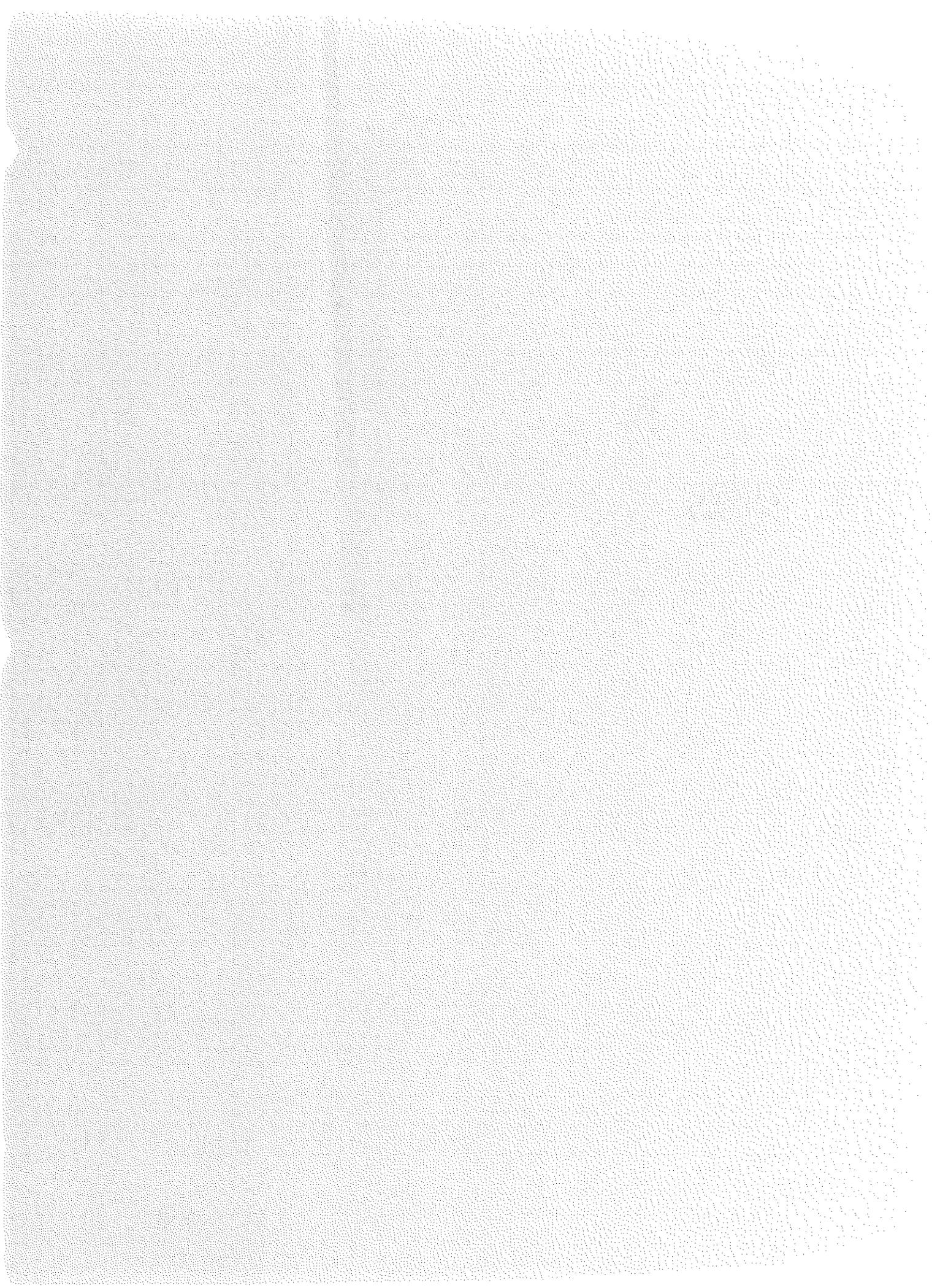
LINK	COMNAME	COUNT
	TERN SPECIES FORAGING HABITAT	1
13951	COPE'S GRAY TREEFROG	3
	EMERGENT SUITABLE	1
	MIGRATORY RAPTOR CONCENTRATION SITE	1
13952	TERN SPECIES FORAGING HABITAT	1
	BLACK-CROWNED NIGHT-HERON FORAGING HABITAT	1
	COLONIAL WATERBIRD FORAGING HABITAT	1
	COPE'S GRAY TREEFROG	5
	EMERGENT SUITABLE	1
	HERPTILE PRIORITY SPECIES	2
	LEAST TERN FORAGING HABITAT	1
	MIGRATORY RAPTOR CONCENTRATION SITE	1
13953	TERN SPECIES FORAGING HABITAT	1
	MIGRATORY RAPTOR CONCENTRATION SITE	1
	LEAST TERN FORAGING HABITAT	1
	HERPTILE PRIORITY SPECIES	2
	EMERGENT SUITABLE	1
	COPE'S GRAY TREEFROG	5
	BLACK-CROWNED NIGHT-HERON FORAGING HABITAT	1
	COLONIAL WATERBIRD FORAGING HABITAT	1
13954	LEAST TERN FORAGING HABITAT	1

LINK	COMNAME	COUNT
	MIGRATORY RAPTOR CONCENTRATION SITE	1
	TERN SPECIES FORAGING HABITAT	1
	COPE'S GRAY TREEFROG	2
	HERPTILE PRIORITY SPECIES	2
	EMERGENT SUITABLE	1
13955		
	TERN SPECIES FORAGING HABITAT	1
	COPE'S GRAY TREEFROG	4
	EMERGENT SUITABLE	1
	HERPTILE PRIORITY SPECIES	2
	LEAST TERN FORAGING HABITAT	1
	MIGRATORY RAPTOR CONCENTRATION SITE	1
13956		
	TERN SPECIES FORAGING HABITAT	1
	MIGRATORY RAPTOR CONCENTRATION SITE	1
	LEAST TERN FORAGING HABITAT	1
	HERPTILE PRIORITY SPECIES	2
	COPE'S GRAY TREEFROG	4
	EMERGENT SUITABLE	1
13973		
	HERPTILE PRIORITY SPECIES	1
	LEAST TERN FORAGING HABITAT	2
	MIGRATORY RAPTOR CONCENTRATION SITE	1
	COPE'S GRAY TREEFROG	1
	TERN SPECIES FORAGING HABITAT	3

LINK	COMNAME	COUNT
	COLONIAL WATERBIRD FORAGING HABITAT	1
	BLACK-CROWNED NIGHT-HERON FORAGING HABITAT	1
	EMERGENT SUITABLE	1
14256	MIGRATORY RAPTOR CONCENTRATION SITE	1
	TERN SPECIES FORAGING HABITAT	2
	EMERGENT SUITABLE	1
	EASTERN TIGER SALAMANDER	1
	COPE'S GRAY TREEFROG	4
	COLONIAL WATERBIRD FORAGING HABITAT	2
	BLACK-CROWNED NIGHT-HERON FORAGING HABITAT	2
	BLACK SKIMMER FORAGING AREA	2
14257	EMERGENT SUITABLE	1
	MIGRATORY RAPTOR CONCENTRATION SITE	1
	COPE'S GRAY TREEFROG	2
14258	EMERGENT SUITABLE	1
	MIGRATORY RAPTOR CONCENTRATION SITE	1
14259	EMERGENT SUITABLE	1
	MIGRATORY RAPTOR CONCENTRATION SITE	1
14260	BLACK-CROWNED NIGHT-HERON FORAGING HABITAT	1
	MIGRATORY RAPTOR CONCENTRATION SITE	1

LINK	COMNAME	COUNT
	TERN SPECIES FORAGING HABITAT	3
	LEAST TERN FORAGING HABITAT	3
	COLONIAL WATERBIRD FORAGING HABITAT	1
	BLACK SKIMMER FORAGING AREA	3
	COPE'S GRAY TREEFROG	6
	EMERGENT SUITABLE	1
14261	EASTERN TIGER SALAMANDER	2
	TERN SPECIES FORAGING HABITAT	5
	MIGRATORY RAPTOR CONCENTRATION SITE	1
	LEAST TERN FORAGING HABITAT	5
	LEAST TERN	1
	EMERGENT SUITABLE	1
	COPE'S GRAY TREEFROG	31
	COLONIAL WATERBIRD FORAGING HABITAT	1
	BLACK-CROWNED NIGHT-HERON FORAGING HABITAT	1
	HERPTILE PRIORITY SPECIES	3
14262	HERPTILE PRIORITY SPECIES	2
	TERN SPECIES FORAGING HABITAT	1
	LEAST TERN FORAGING HABITAT	1
	COPE'S GRAY TREEFROG	3
	COLONIAL WATERBIRD FORAGING HABITAT	1
	BLACK-CROWNED NIGHT-HERON FORAGING HABITAT	1
	MIGRATORY RAPTOR CONCENTRATION SITE	1

LINK	COMNAME	COUNT
	EMERGENT SUITABLE	1
14362	HERPTILE PRIORITY SPECIES	2
	TERN SPECIES FORAGING HABITAT	1
	LEAST TERN FORAGING HABITAT	1
	EMERGENT SUITABLE	1
	COPE'S GRAY TREEFROG	7
	COLONIAL WATERBIRD FORAGING HABITAT	1
	BLACK-CROWNED NIGHT-HERON FORAGING HABITAT	1
	MIGRATORY RAPTOR CONCENTRATION SITE	1
14365	TERN SPECIES FORAGING HABITAT	1
	BLACK-CROWNED NIGHT-HERON FORAGING HABITAT	1
	COLONIAL WATERBIRD FORAGING HABITAT	1
	COPE'S GRAY TREEFROG	13
	EMERGENT SUITABLE	1
	HERPTILE PRIORITY SPECIES	2
	LEAST TERN FORAGING HABITAT	1
	MIGRATORY RAPTOR CONCENTRATION SITE	1



Forest patches on Project Site

LINK	COMNAME	COUNT
528	HERPTILE PRIORITY SPECIES	1
	MIGRATORY RAPTOR CONCENTRATION SITE	1
	COPE'S GRAY TREEFROG	1
529	COPE'S GRAY TREEFROG	1
	HERPTILE PRIORITY SPECIES	1
	MIGRATORY RAPTOR CONCENTRATION SITE	1
530	COPE'S GRAY TREEFROG	1
	HERPTILE PRIORITY SPECIES	1
	MIGRATORY RAPTOR CONCENTRATION SITE	1
32629	COPE'S GRAY TREEFROG	9
	RED-SHOULDERED HAWK	2
	MIGRATORY RAPTOR CONCENTRATION SITE	1
	HERPTILE PRIORITY SPECIES	3
	EASTERN TIGER SALAMANDER	1
	COOPER'S HAWK	1
	BIRD PRIORITY SPECIES	10
	BARRED OWL	3
	FOREST 10 HECTARES CORE	1
32664	COPE'S GRAY TREEFROG	1

LINK	COMNAME	COUNT
32681	MIGRATORY RAPTOR CONCENTRATION SITE	1
32692	MIGRATORY RAPTOR CONCENTRATION SITE	1
32694	MIGRATORY RAPTOR CONCENTRATION SITE	1
32695	COPE'S GRAY TREEFROG	1
	MIGRATORY RAPTOR CONCENTRATION SITE	1
32697	MIGRATORY RAPTOR CONCENTRATION SITE	1
32702	MIGRATORY RAPTOR CONCENTRATION SITE	1
	COPE'S GRAY TREEFROG	1
32703	MIGRATORY RAPTOR CONCENTRATION SITE	1
	COPE'S GRAY TREEFROG	1
32713	MIGRATORY RAPTOR CONCENTRATION SITE	1
32716	MIGRATORY RAPTOR CONCENTRATION SITE	1
32721	MIGRATORY RAPTOR CONCENTRATION SITE	1
32722	COPE'S GRAY TREEFROG	2
	MIGRATORY RAPTOR CONCENTRATION SITE	1
32723		

LINK	COMNAME	COUNT
	MIGRATORY RAPTOR CONCENTRATION SITE	1
32725	MIGRATORY RAPTOR CONCENTRATION SITE	1
32726	MIGRATORY RAPTOR CONCENTRATION SITE	1
32727	MIGRATORY RAPTOR CONCENTRATION SITE	1
32729	MIGRATORY RAPTOR CONCENTRATION SITE	1
32730	MIGRATORY RAPTOR CONCENTRATION SITE	1
32737	MIGRATORY RAPTOR CONCENTRATION SITE	1
32738	MIGRATORY RAPTOR CONCENTRATION SITE	1
32740	MIGRATORY RAPTOR CONCENTRATION SITE	1
32741	MIGRATORY RAPTOR CONCENTRATION SITE	1
32742	MIGRATORY RAPTOR CONCENTRATION SITE	1
32743	FOREST COASTAL	2
32744	MIGRATORY RAPTOR CONCENTRATION SITE	1
32745	MIGRATORY RAPTOR CONCENTRATION SITE	1
	MIGRATORY RAPTOR CONCENTRATION SITE	1

LINK	COMNAME	COUNT
32746	FOREST COASTAL	2
	MIGRATORY RAPTOR CONCENTRATION SITE	1
32748	COPE'S GRAY TREEFROG	1
	MIGRATORY RAPTOR CONCENTRATION SITE	1
32750	MIGRATORY RAPTOR CONCENTRATION SITE	1
32751	MIGRATORY RAPTOR CONCENTRATION SITE	1
32752	MIGRATORY RAPTOR CONCENTRATION SITE	1
32753	MIGRATORY RAPTOR CONCENTRATION SITE	1
32754	MIGRATORY RAPTOR CONCENTRATION SITE	1
32755	MIGRATORY RAPTOR CONCENTRATION SITE	1
32757	MIGRATORY RAPTOR CONCENTRATION SITE	1
32758	MIGRATORY RAPTOR CONCENTRATION SITE	1
32759	MIGRATORY RAPTOR CONCENTRATION SITE	1
32761	MIGRATORY RAPTOR CONCENTRATION SITE	1
32762		

