

2017 Master Plan Reexamination Report

City of Sea Isle City
Cape May County, New Jersey

Adopted by the Sea Isle City
Planning Board on
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The original of this report has been signed and
in accordance with N.J.S.A. 45:14A-12



CONTENTS

Acknowledgements.....2

Introduction3

Reexamination Report Requirements4

PLANNING HISTORY5

Master Plan Objectives6

2017 AMENDED OBJECTIVES.....6

Master Plan Reexamination Process7

PLANNING BOARD7

PLANNING BOARD WORKING GROUP.....7

MASTER PLAN REEXAMINATION PUBLIC SURVEY8

PUBLIC MASTER PLAN REEXAMINATION WORKSHOP.....8

MEETING WITH CIVIC GROUPS AND COMMISSIONS9

**Major Problems Identified And Addressed Relative To The 2007
Master Plan Reexamination Report9**

2007 HOUSING RECOMMENDATIONS10

2007 LAND USE RECOMMENDATIONS10

2007 CIRCULATION AND PARKING RECOMMENDATIONS11

2007 PARKS, RECREATION AND OPEN SPACE RECOMMENDATIONS13

2007 ECONOMIC DEVELOPMENT RECOMMENDATIONS15

2007 STORM WATER MANAGEMENT RECOMMENDATIONS16

2007 RECYCLING RECOMMENDATIONS16

**Extent Of Significant Changes To Assumptions, Policies And
Objectives Since 2007 Master Plan Reexamination Report17**

DENSITY AND DISTRIBUTION OF POPULATION 17

LAND USE 17

HOUSING 25

CIRCULATION AND PARKING 27

PARKS, RECREATION AND OPEN SPACE 35

ECONOMIC DEVELOPMENT 39

STORMWATER MANAGEMENT..... 41

UTILITY INFASTRUCTURE..... 44

RECYCLING 45

CONSERVATION OF NATURAL RESOURCES 46

STATE POLICIES AND REGULATIONS..... 49

Recommended Changes To Master Plan And Regulations 50

ZONING CHANGES..... 50

HOUSING 54

CIRCULATION AND PARKING 54

PARKS, RECREATION AND OPEN SPACE 56

ECONOMIC DEVELOPMENT 57

STORMWATER MANAGEMENT..... 57

BEACH NOURISHMENT PROJECT 58

UTILITY INFASTRUCTURE 58

RECYCLING 59

CONSERVATION OF NATURAL RESOURCES 59

Redevelopment Plans59

Appendix60

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INTRODUCTION

This report was prepared to enable a reexamination of the Sea Isle City Master Plan in accordance with State requirements. A Natural Resources Inventory and Forestry Management Plan have also been completed and will be adopted as an addendum to this Master Plan Reexamination Report (MPR). The MPR also provides recommendations for future planning efforts, zoning amendments, and zone district and zone map changes.

Sea Isle City encompasses over 1,400 acres of land and water on the eastern coast of Cape May County. It includes most of Ludlam Island, stretching five miles from north to south. It is bounded on the north by Strathmere in Upper Township, on the west by wetlands of Dennis Township, on the south by Avalon, and on the east by the Atlantic Ocean. It is one of the 16 municipalities comprising Cape May County, the southernmost county in New Jersey. (See map insert.)

Sea Isle City is a barrier island community. The entire City is located east of the Intracoastal Waterway on land which is a typical barrier island characterized by sandy soils, beaches, dunes and tidal flats. The entire island is subject to storm-related flooding, with several areas vulnerable to wave damage. Virtually all of the land within the City boundaries which is not developed is beach, wetland or is under water.

Access to the City from the mainland is via the John F. Kennedy Boulevard Bridge and Sea Isle Boulevard (County Route 625), which is a causeway to the Garden State Parkway and U.S. Route 9. The only other access to the City is via Ocean Drive, which connects Sea Isle City with other coastal

communities to the north and south. These roads are County maintained. No other roads from Sea Isle connect with adjacent communities.



Sea Isle City Location

The principal economic influence for Sea Isle City and many of its neighboring communities is summer beach resort population. This seasonal population explosion creates substantial demands on City services in the summer months which peak in July and August. Most visitors arrive by private automobile via the Garden State Parkway. They come primarily from

the metropolitan areas of Philadelphia and New York, although there are many visitors who travel from greater distances. Numerous campgrounds in Dennis Township on the mainland contribute to the number of day-trippers who populate the beaches, use commercial areas and add to the vehicular congestion. Sea Isle City is a compact community located along the shore in Cape May County, and situated on a barrier island. The City is rather densely populated in the area south of 22nd Street, and extending to the southern terminus of the island at 93rd Street.¹ There are about 2,114 year-round residents² with the summer population exploding to an estimated 48,000 persons³.

REEXAMINATION REPORT REQUIREMENTS

The Municipal Land Use Law (“MLUL”) requires a periodic reexamination of the Master Plan (N.J.S.A. 40:55D-89) at least once every 10 years. The N.J.S.A. 40:55D-89) provides that the reexamination report consider five areas which include:

- a. *The major problems and objectives relating to land development in the municipality at the time of the adoption of the last reexamination report.*

- b. *The extent to which such problems and objectives have been reduced or have increased subsequent to such date.*
- c. *The extent to which there have been significant changes in the assumptions, policies, and objectives forming the basis for the master plan or development regulations as last revised, with particular regard to the density and distribution of population and land uses, housing conditions, circulation, conservation of natural resources, energy conservation, collection, disposition, and recycling of designated recyclable materials, and change in State, county and municipal policies and objectives.*
- d. *The specific changes recommended for the master plan or development regulations, if any, including underlying objectives, policies and standards, or whether a new plan or regulations should be prepared.*
- e. *The recommendations of the planning board concerning the incorporation of redevelopment plans adopted pursuant to the “Local Redevelopment and Housing Plan” P.L.1992, c.79 (C.40A:12A-1 et al.) into the land use plan element of the municipal master plan, and recommended changes, if any, in the local development regulations necessary to effectuate the redevelopment plans of the municipality.*

¹ Sea Isle City Master Plan Re-Examination Report. December 2007.

² U.S. Census Fact Finder 2010.

³ Cape May County Data Book 2010.

As shown in the section below, the 2007 MPR is considered as the primary planning review documentation for this current 2017 MPR.

PLANNING HISTORY

Sea Isle City Master Plan - 1968
Sea Isle City Master Plan - 1979
Sea Isle City Master Plan, prepared by Norman Day Associates- July 1988
Updated Zoning Ordinance and Map (Ord.#1038) - August 1991
Sea Isle City Master Plan Re-Examination Report - August 1994
Sea Isle City Master Plan Re-Examination Report - March 2002
Downtown Master Plan (Draft), prepared by Scott Taylor - January 2005
Sea Isle City Board of Education Long Range Facilities Plan - September 2005
Sea Isle City Storm Water Management Plan - March 2005
Sea Isle City – Zoning Map - April 2005
Sea Isle City – NJ State Plan Cross Acceptance Report - Jan.2005
Comprehensive Study of Commercial Development Issues Facing Sea Isle City - April 2006
Sea Isle City Natural Resources Inventory - February 2007
Sea Isle City Plan Endorsement Petition - April 2007
Sea Isle City Master Plan Re-Examination, prepared by Karabashian Eddington Planning Group – December 2007
City of Sea Isle City Master Plan Housing Element and Fair Share Plan – Dec. 2008
Revitalization Plan for the Beach to Bay Corridor - October 2009
Cape May County Multi-Jurisdictional All Hazards Mitigation Plan Sept. 2013
Beach Management Plan - March 2011

The first City Master Plan was adopted in 1968, which was updated in 1979. Changes in State legislation and environmental concerns directed the

update of the 1979 Plan. The 1979 Plan was more responsive to environmental concerns and wetlands protection; although it assumed under certain conditions the wetlands were developable, which is now unlikely.

The most current complete Master Plan was adopted by the City’s Planning Board on July 11, 1988. The 1988 Master Plan included the following elements:

- Land Use Element
- Wetland, Beach & Dune Element
- North End Element
- Housing Element
- Circulation Element
- Public Facility Element
- Utilities Element
- Energy Conservation Element
- Housing Plan
- Circulation Plan
- Utility Service Plan
- Community Facilities Plan
- Recreation Plan
- Historic Conservation Plan
- Economic Plan

By the 2002 Master Plan Reexamination (MPR), the City had implemented many of the 1988 Plan recommendations including the Downtown Improvement Plan, Townsend’s Inlet Waterfront Park and various land use and zoning changes. The 2007 MPR was a comprehensive review of City

planning conditions with many recommendations provided on zoning changes, circulation and other areas. The status of the 2007 MPR recommendations is addressed in this 2017 MPR.

MASTER PLAN OBJECTIVES

The 1988 Plan provided a statement of objectives that formed the underlying basis of the Plan. This statement of objectives includes the following:

- Satisfy the general provisions of the New Jersey Municipal Land Use Law to promote the general welfare of the permanent and seasonal population of Sea Isle City.
- Encourage an appropriate mix of residential, commercial, and other land uses in the community to emphasize family-oriented resort housing needs.
- Maintain public use of the beachfront, and provide sufficient access to the ocean and bay.
- Protect environmentally sensitive areas of the community, including water areas, aquifers, beaches, dunes and wetlands.
- Institute necessary plans and controls to minimize flood damage in the community.
- Match the development potential of the City with the infrastructure which services the City.
- Control the pace of development and redevelopment to avoid exceeding permitted water withdrawal and sewage general volumes.
- Prevent overcrowding and reduce adverse impacts to stable neighborhoods which result from redevelopment.

- Enhance the existing business areas, especially the John F. Kennedy Boulevard entry area.
- Improve Sea Isle City's boating economy through support of marine and water-dependent businesses.
- Improve parking in the downtown area.
- Development mechanisms which match development with the public investments needed to serve them.
- Improve the delivery and cost effectiveness of public services to the community.
- Limit opportunity for additional multi-family development.
- Protect and enhance the three access roads to the community – especially county Route 625, which provides direct access to the mainland and serves as an evacuation route in the event of severe coastal storms.
- Identify future public improvements which will expand the economic base of the City and provide better services to the citizens and visitors of Sea Isle City.
- Implement programs to promote the maximum practical recovery and recycling of recyclable materials from solid waste.

This 2017 MPR confirms these underlying objectives with the following caveats and additional objectives for future planning in the City.

2017 AMENDED OBJECTIVES

The 1988 Master Plan objectives are still considered substantially relevant; however, the following updated objectives are recommended to be included with the prior objectives, to address current City goals.

The City, based upon recommendations in the 2007 MPR adopted mixed use development in the business districts and revised residential development

standards. This was subsequently implemented through ordinance changes beginning in 2009. Through this current MPR process, the City is seeking to address parking and residential density impacts resulting from continued housing growth in residential neighborhoods and from mixed use development. The Planning Board has recommended a number of amendments to address these problems including commercial zoning district refinements, reductions in residential densities and expanded residential parking requirements. Therefore, the following objectives should be added which reflects the 2007 MPR recommendations as refined through the current 2017 MPR recommendations.

- *Provide opportunities for multifamily development with appropriate parking and density standards to limit negative impacts on the surrounding areas.*
- *Provide for residential development with density, lot coverage and parking standards that will address the negative impacts on the surrounding residential neighborhood due to increased residential growth.*

The effects of global warming, ocean level rise and resultant increased flooding in the City and storm impacts has directed the need for policies to address storm resiliency. Therefore, the following new objective is added:

- *Address storm water resiliency through appropriate measures including enhanced emergency preparedness planning, regulations and design tools to control flooding and its impact on the community.*

MASTER PLAN REEXAMINATION PROCESS

PLANNING BOARD

The Sea Isle City Planning Board held seven special meetings before preparing the MPR to review current planning conditions and changes that should be considered in the master plan reexamination process. The Planning Board reviewed the status of prior Master Plan recommendations, prepared and implemented an on-line public survey and conducted a public workshop to gather comments on issues and changes that should be considered in the MPR. After the workshop, the Planning Board held special meetings and specifically reviewed the following focus areas: land use, parking and circulation, recreation and open space, economic development, storm water management, infrastructure and the environment. The results of these Special Meetings were used to organize and develop the MPR recommendations.

PLANNING BOARD WORKING GROUP

Three appointed Planning Board members, met with the City Administrator, City Engineer, Planning Consultant and Director of Community Services on a regular basis to review the public survey, plan the public workshop, review the survey results and present initial comments and ideas to the Planning Board on the MPR. As of June 2016, ten Working Group meetings were held. The results of these meetings were provided to the Planning Board for further review.

MASTER PLAN REEXAMINATION PUBLIC SURVEY

From July 15, 2015 to September 19, 2015, an on-line public survey was available to aid in the MPR process. Specifically, the survey focused on planning conditions that are relevant to Sea Isle City. The survey was advertised multiple times on the City website and through the City's e-newsletter. Results of the survey were made available to the public on the City's webpage.

Over 3,300 persons took the survey on-line. Only 22 persons filed a paper survey which was also tabulated. Over 77% identified themselves as property owners and about 9% were seasonal renters.

The survey focused on issues relating to land use and development, traffic and parking, parks and recreation programs, future use of public properties such as the vacant public elementary school, the Old Fire House and the Marina (old amusement park site on JFK Boulevard), the economy, stormwater management and infrastructure.

There were over 1,000 pages of comments. These comments were summarized in the Sea Isle City Master Plan Reexamination Survey (2015 Reexamination Survey) by the Planning Board Working Group. A copy of the 2015 Reexamination Survey has been included in the Appendix. This survey was reviewed by the Planning Board and each of the five Special Planning Board meetings addressed selected focus areas for review and comment by both the Planning Board members and the general public. The survey was considered an important tool used to guide the MPR review process and final recommendations.

PUBLIC MASTER PLAN REEXAMINATION WORKSHOP

A public workshop was held on Saturday October 24, 2015 from 10 AM to 2 PM at the City Welcome Center.

Purpose was to gather information from the public on planning issues to be considered in the MPR. Five focus areas were defined for review: land use, circulation and parking, parks, recreation and open space, economic development, storm water management and infrastructure. Over 200 persons attended the meeting, not including members of the Planning Board, City Council, the Mayor and the City Engineer and Planning Consultant. After introductions, an overview of the master plan reexamination process was presented. Then the audience was convened into the five focus areas with guidance given at each area by members of the Planning Board and the City Engineer to review ideas and issues that the public felt should be addressed in the MPR process. After about one hour, the audience was reconvened to review the results of each focus area.



There was good input from the public on the MPR process and issues that should be addressed by the Planning Board.



- Recreation Committee
- Taxpayer Association
- Tourism Commission

The attendees had good ideas and raised concerns about a variety of areas: mixed use refinements, problems with residential density, parking, bike facilities, Sustainable NJ, and recreation improvements especially focused on water related recreation among other items. These ideas were presented to the full Planning Board and addressed in their deliberations in the MPR process.

MAJOR PROBLEMS IDENTIFIED AND ADDRESSED RELATIVE TO THE 2007 MASTER PLAN REEXAMINATION REPORT

As required under N.J.S.A. 40:55D-89 (a) and (b), the MPR must review those major problems identified in the 2007 MPR and the extent to which they are either completed, not acted upon, or no longer valid. The 2007 MPR assessed seven focus areas and made specific recommendations for each area:

- Housing
- Land Use
- Circulation and Parking
- Parks, Recreation and Open Space
- Economic Development
- Stormwater Management
- Recycling

The recommendations and the status of the recommendations are identified below and compiled by specific focus areas used in the 2007 MPR.

MEETING WITH CIVIC GROUPS AND COMMISSIONS

On November 19, 2015, a meeting was held with members of various City commissions, civic groups and organizations. The purpose was to discuss ideas and issues that should be considered as part of the MPR process. The Planning Board Working Group organized the meeting. The following groups participated in the meeting:

- Environmental Commission
- Chamber of Commerce/Revitalization Committee

2007 HOUSING RECOMMENDATIONS

The 2007 MPR stated regarding Housing for the City to pursue certification of the City's Housing Plan to meet the City's COAH (Council on Affordable Housing) 1st, 2nd and 3rd round obligations as applicable through 2014.

Status: *The 2008 Housing Element and Fair Share Plan (HEFSP) was filed with COAH on December 30, 2008. It was declared complete by COAH on March 16, 2009. The City did not petition for certification from COAH. The COAH process was embroiled in litigation which has continued until the present day. The New Jersey Courts have since taken over COAH jurisdiction. The City is currently preparing an updated HEFSP under the new Court rules.*

2007 LAND USE RECOMMENDATIONS

1a. Limit the downtown commercial zoning district (C-1, General Business District along Landis Avenue) from its northerly terminus at 32nd Street to 37th Street and change the zoning to residential (R-2 Two-family Residential District).

Status: *C-1 District was reduced to end at 35th Street, not 37th Street in 2009.*

1b. Reduce the C-4 Beach Business District zone along Pleasure Avenue from 32nd Street to 35th Street and rezone this area to residential (R-2 Two-family Residential District).

Status: *C-4 District was reduced to end at 35th Street in 2009.*

2. Rezone the Back Bay (C-3 Marine Commercial zoned properties north of 38th Street and west of Sounds Avenue) to the residential R-2, Two-Family Residential District to match the current land uses.

Status: *Zoning map amendment was adopted in 2009.*

3. Change the zoning classification of properties near 63rd Street and Landis Ave from C-5 to C-1.

Status: *Zoning map amendment was adopted in 2009.*

4. Remove residential use as a primary permitted use on all commercially zoned properties within the Downtown Business District and encourage mixed-use development by permitting residential uses on the upper floors within this District and increase the density of upper story residential development. The intent was to provide for increased population in this area and to create a viable downtown district environment. The 2007 MPR recommended four upper story residential units per 5,000 sf lot within mixed use buildings. The single family and two-family homes as permitted principal uses should be removed.

Status: *In 2009, mixed uses were permitted in all commercial zones including the C-5 Motel District Zone and residential use as principal permitted use was removed.*

5. Examine the site at Joseph A. Larosa Way and Kneass Avenue for the possible location of a future parking structure that would be linked with a circulator bus or trolley that carries visitors up and down the island during the heavily trafficked summer months. The 2007 MPR also recommended that a plan for possible relocation of the City's

public works facilities be considered to make the site available for future development more appropriate for uses tied to a marina.

Status: *Construction of a parking structure did not seem to be financially viable. A robust jitney system was established in 2014 and has been expanded. No action has been taken on relocating the public works facility to allow for commercial uses.*

6. Given that the City has determined that the newly proposed library should be located on the 48th Street site, the City should ensure that it has the final review of the County's proposed plan for this facility/site in conjunction with its professional planner. LEED (Leadership in Energy and Environmental Design) certification should be required for this building in addition to the City being involved in the siting of the actual facility.

Status: *New Cape May County Library has been completed in 2011.*

7. Incorporate the proposed Sea Isle City Design Guidelines and Prototypical Layouts relating to public space design, site planning, landscape design, building design and signage as a non-mandatory guide for all property development within the City.

Status: *The Ordinance was amended in 2009, 2013 and 2014 adding and refining the architectural design guidelines and landscape standards for commercial uses only. Signage standards were amended in 2010.*

2007 CIRCULATION AND PARKING RECOMMENDATIONS

1. Advance the concept of integrated downtown pedestrianization by improving urban design and developing JFK Boulevard, 42nd Street and Landis Avenue between 37th and 48th Streets and the Promenade as true pedestrian priority streets.

Status: *The City completed reconstruction of JFK Boulevard and improved streetscape improvements in conjunction with the Cape May County project in 2013. The streetscape project for Landis Avenue from 39th to 43th Streets was completed in the Spring 2016. The extension of the Landis Avenue Streetscape to the north and south is included in the City's Five-Year Capital Plan. Promenade improvements are ongoing.*

2. Develop temporary surface parking lots on 48th Street and Park Road and explore shared use when the site is fully developed as the proposed library.

Status: *A public parking lot has been included at the Library site.*

3. Develop temporary visitor parking, along the west side of Landis between 22nd and 26th Streets for the primary benefit of beach-goers.

Status: *This recommendation determined to be infeasible due to environmental restrictions. Alternatively, additional parking at the north end of the City, between 5th and 7th Streets has been made available. The provision of additional parking for the north beach area will be reviewed.*

4. Designate at least ten {10%} percent of the parking spaces at all public facilities for carpool or vanpool parking where feasible.