LINK	COMNAME	COUNT
	COPE'S GRAY TREEFROG	1
	FOREST COASTAL	2
	MIGRATORY RAPTOR CONCENTRATION SITE	1
32763	COPE'S GRAY TREEFROG	4
	MIGRATORY RAPTOR CONCENTRATION SITE	1
	BIRD PRIORITY SPECIES	2
32765	MIGRATORY RAPTOR CONCENTRATION SITE	1
	FOREST COASTAL	2
32766	MIGRATORY RAPTOR CONCENTRATION SITE	1
32768	HERPTILE PRIORITY SPECIES	1
	MIGRATORY RAPTOR CONCENTRATION SITE	1
32769	MIGRATORY RAPTOR CONCENTRATION SITE	1
32770	HERPTILE PRIORITY SPECIES	1
	MIGRATORY RAPTOR CONCENTRATION SITE	1
32772	MIGRATORY RAPTOR CONCENTRATION SITE	1
32773	FOREST 10 HECTARES CORE	1
	EASTERN TIGER SALAMANDER	1
	HERPTILE PRIORITY SPECIES	1

LINK	COMNAME	COUNT
	BIRD PRIORITY SPECIES	2
	BARRED OWL	1
	MIGRATORY RAPTOR CONCENTRATION SITE	1
	COPE'S GRAY TREEFROG	11
32775	MIGRATORY RAPTOR CONCENTRATION SITE	1
32777	MIGRATORY RAPTOR CONCENTRATION SITE	1
32778	MIGRATORY RAPTOR CONCENTRATION SITE	1
32779	HERPTILE PRIORITY SPECIES	1
	MIGRATORY RAPTOR CONCENTRATION SITE	1
32781	MIGRATORY RAPTOR CONCENTRATION SITE	1
32783	HERPTILE PRIORITY SPECIES	1
	MIGRATORY RAPTOR CONCENTRATION SITE	1
32784	MIGRATORY RAPTOR CONCENTRATION SITE	1
32786	MIGRATORY RAPTOR CONCENTRATION SITE	1
32787	FOREST COASTAL	2
	MIGRATORY RAPTOR CONCENTRATION SITE	1
32788	MIGRATORY RAPTOR CONCENTRATION SITE	1

LINK	COMNAME	COUNT
	HERPTILE PRIORITY SPECIES	1
32790	HERPTILE PRIORITY SPECIES	1
	MIGRATORY RAPTOR CONCENTRATION SITE	1
32791	MIGRATORY RAPTOR CONCENTRATION SITE	1
32792	FOREST COASTAL	2
	MIGRATORY RAPTOR CONCENTRATION SITE	1
32793	BIRD PRIORITY SPECIES	2
	COPE'S GRAY TREEFROG	1
	MIGRATORY RAPTOR CONCENTRATION SITE	1
32794	HERPTILE PRIORITY SPECIES	1
	MIGRATORY RAPTOR CONCENTRATION SITE	1
32795	MIGRATORY RAPTOR CONCENTRATION SITE	1
32796	FOREST COASTAL	2
	MIGRATORY RAPTOR CONCENTRATION SITE	1
32797	FOREST COASTAL	2
	MIGRATORY RAPTOR CONCENTRATION SITE	1
32798	HERPTILE PRIORITY SPECIES	1

LINK	COMNAME	COUNT
	MIGRATORY RAPTOR CONCENTRATION SITE	1
32799	MIGRATORY RAPTOR CONCENTRATION SITE	1
32800	HERPTILE PRIORITY SPECIES	1
	MIGRATORY RAPTOR CONCENTRATION SITE	1
32801	HERPTILE PRIORITY SPECIES	1
	MIGRATORY RAPTOR CONCENTRATION SITE	1
32802	MIGRATORY RAPTOR CONCENTRATION SITE	1
32803	MIGRATORY RAPTOR CONCENTRATION SITE	1
	COPE'S GRAY TREEFROG	3
32804	FOREST COASTAL	2
	MIGRATORY RAPTOR CONCENTRATION SITE	1
32805	HERPTILE PRIORITY SPECIES	1
	MIGRATORY RAPTOR CONCENTRATION SITE	1
32806	HERPTILE PRIORITY SPECIES	1
	MIGRATORY RAPTOR CONCENTRATION SITE	1
32807	FOREST COASTAL	2
	MIGRATORY RAPTOR CONCENTRATION SITE	1
32808		

LINK	COMNAME	COUNT
	COPE'S GRAY TREEFROG	1
32809	HERPTILE PRIORITY SPECIES	1
	MIGRATORY RAPTOR CONCENTRATION SITE	1
32810	COPE'S GRAY TREEFROG	1
	MIGRATORY RAPTOR CONCENTRATION SITE	1
32811	HERPTILE PRIORITY SPECIES	1
	MIGRATORY RAPTOR CONCENTRATION SITE	1
32812	BIRD PRIORITY SPECIES	1
	MIGRATORY RAPTOR CONCENTRATION SITE	1
32813	COPE'S GRAY TREEFROG	3
	MIGRATORY RAPTOR CONCENTRATION SITE	1
32814	FOREST COASTAL	2
	MIGRATORY RAPTOR CONCENTRATION SITE	1
32815	FOREST COASTAL	2
	MIGRATORY RAPTOR CONCENTRATION SITE	1
32816	MIGRATORY RAPTOR CONCENTRATION SITE	1
	YELLOW-CROWNED NIGHT-HERON NESTING HABITAT	1
	COLONIAL WATERBIRD NESTING HABITAT	1

LINK	COMNAME	COUNT
	BLACK-CROWNED NIGHT-HERON NESTING HABITAT	1
	FOREST COASTAL	2
32817	COOPER'S HAWK	1
	HERPTILE PRIORITY SPECIES	1
	MIGRATORY RAPTOR CONCENTRATION SITE	1
32818	MIGRATORY RAPTOR CONCENTRATION SITE	1
	HERPTILE PRIORITY SPECIES	1
32819	FOREST COASTAL	2
	MIGRATORY RAPTOR CONCENTRATION SITE	1
32820	BIRD PRIORITY SPECIES	1
	COOPER'S HAWK	1
	HERPTILE PRIORITY SPECIES	1
	MIGRATORY RAPTOR CONCENTRATION SITE	1
32821	FOREST COASTAL	2
	MIGRATORY RAPTOR CONCENTRATION SITE	1
	BLACK-CROWNED NIGHT-HERON NESTING HABITAT	1
	COLONIAL WATERBIRD NESTING HABITAT	1
	YELLOW-CROWNED NIGHT-HERON NESTING HABITAT	1
32822	HERPTILE PRIORITY SPECIES	1
	MIGRATORY RAPTOR CONCENTRATION SITE	1

LINK	COMNAME	COUNT
32823	BLACK-CROWNED NIGHT-HERON NESTING HABITAT	1
	COLONIAL WATERBIRD NESTING HABITAT	1
	FOREST COASTAL	2
	MIGRATORY RAPTOR CONCENTRATION SITE	1
	YELLOW-CROWNED NIGHT-HERON NESTING HABITAT	1
32824	FOREST COASTAL	2
	MIGRATORY RAPTOR CONCENTRATION SITE	1
32825	FOREST COASTAL	2
32826	MIGRATORY RAPTOR CONCENTRATION SITE	1
32827	FOREST COASTAL	2
	MIGRATORY RAPTOR CONCENTRATION SITE	1
32828	MIGRATORY RAPTOR CONCENTRATION SITE	1
32829	FOREST COASTAL	2
	MIGRATORY RAPTOR CONCENTRATION SITE	1
32830	MIGRATORY RAPTOR CONCENTRATION SITE	1
32831	MIGRATORY RAPTOR CONCENTRATION SITE	1
32832	MIGRATORY RAPTOR CONCENTRATION SITE	1

LINK	COMNAME	COUNT
32833	COPE'S GRAY TREEFROG	1
	EASTERN TIGER SALAMANDER	3
	HERPTILE PRIORITY SPECIES	1
	MIGRATORY RAPTOR CONCENTRATION SITE	1
32834	MIGRATORY RAPTOR CONCENTRATION SITE	1
32835	MIGRATORY RAPTOR CONCENTRATION SITE	1
32836	MIGRATORY RAPTOR CONCENTRATION SITE	1
	COPE'S GRAY TREEFROG	3
	EASTERN TIGER SALAMANDER	1
32837	COPE'S GRAY TREEFROG	1
	MIGRATORY RAPTOR CONCENTRATION SITE	1
32838	MIGRATORY RAPTOR CONCENTRATION SITE	1
32839	COPE'S GRAY TREEFROG	1
	MIGRATORY RAPTOR CONCENTRATION SITE	1
32840	COPE'S GRAY TREEFROG	1
	HERPTILE PRIORITY SPECIES	1
	MIGRATORY RAPTOR CONCENTRATION SITE	1
32841		

LINK	COMNAME	COUNT
	HERPTILE PRIORITY SPECIES	1
	COPE'S GRAY TREEFROG	1
	EASTERN TIGER SALAMANDER	4
32842	RED-HEADED WOODPECKER	1
	MIGRATORY RAPTOR CONCENTRATION SITE	1
	HERPTILE PRIORITY SPECIES	1
	COPE'S GRAY TREEFROG	12
	EASTERN TIGER SALAMANDER	4
32843	MIGRATORY RAPTOR CONCENTRATION SITE	1
32844	COPE'S GRAY TREEFROG	1
	MIGRATORY RAPTOR CONCENTRATION SITE	1
32845	EASTERN TIGER SALAMANDER	1
	HERPTILE PRIORITY SPECIES	1
	MIGRATORY RAPTOR CONCENTRATION SITE	1
32846	MIGRATORY RAPTOR CONCENTRATION SITE	1
32847	HERPTILE PRIORITY SPECIES	1
	MIGRATORY RAPTOR CONCENTRATION SITE	1
	COPE'S GRAY TREEFROG	8
32848	MIGRATORY RAPTOR CONCENTRATION SITE	1

LINK	COMNAME	COUNT
32849	MIGRATORY RAPTOR CONCENTRATION SITE	1
32850	MIGRATORY RAPTOR CONCENTRATION SITE	1
32851	COPE'S GRAY TREEFROG	1
	MIGRATORY RAPTOR CONCENTRATION SITE	1
32852	MIGRATORY RAPTOR CONCENTRATION SITE	1
32853	MIGRATORY RAPTOR CONCENTRATION SITE	1
32854	FOREST COASTAL	2
	MIGRATORY RAPTOR CONCENTRATION SITE	1
32855	MIGRATORY RAPTOR CONCENTRATION SITE	1
32856	MIGRATORY RAPTOR CONCENTRATION SITE	1
32857	MIGRATORY RAPTOR CONCENTRATION SITE	1
	HERPTILE PRIORITY SPECIES	1
32858	MIGRATORY RAPTOR CONCENTRATION SITE	1
32859	COPE'S GRAY TREEFROG	12
	EASTERN TIGER SALAMANDER	2
	HERPTILE PRIORITY SPECIES	2

LINK	COMNAME	COUNT
	MIGRATORY RAPTOR CONCENTRATION SITE	1
	BIRD PRIORITY SPECIES	1
32860	COPE'S GRAY TREEFROG	1
	MIGRATORY RAPTOR CONCENTRATION SITE	1
32861	MIGRATORY RAPTOR CONCENTRATION SITE	1
	HERPTILE PRIORITY SPECIES	1
	MIGRATORY RAPTOR CONCENTRATION SITE	1
32863	COPE'S GRAY TREEFROG	1
	MIGRATORY RAPTOR CONCENTRATION SITE	1
32864	FOREST COASTAL	2
	MIGRATORY RAPTOR CONCENTRATION SITE	1
32865	COPE'S GRAY TREEFROG	1
	MIGRATORY RAPTOR CONCENTRATION SITE	1
32866	COPE'S GRAY TREEFROG	1
	MIGRATORY RAPTOR CONCENTRATION SITE	1
32867	MIGRATORY RAPTOR CONCENTRATION SITE	1
	MIGRATORY RAPTOR CONCENTRATION SITE	1
32868	MIGRATORY RAPTOR CONCENTRATION SITE	1
32869	MIGRATORY RAPTOR CONCENTRATION SITE	1

LINK	COMNAME	COUNT
	FOREST COASTAL	2
	MIGRATORY RAPTOR CONCENTRATION SITE	1
32870		
	BIRD PRIORITY SPECIES	1
	MIGRATORY RAPTOR CONCENTRATION SITE	1
32871		
	COPE'S GRAY TREEFROG	4
	HERPTILE PRIORITY SPECIES	1
32872		
	MIGRATORY RAPTOR CONCENTRATION SITE	1
32873		
	COPE'S GRAY TREEFROG	1
	MIGRATORY RAPTOR CONCENTRATION SITE	1
32874		
	COPE'S GRAY TREEFROG	2
	HERPTILE PRIORITY SPECIES	1
	MIGRATORY RAPTOR CONCENTRATION SITE	1
32876		
	MIGRATORY RAPTOR CONCENTRATION SITE	1
32877		
	COPE'S GRAY TREEFROG	1
	MIGRATORY RAPTOR CONCENTRATION SITE	1
32878		
	MIGRATORY RAPTOR CONCENTRATION SITE	1
32879		
	FOREST COASTAL	2

LINK	COMNAME	COUNT
	MIGRATORY RAPTOR CONCENTRATION SITE	1
32880	MIGRATORY RAPTOR CONCENTRATION SITE	1
	COPE'S GRAY TREEFROG	2
32881	MIGRATORY RAPTOR CONCENTRATION SITE	1
	HERPTILE PRIORITY SPECIES	2
	COPE'S GRAY TREEFROG	1
32882	FOREST COASTAL	2
	MIGRATORY RAPTOR CONCENTRATION SITE	1
32883	FOREST COASTAL	2
	MIGRATORY RAPTOR CONCENTRATION SITE	1
32884	FOREST COASTAL	2
	MIGRATORY RAPTOR CONCENTRATION SITE	1
32885	BLACK-CROWNED NIGHT-HERON NESTING HABITAT	1
	COLONIAL WATERBIRD NESTING HABITAT	1
	FOREST COASTAL	2
	MIGRATORY RAPTOR CONCENTRATION SITE	1
32886	MIGRATORY RAPTOR CONCENTRATION SITE	1
32887	COPE'S GRAY TREEFROG	2