Status: *This recommendation was not implemented since carpool or vanpool employee parking is not considered an issue relative to overall parking needs for summer season visitors.*

5. Install parking meters or other state-of-the-art devices, with appropriate time limits, in appropriate areas with two (2) hour limit on Landis Avenue and JFK Boulevard and long term four (1) hour parking in other areas.

Status: *Parking kiosks have been installed with time limitation deemed appropriate, after extensive City Council consideration and public discussion.*

6. Install a more effective system of a common parking meter machines as opposed to the current individual coin-fed parking meters.

Status: *Modern parking kiosks were installed along JFK Boulevard and at municipal lots.*

7. Set up a committee to identify, encourage and facilitate discussions and agreements with private parties and or public agencies to promote joint or shared parking especially if the hours of use between the parties under consideration vary.

Status: *This was not able to be implemented but is still under consideration by the City.*

8. Draft regulations, as part of the Land Development Codes, to restrict and manage access points on all primary arterial and collector roads, namely JFK Boulevard, Landis Avenue and Central Avenue by requiring shared access driveways and cross-access connections/easements for abutting properties.

Status: *In 2011 and refined in 2012, driveways have been further limited in both location and width; however, shared driveways are not specifically addressed in the regulations. Additional driveway refinements have been discussed by the Planning Board during the current 2017 MPR process.*

9. Improve access to City beaches especially between 29th and 57TH Streets by increased pedestrian and bike access to the beach through improving street end connections to the Promenade from prominent east-west roads.

Status: *These are on-going improvements as part of the Five-Year Capital Plan.*

10. Adopt a fee In-lieu of parking where the property owner must pay a one-time payment per parking space deficiency if a variance is granted for parking relief within downtown commercial zoning district.

Status: *A fee-in-lieu of parking requirement was established by Ordinance No.1462 (2009); however, the ordinance has not generated funds at this point.*

11. Identify and pursue opportunities for satellite/intercept parking possibly at intercept parking lot on the mainland or the rest stop on the Garden State Parkway.

Status: *This was not pursued since demand had not seemed to warrant this approach; however, it has been identified again for consideration in the 2017 MPR process.*

12. Undertake feasibility studies for parking structure in conjunction with a trolley system to provide future parking for Downtown patrons, visitors and residents with easy access to the Downtown Business District.

Status: *A parking structure was not considered economically feasible given the limited season of peak parking demand. The establishment of jitney service during the summer season has greatly improved ease of travel in the City and has reduced parking needs.*

13. Incorporate gateways into the urban landscape to create a sense of place and identity for the community.

Status: *Gateway improvements have been made with the JFK Boulevard project, in conjunction with the City's Beach to Bay Corridor Capital Improvement Program. Additional improvements specific to the bridge are still needed.*

The City Beautification Committee has been active in organizing improvements to both the north and south gateways. The north gateway which included a garden surround the "Welcome to Sea Isle City" sign which has solar lighting, a granite turtle statute and other features which were installed by the City Public Works crews.

On the south gateway, a 'memorial garden' was created near the foot of the Townsends Inlet Bridge including personalized benches and brick memory pavers.

14. Coordinate with NJDOT and Cape May County to improve the visual aspects of the bridge by incorporating nautical themed tile murals into the concrete guards, the addition of colored light and "flowing"

elements along bridge rails and painting the lighting fixtures with brighter colors.

Status: *Some improvements were completed with landscaping at the base of the bridge; but improvements related to lighting, public art or painting of the bridge has not been implemented. This should be pursued with the NJDOT and County.*

15. Plan, design and install a comprehensive city-wide wayfinding signage system to direct residents and visitors to the beach, recreation sites, prime destinations, parking areas and evacuation routes.

Status: *This item requires further review and action.*

16. Undertake a detailed and comprehensive transportation planning study to establish Sea Isle City as a multimodal community that integrates foot traffic, bikes, trolleys/people-movers and waterborne traffic in addition to vehicular traffic.

Status: *This item requires further review and action to address multimodal uses.*

2007 PARKS, RECREATION AND OPEN SPACE RECOMMENDATIONS

1. Design and build a passive park that could include traditional passive recreational activities such as bird watching, walking/hiking, biking, kayaking/canoeing, picnicking, as well as other unique recreational activities at the north end of the City, the former landfill site.

Status: The landfill site at the north end is not a viable park location at this time, since the property is being remediated in accordance to NJDEP regulations. It is also a noted habitat of threatened or endangered species of bird, which will require special treatment. Once remediation is completed, it should be considered for passive park uses.

2. Evaluate the feasibility of a neighborhood park on City-owned properties on Central Avenue and 80th Street, this may be made possible if the existing utility use structures at this location are consolidated and possibly moved off shore.

Status: This is not considered feasible since it is the location of the 80th St. Water Treatment and Well facility, which is vital infrastructure for continuation of adequate water supply to the City.

3. Evaluate expansion of recreation opportunities at Dealy Recreation Center on Central Avenue between 59th and 63rd Street to include soft park surfaces with landscaping and nature trails near the wetlands portion of the site.

Status: Significant improvements have been made to Dealy Field over the past 10 years. The City continues to work in concert with the Recreation Committee and the public to provide extensive recreational opportunities.

4. Implement joint recreational programming with the Sea Isle City School Board on Park Road and 45th Street and the expansion of the school recreation area on Central Avenue and 45th Street to allow public access during after-school hours. If given declining enrollments, the school should cease operation, consideration for adaptive reuse as a community center, performing arts center or similar should be given.

Status: The school ceased operation in 2012. The school building is now available for daily access to its gymnasium. It had been used until September 2015 as a temporary City Hall. The 2015 Reexamination Survey and community workshop specifically asked for public input on future uses for the property, which were then reviewed by the Planning Board. Consensus of the Planning Board is to recommend that the property continue to be used for public recreation purposes.

5. Establish a City-wide policy to promote shared use of vacant public land especially for parks and recreation purposes.

Status: The City allows considerable use of its lands for parks and recreation purposes, such as the Farmer's Market and various festivals and programs. This can be expanded to other public venues.

6. Expedite the construction of Excursion Waterfront Park at 40th Street and Promenade - Caspar Parcel.

Status: The Waterfront Park was completed in 2011.

7. Evaluate the possibility of designating a bike lane on the Promenade where feasible, in conjunction with regulated times of use.

Status: A bike lane on the Promenade would not be possible without enlarging the Promenade width, which would require extensive permitting and costs. Bicycle facilities improvements will need further study, not just on the Promenade, but also throughout the City.

8. Undertake a beautification program for the Promenade that could include new surface treatments, planters, lighting, street furniture etc.

Status: *The beautification program is ongoing. Extensive improvements were completed at Promenade and JFK Boulevard; Promenade lighting is included in the City's Five-Year Capital Plan.*

9. Evaluate the bayfront site between JFK Boulevard and 38th Street for development as a waterfront park and marina.

Status: *This has been a recommendation since the 1988 Master Plan to preserve this site for public marina and water related activities use. The planning of the marina site should be implemented, subject to further review with community input to identify the most appropriate, cost effective and feasible program.*

10. Undertake themed physical improvements and space programming at the Marina Commercial area in the vicinity of 42nd Place to promote the fishing industry, marina related activities and other affiliated uses.

Status: *The Marina area was completely reconstructed in 2009 -2011 with new bulkheads, docks, ramps, landscaping, parking, lighting, a boardwalk installed along the docks with a pavilion and seating areas and a new Marina building. More recently, a new boat ramp was installed and a new boardwalk was installed along the docks (with a pavilion and seating areas).*

11. Continue to preserve and protect the City's wetlands and natural resources such as the beach dunes and other environmentally sensitive lands.

Status: *In 2011, the City adopted a Beach Management Plan in cooperation with the NJ Department of Environmental Protection and the US Fish and Wildlife Service. The City works closely with the City Environmental Commission to assure preservation and protection of our natural resources.*

12. Coordinate with the County to develop a state-of-the-art library facility proposed on the 48th Street site, which can act as a learning center and venue for social affairs with extended service hours.

Status: *New library opened in 2011.*

2007 ECONOMIC DEVELOPMENT RECOMMENDATIONS

1. Pursue revitalization of the Downtown Business District and Neighborhood Commercial Areas through the use of one or more specific revitalization tools widely used in the State of New Jersey to spur economic development. These tools include:

- Creation of Redevelopment Areas
- Creation of Tax Increment Financing (TIF) Districts
- Creation a Business/Special Improvement (BID/SID) District
- Creation of a Main Street District

Status: *These tools were not implemented, but there has been considerable revitalization of the business district through an ongoing public/private partnership of the City and the Sea Isle Chamber of Commerce. This has resulted in new programs, marketing efforts, events, and the start-up of many new businesses.*

2. Undertake an economic analysis to check the feasibility of implementing a Transfer of Development Rights (TDR) program with the potential supply of open space offshore or potentially in the north end of the City and demand possibly in downtown Sea Isle City.

Status: A TDR program has not generated any interest thus far and has not been implemented,

3. Consider consolidating certain public functions such as City administrative offices, police services, ambulance corps, public works administration, utilities administration, post office, etc. into one or two centrally located complexes/facilities to improve operational efficiencies and maximize available resources thereby freeing up valuable land for other uses.

Status: The new City Hall on JFK Boulevard opened in September 2015.

4. Encourage economic development in the City by enabling the easy dissemination of information by:
 - Computerizing and integrating City operations, especially in code enforcement, GIS mapping, tax assessment for property information and development approval process.
 - Establishing a "Single Point Information Source" for general information on public facilities and services offered by the City and County at various locations.
 - Creating periodic community newsletters for transmission via email and print to foster a greater community spirit and generate better participation in City programs and activities.

Status: The City's GIS mapping is in progress. Computerization of various systems of City operations has been ongoing and continues to evolve with technology. The City's bi-weekly E-newsletter along with E-alerts and reverse 911 communications have served to better disseminate information to the public.

5. Promote energy efficiency practices by;

- Developing partnerships with consultants, agencies and firms that will develop and propose designs for installing solar energy systems for the benefit of interested residents and business.
- Embarking on a program to switch the majority of City street lights to LED's as these lights last longer and are cost effective in the long term.
- During the permitting process, encouraging property owners to turn to renewable energy sources to help create a cleaner Sea Isle City in addition to encouraging conservation of energy in building construction and appliances.

Status: This is an on-going part of the City's capital building process. City owned street lights along JFK Boulevard and at municipal lots are LED; current building codes mandate some of the energy conservation practices.

2007 STORM WATER MANAGEMENT RECOMMENDATIONS

Review, update and implement the recommendations of the Sea Isle City Stormwater Management Plan prepared by Walker Previti and Holmes in March 2005.

Status: This is an on-going process.

2007 RECYCLING RECOMMENDATIONS

The City should continue to strive to meet the recycling goals of 50% for all municipally-collected waste and 60% of total waste (e.g. demolitions, cars, etc.) as set by the State of New Jersey.

Status: Recycling is regulated under Chapter 18 et.al. under Ordinance 947 which has been amended in 2013 to include single-stream recycling. This is an on-going process.

EXTENT OF SIGNIFICANT CHANGES TO ASSUMPTIONS, POLICIES AND OBJECTIVES SINCE 2007 MASTER PLAN REEXAMINATION REPORT

This section of a MPR looks at whether there have been significant changes in the assumptions, policies and objectives forming the basis for the last adopted reexamination report with particular regard to density and distribution of population and land uses, housing conditions, circulation, conservation of natural resources, energy conservation, collection, disposition and recycling of designated recyclable materials and changes in State, County and Municipal policies and objectives⁴.

DENSITY AND DISTRIBUTION OF POPULATION

Overall City population decreased between 2000 and 2010 by 721 full-time residents or by over 25%. In 2010, there were 2,114 year-round residents, compared to the 2000 population estimates of 2,835 persons.

The summer population has continued to increase. Cape May County has estimated that the summer population as 48,150 persons in 2012, increasing by 34% in the 11 years from the 2001 County summer population estimates of 35,820 persons⁵.

⁴ N.J.S.A 40:55D-89(c)

⁵ Cape May County Data Book, 2003 & 2012.

The City population has also continued to age in place. The 2010 U.S. Census shows 683 or 32% of the permanent City residents 65 years or older. In 2000, there were 768 permanent residents or 27% of the permanent population. This percentage of residents over 65 years in Sea Isle City is significantly higher than both Cape May County and the State which were at 21.7% and 13.3% respectively. Aging residents will require specialized services and programs.

Changing demographics has resulted in closure of the one public elementary school in Sea Isle City in 2012. In 2000, there were 378 school aged children in Sea Isle City compared to 204 in 2010⁶. In 2016, there were 134 students from Sea Isle City with 83 in the Ocean City Public Schools and the remainder in private schools. In 2015, there were 141 students from Sea Isle City with 100 in the Ocean City Public Schools and 41 in private schools. This is a 5% drop in Sea Isle City children attending school over a one-year period.

LAND USE

LAND USE CONDITIONS

Existing land uses in the City are shown on Map 1 and identified in Table 1. This data based upon current tax records which establish property code classifications. Preserved open space is the largest category with over 675

⁶ US Census Fact Finder 2000 & 2010.

acres. Residential land uses are next with 584 acres. Only 26 acres are shown on the tax records as commercial. These may also include mixed use buildings.

Map 2 illustrates existing land use/land cover and provides a picture of the land use changes reflected on NJDEP land cover data. Table 2 provides a comparison between 2007 and 2012 aerial data; but it should be noted that this is generalized land cover data. There are limited changes in the land use categories between the two time periods. The greatest change is the beaches category, which increased by 46 acres during this period. Concurrently the water category was reduced by 47 acres. Commercial services increased by over 2 acres.

Table 1 - Existing Land Uses (Under Tax Codes)	
Land Use	Acres
Residential	584.21
Commercial	25.77
Public School	2.04
Private School	1.40
Church	3.24
Cemetery	0.76
Vacant	81.96
Preserved Open Space	675.46
Public Land	62.25
Public Utility	0.14
Other Exempt	0.15
Total	1,437.37

Table 2 - Land Use and Land Cover 2007 and 2012		
Land Use/Land Cover	2007 (acres)	2012 (acres)
Athletic Fields (Schools)	1.18	1.18
Beaches	27.79	73.72
Commercial/Services	58.39	62.41
Forest	13.82	11.68
Industrial	0.62	0.62
Military Installations	1.68	1.68
Mixed Urban or Built-Up Land	10.26	10.26
Other Urban or Built-Up Land	5.34	3.86
Recreational Land	20.92	20.07
Residential, High Density or Multiple Dwelling	594.32	593.17
Residential, Single Unit, Medium Density	11.77	11.77
Stadium, Theaters, Cultural Centers and Zoos	0.00	2.73
Transitional Areas	1.71	0.92
Transportation/Communication/Utilities	20.61	20.24
Water	412.82	370.34
Wetlands	583.47	580.05
Total	1,764.69	1,764.69

ZONING EVALUATION

The Planning Board undertook a detailed review of the zoning districts in the City. There were a number of concerns that generated the need for the Planning Board to undertake this review. The 2015 Reexamination Survey provided many public comments that were taken into consideration by the Planning Board regarding both residential and non-residential development.

RESIDENTIAL ZONES

For residential development, there were concerns about over-development. The Floor Area Ratio (FAR) requirements control the size of dwellings and reduce flooding by reducing impervious coverage. The FAR standard was eliminated in 2010 (Ordinance 1489). Parking deficiencies on residential streets due to conversions from single family to duplex units which generate additional cars were also noted. (Parking recommendations are address in a subsequent section under Circulation and Parking.) Yard setbacks were another area of review as was setbacks for accessory structures.

Floor Area Ratio

The public expressed concerns with the increased density of housing in the residential areas. The Planning Board considered the increased density of housing in the residential areas with the tear- downs of single family homes and older smaller duplex units. In 2015, the Planning Board recommended that the City reinstitute the floor area ratio (FAR) standards to control density and size of residential structures. Up until 2010, the City had a 0.70 FAR standard in the residential areas.

The City Council, after receiving a report on FAR from the Planning Board, accepted the Planning Board's recommendation to move forward to

reintroduce the FAR requirement rather than waiting for the completed MPR. In January 2016, the City adopted standards establishing a 0.80 FAR requirement for residential zones, which limited the overall square footage of the residential structure tied to lot area. The 0.8 FAR excludes garages, carports, patios, terraces and attached decks.

In June 2016, the City Council amended the FAR ordinance, increasing the allowable ratio to 0.85, clarifying the issue of projections and roofs over decks and requiring an additional parking space for residential structures with an FAR over 0.80.

Yard Setbacks

The Planning Board recommends the following modifications to the side yard setback standards for all residential zones which will increase distance between residential structures, reduce building footprint and provide for additional off-street parking area in the side yards:

- Front yard setback - No change
- Rear yard setback - No change
- Side yard setback
 - Minimum 10 feet / side yard at ground level
 - Minimum 7.5 feet /side yard on levels above ground level
- All yards shall be measured to the closest point on the exterior building wall and no building encroachment shall be located in the minimum yard.

Accessory Use Setbacks

The Planning Board felt that the setbacks for accessory uses in residential zones may be too limiting, especially for small sheds. The current regulations permit up to 10% of the lot area to contain an accessory structure. The minimum setback requirements are 5 feet rear yard and side yard setbacks. The Planning Board recommends that a reduced 2.5 feet setback be

permitted for smaller accessory structures only, which should be limited in size. The 5 feet setback should be retained for any larger structures.

Residential Driveways

To increase on- street parking spaces in the residential zones, the Planning Board recommends that the City study the issue with the goal of coming up with a plan that would maximize off-street and on-street parking.

COMMERCIAL ZONES

Mixed Use Development

For the commercial zones, the public was concerned about the development of mixed use buildings and the parking requirements for these buildings which were not considered by many as being adequate. (Parking is addressed in the Circulation and Parking section.) There was also concern that the commercial districts should be reduced in size, especially where prior non-conforming residential uses are maintained or use variances have been granted to permit strictly residential uses in certain areas.

The Planning Board recommends no changes in the residential component for mixed use development in the C-1, C-3, C-4 and C-5 zones.

For the C-2 zone, the Planning Board recommends that further analysis be done of the allowable residential density. The Planning Board believes that the C-2 zone is a neighborhood commercial zone and that the allowable density should be considered for reduction to lessen the parking needs and level of activity.

No change in housing unit density is recommended for the C-1, C-3, C-4 and C-5 zones.

Modified Setback Standards

The Planning Board also recommends the following modifications to the setback standards for development in the commercial zone districts:

- For the C-1, C-4 and C-5 zones – Minimum side yard setback of 5 feet on each side.
- For the C-2 zone - Minimum side yard setback of 7.5 feet on each side.
- For the C-3 zone in Fish Alley along Park Road and 43rd Place, the Planning Board does not recommend any changes in the existing bulk standards

Commercial Zone Uses

The Planning Board recommends the bike rentals be permitted in the C-2 and C-3 zones.

IMPERVIOUS COVERAGE

The Planning Board recommends that the City review the impervious coverage requirements for all zone districts. There is concern about increased flooding, due to increased impervious coverage for buildings and pavement, including impervious pavers, surrounding swimming pools. An analysis would be needed to determine possible changes in the impervious coverage and maximum lot coverage standards. The Planning Board recommends that this analysis be undertaken. The Planning Board also recommends that the overall coverage standards, including impervious coverage for swimming pools, be analyzed.

The current maximum impervious coverage requirements for all zones are:

- 70% for all other districts except:
- 95% for C-1, C-3, C-4, and C-5
- 90% for C-2
- 85% for C-6
- Maximum building coverage for residential zones in 35% plus 10% for accessory structures not including attached decks.

Also, the definitions of lot coverage and building coverage should be reassessed. For example, commercial zones refer to building coverage, which is, in fact, the impervious coverage limits. Building coverage is defined as *“land areas covered by building or accessory building.”*

The Planning Board also felt that after the certificate of occupancy is issued for a new structure, the impervious coverage may be increased above that percentage permitted, due to new paving and other impervious materials added to the lots. The Planning Board recommends that a Continuing Certificate of Occupancy (CCO) for all business and residential dwelling changes in occupancy or ownership. This may help to prevent changes in the site plan with additional impervious coverage that exceeds the regulations. This would amend Section 26-37, Certification of Front Yard, Side Yard, Rear Yard, Height, Building Coverage and Impervious Surface Coverage Compliance.