LINK	COMNAME	COUNT
	HERPTILE PRIORITY SPECIES	1
32888	COPE'S GRAY TREEFROG	2
	MIGRATORY RAPTOR CONCENTRATION SITE	1
32889	FOREST COASTAL	2
	MIGRATORY RAPTOR CONCENTRATION SITE	1
32890	FOREST COASTAL	2
	MIGRATORY RAPTOR CONCENTRATION SITE	1
32891	FOREST COASTAL	2
	MIGRATORY RAPTOR CONCENTRATION SITE	1
32892	COPE'S GRAY TREEFROG	1
	MIGRATORY RAPTOR CONCENTRATION SITE	1
32893	MIGRATORY RAPTOR CONCENTRATION SITE	1
	COPE'S GRAY TREEFROG	1
32894	MIGRATORY RAPTOR CONCENTRATION SITE	1
	FOREST COASTAL	2
32895	FOREST COASTAL	2
	MIGRATORY RAPTOR CONCENTRATION SITE	1
32896		

LINK	COMNAME	COUNT
	FOREST COASTAL	2
	MIGRATORY RAPTOR CONCENTRATION SITE	1
32897		
	FOREST COASTAL	2
	MIGRATORY RAPTOR CONCENTRATION SITE	1
32898		
	MIGRATORY RAPTOR CONCENTRATION SITE	1
32899		
	MIGRATORY RAPTOR CONCENTRATION SITE	1
32901		
	FOREST COASTAL	2
	MIGRATORY RAPTOR CONCENTRATION SITE	1
32902		
	FOREST COASTAL	2
	MIGRATORY RAPTOR CONCENTRATION SITE	1
32904		
	MIGRATORY RAPTOR CONCENTRATION SITE	1
32905		
	MIGRATORY RAPTOR CONCENTRATION SITE	1
32906		
	COPE'S GRAY TREEFROG	1
	HERPTILE PRIORITY SPECIES	1
	MIGRATORY RAPTOR CONCENTRATION SITE	1
32907		
	MIGRATORY RAPTOR CONCENTRATION SITE	1
32908		
	HERPTILE PRIORITY SPECIES	1

LINK	COMNAME	COUNT
	MIGRATORY RAPTOR CONCENTRATION SITE	1
32909		
	MIGRATORY RAPTOR CONCENTRATION SITE	1
32910		
	COPE'S GRAY TREEFROG	2
	HERPTILE PRIORITY SPECIES	1
	MIGRATORY RAPTOR CONCENTRATION SITE	1
32911		
	COPE'S GRAY TREEFROG	1
	MIGRATORY RAPTOR CONCENTRATION SITE	1
	HERPTILE PRIORITY SPECIES	1
32912		
	COPE'S GRAY TREEFROG	1
	HERPTILE PRIORITY SPECIES	1
	MIGRATORY RAPTOR CONCENTRATION SITE	1
32913		
	HERPTILE PRIORITY SPECIES	1
	MIGRATORY RAPTOR CONCENTRATION SITE	1
32914		
	BIRD PRIORITY SPECIES	1
	COPE'S GRAY TREEFROG	46
	HERPTILE PRIORITY SPECIES	1
	MIGRATORY RAPTOR CONCENTRATION SITE	1
32915		
	FOREST COASTAL	2
	MIGRATORY RAPTOR CONCENTRATION SITE	1

LINK	COMNAME	COUNT
32916	COPE'S GRAY TREEFROG	3
	HERPTILE PRIORITY SPECIES	1
	MIGRATORY RAPTOR CONCENTRATION SITE	1
32917	FOREST COASTAL	2
	MIGRATORY RAPTOR CONCENTRATION SITE	1
32918	FOREST COASTAL	2
	MIGRATORY RAPTOR CONCENTRATION SITE	1
32919	MIGRATORY RAPTOR CONCENTRATION SITE	1
32920	MIGRATORY RAPTOR CONCENTRATION SITE	1
32921	MIGRATORY RAPTOR CONCENTRATION SITE	1
32922	MIGRATORY RAPTOR CONCENTRATION SITE	1
32923	HERPTILE PRIORITY SPECIES	1
	MIGRATORY RAPTOR CONCENTRATION SITE	1
32924	BIRD PRIORITY SPECIES	1
	MIGRATORY RAPTOR CONCENTRATION SITE	1
	HERPTILE PRIORITY SPECIES	1
	COPE'S GRAY TREEFROG	2
32925		

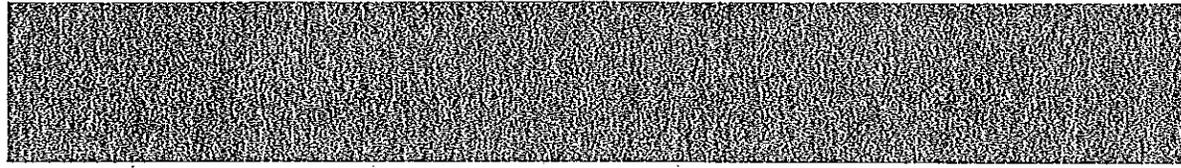
LINK	COMNAME	COUNT
	MIGRATORY RAPTOR CONCENTRATION SITE	1
32926	BIRD PRIORITY SPECIES	1
	COPE'S GRAY TREEFROG	38
	HERPTILE PRIORITY SPECIES	1
	MIGRATORY RAPTOR CONCENTRATION SITE	1
32927	COPE'S GRAY TREEFROG	18
	MIGRATORY RAPTOR CONCENTRATION SITE	1
32928	MIGRATORY RAPTOR CONCENTRATION SITE	1
32929	MIGRATORY RAPTOR CONCENTRATION SITE	1
32930	MIGRATORY RAPTOR CONCENTRATION SITE	1
32932	MIGRATORY RAPTOR CONCENTRATION SITE	1
	COPE'S GRAY TREEFROG	6
	MIGRATORY RAPTOR CONCENTRATION SITE	1
32933	MIGRATORY RAPTOR CONCENTRATION SITE	1
32934	COPE'S GRAY TREEFROG	5
	MIGRATORY RAPTOR CONCENTRATION SITE	1
32935	MIGRATORY RAPTOR CONCENTRATION SITE	1
32936	HERPTILE PRIORITY SPECIES	1

LINK	COMNAME	COUNT
	MIGRATORY RAPTOR CONCENTRATION SITE	1
32937	FOREST COASTAL	2
	MIGRATORY RAPTOR CONCENTRATION SITE	1
32939	BIRD PRIORITY SPECIES	1
	COPE'S GRAY TREEFROG	19
	HERPTILE PRIORITY SPECIES	1
	MIGRATORY RAPTOR CONCENTRATION SITE	1
32940	COPE'S GRAY TREEFROG	2
	MIGRATORY RAPTOR CONCENTRATION SITE	1
	HERPTILE PRIORITY SPECIES	1
32941	MIGRATORY RAPTOR CONCENTRATION SITE	1
32942	COPE'S GRAY TREEFROG	50
	HERPTILE PRIORITY SPECIES	1
	MIGRATORY RAPTOR CONCENTRATION SITE	1
32943	COPE'S GRAY TREEFROG	12
	HERPTILE PRIORITY SPECIES	1
	MIGRATORY RAPTOR CONCENTRATION SITE	1
32944	COPE'S GRAY TREEFROG	12
	HERPTILE PRIORITY SPECIES	1

LINK	COMNAME	COUNT
	MIGRATORY RAPTOR CONCENTRATION SITE	1
32945		
	COPE'S GRAY TREEFROG	5
	MIGRATORY RAPTOR CONCENTRATION SITE	1
32946		
	HERPTILE PRIORITY SPECIES	1
	MIGRATORY RAPTOR CONCENTRATION SITE	1
	COPE'S GRAY TREEFROG	2
32947		
	COPE'S GRAY TREEFROG	9
	HERPTILE PRIORITY SPECIES	1
	MIGRATORY RAPTOR CONCENTRATION SITE	1
32948		
	COPE'S GRAY TREEFROG	23
	HERPTILE PRIORITY SPECIES	1
	MIGRATORY RAPTOR CONCENTRATION SITE	1
32949		
	MIGRATORY RAPTOR CONCENTRATION SITE	1
32950		
	HERPTILE PRIORITY SPECIES	1
	MIGRATORY RAPTOR CONCENTRATION SITE	1
32951		
	COPE'S GRAY TREEFROG	17
	HERPTILE PRIORITY SPECIES	1
	MIGRATORY RAPTOR CONCENTRATION SITE	1
32952		

LINK	COMNAME	COUNT
	COPE'S GRAY TREEFROG	4
	MIGRATORY RAPTOR CONCENTRATION SITE	1
32953	COPE'S GRAY TREEFROG	11
	HERPTILE PRIORITY SPECIES	1
	MIGRATORY RAPTOR CONCENTRATION SITE	1
32954	COPE'S GRAY TREEFROG	3
	MIGRATORY RAPTOR CONCENTRATION SITE	1
32955	COPE'S GRAY TREEFROG	3
	MIGRATORY RAPTOR CONCENTRATION SITE	1
32956	MIGRATORY RAPTOR CONCENTRATION SITE	1
	COPE'S GRAY TREEFROG	24
	HERPTILE PRIORITY SPECIES	1
32957	MIGRATORY RAPTOR CONCENTRATION SITE	1
	COPE'S GRAY TREEFROG	2
	HERPTILE PRIORITY SPECIES	1
32958	COPE'S GRAY TREEFROG	3
	MIGRATORY RAPTOR CONCENTRATION SITE	1
32959	COPE'S GRAY TREEFROG	6
	HERPTILE PRIORITY SPECIES	1

LINK	COMNAME	COUNT
	MIGRATORY RAPTOR CONCENTRATION SITE	1
32960		
	COPE'S GRAY TREEFROG	10
	HERPTILE PRIORITY SPECIES	1
	MIGRATORY RAPTOR CONCENTRATION SITE	1
32961		
	MIGRATORY RAPTOR CONCENTRATION SITE	1
	COPE'S GRAY TREEFROG	7
	HERPTILE PRIORITY SPECIES	1



LINK	COMNAME	COUNT
243	MIGRATORY RAPTOR CONCENTRATION SITE	1
	LOWER 10K	1
244	LOWER 10K	1
245	LOWER 10K	1
	MIGRATORY RAPTOR CONCENTRATION SITE	1
2689	LOWER 10K	1
	MIGRATORY RAPTOR CONCENTRATION SITE	1
2690	LOWER 10K	1
	MIGRATORY RAPTOR CONCENTRATION SITE	1
2691	LOWER 10K	1
	MIGRATORY RAPTOR CONCENTRATION SITE	1
2692	MIGRATORY RAPTOR CONCENTRATION SITE	1
	LOWER 10K	1
2693	LOWER 10K	1
	MIGRATORY RAPTOR CONCENTRATION SITE	1
2694	LOWER 10K	1
	MIGRATORY RAPTOR CONCENTRATION SITE	1

LINK	COMNAME	COUNT
2695	LOWER 10K	1
	MIGRATORY RAPTOR CONCENTRATION SITE	1
2696	LOWER 10K	1
	MIGRATORY RAPTOR CONCENTRATION SITE	1
2697	LOWER 10K	1
	MIGRATORY RAPTOR CONCENTRATION SITE	1
2698	LOWER 10K	1
	MIGRATORY RAPTOR CONCENTRATION SITE	1
2699	LOWER 10K	1
	MIGRATORY RAPTOR CONCENTRATION SITE	1
2700	LOWER 10K	1
	MIGRATORY RAPTOR CONCENTRATION SITE	1
2701	LOWER 10K	1
	MIGRATORY RAPTOR CONCENTRATION SITE	1
2702	MIGRATORY RAPTOR CONCENTRATION SITE	1
	LOWER 10K	1
2703	LOWER 10K	1
	MIGRATORY RAPTOR CONCENTRATION SITE	1
2704	HERPTILE PRIORITY SPECIES	1

LINK	COMNAME	COUNT
	LOWER 10K	1
	MIGRATORY RAPTOR CONCENTRATION SITE	1
2705		
	MIGRATORY RAPTOR CONCENTRATION SITE	1
	LOWER 10K	1
2706		
	MIGRATORY RAPTOR CONCENTRATION SITE	1
	LOWER 10K	1
2707		
	LOWER 10K	1
	MIGRATORY RAPTOR CONCENTRATION SITE	1
2708		
	LOWER 10K	1
	MIGRATORY RAPTOR CONCENTRATION SITE	1
2709		
	LOWER 10K	1
	MIGRATORY RAPTOR CONCENTRATION SITE	1
2710		
	MIGRATORY RAPTOR CONCENTRATION SITE	1
	LOWER 10K	1
2711		
	LOWER 10K	1
	MIGRATORY RAPTOR CONCENTRATION SITE	1
2712		
	LOWER 10K	1
	MIGRATORY RAPTOR CONCENTRATION SITE	1
2713		
	LOWER 10K	1
	MIGRATORY RAPTOR CONCENTRATION SITE	1

LINK	COMNAME	COUNT
2714	LOWER 10K	1
	MIGRATORY RAPTOR CONCENTRATION SITE	1
2715	MIGRATORY RAPTOR CONCENTRATION SITE	1
	LOWER 10K	1
2716	MIGRATORY RAPTOR CONCENTRATION SITE	1
	LOWER 10K	1
2717	HERPTILE PRIORITY SPECIES	1
	LOWER 10K	1
	MIGRATORY RAPTOR CONCENTRATION SITE	1
2718	LOWER 10K	1
	MIGRATORY RAPTOR CONCENTRATION SITE	1
2719	LOWER 10K	1
	MIGRATORY RAPTOR CONCENTRATION SITE	1
2720	LOWER 10K	1
	MIGRATORY RAPTOR CONCENTRATION SITE	1
2721	MIGRATORY RAPTOR CONCENTRATION SITE	1
	LOWER 10K	1
2722	LOWER 10K	1
	MIGRATORY RAPTOR CONCENTRATION SITE	1
2723		