For rental properties, which are required to have a renter unit mercantile license, there is currently a self-certification form provided with the license application and there is no public inspection. The Planning Board recommends that the City consider instituting an inspection process of rental units to ensure that they comply with the licensure requirements and that they are in compliance with their approved site plan.

UPDATED LANDSCAPE STANDARDS

At the Planning Board Special Meeting on the MPR in April 2016, members of the Shade Tree Committee requested that the 2017 MPR recommend that the City’s landscape standards including the list of recommended trees be amended to reflect those tree species that survive in the unique climate of this barrier island.

The Planning Board recommends that the Landscape Standards be amended to ensure appropriate species will be selected that will survive with the sandy soil, flooding and other difficult environmental conditions. The Board also recommends that the landscape requirements for all development should be revised and that the effect of other recommended changes, which are proposed in this report, should be considered in the Landscape Standards.

PROPOSED ZONE DISTRICT CHANGES

Map 3 is the Existing Zoning Map. As part of the Planning Board review of the zoning conditions, the current zoning was superimposed on an existing land use map. The Planning Board primarily looked at land uses and conflicts within the commercial zones and zoning changes are now recommended as detailed below:

1. The C-1 zone on Landis Avenue from 35th Street to 38th Street should be rezone to R-2 zone with the exception of properties that front on the west side of the 36th Street and Landis Avenue

intersection which should be rezoned from C-1 to C-2. (See Map 4 - Proposed Rezoning)

2. One property located between West Jersey Avenue and 42nd Street is a residential use surrounded by other residential uses. This property is at the edge of the C-1 zone. It should be rezoned from C-1 to R-2. (See Map 5 - Proposed Rezoning)
3. One property located on the northeast side of 42nd Street and Park Road should be rezoned from C-3 to C-1, which is consistent with the adjacent property use. (See Map 5 - Proposed Rezoning)
4. The C-1 zone on Landis Avenue between 45th Street and 47th Street should be modified. Properties located on the west side of Landis Avenue are all residential uses. The zoning should be amended to R-2 zone. The properties on the east side of Landis Avenue between 45th Street and 46th Street are also residential uses and should be rezoned R-2. Further south between 46th Street and 47th Street are commercial and mixed-use buildings. The zoning should change from C-1 to C-2. (See Map 6 - Proposed Rezoning)
5. Further south on Landis Avenue between 49th Street and 51st Street, this is currently in the C-2 zone. Modifications to selected lots which are currently residential uses are recommended, changing the zoning from C-2 to R-2. Existing commercial and mixed-use buildings would remain in the C-2 zone. (See Map 6 - Proposed Rezoning)
6. The Acme Shopping Center development on the west side of Landis Avenue should be rezoned from C-1 to a new zone – SC Shopping Center. New shopping center standards should be prepared for the

site which would eliminate residential uses and would require parking standards consistent with shopping center use. (See Map 7 - Proposed Rezoning)

7. The vacant lot located on the northeast corner of Central Avenue and 63rd Street should be rezoned from C-1 to R-2. There is tentative discussion to develop this property for duplex units together with the adjoining property to the north which is under the same ownership. This would be consistent with the development pattern along this section of Central Avenue. (See Map 7 - Proposed Rezoning)
8. At the Landis Avenue and East Landis Avenue intersection are commercial uses which are currently zoned C-1. The Planning Board recommends that this property be rezoned C-2. This would continue to permit commercial uses, but at a lower intensity. (See Map 8 - Proposed Rezoning)
9. Between 85th Street and 87th Street is a C-2 zone. Selective rezoning changes are recommended to address existing residential properties. These would be rezoned from C-2 to R-2. (See Map 8 - Proposed Rezoning)
10. Along the bay terminating at 84th Street, 85th Street, 87th Street and 88th Street are properties currently with residential uses, although they are zoned C-3. These properties should be rezoned R-2 consistent with the surrounding residential development pattern and zone. (See Map 8 - Proposed Rezoning)
11. The Planning Board recommends that the C-3 Zone along the Bayfront at the ends of 85th, 86th, 87th and 88th Streets become a

new C-3A Zone with zone standards encouraging marina type uses.
(See Map 8 - Proposed Rezoning)

12. The Planning Board recommends that the C-3 Zone north of the JFK Bridge and west of Kneass Street become a new C-3A Zone with zone standards encouraging marina type uses. (See Map 9 – Proposed Rezoning)

Table 3 provides a list of those properties proposed for rezoning. Map 10, Proposed Zoning, illustrates the recommended zoning changes.

Table 4 compares the acreage within the existing zoning districts with the proposed zoning district changes. The C-1 zone is reduced by 13 acres which is consistent with the increase in the R-2 zone area. The C-3 is reduced by 17.5 acres which is incorporated into the proposed C-3A zone. The new Shopping Center SC Zone included 3.5 acres.

Table 3 - Properties Proposed for Rezoning	
C-1 to C-2	Block 35.03, Lot 11 Block 36.03, Lot 24 Block 46.02, Lots 1.01, 1.02, 2.01, 2.02, 8.01, 8.02, 9 Block 83.02, Lots 46, 47 Block 35.02, Lots 1, 2, 8, 9 Block 35.03, Lots 12, 23, 24 Block 36.02, Lots 1, 2, 8.01, 8.02, 9.01, 9.02 Block 36.03, Lots 11.01, 11.02, 12, 23
C-1 to R-2	Block 37.02, Lots 1.01, 1.02, 2.01, 3.01, 3.02, 4.01, 4.02, 8, 9, 10, 11 Block 41.03, Lot 9 Block 45.02, Lots 1.01, 1.02, 2.01, 2.02, 8.01, 8.02, 9.01, 9.02 Block 45.03, Lots 11.01, 11.02, 11.03, 12.01, 12.02, 23, 24 Block 46.03, Lots 11.01, 11.02, 11.03, 11.04, 12.01, 12.02, 12.03, 12.04, 22.01, 22.02, 23.01, 23.02, 24.01, 24.02 Block 61.03, Lot 1
C-1 to SC	Block 61.03, Lots 20.01, 25.01
C-2 to R-2	Block 49.02, Lots 1.02, 2.03, 8, 9 Block 49.03, Lots 11.02, 12.02, 23, 24 Block 50.02, Lots 2, 8.01, 8.02, 9.01, 9.02, 9.03 Block 50.03, Lots 22.02, 23.01, 23.02, 939 Block 86.02, Lots 13.01, 13.02, 14.01, 14.02, 15, 16 Block 87.02, Lots 13.05, 14.03, 14.04
C-3 to C-1	Block 41.04, Lots 1, 2, 3.01
C-3 to R-2	Block 85.04, Lots 24.01, 24.02, 25, 26.01, 26.02 Block 88.03, Lots 1.02, 2, 2.01, 4.01, 4.02, 4.03, 4.04, 4.05, 5, 5.01 Block 89.03, Lots 26, 27, 28, 29, 30.01, 30.02, 31.01, 31.02
C-3 to C-3A	Block 38.06, Lots 1 - 22 Block 38.07, Lots 1 - 10.01 Block 39.06, Lots 1 - 22 Block 39.07, Lots 1 - 10 Block 40.07, Lots 1 - 10 Block 86.03, Lots 1.01, 1.02, 1.03, 2.01, 2.02, 3, 4, 5, 6, 18.01 Block 88.04, Lots 1.01, 1.02, 2.01, 2.02, 4.01 Block 89.03, Lots 8, 9, 10 Block 90.04, Lots 22, 23, 24

Table 4 - Comparison of Existing Zone Districts with Proposed Zone Districts			
Zoning	Existing Acres	Proposed Acres	Change
C-1	34.48	21.52	-12.96
C-2	7.97	7.69	-0.28
C-3	34.32	14.50	-19.82
C-3A	0.00	17.52	17.52
C-4	6.97	6.97	0.00
C-5	5.52	5.52	0.00
C-6	6.60	6.60	0.00
P-1	136.62	136.62	0.00
P-2	655.74	655.74	0.00
P-3	80.34	80.34	0.00
R-1	11.47	11.47	0.00
R-2	570.21	582.25	12.04
R-2A	44.90	44.90	0.00
SC	0.00	3.50	3.50
Total	1,595.15	1,595.15	

HOUSING

HOUSING ELEMENT AND FAIR SHARE PLAN

The City is currently working on a Housing Element and Fair Share Plan (HEFSP) which will address its affordable housing obligation. The New Jersey Superior Court is currently reviewing competing affordable housing obligation numbers for the State and each municipality, so the City's HEFSP will be addressed at a future date, once the City's affordable housing obligation is resolved.

As part of its updated HEFSP, in 2015 a Vacant Land Inventory (VLI) was prepared for the City. The VLI showed the lack of undeveloped land which established a very limited 'Realistic Development Potential' according to NJ Council on Affordable Housing rules. Future residential growth will be primarily housing tear-downs and redevelopment of single family homes, older duplexes and commercial structures for more intensive development, as has been occurring over the past decades.

HOUSING CONDITIONS

According to the 2010 U.S. Census, there were 6,900 total housing units. Of these, only 1,041 or 15% were permanently occupied and 5,479 or 79% were seasonal units. In 2000, there were 6,622 housing units with 4,864 seasonal units or 74% seasonal units. There was an additional growth of 322 housing

units during this 10-year period with an increasing percentage and number of seasonal units⁷. In 2010, about 67% of the total housing stock are duplex and attached units. Over 25% of the housing stock in the City was built after 2000. About 9% was built before 1960.

Between 2000 and 2014, there has been continued residential growth in the City. There was a net growth of 768 housing units during this 15-year period which includes 2,121 new housing units and 1,479 residential demolitions as documented by the New Jersey Department of Community Affairs.⁸

Between 2010 and 2014, there was a net increase of 123 new housing units. This growth reflects, in part, the changes in the commercial districts permitting mixed use development, as was recommended by the 2007 MPR. In 2010, the City regulations were amended permitting mixed commercial/residential uses, with residential uses based upon 1 residential unit/1,250 square feet of lot area. This encouraged redevelopment of what was considered underutilized commercial zoned properties for mixed residential use in the business districts.

In terms of rental units, the City requires a renter unit mercantile license. The license comes with a certificate of self-inspection. As shown in Table 5, license data issued in 2009 to 2015 was obtained from the City Clerk. The licenses went from a high of 2,356 in 2009 to a low of 1,904 in 2015. The median was 2,108 licenses in 2012. The number of renter licenses was reduced in the last years, notwithstanding the new residential construction that has occurred in the City and the increase in seasonal housing units. It

⁷ U.S. Census, Fact Finder 2000 & 2010.

⁸ New Jersey Construction Report, NJ DCA.

would appear that 61% of the seasonal housing units are not rentals, based upon a comparison of renter licenses issued compared to 2010 census data of seasonal housing units.⁹

Table 5 - Renter Unit Mercantile License	
Year	Renter Unit Mercantile Licenses*
2009	2,356
2010	2,139
2011	1,936
2012	2,108
2013	2,027
2014	1,967
2015	1,904
<i>*Data provided by City Clerk records</i>	

HOUSING DENSITY AND PARKING ISSUES

The R-2 residential zone also continues to experience tear-downs of older residential dwellings and the new replacement housing is typically duplex

⁹ The 2010 census data shows 5,479 seasonal housing units. Subtracting the number of 2010 renter mercantile licenses issued of 2,139 would yield 3,340 housing units that were not licensed rentals. This is 61% of the total seasonal units.

units for the older single-family homes. The “redevelopment” of the R-2 zone has created parking shortages on many residential streets during the summer season. In 2015, the public, through the 2015 Reexamination Survey and at the public meetings, have continued to express concern over parking deficiencies especially in the residential areas.

The Planning Board now recommends that the parking standards be amended to address parking needed in residential zones. (This is further addressed under the Circulation and Parking Section that follows.)

The Planning Board also recommended to the City Council that the FAR standards for residential uses, which were eliminated in 2010 be reinstated. Reinstating the FAR standard was considered to control the size of residential homes which would then be based on lot area. In January 2016, the City adopted FAR standards to establish a maximum 0.80 FAR for all residential zones. In June 2016, the FAR standards were amended to a 0.85 FAR.

BUILD-OUT ANALYSIS

A Build-Out Analysis is an important component for planning to determine the estimated residential and non-residential development. A Build-Out Analysis provides a framework to assess whether the City’s infrastructure, such as wastewater treatment capacity can accommodate the anticipated growth. The 2007 MPR prepared a build-out analysis which identified an

estimated 8,380 total residential units at full build-out, utilizing the current zoning and 8,804 residential units with the recommended 2007 zoning amendments. The 2007 MPR projected that the City would reach its capacity in 25 years.

As part of the 2012 *Cape May County Wastewater Management Plan, Municipal Buildout Report for the City of Sea Isle*¹⁰, an analysis was made of future residential and non-residential development under the current zoning. This analysis was prepared to assess the potential wastewater demand generated by development and redevelopment in the City. The build-out analysis projected an additional 1,540 residential units and 599,246 square feet of non-residential use based on 2011 data.

To determine full buildout, the 2010 Census identified 6,900 residential units. By adding the 1,540 residential units would yield an estimated 8, 440 residential units, which is in the range of the 2007 MPR analysis. The impact of this additional development is an issue for the City to assess future impacts to parking, traffic and utility infrastructure and to ensure that the capacity of the City can accommodate this buildout. (See the following section regarding parking recommendations and the Utility Section for discussion of wastewater treatment and water supply capacities.)

¹⁰ *Cape May County Wastewater Management Plan, Municipal Buildout Report for the City of Sea Isle*¹⁰, prepared by Maser Consulting, PA, dated August 10, 2012,

CIRCULATION AND PARKING

CIRCULATION

VEHICULAR SYSTEM

The City's vehicular system is based on a traditional grid system. The three principal streets are Landis Avenue, JFK Boulevard and Central Avenue. Landis Avenue and JFK Boulevard are County roads; all other roads are City roads. The system of east-west one-way streets in the center of the City runs from 35th Street to 50th Street. Pleasure Avenue is one-way south. No major changes were recommended for streets or the direction of traffic in the 1988 Master Plan and later MPRs. The 2007 MPR states that 'there are not apparent vehicular circulation issues; however, certain 'smart planning' strategies were recommended for improvements to the traditional grid network. In addition, a multimodal transportation study was recommended to address possible improvements.

In the 2015 Reexamination Survey, almost 62% of the respondents said that traffic congestion was a problem. Obviously, the summer months and the Saturday change-over rental times were identified as problems. Street flooding during storms and high tides require traffic to be detoured, which exacerbates traffic congestion.

As part of this 2017 MPR, the Sea Isle City Police were contacted regarding traffic conditions that should be identified in the MPR. Accident record data from 2010 to 2015 were initially looked at to identify if there were any high accident locations or traffic problem areas which should be noted. The Police stated that at this point, there are no additional requests or suggestions for traffic studies. The physical makeup of Sea Isle's roads is what they are and according to the data, do not indicate any need to implement additional traffic controls or modifications. If any future incidents occur at a particular location or future data would show a need for additional studies or new traffic controls, the Police will consider them based on that data.

PEDESTRIAN FACILITIES

The 2007 MPR states, 'The City is well connected through a system of pedestrian sidewalks. Additionally, the Promenade along the Beach is a unique multimodal City-wide connector and true infrastructure amenity of Sea Isle City'¹¹. Almost 80% of the survey respondents felt that walking conditions were good to excellent; however, one-third of the respondents indicated a desire for walking trails. It was the second highest recreational facility identified. Development of a trail system should be an important component of the City's circulation plan going forward. The Planning Board recommends that the City study the development of a trail system as a component of the City's Pedestrian Circulation Plan.

¹¹ 2007 Sea Isle City Master Plan Re-Examination Report, page 51.

ACCESS TO BEACHES

The 2007 MPR recommended improved access to the City beaches especially between 29th and 57th Streets and upgraded facilities such as bike racks, showers and restrooms. Improved access to the beach will help to reduce vehicular trips especially in peak summer season. In the 2015 Reexamination Survey, almost 16% of the respondents felt that beach access was fair to poor. Many of the survey respondent's comments indicated a desire for easier beach access, particularly for ease of travel over the sand and the desire for more beach restrooms.

The City has undertaken a phased improvement program to improve beach access and amenities. Some of these improvements have been done in conjunction with the beach dunes replenishment program. Further public access improvements have been included in the Five-Year Capital Plan, which include beach walk-overs, beachfront pavilions, and ramps to the Promenade.

The North End beaches have limited services and limited public parking. Providing better services to this area could help to reduce traffic to the central beaches and reduce congestion. The 1988 Master Plan recommended that public parking areas with restrooms and possibly shower and concession stands be established in the City's North End. The 2002 MPR supported the concept of public parking areas and restrooms, but eliminated showers and concession stands from possible improvements because of costs and increased sewerage. Restrooms were only

recommended, if public sewer service was provided to this area. The 2007 MPR indicated that if parking could be provided given the extensive wetlands, restroom facilities could be provided even without sewer service with waterless toilets.

Improvements to the North End beaches should be considered; especially when the landfill site is remediated and opportunities for off-street parking may be identified. Portable concessions may also make the area more visitor friendly. Improved wayfinding signage would help direct traffic to this area. This will help to better distribute summer beach visitors.

BICYCLE FACILITIES

Bicycle use is very popular in the City, but there are no designated bicycle routes at present. Cyclists use the streets and sidewalks for travel, affecting vehicular traffic flows and safety. Bicycles are prohibited on the Promenade and its approaches from May 15 to September 15 of each year except during the hours of 5:00 a.m. to 3:00 p.m. on weekdays, 5:00 a.m. to 12:00 noon on Saturdays and Sundays.

The 2015 Reexamination Survey identified the better need to accommodate bicyclist in the transportation system, with a concern with bicycle safety and the ability to properly bike throughout the City as a recurring item. Almost 52% of the survey respondents felt that Sea Isle City was not a safe place to bicycle. Over 73% of the respondent¹² felt that bicycle routes and/or lanes should be installed in Sea Isle City to promote bicycle use. Many

respondents felt that the roads are not wide enough to allow bike lanes and that bike paths are needed. Suggestions included developing a bike route that covers the entire island, banning bikes on sidewalks, enforcing traffic regulations for bikers and establishing a bicycle safety program.

The 2007 MPR recommended that a bike lane be added to the Promenade. This was not implemented. A bike lane on the Promenade would not be possible without enlarging the Promenade width, which would require extensive permitting and costs. Bicycle facilities improvements will need further study, not just on the Promenade, but also throughout the City.

The 2007 MPR also recommends that an assessment be undertaken as to which east-west streets would be appropriate for bike lanes connecting to a north-south bikeway possibly along Pleasure Avenue and adding amenities such as bike racks to increase multimodal beach access. This 2017 MPR supports this recommendation.

Most City street widths are narrow and would not permit separate bicycle lanes without eliminating parking at least on one side of the street. This was not considered desirable, given the seasonal parking shortfall on most streets. Shared bike and vehicular streets is an option with low speed traffic; however, summer tourists will need to be knowledgeable of the way to 'share the road'; off-road bike paths are the most desirable from a safety viewpoint. The Sea Isle City Police are preparing a Bike Safety Program to be

¹² Percentages did not include those respondents that 'did not know'.

implemented in 2016, to ensure safer bike use especially for summer visitors where both the streets and sidewalks are congested.

As part of the 2017 MPR review, the City Engineer evaluated the use of contraflow bicycle traffic on Pleasure Avenue and determined that it was not feasible since it would eliminate parking on one side and needs at least 36 feet of road width; between eight and nine blocks of Pleasure Avenue are only 25 feet in width.

The City should undertake a plan for bicycle facilities including off-road routes. One option is a possible bike route along the bayfront with an elevated bike path between 1st Street and 35th Street to connect with possible paths in Strathmere. This should be considered a high priority in the next planning cycle and funding budgeted for both the planning and implementation of the bicycle system.

In 2015, Cape May County began planning for a County-wide bicycle route. Sea Isle City supports this County effort and will continue to work with County on this important facility.

TRANSIT

Jitney service was established in 2014 as regulated by Ordinance No. 1574 authorizing the jitney program. The Sea Isle City Jitney Association is recognized to provide jitney service in the City and all jitneys drivers in the City must be members of the Association. The service is a seasonal operation with private licensed jitney vehicles, which currently runs from 4 PM to 4 AM on a closed loop. A minimum of 30 jitneys is required to be in service operation at all times.