LINK	COMNAME	COUNT
	LOWER 10K	1
	MIGRATORY RAPTOR CONCENTRATION SITE	1
2724		
	MIGRATORY RAPTOR CONCENTRATION SITE	1
	HERPTILE PRIORITY SPECIES	1
	LOWER 10K	1
2725		
	MIGRATORY RAPTOR CONCENTRATION SITE	1
	LOWER 10K	1
2726		
	LOWER 10K	1
	MIGRATORY RAPTOR CONCENTRATION SITE	1
2727		
	LOWER 10K	1
	MIGRATORY RAPTOR CONCENTRATION SITE	1
2728		
	HERPTILE PRIORITY SPECIES	1
	LOWER 10K	1
	MIGRATORY RAPTOR CONCENTRATION SITE	1
2729		
	LOWER 10K	1
	MIGRATORY RAPTOR CONCENTRATION SITE	1
2730		
	BOBOLINK	1
	HERPTILE PRIORITY SPECIES	2
	LOWER 10K	1
	MIGRATORY RAPTOR CONCENTRATION SITE	1
	BIRD PRIORITY SPECIES	1
2731		

LINK	COMNAME	COUNT
	HERPTILE PRIORITY SPECIES	1
	LOWER 10K	1
	MIGRATORY RAPTOR CONCENTRATION SITE	1
2732	HERPTILE PRIORITY SPECIES	1
	LOWER 10K	1
	MIGRATORY RAPTOR CONCENTRATION SITE	1
2733	HERPTILE PRIORITY SPECIES	1
	LOWER 10K	1
	MIGRATORY RAPTOR CONCENTRATION SITE	1
2734	HERPTILE PRIORITY SPECIES	1
	LOWER 10K	1
	MIGRATORY RAPTOR CONCENTRATION SITE	1
2735	MIGRATORY RAPTOR CONCENTRATION SITE	1
	LOWER 10K	1
2736	MIGRATORY RAPTOR CONCENTRATION SITE	1
	HERPTILE PRIORITY SPECIES	1
	LOWER 10K	1
2737	HERPTILE PRIORITY SPECIES	1
	LOWER 10K	1
	MIGRATORY RAPTOR CONCENTRATION SITE	1
2738	HERPTILE PRIORITY SPECIES	1
	LOWER 10K	1

LINK	COMNAME	COUNT
	MIGRATORY RAPTOR CONCENTRATION SITE	1
2739		
	HERPTILE PRIORITY SPECIES	1
	MIGRATORY RAPTOR CONCENTRATION SITE	1
	LOWER 10K	1
2740		
	HERPTILE PRIORITY SPECIES	1
	LOWER 10K	1
	MIGRATORY RAPTOR CONCENTRATION SITE	1
3926		
	LOWER 10K	1
	MIGRATORY RAPTOR CONCENTRATION SITE	1
3927		
	LOWER 10K	1
3928		
	MIGRATORY RAPTOR CONCENTRATION SITE	1
	LOWER 10K	1
3929		
	LOWER 10K	1
	MIGRATORY RAPTOR CONCENTRATION SITE	1
3997		
	LOWER 10K	1
	MIGRATORY RAPTOR CONCENTRATION SITE	1
3998		
	LOWER 10K	1
	MIGRATORY RAPTOR CONCENTRATION SITE	1
3999		
	LOWER 10K	1
	MIGRATORY RAPTOR CONCENTRATION SITE	1

LINK	COMNAME	COUNT
4000	MIGRATORY RAPTOR CONCENTRATION SITE	1
	LOWER 10K	1
4001	MIGRATORY RAPTOR CONCENTRATION SITE	1
	LOWER 10K	1
4002	LOWER 10K	1
	MIGRATORY RAPTOR CONCENTRATION SITE	1
4003	LOWER 10K	1
	MIGRATORY RAPTOR CONCENTRATION SITE	1
4004	LOWER 10K	1
	MIGRATORY RAPTOR CONCENTRATION SITE	1
4005	MIGRATORY RAPTOR CONCENTRATION SITE	1
	LOWER 10K	1
4006	LOWER 10K	1
	MIGRATORY RAPTOR CONCENTRATION SITE	1
4007	LOWER 10K	1
4008	LOWER 10K	1
4009	LOWER 10K	1
	MIGRATORY RAPTOR CONCENTRATION SITE	1
4010		

LINK	COMNAME	COUNT
	LOWER 10K	1
	MIGRATORY RAPTOR CONCENTRATION SITE	1
4011		
	LOWER 10K	1
4012		
	MIGRATORY RAPTOR CONCENTRATION SITE	1
	LOWER 10K	1
4013		
	LOWER 10K	1
4014		
	LOWER 10K	1
	MIGRATORY RAPTOR CONCENTRATION SITE	1
4015		
	LOWER 10K	1
	MIGRATORY RAPTOR CONCENTRATION SITE	1
4016		
	LOWER 10K	1
	MIGRATORY RAPTOR CONCENTRATION SITE	1
4017		
	MIGRATORY RAPTOR CONCENTRATION SITE	1
	LOWER 10K	1
4018		
	LOWER 10K	1
	MIGRATORY RAPTOR CONCENTRATION SITE	1
4019		
	LOWER 10K	1
	MIGRATORY RAPTOR CONCENTRATION SITE	1
4020		
	LOWER 10K	1

LINK	COMNAME	COUNT
4021	LOWER 10K	1
4022	LOWER 10K	1
	MIGRATORY RAPTOR CONCENTRATION SITE	1
4023	MIGRATORY RAPTOR CONCENTRATION SITE	1
	LOWER 10K	1
4024	MIGRATORY RAPTOR CONCENTRATION SITE	1
	LOWER 10K	1
4025	LOWER 10K	1
	MIGRATORY RAPTOR CONCENTRATION SITE	1
4069	LOWER 10K	1
	MIGRATORY RAPTOR CONCENTRATION SITE	1
14029	HERPTILE PRIORITY SPECIES	1
	LOWER 10K	1
	MIGRATORY RAPTOR CONCENTRATION SITE	1
14030	LOWER 10K	1
	MIGRATORY RAPTOR CONCENTRATION SITE	1
14063	LOWER 10K	1
	MIGRATORY RAPTOR CONCENTRATION SITE	1
	GRASSLAND 18 HECTARES	1
14453		

LINK	COMNAME	COUNT
	GRASSLAND 18 HECTARES	1
	LOWER 10K	1
	MIGRATORY RAPTOR CONCENTRATION SITE	1
14454		
	LOWER 10K	1
	MIGRATORY RAPTOR CONCENTRATION SITE	1
14455		
	LOWER 10K	1
	MIGRATORY RAPTOR CONCENTRATION SITE	1
14456		
	MIGRATORY RAPTOR CONCENTRATION SITE	1
	LOWER 10K	1
14457		
	LOWER 10K	1
	MIGRATORY RAPTOR CONCENTRATION SITE	1
14458		
	GRASSLAND 18 HECTARES	1
	LOWER 10K	1
	MIGRATORY RAPTOR CONCENTRATION SITE	1
14459		
	LOWER 10K	1
	MIGRATORY RAPTOR CONCENTRATION SITE	1
	HERPTILE PRIORITY SPECIES	1
14460		
	MIGRATORY RAPTOR CONCENTRATION SITE	1
	LOWER 10K	1
14461		
	LOWER 10K	1
	MIGRATORY RAPTOR CONCENTRATION SITE	1

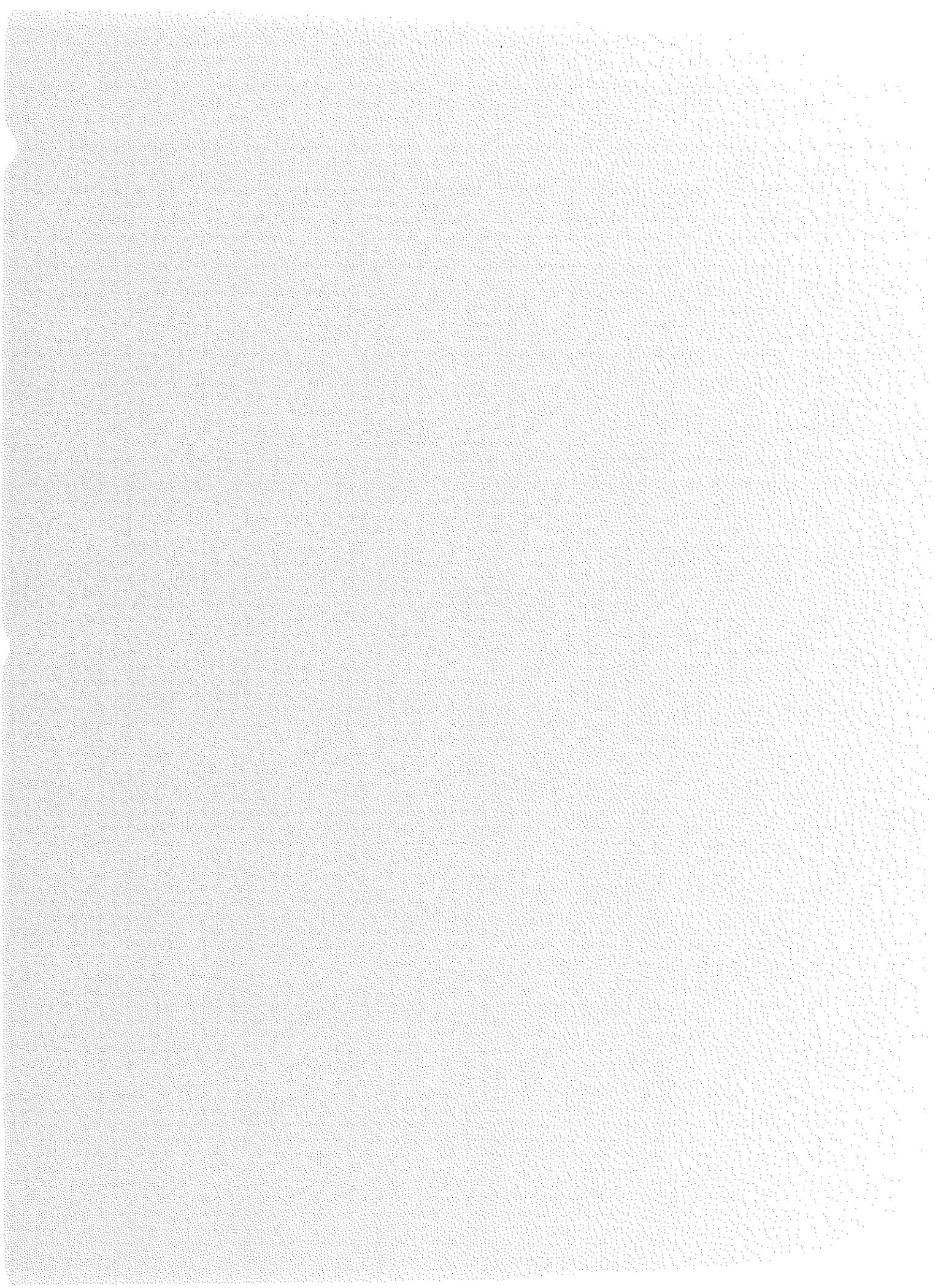
LINK	COMNAME	COUNT
14462	LOWER 10K	1
	MIGRATORY RAPTOR CONCENTRATION SITE	1
14463	MIGRATORY RAPTOR CONCENTRATION SITE	1
	HERPTILE PRIORITY SPECIES	2
	LOWER 10K	1
14464	MIGRATORY RAPTOR CONCENTRATION SITE	1
	LOWER 10K	1
	GRASSLAND 18 HECTARES	1
14465	HERPTILE PRIORITY SPECIES	1
	LOWER 10K	1
	MIGRATORY RAPTOR CONCENTRATION SITE	1
14466	HERPTILE PRIORITY SPECIES	1
	LOWER 10K	1
	MIGRATORY RAPTOR CONCENTRATION SITE	1
14467	HERPTILE PRIORITY SPECIES	1
	LOWER 10K	1
	MIGRATORY RAPTOR CONCENTRATION SITE	1
14475	LOWER 10K	1
	MIGRATORY RAPTOR CONCENTRATION SITE	1
17633	GRASSLAND 18 HECTARES	1
	LOWER 10K	1

LINK	COMNAME	COUNT
	MIGRATORY RAPTOR CONCENTRATION SITE	1
17634	LOWER 10K	1
	MIGRATORY RAPTOR CONCENTRATION SITE	1
17635	GRASSLAND 18 HECTARES	1
	LOWER 10K	1
	MIGRATORY RAPTOR CONCENTRATION SITE	1
17638	LOWER 10K	1
	MIGRATORY RAPTOR CONCENTRATION SITE	1
17639	BIRD PRIORITY SPECIES	1
	LOWER 10K	1
	MIGRATORY RAPTOR CONCENTRATION SITE	1
17640	LOWER 10K	1
	MIGRATORY RAPTOR CONCENTRATION SITE	1
17641	LOWER 10K	1
	MIGRATORY RAPTOR CONCENTRATION SITE	1
17642	MIGRATORY RAPTOR CONCENTRATION SITE	1
	LOWER 10K	1
17643	BIRD PRIORITY SPECIES	1
	LOWER 10K	1
	MIGRATORY RAPTOR CONCENTRATION SITE	1
17644		

LINK	COMNAME	COUNT
	LOWER 10K	1
	MIGRATORY RAPTOR CONCENTRATION SITE	1
17645	MIGRATORY RAPTOR CONCENTRATION SITE	1
	LOWER 10K	1
17646	MIGRATORY RAPTOR CONCENTRATION SITE	1
	LOWER 10K	1
17647	MIGRATORY RAPTOR CONCENTRATION SITE	1
	LOWER 10K	1
	GRASSLAND 18 HECTARES	1
	LOWER 10K	1
	MIGRATORY RAPTOR CONCENTRATION SITE	1
17648	LOWER 10K	1
	MIGRATORY RAPTOR CONCENTRATION SITE	1
17649	LOWER 10K	1
	MIGRATORY RAPTOR CONCENTRATION SITE	1
17650	LOWER 10K	1
	MIGRATORY RAPTOR CONCENTRATION SITE	1
17651	LOWER 10K	1
	MIGRATORY RAPTOR CONCENTRATION SITE	1
	HERPTILE PRIORITY SPECIES	1
17652	HERPTILE PRIORITY SPECIES	1
	LOWER 10K	1
	MIGRATORY RAPTOR CONCENTRATION SITE	1

LINK	COMNAME	COUNT
17653	MIGRATORY RAPTOR CONCENTRATION SITE	1
	HERPTILE PRIORITY SPECIES	1
	LOWER 10K	1
17654	MIGRATORY RAPTOR CONCENTRATION SITE	1
	LOWER 10K	1
	HERPTILE PRIORITY SPECIES	1
17655	HERPTILE PRIORITY SPECIES	1
	LOWER 10K	1
	MIGRATORY RAPTOR CONCENTRATION SITE	1
17656	HERPTILE PRIORITY SPECIES	1
	LOWER 10K	1
	MIGRATORY RAPTOR CONCENTRATION SITE	1
17657	HERPTILE PRIORITY SPECIES	1
	LOWER 10K	1
	MIGRATORY RAPTOR CONCENTRATION SITE	1
17658	HERPTILE PRIORITY SPECIES	1
	LOWER 10K	1
	MIGRATORY RAPTOR CONCENTRATION SITE	1
17659	LOWER 10K	1
	MIGRATORY RAPTOR CONCENTRATION SITE	1
21146	LOWER 10K	1

LINK	COMNAME	COUNT
	MIGRATORY RAPTOR CONCENTRATION SITE	1
	GRASSLAND 18 HECTARES	1
	HERPTILE PRIORITY SPECIES	1
21147		
	LOWER 10K	1
	MIGRATORY RAPTOR CONCENTRATION SITE	1
21148		
	HERPTILE PRIORITY SPECIES	1
	LOWER 10K	1
	MIGRATORY RAPTOR CONCENTRATION SITE	1
21149		
	LOWER 10K	1
	MIGRATORY RAPTOR CONCENTRATION SITE	1
21150		
	HERPTILE PRIORITY SPECIES	2
	LOWER 10K	1
	MIGRATORY RAPTOR CONCENTRATION SITE	1
21151		
	HERPTILE PRIORITY SPECIES	2
	LOWER 10K	1
	MIGRATORY RAPTOR CONCENTRATION SITE	1
21152		
	MIGRATORY RAPTOR CONCENTRATION SITE	1
	BIRD PRIORITY SPECIES	2
	BOBOLINK	1
	GRASSLAND 18 HECTARES	1
	HERPTILE PRIORITY SPECIES	2
	LOWER 10K	1



Forested Wetland patches on Project Site

LINK	COMNAME	COUNT
43402	BIRD PRIORITY SPECIES	8
	COOPER'S HAWK	1
	COPE'S GRAY TREEFROG	8
	EASTERN TIGER SALAMANDER	1
	FORESTED WETLANDS SUITABLE	1
	HERPTILE PRIORITY SPECIES	2
	MIGRATORY RAPTOR CONCENTRATION SITE	1
	RED-SHOULDERED HAWK	2
	BARRED OWL	3
43412	FORESTED WETLANDS SUITABLE	1
43427	FORESTED WETLANDS SUITABLE	1
43433	FORESTED WETLANDS SUITABLE	1
43435	FORESTED WETLANDS SUITABLE	1
43442	FORESTED WETLANDS SUITABLE	1
	COPE'S GRAY TREEFROG	1
	FORESTED WETLANDS SUITABLE	1
43449	FORESTED WETLANDS SUITABLE	1
	RED-SHOULDERED HAWK	1
43451		

LINK	COMNAME	COUNT
	FORESTED WETLANDS SUITABLE	1
43452		
	FORESTED WETLANDS SUITABLE	1
43466		
	BARRED OWL	1
	FORESTED WETLANDS SUITABLE	1
	RED-SHOULDERED HAWK	1
43476		
	FORESTED WETLANDS SUITABLE	1
	MIGRATORY RAPTOR CONCENTRATION SITE	1
43491		
	RED-SHOULDERED HAWK	1
	MIGRATORY RAPTOR CONCENTRATION SITE	1
	BARRED OWL	1
	COPE'S GRAY TREEFROG	1
	FORESTED WETLANDS SUITABLE	1
43494		
	BARRED OWL	1
	BIRD PRIORITY SPECIES	6
	COOPER'S HAWK	1
	COPE'S GRAY TREEFROG	3
	EASTERN TIGER SALAMANDER	1
	FORESTED WETLANDS SUITABLE	1
	HERPTILE PRIORITY SPECIES	1
	MIGRATORY RAPTOR CONCENTRATION SITE	1
	RED-SHOULDERED HAWK	1
43496		

LINK	COMNAME	COUNT
	FORESTED WETLANDS SUITABLE	1
	MIGRATORY RAPTOR CONCENTRATION SITE	1
	BARRED OWL	1
	RED-SHOULDERED HAWK	1
	COPE'S GRAY TREEFROG	1
43500		
	BARRED OWL	2
	FORESTED WETLANDS SUITABLE	1
	MIGRATORY RAPTOR CONCENTRATION SITE	1
	RED-SHOULDERED HAWK	1
43502		
	FORESTED WETLANDS SUITABLE	1
	MIGRATORY RAPTOR CONCENTRATION SITE	1
43503		
	MIGRATORY RAPTOR CONCENTRATION SITE	1
	FORESTED WETLANDS SUITABLE	1
43505		
	FORESTED WETLANDS SUITABLE	1
	MIGRATORY RAPTOR CONCENTRATION SITE	1
43506		
	FORESTED WETLANDS SUITABLE	1
	MIGRATORY RAPTOR CONCENTRATION SITE	1
43508		
	MIGRATORY RAPTOR CONCENTRATION SITE	1

LINK	COMNAME	COUNT
	FORESTED WETLANDS SUITABLE	1
	BARRED OWL	1
43509		
	FORESTED WETLANDS SUITABLE	1
	MIGRATORY RAPTOR CONCENTRATION SITE	1
	RED-SHOULDERED HAWK	1
	BARRED OWL	1
43510		
	MIGRATORY RAPTOR CONCENTRATION SITE	1
	RED-SHOULDERED HAWK	1
	FORESTED WETLANDS SUITABLE	1
	BARRED OWL	1
43512		
	RED-SHOULDERED HAWK	1
	COPE'S GRAY TREEFROG	1
	FORESTED WETLANDS SUITABLE	1
	MIGRATORY RAPTOR CONCENTRATION SITE	1
	BARRED OWL	1
43514		
	RED-SHOULDERED HAWK	1
	MIGRATORY RAPTOR CONCENTRATION SITE	1
	FORESTED WETLANDS SUITABLE	1
	BARRED OWL	1
	COPE'S GRAY TREEFROG	1
43516		
	FORESTED WETLANDS SUITABLE	1

LINK	COMNAME	COUNT
	MIGRATORY RAPTOR CONCENTRATION SITE	1
43518	FORESTED WETLANDS SUITABLE	1
	MIGRATORY RAPTOR CONCENTRATION SITE	1
43519	BARRED OWL	1
	FORESTED WETLANDS SUITABLE	1
	MIGRATORY RAPTOR CONCENTRATION SITE	1
	RED-SHOULDERED HAWK	1
43522	COPE'S GRAY TREEFROG	1
	RED-SHOULDERED HAWK	1
	MIGRATORY RAPTOR CONCENTRATION SITE	1
	BARRED OWL	1
	FORESTED WETLANDS SUITABLE	1
43523	FORESTED WETLANDS SUITABLE	1
	MIGRATORY RAPTOR CONCENTRATION SITE	1
43525	FORESTED WETLANDS SUITABLE	1
	MIGRATORY RAPTOR CONCENTRATION SITE	1
43526	FORESTED WETLANDS SUITABLE	1
	MIGRATORY RAPTOR CONCENTRATION SITE	1

LINK	COMNAME	COUNT
43528	FORESTED WETLANDS SUITABLE	1
	MIGRATORY RAPTOR CONCENTRATION SITE	1
43529	FORESTED WETLANDS SUITABLE	1
	MIGRATORY RAPTOR CONCENTRATION SITE	1
	BARRED OWL	1
	RED-SHOULDERED HAWK	1
	COPE'S GRAY TREEFROG	1
43530	FORESTED WETLANDS SUITABLE	1
	MIGRATORY RAPTOR CONCENTRATION SITE	1
43531	FORESTED WETLANDS SUITABLE	1
	MIGRATORY RAPTOR CONCENTRATION SITE	1
43532	FORESTED WETLANDS SUITABLE	1
	MIGRATORY RAPTOR CONCENTRATION SITE	1
43533	FORESTED WETLANDS SUITABLE	1
	MIGRATORY RAPTOR CONCENTRATION SITE	1
	RED-SHOULDERED HAWK	1
	BARRED OWL	1
43534	FORESTED WETLANDS SUITABLE	1

LINK	COMNAME	COUNT
	MIGRATORY RAPTOR CONCENTRATION SITE	1
43535		
	FORESTED WETLANDS SUITABLE	1
	MIGRATORY RAPTOR CONCENTRATION SITE	1
43536		
	FORESTED WETLANDS SUITABLE	1
	MIGRATORY RAPTOR CONCENTRATION SITE	1
43537		
	FORESTED WETLANDS SUITABLE	1
	MIGRATORY RAPTOR CONCENTRATION SITE	1
43538		
	FORESTED WETLANDS SUITABLE	1
	MIGRATORY RAPTOR CONCENTRATION SITE	1
43539		
	FORESTED WETLANDS SUITABLE	1
	MIGRATORY RAPTOR CONCENTRATION SITE	1
43540		
	FORESTED WETLANDS SUITABLE	1
	MIGRATORY RAPTOR CONCENTRATION SITE	1
43541		
	FORESTED WETLANDS SUITABLE	1
	MIGRATORY RAPTOR CONCENTRATION SITE	1
43542		
	FORESTED WETLANDS SUITABLE	1

LINK	COMNAME	COUNT
	MIGRATORY RAPTOR CONCENTRATION SITE	1
43543		
	MIGRATORY RAPTOR CONCENTRATION SITE	1
	FORESTED WETLANDS SUITABLE	1
43544		
	BARRED OWL	1
	FORESTED WETLANDS SUITABLE	1
	MIGRATORY RAPTOR CONCENTRATION SITE	1
43545		
	FORESTED WETLANDS SUITABLE	1
	MIGRATORY RAPTOR CONCENTRATION SITE	1
43546		
	FORESTED WETLANDS SUITABLE	1
	MIGRATORY RAPTOR CONCENTRATION SITE	1
43547		
	FORESTED WETLANDS SUITABLE	1
	MIGRATORY RAPTOR CONCENTRATION SITE	1
43548		
	FORESTED WETLANDS SUITABLE	1
	MIGRATORY RAPTOR CONCENTRATION SITE	1
43549		
	BARRED OWL	1
	MIGRATORY RAPTOR CONCENTRATION SITE	1
	FORESTED WETLANDS SUITABLE	1

LINK	COMNAME	COUNT
43550	BARRED OWL	1
	FORESTED WETLANDS SUITABLE	1
	MIGRATORY RAPTOR CONCENTRATION SITE	1
43551	FORESTED WETLANDS SUITABLE	1
	MIGRATORY RAPTOR CONCENTRATION SITE	1
43552	FORESTED WETLANDS SUITABLE	1
	MIGRATORY RAPTOR CONCENTRATION SITE	1
43553	FORESTED WETLANDS SUITABLE	1
	MIGRATORY RAPTOR CONCENTRATION SITE	1
43554	HERPTILE PRIORITY SPECIES	1
	MIGRATORY RAPTOR CONCENTRATION SITE	1
	BIRD PRIORITY SPECIES	1
	FORESTED WETLANDS SUITABLE	1
43555	MIGRATORY RAPTOR CONCENTRATION SITE	1
	FORESTED WETLANDS SUITABLE	1
43556	FORESTED WETLANDS SUITABLE	1
	MIGRATORY RAPTOR CONCENTRATION SITE	1
43557		

LINK	COMNAME	COUNT
	MIGRATORY RAPTOR CONCENTRATION SITE	1
	FORESTED WETLANDS SUITABLE	1
43558	MIGRATORY RAPTOR CONCENTRATION SITE	1
	FORESTED WETLANDS SUITABLE	1
	HERPTILE PRIORITY SPECIES	1
43559	FORESTED WETLANDS SUITABLE	1
	HERPTILE PRIORITY SPECIES	1
	MIGRATORY RAPTOR CONCENTRATION SITE	1
43560	FORESTED WETLANDS SUITABLE	1
	MIGRATORY RAPTOR CONCENTRATION SITE	1
	COPE'S GRAY TREEFROG	1
43561	FORESTED WETLANDS SUITABLE	1
	HERPTILE PRIORITY SPECIES	1
	MIGRATORY RAPTOR CONCENTRATION SITE	1
43562	COPE'S GRAY TREEFROG	1
	FORESTED WETLANDS SUITABLE	1
	MIGRATORY RAPTOR CONCENTRATION SITE	1
43563	FORESTED WETLANDS SUITABLE	1