The 2015 Reexamination Survey had a question on the use of the jitney service. Almost 31% of the total respondents felt that it works great and no improvements are needed. The remaining respondents indicated the need for additional improvements. Greater route coverage ranked highest of these comments at 18%, followed by expanded hours of service (15%) and more frequent hourly service (13%). Over 35% of the survey respondents do not use the jitney.

Improvements have been made to the jitney service since its inauguration in 2014. Expanded hours were tried, but were discontinued due to lack of riders. The jitney service has already been extended to Strathmere. A connection to Avalon Borough and possible Dennis Township to serve the campgrounds should be pursued by the City, since the coordination of jitney services with adjacent municipalities is desirable. This would expand the reach of the services, reduce vehicular traffic and improve access to the City.

The City should continue working with the Sea Isle Jitney Association to continue this successful program which has been established.

MULTIMODAL TRANSPORTATION STUDY

The 2007 MPR recommended that a comprehensive City-wide multimodal transportation plan be prepared. A multimodal community integrates all traffic modes with land use and parking needs. This is still an outstanding recommendation, which should be implemented. This planning study would address all transportation modes including bicycle, pedestrian, transit/jitney, water-borne traffic, in addition to motor vehicles. Linkages between the modes are an essential consideration. Parking options such as remote or even off-island facilities linked via transit shuttles should be a

consideration. Integration of all circulation modes with adjoining off-island communities should be included.

TRAFFIC SAFETY

As noted in the 2007 MPR, strategies to accommodate all modes of traffic in a safe manner should be reviewed. Possible considerations include marked crosswalks, street intersection bulb-outs, traffic calming measures such as speed humps, signage among others. A crosswalk painting program has been initiated by the City and it will be expanded. A Pedestrian Education Program was developed by the Sea Isle City Police, which was executed together with a Bike Safety Program in 2016. A recommendation was made to extend the yellow lines to allow better visibility at intersections. This would eliminate some parking; the Police should analyze potential problem intersections and evaluate and recommend extensions if appropriate.

PARKING

Parking had been identified as an on-going seasonal problem in the City's 1988 Master Plan and in the subsequent MPR reports. After the 1988 Master Plan, the City established public parking areas at JFK Boulevard and Central Avenue. Also, the 1991 Zoning Ordinance increased off-street parking requirements for both residential and commercial development. The 2002 MPR highlighted two new public parking areas being created at the corner of 40th Street and Central Avenue and at the 48th Street Park Site (which is now the new Library). Since 2007, additional parking has been created at the new library site at 48th Street and Central Avenue, at 45th Street and Landis Avenue at the old City Hall site, on JFK Boulevard west of Landis

Avenue and the LaCosta complex and adjacent to the City marina at the base of the bridges on JFK Boulevard.

The 2007 MPR supported the creation of small surface parking lots, but felt that the City should undertake other long-term options including:

- The first was a consideration of satellite/intercept parking possible on the mainland along Sea Isle Boulevard with use of the trolley system to transport visitors; and (2) the underutilized Garden State Parkway rest area near Sea Isle City Exit 17, which would need to be linked to the trolley system. Both options should still be considered in the 2017 MPR.
- Construction of a parking deck along the Back Bay on publicly owned land at the foot of Sea Isle Boulevard with links to the trolley system. The cost of the parking deck has derailed this possible solution. However, use of the existing public lots for parking decks or parking lifts may still be a consideration as parking needs increase in the future. At this time, the Planning Board feels that a parking deck may not be economically feasible.
- Free trolley was recommended to reduce parking needs. In 2012, the City instituted a paid jitney service with private jitney operators. As noted in the previous section, expansion of the jitney service is desired by many residents.

The 2015 Reexamination Survey had a question on what areas have parking problems in the summers. The highest ranked areas were the Downtown Business District (63%), near the Promenade (55%), Residential Areas (44%) and Fish Alley (42%). Written survey comments noted that the City has reached a saturation point, the parking problems has increased when

duplexes are built and the renters with larger homes bring multiple cars, blind spots on corners need to be addressed, among other comments.

PARKING PERMITS

The City regulates public parking in high traffic areas through a paid parking system using parking payment kiosks. There is a seasonal parking permit system which provides permits valid from May 15th through Labor Day of the year purchased. There are also unlimited weekly permit parking permits issued. Three hundred (300) seasonal parking permits are available per season for purchase. Any vehicle with a parking permit is permitted to park continuously (including overnight) in any parking space or any City parking lot, except 15-minute limit parking spaces. However, there is no overnight parking at the Cape May County Library parking lot. The Police do not recommend that the status of parking at the Library lot be changed, since it will encourage long term parking (with permits) and restrict daily access for Library patrons. The Planning Board recommends that the parking permit system be publicized through the City e-newsletter and other venues. Also, renter mercantile license forms should provide information for the property owners to provide to the renters to further encourage the use of weekly permits and reduce parking congestion.

PARKING SURVEY

On August 8 - 9, 2015, a survey of on-street public parking spaces was conducted by the Sea Isle City Police. The results were compiled into a composite Parking Availability Table and Public Parking Availability Map, dated January 2016. The complete 2015 Parking Survey memorandum is included in the Appendix. The survey measures parking capacity within on-

street parking spaces. It does not include public parking lots or off-street private parking lots.

The GROSS total on-street parking space capacity is 5,789 parking spaces. However, to correct the missing data on certain streets, the net parking capacity eliminated all parking counts on those streets that lacked data. The NET parking capacity overall is 5,418 parking spaces. The net observed usage is 4,770 parking spaces or a difference of 648 excess parking spaces (or 12%) unoccupied parking spaces overall in the City. However, these excess parking spaces are scattered with many streets at or over capacity.

Looking at the north/south streets which have a net capacity is 1,917 parking spaces, 80% of the spaces are occupied. However, 83% of the 390 unoccupied spaces occurred along Central Avenue.

For the east/west primarily residential streets, the net capacity is 3,501 parking spaces with only 258 (or 7%) unoccupied parking spaces.

Parking capacity varies on a street by street basis. There are wide capacity and usage variations, which may be due to either observation error or illegal parking in some areas.

Landis Avenue had only 30 vacant spaces (4%) along its length. Central Avenue data shows significant numbers of unoccupied parking spaces along the total length of Central Avenue, except between 38th to 46th Street. This is where Central Avenue intersects residential streets that are shown to be over-capacity. This area is close to the downtown, to public facilities along JFK Boulevard and to Fish Alley. The highest number of vacant parking spaces along Central Avenue is located between 53rd and 75th Streets (201 parking spaces) and between 29th and 38th Streets (81 parking spaces). Overall Pleasure Avenue had only about 36 vacant spaces along its length or

about 8% unoccupied spaces. Between 53rd and 85th Street, parking is at capacity with very limited vacant spaces.

East-west streets that are shown to be over-capacity are scattered throughout the City. Those streets that are listed as at over-capacity with 10 parked cars or greater are identified below. Those that about a commercial zone are indicated by (C-) on the list. These are listed going from north to south:

- 35th Street (C-1)
- 39th Street (C-1)
- 46th Street
- 48th Street
- 53rd Street
- 61 Street/Freda (C-2)
- 85th Street (C-1)
- 91st Street

Based on the available data, it appears there are limited available unutilized on-street parking spaces in selected areas in the City. A number of residential streets show parking to be over-capacity.

The survey conclusion indicates that without data on the utilization of the public parking lots, it is difficult to assess the complete parking picture in the City. A limited survey should be made of public parking lots in the Summer 2016 and the results of the survey then reassessed.

The City should consider the following options:

- Conduct an evaluation of off-street public parking areas during summer season to confirm parking space utilization in off-street public parking lots.

- Increase residential parking requirements for mixed use development in commercial zones (which is now recommended by the Planning Board).
- Increase parking requirements for residential zones (which is now recommended by the Planning Board).
- Consider constructing off-street public parking areas where land is available, focusing on areas which exhibit parking over-capacity, after a review of the current utilization of off-street public parking areas.
- Provide information on the seasonal and weekly permits on the City webpage to encourage seasonal permit usage. Persons taking out renter unit mercantile licenses should be provided with information on the parking permit system to send to their tenants.

UPDATED PARKING STANDARDS

The Planning Board conducted a review of the parking standards as part of the 2017 MPR. The Planning Board recommends changes in parking standards to address the acknowledged need for additional parking to accommodate the larger housing units being constructed in the R-2 zone and within mixed use developments in the business districts.

Commercial Districts Mixed Use Parking Standards

Since 2007, the City parking standards have been amended. Most notably, with the amendment to all commercial districts permitting mixed use development, parking is not required for non-residential uses in mixed use buildings in the commercial districts. The intent of excluding parking for non-residential uses was to encourage commercial uses which have generally

been difficult to retain due to the seasonal nature of the economic activity in the City. Because of concerns regarding insufficient parking under the original parking standards, the City amended the residential parking requirements for mixed use buildings in 2012, now requiring additional parking spaces for the larger residential units.

Table 6 - Parking Requirements for Mixed Use Structures in C Zones	
Current Parking Requirements Mixed Use Structures	
(Section 26-34.12)	
Residential Uses	
<1,500 sf gfa/du	1 parking spaces
1,501 – 1,800 sf gfa/du	3 parking spaces
>1,800 sf gfa/du	5 parking spaces
Commercial Uses	Parking is not required
Proposed Mixed Use Parking Requirements	
Residential Uses	
<1,500 sf	2 parking spaces
1,501 – 2,000 sf	3 parking spaces
>2,000	1 additional space for every 500 s.f.
Commercial Uses	
C-1, C-3, C-4 and C-5 Zones	Parking is not required
C-2 Zone	Require parking spaces for commercial uses. Parking standards will depend on type of use; parking standards will depend upon use to be determined.

The Planning Board reviewed the current parking requirements at length during the 2017 MPR process. The Planning Board is still concerned about parking deficiencies caused by the larger residential units and wanted to further adjust the parking requirements. As shown in Table 6, the Planning Board recommends the following amendments to the parking requirements for mixed use structures in the C zone districts to better accommodate the multiple vehicles resulting from each unit.