LINK	COMNAME	COUNT
	MIGRATORY RAPTOR CONCENTRATION SITE	1
43564	FORESTED WETLANDS SUITABLE	1
	HERPTILE PRIORITY SPECIES	1
	MIGRATORY RAPTOR CONCENTRATION SITE	1
43565	FORESTED WETLANDS SUITABLE	1
	MIGRATORY RAPTOR CONCENTRATION SITE	1
	COPE'S GRAY TREEFROG	1
43566	HERPTILE PRIORITY SPECIES	1
	MIGRATORY RAPTOR CONCENTRATION SITE	1
	FORESTED WETLANDS SUITABLE	1
43568	FORESTED WETLANDS SUITABLE	1
	MIGRATORY RAPTOR CONCENTRATION SITE	1
43569	FORESTED WETLANDS SUITABLE	1
	MIGRATORY RAPTOR CONCENTRATION SITE	1
43570	FORESTED WETLANDS SUITABLE	1
	MIGRATORY RAPTOR CONCENTRATION SITE	1
43571	FORESTED WETLANDS SUITABLE	1

LINK	COMNAME	COUNT
	HERPTILE PRIORITY SPECIES	1
	MIGRATORY RAPTOR CONCENTRATION SITE	1
43572	HERPTILE PRIORITY SPECIES	1
	MIGRATORY RAPTOR CONCENTRATION SITE	1
	FORESTED WETLANDS SUITABLE	1
43573	MIGRATORY RAPTOR CONCENTRATION SITE	1
	FORESTED WETLANDS SUITABLE	1
43574	FORESTED WETLANDS SUITABLE	1
	MIGRATORY RAPTOR CONCENTRATION SITE	1
43575	FORESTED WETLANDS SUITABLE	1
	MIGRATORY RAPTOR CONCENTRATION SITE	1
43576	FORESTED WETLANDS SUITABLE	1
	MIGRATORY RAPTOR CONCENTRATION SITE	1
43577	FORESTED WETLANDS SUITABLE	1
	HERPTILE PRIORITY SPECIES	1
	MIGRATORY RAPTOR CONCENTRATION SITE	1
43578	MIGRATORY RAPTOR CONCENTRATION SITE	1

LINK	COMNAME	COUNT
	FORESTED WETLANDS SUITABLE	1
43579		
	MIGRATORY RAPTOR CONCENTRATION SITE	1
	COPE'S GRAY TREEFROG	2
	FORESTED WETLANDS SUITABLE	1
43580		
	FORESTED WETLANDS SUITABLE	1
	MIGRATORY RAPTOR CONCENTRATION SITE	1
43581		
	FORESTED WETLANDS SUITABLE	1
	MIGRATORY RAPTOR CONCENTRATION SITE	1
43582		
	FORESTED WETLANDS SUITABLE	1
	HERPTILE PRIORITY SPECIES	1
	MIGRATORY RAPTOR CONCENTRATION SITE	1
43583		
	COPE'S GRAY TREEFROG	2
	FORESTED WETLANDS SUITABLE	1
	MIGRATORY RAPTOR CONCENTRATION SITE	1
43584		
	BIRD PRIORITY SPECIES	2
	MIGRATORY RAPTOR CONCENTRATION SITE	1
	FORESTED WETLANDS SUITABLE	1
	BARRED OWL	1
	COPE'S GRAY TREEFROG	1

LINK	COMNAME	COUNT
43585	BIRD PRIORITY SPECIES	1
	FORESTED WETLANDS SUITABLE	1
	MIGRATORY RAPTOR CONCENTRATION SITE	1
43586	FORESTED WETLANDS SUITABLE	1
	HERPTILE PRIORITY SPECIES	1
	MIGRATORY RAPTOR CONCENTRATION SITE	1
43587	FORESTED WETLANDS SUITABLE	1
	MIGRATORY RAPTOR CONCENTRATION SITE	1
43588	FORESTED WETLANDS SUITABLE	1
	MIGRATORY RAPTOR CONCENTRATION SITE	1
43589	COPE'S GRAY TREEFROG	1
	FORESTED WETLANDS SUITABLE	1
	MIGRATORY RAPTOR CONCENTRATION SITE	1
43590	FORESTED WETLANDS SUITABLE	1
	MIGRATORY RAPTOR CONCENTRATION SITE	1
43591	FORESTED WETLANDS SUITABLE	1
	HERPTILE PRIORITY SPECIES	1

LINK	COMNAME	COUNT
	MIGRATORY RAPTOR CONCENTRATION SITE	1
43592	FORESTED WETLANDS SUITABLE	1
	MIGRATORY RAPTOR CONCENTRATION SITE	1
43593	FORESTED WETLANDS SUITABLE	1
	HERPTILE PRIORITY SPECIES	1
	MIGRATORY RAPTOR CONCENTRATION SITE	1
43594	FORESTED WETLANDS SUITABLE	1
	MIGRATORY RAPTOR CONCENTRATION SITE	1
43595	FORESTED WETLANDS SUITABLE	1
	HERPTILE PRIORITY SPECIES	1
	MIGRATORY RAPTOR CONCENTRATION SITE	1
43596	FORESTED WETLANDS SUITABLE	1
	HERPTILE PRIORITY SPECIES	1
	MIGRATORY RAPTOR CONCENTRATION SITE	1
43597	FORESTED WETLANDS SUITABLE	1
	MIGRATORY RAPTOR CONCENTRATION SITE	1
	COPE'S GRAY TREEFROG	4
	BIRD PRIORITY SPECIES	1

LINK	COMNAME	COUNT
43598	BIRD PRIORITY SPECIES	1
	FORESTED WETLANDS SUITABLE	1
	MIGRATORY RAPTOR CONCENTRATION SITE	1
	BARRED OWL	1
43599	BARRED OWL	1
	MIGRATORY RAPTOR CONCENTRATION SITE	1
	FORESTED WETLANDS SUITABLE	1
	BIRD PRIORITY SPECIES	1
	COPE'S GRAY TREEFROG	1
43600	COPE'S GRAY TREEFROG	3
	FORESTED WETLANDS SUITABLE	1
	MIGRATORY RAPTOR CONCENTRATION SITE	1
43601	FORESTED WETLANDS SUITABLE	1
	HERPTILE PRIORITY SPECIES	1
	MIGRATORY RAPTOR CONCENTRATION SITE	1
43602	FORESTED WETLANDS SUITABLE	1
	HERPTILE PRIORITY SPECIES	1
	MIGRATORY RAPTOR CONCENTRATION SITE	1
43603	BIRD PRIORITY SPECIES	1

LINK	COMNAME	COUNT
	MIGRATORY RAPTOR CONCENTRATION SITE	1
	FORESTED WETLANDS SUITABLE	1
	BARRED OWL	1
	COPE'S GRAY TREEFROG	1
43604		
	BARRED OWL	1
	FORESTED WETLANDS SUITABLE	1
	MIGRATORY RAPTOR CONCENTRATION SITE	1
43605		
	FORESTED WETLANDS SUITABLE	1
	MIGRATORY RAPTOR CONCENTRATION SITE	1
	COPE'S GRAY TREEFROG	6
43606		
	MIGRATORY RAPTOR CONCENTRATION SITE	1
	FORESTED WETLANDS SUITABLE	1
43607		
	MIGRATORY RAPTOR CONCENTRATION SITE	1
	FORESTED WETLANDS SUITABLE	1
	HERPTILE PRIORITY SPECIES	1
43608		
	MIGRATORY RAPTOR CONCENTRATION SITE	1
	FORESTED WETLANDS SUITABLE	1
	BARRED OWL	1
	COPE'S GRAY TREEFROG	2
43609		

LINK	COMNAME	COUNT
	BARRED OWL	1
	COPE'S GRAY TREEFROG	1
	FORESTED WETLANDS SUITABLE	1
	MIGRATORY RAPTOR CONCENTRATION SITE	1
43610		
	FORESTED WETLANDS SUITABLE	1
	HERPTILE PRIORITY SPECIES	1
	MIGRATORY RAPTOR CONCENTRATION SITE	1
43611		
	FORESTED WETLANDS SUITABLE	1
	HERPTILE PRIORITY SPECIES	1
	MIGRATORY RAPTOR CONCENTRATION SITE	1
43612		
	COPE'S GRAY TREEFROG	1
	MIGRATORY RAPTOR CONCENTRATION SITE	1
	FORESTED WETLANDS SUITABLE	1
43613		
	BARRED OWL	1
	FORESTED WETLANDS SUITABLE	1
	MIGRATORY RAPTOR CONCENTRATION SITE	1
43614		
	BARRED OWL	1
	FORESTED WETLANDS SUITABLE	1
	MIGRATORY RAPTOR CONCENTRATION SITE	1
43615		

LINK	COMNAME	COUNT
	BARRED OWL	1
	COPE'S GRAY TREEFROG	2
	FORESTED WETLANDS SUITABLE	1
	MIGRATORY RAPTOR CONCENTRATION SITE	1
43616	HERPTILE PRIORITY SPECIES	1
	MIGRATORY RAPTOR CONCENTRATION SITE	1
	FORESTED WETLANDS SUITABLE	1
43617	HERPTILE PRIORITY SPECIES	1
	MIGRATORY RAPTOR CONCENTRATION SITE	1
	FORESTED WETLANDS SUITABLE	1
43618	COPE'S GRAY TREEFROG	2
	FORESTED WETLANDS SUITABLE	1
	MIGRATORY RAPTOR CONCENTRATION SITE	1
43619	COOPER'S HAWK	1
	FORESTED WETLANDS SUITABLE	1
	HERPTILE PRIORITY SPECIES	1
	MIGRATORY RAPTOR CONCENTRATION SITE	1
43620	COPE'S GRAY TREEFROG	6
	FORESTED WETLANDS SUITABLE	1
	MIGRATORY RAPTOR CONCENTRATION SITE	1

LINK	COMNAME	COUNT
43621	FORESTED WETLANDS SUITABLE	1
	MIGRATORY RAPTOR CONCENTRATION SITE	1
	HERPTILE PRIORITY SPECIES	1
43622	BARRED OWL	1
	FORESTED WETLANDS SUITABLE	1
	MIGRATORY RAPTOR CONCENTRATION SITE	1
43623	BIRD PRIORITY SPECIES	1
	COOPER'S HAWK	1
	FORESTED WETLANDS SUITABLE	1
	HERPTILE PRIORITY SPECIES	1
	MIGRATORY RAPTOR CONCENTRATION SITE	1
43624	FORESTED WETLANDS SUITABLE	1
	MIGRATORY RAPTOR CONCENTRATION SITE	1
43625	FORESTED WETLANDS SUITABLE	1
	MIGRATORY RAPTOR CONCENTRATION SITE	1
43626	COPE'S GRAY TREEFROG	3
	FORESTED WETLANDS SUITABLE	1
	MIGRATORY RAPTOR CONCENTRATION SITE	1
43627		

LINK	COMNAME	COUNT
	BARRED OWL	1
	COPE'S GRAY TREEFROG	2
	FORESTED WETLANDS SUITABLE	1
	MIGRATORY RAPTOR CONCENTRATION SITE	1
43628		
	FORESTED WETLANDS SUITABLE	1
	MIGRATORY RAPTOR CONCENTRATION SITE	1
43629		
	BARRED OWL	1
	FORESTED WETLANDS SUITABLE	1
	MIGRATORY RAPTOR CONCENTRATION SITE	1
43630		
	MIGRATORY RAPTOR CONCENTRATION SITE	1
	FORESTED WETLANDS SUITABLE	1
	HERPTILE PRIORITY SPECIES	1
43631		
	MIGRATORY RAPTOR CONCENTRATION SITE	1
	FORESTED WETLANDS SUITABLE	1
	BARRED OWL	1
43632		
	FORESTED WETLANDS SUITABLE	1
	MIGRATORY RAPTOR CONCENTRATION SITE	1
43633		
	BARRED OWL	1
	FORESTED WETLANDS SUITABLE	1

LINK	COMNAME	COUNT
	MIGRATORY RAPTOR CONCENTRATION SITE	1
43634		
	FORESTED WETLANDS SUITABLE	1
	MIGRATORY RAPTOR CONCENTRATION SITE	1
43635		
	BARRED OWL	1
	FORESTED WETLANDS SUITABLE	1
	MIGRATORY RAPTOR CONCENTRATION SITE	1
43636		
	MIGRATORY RAPTOR CONCENTRATION SITE	1
	FORESTED WETLANDS SUITABLE	1
43637		
	FORESTED WETLANDS SUITABLE	1
	MIGRATORY RAPTOR CONCENTRATION SITE	1
43638		
	BARRED OWL	1
	FORESTED WETLANDS SUITABLE	1
	MIGRATORY RAPTOR CONCENTRATION SITE	1
43639		
	BARRED OWL	1
	FORESTED WETLANDS SUITABLE	1
	MIGRATORY RAPTOR CONCENTRATION SITE	1
43640		
	BARRED OWL	1

LINK	COMNAME	COUNT
	FORESTED WETLANDS SUITABLE	1
	MIGRATORY RAPTOR CONCENTRATION SITE	1
43641	FORESTED WETLANDS SUITABLE	1
	MIGRATORY RAPTOR CONCENTRATION SITE	1
43642	FORESTED WETLANDS SUITABLE	1
	MIGRATORY RAPTOR CONCENTRATION SITE	1
43643	BARRED OWL	1
	FORESTED WETLANDS SUITABLE	1
	MIGRATORY RAPTOR CONCENTRATION SITE	1
43644	BARRED OWL	1
	FORESTED WETLANDS SUITABLE	1
	MIGRATORY RAPTOR CONCENTRATION SITE	1
43645	FORESTED WETLANDS SUITABLE	1
	MIGRATORY RAPTOR CONCENTRATION SITE	1
43646	MIGRATORY RAPTOR CONCENTRATION SITE	1
	COPE'S GRAY TREEFROG	1
	EASTERN TIGER SALAMANDER	3
	FORESTED WETLANDS SUITABLE	1

LINK	COMNAME	COUNT
	HERPTILE PRIORITY SPECIES	1
43647	MIGRATORY RAPTOR CONCENTRATION SITE	1
	BARRED OWL	1
	FORESTED WETLANDS SUITABLE	1
43648	COPE'S GRAY TREEFROG	1
	EASTERN TIGER SALAMANDER	2
	FORESTED WETLANDS SUITABLE	1
	MIGRATORY RAPTOR CONCENTRATION SITE	1
43649	BARRED OWL	1
	FORESTED WETLANDS SUITABLE	1
	MIGRATORY RAPTOR CONCENTRATION SITE	1
43650	BARRED OWL	1
	FORESTED WETLANDS SUITABLE	1
	MIGRATORY RAPTOR CONCENTRATION SITE	1
43651	EASTERN TIGER SALAMANDER	1
	FORESTED WETLANDS SUITABLE	1
	COPE'S GRAY TREEFROG	2
	MIGRATORY RAPTOR CONCENTRATION SITE	1
43652	COPE'S GRAY TREEFROG	1
	EASTERN TIGER SALAMANDER	3

LINK	COMNAME	COUNT
	FORESTED WETLANDS SUITABLE	1
	HERPTILE PRIORITY SPECIES	1
	MIGRATORY RAPTOR CONCENTRATION SITE	1
43653		
	BARRED OWL	1
	COPE'S GRAY TREEFROG	1
	FORESTED WETLANDS SUITABLE	1
	MIGRATORY RAPTOR CONCENTRATION SITE	1
43654		
	MIGRATORY RAPTOR CONCENTRATION SITE	1
	BARRED OWL	1
	FORESTED WETLANDS SUITABLE	1
43655		
	MIGRATORY RAPTOR CONCENTRATION SITE	1
	COPE'S GRAY TREEFROG	1
	FORESTED WETLANDS SUITABLE	1
43656		
	BARRED OWL	1
	COPE'S GRAY TREEFROG	2
	EASTERN TIGER SALAMANDER	1
	FORESTED WETLANDS SUITABLE	1
	MIGRATORY RAPTOR CONCENTRATION SITE	1
43657		
	COPE'S GRAY TREEFROG	1
	EASTERN TIGER SALAMANDER	4
	FORESTED WETLANDS SUITABLE	1

LINK	COMNAME	COUNT
	HERPTILE PRIORITY SPECIES	1
	MIGRATORY RAPTOR CONCENTRATION SITE	1
43658	HERPTILE PRIORITY SPECIES	1
	COPE'S GRAY TREEFROG	1
	EASTERN TIGER SALAMANDER	4
	MIGRATORY RAPTOR CONCENTRATION SITE	1
	FORESTED WETLANDS SUITABLE	1
43659	BARRED OWL	1
	FORESTED WETLANDS SUITABLE	1
	MIGRATORY RAPTOR CONCENTRATION SITE	1
43660	FORESTED WETLANDS SUITABLE	1
	HERPTILE PRIORITY SPECIES	1
	COPE'S GRAY TREEFROG	2
	MIGRATORY RAPTOR CONCENTRATION SITE	1
43661	COPE'S GRAY TREEFROG	1
	FORESTED WETLANDS SUITABLE	1
	HERPTILE PRIORITY SPECIES	1
	MIGRATORY RAPTOR CONCENTRATION SITE	1
43662	COPE'S GRAY TREEFROG	2
	MIGRATORY RAPTOR CONCENTRATION SITE	1

LINK	COMNAME	COUNT
	EASTERN TIGER SALAMANDER	1
	FORESTED WETLANDS SUITABLE	1
43663		
	BARRED OWL	1
	FORESTED WETLANDS SUITABLE	1
	MIGRATORY RAPTOR CONCENTRATION SITE	1
43664		
	COPE'S GRAY TREEFROG	11
	FORESTED WETLANDS SUITABLE	1
	HERPTILE PRIORITY SPECIES	1
	MIGRATORY RAPTOR CONCENTRATION SITE	1
43665		
	COPE'S GRAY TREEFROG	10
	FORESTED WETLANDS SUITABLE	1
	HERPTILE PRIORITY SPECIES	1
	MIGRATORY RAPTOR CONCENTRATION SITE	1
43666		
	HERPTILE PRIORITY SPECIES	1
	MIGRATORY RAPTOR CONCENTRATION SITE	1
	EASTERN TIGER SALAMANDER	1
	FORESTED WETLANDS SUITABLE	1
43667		
	FORESTED WETLANDS SUITABLE	1
	HERPTILE PRIORITY SPECIES	1
	MIGRATORY RAPTOR CONCENTRATION SITE	1
43668		

LINK	COMNAME	COUNT
	FORESTED WETLANDS SUITABLE	1
	MIGRATORY RAPTOR CONCENTRATION SITE	1
43669		
	BARRED OWL	1
	FORESTED WETLANDS SUITABLE	1
	MIGRATORY RAPTOR CONCENTRATION SITE	1
43670		
	MIGRATORY RAPTOR CONCENTRATION SITE	1
	COPE'S GRAY TREEFROG	3
	FORESTED WETLANDS SUITABLE	1
	HERPTILE PRIORITY SPECIES	1
43671		
	RED-SHOULDERED HAWK	1
	MIGRATORY RAPTOR CONCENTRATION SITE	1
	HERPTILE PRIORITY SPECIES	1
	EASTERN TIGER SALAMANDER	1
	FORESTED WETLANDS SUITABLE	1
43672		
	FORESTED WETLANDS SUITABLE	1
	MIGRATORY RAPTOR CONCENTRATION SITE	1
43673		
	BARRED OWL	1
	FORESTED WETLANDS SUITABLE	1
	MIGRATORY RAPTOR CONCENTRATION SITE	1
43674		

LINK	COMNAME	COUNT
	FORESTED WETLANDS SUITABLE	1
	MIGRATORY RAPTOR CONCENTRATION SITE	1
43675		
	MIGRATORY RAPTOR CONCENTRATION SITE	1
	RED-SHOULDERED HAWK	1
	FORESTED WETLANDS SUITABLE	1
	HERPTILE PRIORITY SPECIES	1
43676		
	FORESTED WETLANDS SUITABLE	1
	HERPTILE PRIORITY SPECIES	1
	MIGRATORY RAPTOR CONCENTRATION SITE	1
	RED-SHOULDERED HAWK	1
43677		
	COPE'S GRAY TREEFROG	4
	FORESTED WETLANDS SUITABLE	1
	HERPTILE PRIORITY SPECIES	1
	MIGRATORY RAPTOR CONCENTRATION SITE	1
	RED-SHOULDERED HAWK	1
43678		
	FORESTED WETLANDS SUITABLE	1
	MIGRATORY RAPTOR CONCENTRATION SITE	1
43679		
	FORESTED WETLANDS SUITABLE	1
	MIGRATORY RAPTOR CONCENTRATION SITE	1
43680		

LINK	COMNAME	COUNT
	HERPTILE PRIORITY SPECIES	1
	MIGRATORY RAPTOR CONCENTRATION SITE	1
	RED-SHOULDERED HAWK	1
	FORESTED WETLANDS SUITABLE	1
43681		
	COPE'S GRAY TREEFROG	1
	FORESTED WETLANDS SUITABLE	1
	MIGRATORY RAPTOR CONCENTRATION SITE	1
43682		
	FORESTED WETLANDS SUITABLE	1
	MIGRATORY RAPTOR CONCENTRATION SITE	1
43683		
	MIGRATORY RAPTOR CONCENTRATION SITE	1
	BIRD PRIORITY SPECIES	1
	FORESTED WETLANDS SUITABLE	1
	HERPTILE PRIORITY SPECIES	1
43684		
	MIGRATORY RAPTOR CONCENTRATION SITE	1
	FORESTED WETLANDS SUITABLE	1
43685		
	FORESTED WETLANDS SUITABLE	1
	MIGRATORY RAPTOR CONCENTRATION SITE	1
43686		
	FORESTED WETLANDS SUITABLE	1

LINK	COMNAME	COUNT
	MIGRATORY RAPTOR CONCENTRATION SITE	1
43687		
	FORESTED WETLANDS SUITABLE	1
	MIGRATORY RAPTOR CONCENTRATION SITE	1
43688		
	FORESTED WETLANDS SUITABLE	1
	MIGRATORY RAPTOR CONCENTRATION SITE	1
43689		
	HERPTILE PRIORITY SPECIES	1
	MIGRATORY RAPTOR CONCENTRATION SITE	1
	COPE'S GRAY TREEFROG	2
	BARRED OWL	2
	FORESTED WETLANDS SUITABLE	1
	RED-SHOULDERED HAWK	1
43690		
	FORESTED WETLANDS SUITABLE	1
	MIGRATORY RAPTOR CONCENTRATION SITE	1
43691		
	COPE'S GRAY TREEFROG	3
	RED-SHOULDERED HAWK	1
	MIGRATORY RAPTOR CONCENTRATION SITE	1
	FORESTED WETLANDS SUITABLE	1
	BARRED OWL	1
	HERPTILE PRIORITY SPECIES	1
43692		

LINK	COMNAME	COUNT
	FORESTED WETLANDS SUITABLE	1
	MIGRATORY RAPTOR CONCENTRATION SITE	1
43693	MIGRATORY RAPTOR CONCENTRATION SITE	1
	HERPTILE PRIORITY SPECIES	1
	FORESTED WETLANDS SUITABLE	1
43694	COPE'S GRAY TREEFROG	1
	FORESTED WETLANDS SUITABLE	1
	HERPTILE PRIORITY SPECIES	2
	MIGRATORY RAPTOR CONCENTRATION SITE	1
	RED-SHOULDERED HAWK	1
	BARRED OWL	2
43695	FORESTED WETLANDS SUITABLE	1
	MIGRATORY RAPTOR CONCENTRATION SITE	1
43696	FORESTED WETLANDS SUITABLE	1
	MIGRATORY RAPTOR CONCENTRATION SITE	1
43697	EASTERN TIGER SALAMANDER	2
	RED-SHOULDERED HAWK	1
	MIGRATORY RAPTOR CONCENTRATION SITE	1
	FORESTED WETLANDS SUITABLE	1
	COPE'S GRAY TREEFROG	9

LINK	COMNAME	COUNT
	BARRED OWL	3
	HERPTILE PRIORITY SPECIES	2
43698	FORESTED WETLANDS SUITABLE	1
	HERPTILE PRIORITY SPECIES	2
	MIGRATORY RAPTOR CONCENTRATION SITE	1
43699	FORESTED WETLANDS SUITABLE	1
	MIGRATORY RAPTOR CONCENTRATION SITE	1
43700	FORESTED WETLANDS SUITABLE	1
	MIGRATORY RAPTOR CONCENTRATION SITE	1
43701	FORESTED WETLANDS SUITABLE	1
	MIGRATORY RAPTOR CONCENTRATION SITE	1
43702	FORESTED WETLANDS SUITABLE	1
	MIGRATORY RAPTOR CONCENTRATION SITE	1
43703	MIGRATORY RAPTOR CONCENTRATION SITE	1
	FORESTED WETLANDS SUITABLE	1
43704	FORESTED WETLANDS SUITABLE	1
	MIGRATORY RAPTOR CONCENTRATION SITE	1
43705		

LINK	COMNAME	COUNT
	FORESTED WETLANDS SUITABLE	1
	MIGRATORY RAPTOR CONCENTRATION SITE	1
43706	BARRED OWL	3
	COPE'S GRAY TREEFROG	1
	FORESTED WETLANDS SUITABLE	1
	MIGRATORY RAPTOR CONCENTRATION SITE	1
	RED-SHOULDERED HAWK	1
43707	COPE'S GRAY TREEFROG	1
	RED-SHOULDERED HAWK	1
	FORESTED WETLANDS SUITABLE	1
	BARRED OWL	3
	MIGRATORY RAPTOR CONCENTRATION SITE	1
43708	FORESTED WETLANDS SUITABLE	1
	MIGRATORY RAPTOR CONCENTRATION SITE	1
43709	FORESTED WETLANDS SUITABLE	1
	MIGRATORY RAPTOR CONCENTRATION SITE	1
43710	FORESTED WETLANDS SUITABLE	1
	MIGRATORY RAPTOR CONCENTRATION SITE	1
43711	FORESTED WETLANDS SUITABLE	1

LINK	COMNAME	COUNT
43712	MIGRATORY RAPTOR CONCENTRATION SITE	1
	HERPTILE PRIORITY SPECIES	1
	MIGRATORY RAPTOR CONCENTRATION SITE	1
	RED-SHOULDERED HAWK	1
	COPE'S GRAY TREEFROG	3
	BARRED OWL	3
43713	FORESTED WETLANDS SUITABLE	1
	FORESTED WETLANDS SUITABLE	1
	MIGRATORY RAPTOR CONCENTRATION SITE	1
43714	RED-SHOULDERED HAWK	1
	FORESTED WETLANDS SUITABLE	1
43715	MIGRATORY RAPTOR CONCENTRATION SITE	1
	BARRED OWL	1
	FORESTED WETLANDS SUITABLE	1
	HERPTILE PRIORITY SPECIES	1
43716	MIGRATORY RAPTOR CONCENTRATION SITE	1
	FORESTED WETLANDS SUITABLE	1
	MIGRATORY RAPTOR CONCENTRATION SITE	1
43717	FORESTED WETLANDS SUITABLE	1

LINK	COMNAME	COUNT
	MIGRATORY RAPTOR CONCENTRATION SITE	1
43718	COPE'S GRAY TREEFROG	1
	FORESTED WETLANDS SUITABLE	1
	HERPTILE PRIORITY SPECIES	1
	MIGRATORY RAPTOR CONCENTRATION SITE	1
	RED-SHOULDERED HAWK	1
	BARRED OWL	3
43719	FORESTED WETLANDS SUITABLE	1
	MIGRATORY RAPTOR CONCENTRATION SITE	1
43720	BARRED OWL	1
	FORESTED WETLANDS SUITABLE	1
	HERPTILE PRIORITY SPECIES	1
	MIGRATORY RAPTOR CONCENTRATION SITE	1
43721	MIGRATORY RAPTOR CONCENTRATION SITE	1
	RED-SHOULDERED HAWK	1
	FORESTED WETLANDS SUITABLE	1
43722	BARRED OWL	3
	COPE'S GRAY TREEFROG	2
	FORESTED WETLANDS SUITABLE	1
	MIGRATORY RAPTOR CONCENTRATION SITE	1

LINK	COMNAME	COUNT
	RED-SHOULDERED HAWK	1
43723		
	BARRED OWL	1
	COPE'S GRAY TREEFROG	1
	FORESTED WETLANDS SUITABLE	1
	MIGRATORY RAPTOR CONCENTRATION SITE	1
	RED-SHOULDERED HAWK	1
43724		
	HERPTILE PRIORITY SPECIES	1
	MIGRATORY RAPTOR CONCENTRATION SITE	1
	COPE'S GRAY TREEFROG	1
	BARRED OWL	3
	RED-SHOULDERED HAWK	1
	FORESTED WETLANDS SUITABLE	1
43725		
	HERPTILE PRIORITY SPECIES	1
	MIGRATORY RAPTOR CONCENTRATION SITE	1
	FORESTED WETLANDS SUITABLE	1
	COPE'S GRAY TREEFROG	1
	BARRED OWL	3
	RED-SHOULDERED HAWK	1
43726		
	BARRED OWL	1
	FORESTED WETLANDS SUITABLE	1
	HERPTILE PRIORITY SPECIES	1
	MIGRATORY RAPTOR CONCENTRATION SITE	1

LINK	COMNAME	COUNT
43727	FORESTED WETLANDS SUITABLE	1
	RED-SHOULDERED HAWK	1
	HERPTILE PRIORITY SPECIES	1
	BIRD PRIORITY SPECIES	1
	BARRED OWL	3
	MIGRATORY RAPTOR CONCENTRATION SITE	1
	COPE'S GRAY TREEFROG	25
43728	FORESTED WETLANDS SUITABLE	1
	MIGRATORY RAPTOR CONCENTRATION SITE	1
43729	FORESTED WETLANDS SUITABLE	1
	MIGRATORY RAPTOR CONCENTRATION SITE	1
43730	RED-SHOULDERED HAWK	1
	BARRED OWL	3
	COPE'S GRAY TREEFROG	1
	FORESTED WETLANDS SUITABLE	1
	HERPTILE PRIORITY SPECIES	1
	MIGRATORY RAPTOR CONCENTRATION SITE	1
43731	FORESTED WETLANDS SUITABLE	1
	MIGRATORY RAPTOR CONCENTRATION SITE	1
43732	BARRED OWL	3

LINK	COMNAME	COUNT
	BIRD PRIORITY SPECIES	1
	COPE'S GRAY TREEFROG	7
	FORESTED WETLANDS SUITABLE	1
	HERPTILE PRIORITY SPECIES	1
	MIGRATORY RAPTOR CONCENTRATION SITE	1
	RED-SHOULDERED HAWK	1
43733		
	BARRED OWL	2
	FORESTED WETLANDS SUITABLE	1
	MIGRATORY RAPTOR CONCENTRATION SITE	1
	RED-SHOULDERED HAWK	1
43734		
	RED-SHOULDERED HAWK	1
	COPE'S GRAY TREEFROG	1
	BARRED OWL	2
	MIGRATORY RAPTOR CONCENTRATION SITE	1
	FORESTED WETLANDS SUITABLE	1
43735		
	BARRED OWL	2
	COPE'S GRAY TREEFROG	1
	FORESTED WETLANDS SUITABLE	1
	MIGRATORY RAPTOR CONCENTRATION SITE	1
	RED-SHOULDERED HAWK	1
43736		
	FORESTED WETLANDS SUITABLE	1

LINK	COMNAME	COUNT
	MIGRATORY RAPTOR CONCENTRATION SITE	1
43737	RED-SHOULDERED HAWK	1
	BARRED OWL	3
	FORESTED WETLANDS SUITABLE	1
	HERPTILE PRIORITY SPECIES	1
	MIGRATORY RAPTOR CONCENTRATION SITE	1
43738	FORESTED WETLANDS SUITABLE	1
	MIGRATORY RAPTOR CONCENTRATION SITE	1
43739	BARRED OWL	2
	COPE'S GRAY TREEFROG	1
	FORESTED WETLANDS SUITABLE	1
	MIGRATORY RAPTOR CONCENTRATION SITE	1
	RED-SHOULDERED HAWK	1
43740	RED-SHOULDERED HAWK	1
	BARRED OWL	3
	COPE'S GRAY TREEFROG	26
	FORESTED WETLANDS SUITABLE	1
	HERPTILE PRIORITY SPECIES	1
	MIGRATORY RAPTOR CONCENTRATION SITE	1
43741	MIGRATORY RAPTOR CONCENTRATION SITE	1

LINK	COMNAME	COUNT
	RED-SHOULDERED HAWK	1
	BARRED OWL	3
	FORESTED WETLANDS SUITABLE	1
43742	FORESTED WETLANDS SUITABLE	1
	MIGRATORY RAPTOR CONCENTRATION SITE	1
43743	HERPTILE PRIORITY SPECIES	1
	MIGRATORY RAPTOR CONCENTRATION SITE	1
	FORESTED WETLANDS SUITABLE	1
	COPE'S GRAY TREEFROG	25
	BARRED OWL	3
	RED-SHOULDERED HAWK	1
43744	RED-SHOULDERED HAWK	1
	BARRED OWL	3
	COPE'S GRAY TREEFROG	18
	FORESTED WETLANDS SUITABLE	1
	MIGRATORY RAPTOR CONCENTRATION SITE	1
43745	MIGRATORY RAPTOR CONCENTRATION SITE	1
	RED-SHOULDERED HAWK	1
	COPE'S GRAY TREEFROG	1
	FORESTED WETLANDS SUITABLE	1
43746	FORESTED WETLANDS SUITABLE	1

LINK	COMNAME	COUNT
	MIGRATORY RAPTOR CONCENTRATION SITE	1
43747	FORESTED WETLANDS SUITABLE	1
	MIGRATORY RAPTOR CONCENTRATION SITE	1
43748	FORESTED WETLANDS SUITABLE	1
	MIGRATORY RAPTOR CONCENTRATION SITE	1
43749	FORESTED WETLANDS SUITABLE	1
	MIGRATORY RAPTOR CONCENTRATION SITE	1
43750	HERPTILE PRIORITY SPECIES	1
	RED-SHOULDERED HAWK	1
	MIGRATORY RAPTOR CONCENTRATION SITE	1
	COPE'S GRAY TREEFROG	27
	BARRED OWL	3
	BIRD PRIORITY SPECIES	1
	FORESTED WETLANDS SUITABLE	1
43751	BARRED OWL	2
	COPE'S GRAY TREEFROG	6
	FORESTED WETLANDS SUITABLE	1
	MIGRATORY RAPTOR CONCENTRATION SITE	1
	RED-SHOULDERED HAWK	1
43752		

LINK	COMNAME	COUNT
	FORESTED WETLANDS SUITABLE	1
	MIGRATORY RAPTOR CONCENTRATION SITE	1
	COPE'S GRAY TREEFROG	2
	BARRED OWL	2
	RED-SHOULDERED HAWK	1
43753		
	FORESTED WETLANDS SUITABLE	1
	MIGRATORY RAPTOR CONCENTRATION SITE	1
43754		
	BARRED OWL	3
	COPE'S GRAY TREEFROG	32
	FORESTED WETLANDS SUITABLE	1
	HERPTILE PRIORITY SPECIES	1
	MIGRATORY RAPTOR CONCENTRATION SITE	1
	RED-SHOULDERED HAWK	1
43755		
	HERPTILE PRIORITY SPECIES	1
	RED-SHOULDERED HAWK	1
	MIGRATORY RAPTOR CONCENTRATION SITE	1
	COPE'S GRAY TREEFROG	29
	BARRED OWL	3
	FORESTED WETLANDS SUITABLE	1
43756		
	FORESTED WETLANDS SUITABLE	1
	MIGRATORY RAPTOR CONCENTRATION SITE	1
43757		

LINK	COMNAME	COUNT
	BARRED OWL	1
	FORESTED WETLANDS SUITABLE	1
	HERPTILE PRIORITY SPECIES	1
	MIGRATORY RAPTOR CONCENTRATION SITE	1
43758		
	FORESTED WETLANDS SUITABLE	1
	MIGRATORY RAPTOR CONCENTRATION SITE	1
43759		
	FORESTED WETLANDS SUITABLE	1
	RED-SHOULDERED HAWK	1
	HERPTILE PRIORITY SPECIES	1
	COPE'S GRAY TREEFROG	37
	BARRED OWL	3
	MIGRATORY RAPTOR CONCENTRATION SITE	1
43760		
	FORESTED WETLANDS SUITABLE	1
	MIGRATORY RAPTOR CONCENTRATION SITE	1
43761		
	FORESTED WETLANDS SUITABLE	1
	MIGRATORY RAPTOR CONCENTRATION SITE	1
43762		
	BARRED OWL	3
	COPE'S GRAY TREEFROG	5
	FORESTED WETLANDS SUITABLE	1
	HERPTILE PRIORITY SPECIES	1

LINK	COMNAME	COUNT
	MIGRATORY RAPTOR CONCENTRATION SITE	1
43763	FORESTED WETLANDS SUITABLE	1
	HERPTILE PRIORITY SPECIES	1
	RED-SHOULDERED HAWK	1
	COPE'S GRAY TREEFROG	47
	BARRED OWL	3
	MIGRATORY RAPTOR CONCENTRATION SITE	1
43764	BARRED OWL	1
	COPE'S GRAY TREEFROG	4
	FORESTED WETLANDS SUITABLE	1
	HERPTILE PRIORITY SPECIES	1
	MIGRATORY RAPTOR CONCENTRATION SITE	1
43765	BARRED OWL	3
	MIGRATORY RAPTOR CONCENTRATION SITE	1
	HERPTILE PRIORITY SPECIES	1
	COPE'S GRAY TREEFROG	10
	FORESTED WETLANDS SUITABLE	1
43766	FORESTED WETLANDS SUITABLE	1
	MIGRATORY RAPTOR CONCENTRATION SITE	1
43767	HERPTILE PRIORITY SPECIES	1
	RED-SHOULDERED HAWK	1

LINK	COMNAME	COUNT
	MIGRATORY RAPTOR CONCENTRATION SITE	1
	FORESTED WETLANDS SUITABLE	1
	BARRED OWL	3
	COPE'S GRAY TREEFROG	23
43768		
	BARRED OWL	1
	BIRD PRIORITY SPECIES	1
	COPE'S GRAY TREEFROG	2
	FORESTED WETLANDS SUITABLE	1
	HERPTILE PRIORITY SPECIES	1
	MIGRATORY RAPTOR CONCENTRATION SITE	1
43769		
	FORESTED WETLANDS SUITABLE	1
	MIGRATORY RAPTOR CONCENTRATION SITE	1
43770		
	FORESTED WETLANDS SUITABLE	1
	MIGRATORY RAPTOR CONCENTRATION SITE	1
	HERPTILE PRIORITY SPECIES	1
43771		
	BARRED OWL	3
	COPE'S GRAY TREEFROG	28
	FORESTED WETLANDS SUITABLE	1
	HERPTILE PRIORITY SPECIES	1
	MIGRATORY RAPTOR CONCENTRATION SITE	1
43772		
	BARRED OWL	3

LINK	COMNAME	COUNT
	COPE'S GRAY TREEFROG	4
	FORESTED WETLANDS SUITABLE	1
	MIGRATORY RAPTOR CONCENTRATION SITE	1
43773	FORESTED WETLANDS SUITABLE	1
	HERPTILE PRIORITY SPECIES	1
	COPE'S GRAY TREEFROG	10
	BARRED OWL	3
	MIGRATORY RAPTOR CONCENTRATION SITE	1
43774	BARRED OWL	3
	COPE'S GRAY TREEFROG	6
	FORESTED WETLANDS SUITABLE	1
	HERPTILE PRIORITY SPECIES	1
	MIGRATORY RAPTOR CONCENTRATION SITE	1
43775	BARRED OWL	1
	COPE'S GRAY TREEFROG	2
	FORESTED WETLANDS SUITABLE	1
	HERPTILE PRIORITY SPECIES	1
	MIGRATORY RAPTOR CONCENTRATION SITE	1
43776	HERPTILE PRIORITY SPECIES	1
	MIGRATORY RAPTOR CONCENTRATION SITE	1
	COPE'S GRAY TREEFROG	11

LINK	COMNAME	COUNT
	BARRED OWL	3
	FORESTED WETLANDS SUITABLE	1
43777	BARRED OWL	3
	COPE'S GRAY TREEFROG	7
	FORESTED WETLANDS SUITABLE	1
	HERPTILE PRIORITY SPECIES	1
	MIGRATORY RAPTOR CONCENTRATION SITE	1
43778	BARRED OWL	3
	COPE'S GRAY TREEFROG	14
	FORESTED WETLANDS SUITABLE	1
	HERPTILE PRIORITY SPECIES	1
	MIGRATORY RAPTOR CONCENTRATION SITE	1
43779	FORESTED WETLANDS SUITABLE	1
	MIGRATORY RAPTOR CONCENTRATION SITE	1
	BARRED OWL	1
	COPE'S GRAY TREEFROG	3
43780	COPE'S GRAY TREEFROG	10
	FORESTED WETLANDS SUITABLE	1
	HERPTILE PRIORITY SPECIES	1
	MIGRATORY RAPTOR CONCENTRATION SITE	1
	BARRED OWL	3
43781		

LINK	COMNAME	COUNT
	BARRED OWL	1
	MIGRATORY RAPTOR CONCENTRATION SITE	1
	HERPTILE PRIORITY SPECIES	1
	COPE'S GRAY TREEFROG	7
	FORESTED WETLANDS SUITABLE	1
43782	MIGRATORY RAPTOR CONCENTRATION SITE	1
	BARRED OWL	2
	COPE'S GRAY TREEFROG	7
	FORESTED WETLANDS SUITABLE	1
	HERPTILE PRIORITY SPECIES	1