Residential Zone District Parking Requirements

The parking deficiencies apparent on many residential streets prompted the Planning Board to review the situation. This was raised in the 2015 Reexamination Survey. The 2015 Parking Survey identified a number of streets that are at or over capacity. The Planning Board was also concerned that garage parking spaces were being utilized for storage and that it was difficult to enforce these spaces for parking. As shown in Table 7, the Planning Board recommends that the parking standards be expanded in the residential zones.

The parking standards recommended by the Planning Board are not consistent with the New Jersey Residential Site Improvement standards (RSIS). However, the City can make changes that exceed the parking standards through a waiver process with the RSIS Board.

Table 7 - Residential Parking Requirements	
Current Residential Parking Requirements (26-23.8)	
R-1 Zone	1 parking space
R-2 zone	2 parking spaces per <1,500 sf gfa/du
	3 parking spaces per >1,500 sf gfa/du
Proposed Residential Parking Requirements	
<1000 sf	2 parking spaces
1,001-1,500 sf	3 parking spaces
1,501–2,200 sf	4 parking spaces
> 2,200 sf	1 parking spaces /500 sf

GATEWAYS AND WAYFINDING SIGNAGE

The 2007 MPR stressed that urban design landscape would be enhanced by improvements to these elements of the transportation systems – gateways, bridges and wayfinding signage. Gateways are the entry points and visual clues to the area. The JFK Boulevard entry and bridge is the primary access to the City. Major improvements have been made since 2007 to JFK Boulevard including median landscaping, lighting, new park and marina improvements, the new Welcome Center and City Hall among other improvements. This gateway has been enhanced significantly; however, additional improvements should be considered for the JFK Bridge in terms of upgraded lighting, paint, sculpture, signage, and other decorative

¹³ Sea Isle City Recreation and Open Space Inventory, dated January 2003.

elements. This should be coordinated with Cape May County and the NJDOT for further enhancements.

The two other gateways at the southern terminus - 95th Street and Ocean Drive (Townsend Inlet Bridge) and northern terminus - 1st Street and Landis Avenue (at Strathmere) have also been enhanced with the assistance of the City Beautification Committee and the City Public Works crews.

The 2007 MPR recommended that a wayfinding signage program be implemented. A wayfinding signage plan will help to market and brand the City and will aid in traffic flow throughout, especially for new visitors. It should continue to be included in 2017 MPR recommendations.

Communications for weather related closing of the Townsend Inlet Bridge are being addressed with plans for electronic traffic information signs for bridge entrances. The Sea Isle City Police are also researching utilizing text messaging for bridge closure notifications.

PARKS, RECREATION AND OPEN SPACE

CURRENT RECREATION FACILITIES

Map 11 shows the Recreation and Open Space areas in the City. Based on the 2003 Recreation and Open Space Inventory (ROSI)¹³, Sea Isle City lists eight (8) properties for active municipal recreation use, with a total developable area of 26.99 acres.¹⁴ There are 823.77 acres of developable

¹⁴ The ROSI does not include the Fishing Pier at 59th Street and the Bay.

and developed lands in Sea Isle City. The current active recreation properties result in 3.28% of the total developed and developable lands.

Also, there are currently 403.72 acres of wholly undeveloped lands held for conservation purposes according to the ROSI, within Sea Isle City. This is 23% of the total City land area. See Table 8 for information on recreation facilities currently included in the City's ROSI.

Table 8 - Recreation Facilities on 2003 ROSI
TOWNSENDS INLET WATERFRONT PARK: boardwalk/nature paths through the dunes and a pavilion surrounded by a large deck.
85 th SREET PARK: playground and pavilion.
DEALY FIELD RECREATION COMPLEX: tennis courts, basketball courts, playground, skate park, hockey rink, ball fields, and a recreation services building.
FISHING PIER and BOAT RAMP AT 59 TH and the Bay
PROMENADE AT JFK: pavilion, pergolas, picnic tables and bench seating.
EXCURSION PARK / BAND SHELL: Stage, bench seating and a large lawn.
JFK BOULEVARD PARK: Veterans Memorial Park, basketball courts and playground.
MARINA PARK: boardwalk along bay, pavilion, bench seating and a boat ramp.

As of 2016, the City has expanded its recreational areas to include Park Road School, and the Park at the Cape May County Library. Table 7 lists additional recreation facilities available in the City. There have been extensive improvements to the City's recreation facilities since the 2007 MPR. Table 10 lists the recreation facilities in this category.

Table 9 - Recreation Facilities Not Listed on 2003 ROSI
FORMER PUBLIC SCHOOL ON PARK ROAD: gymnasium, kitchen, classrooms for recreation programs, winter office for Recreation employees. The building is also currently used as storage for the City.
SEA ISLE CITY LIBRARY PARK: benches, gardens and flag pole.
WELCOME CENTER / COMMUNITY LODGE: The Lodge is used for many functions, ranging from City-run exercise classes and civic group meetings to Boy Scout ceremonies and Community Day gatherings.

Table 10 - Recreation Facilities Expanded/Improved Since 2007
59 TH STREET FISHING PIER: Replaced and upgraded in 2013, following Super Storm Sandy.
EXCURSION PARK BAND SHELL: Built in 2010-2011 (the Band Shell was first used in June 2011).
PROMENADE AT JFK BOULEVARD: Upgraded in 2011, resulting in a new beach pavilion, bench seating overlooking Excursion Park, and new pergolas with awnings that shade picnic benches. New landscaping, brick pavers and ADA ramps have enhanced the area connecting the Promenade to JFK Boulevard.
JFK PARK: In 2010-2011, new Playground with cushioned safety surface & Basketball Courts were built, with new lighting, fencing and sidewalks.
COMMUNITY LODGE: Upgraded in 2012, when the Welcome Center addition was built. The lodge now has hardwood floors, a wall of mirrors, and an ADA ramp on the parking lot side of the building.
TOWNSENDS INLET WATERFRONT PARK: Upgraded in 2012, with new ADA ramps, railings and parking, and new decking around the pavilion. In 2015 the park received landscape improvements.
85 th STREET PLAYGROUND & PAVILION: Upgraded in 2011
MARINA PARK ALONG 42 ND PLACE: 2009-2011, new docks and ramps were installed, and a new boardwalk was installed along the docks (with a pavilion and seating areas). Several years ago, a new boat ramp was also built.

The Recreation Department provides extensive programming all year round to serve the City residents and visitors; including a variety of programs serving all age groups. As shown on Table 11, since 2007 there has been a 40% increase in number of recreation events and a 96% increase in participants.

Table 11 - Recreation Events and Participants		
Year	Number of Events	Number of Participants
2007	74	7,431
2008	79	7,883
2009	88	10,764
2010	100	13,352
2011	101	13,578
2012	95	13,613
2013	97	13,981
2014	93	13,640
2015	103	14,565

PARKS, RECREATION AND OPEN SPACE RECOMMENDATIONS

According to the 2015 Reexamination Survey, 60% of the 2015 Reexamination Survey respondents felt the City recreation programs were good (52%) to excellent (8%). Almost 38% of respondents participated in the Sea Isle City recreational programs. Of those that do not participant, the highest number of reasons included having no time (85), not having young children (81) or just not interested (80). They also indicated that there was a need to provide more senior programs and programs for the young. Over

37% (1,139) respondents felt that additional recreational facilities and/or programs are needed including a dog park (40%), walking trails (34%), an outdoor pool (24%), play area for teens (24%) and a senior activity center (22%) ranking the highest out of 2475 responses.

The Sea Isle City Recreation Committee provided a number of recommendations for the Planning Board to consider in the Master Plan Reexamination report. These comments were discussed at the Planning Board Special Meeting on March 21, 2016 and dealt with the following items: the former vacant public school building and property, the old Fire House on West Jersey Avenue, Dealy Park, bayside fishing piers and the Marina site. Their comments are incorporated into the discussion below.

FORMER PUBLIC SCHOOL BUILDING ON PARK ROAD

Disposition of the former public school building was considered an important issue for the Planning Board to address in this 2017 MPR. The 2016 Reexamination Survey included two questions on the property disposition and possible future use. As for the property disposition, the highest number of respondents (36%) wanted the property developed as a park and recreation area. The second highest response was to use the property as a parking lot.

The second question asked if the property is used for recreation, what activities or programs would you like to see there. More than half of the respondents (52%) identified a gymnasium, secondly was teen activities (49%) followed by senior programs (43%). Providing an indoor swimming pool had the highest number of written comments (130).

The Recreation Committee recommended that the school property be retained by the City for indoor and outdoor recreation and that the facility

be repurposed into a functioning Community and Recreation Center. The school also serves as an Office of Emergency Management designated emergency storm shelter for shelter-in-place location. They recommended that a preliminary engineering evaluation, including a strategic facilities plan and cost-effective analysis be conducted.

Planning Board agreed that the property should be retained and used for recreation and that a facilities study be prepared to assess the building and the property uses. The Planning Board also recommends that parking facilities for this recreation use be limited only to the recreation use and that the property not be used as a public parking lot.

OLD FIRE HOUSE, WEST JERSEY AVENUE

The Recreation Committee recommends that if the building is slated for demolition, the lot should be placed on the Open Space Inventory and become an extension of the JFK Boulevard recreation facilities as a park. They suggest uses including bocce, ball, volleyball, pickle ball or shuffleboard courts in the future together with a pavilion/gazebo for families.

Planning Board agreed that the property should be retained and used for recreation for property in association with the nearby courts and playground across the street.

DEALY FIELD

Recreation Committee recommended constructing a kayak and paddle board launch, a boardwalk for fishing and crabbing along the bayfront near Dealy Field, and including educational nature trails along the wetlands portion of the site. The Planning Board was in agreement with these recommendations.

FISHING PIERS

The Recreation Committee recommended extension and expansion of the 59th Street fishing pier to accommodate demand for access to bay fishing and crabbing, if permitted and also to investigate other areas for bay fishing and crabbing as well. The City Engineer noted that installing fishing areas along streets end along Bay is problematic on many streets which do not have enough auxiliary parking. The 59th Street – 63rd Street fishing pier has available space for on-street parking on the bayside and about 800+ feet of frontage along bay.

The Environmental Commission representative noted the need to consult with Environmental Commission and Wetlands Institute re: terrapins along the bay and ocean.

The Planning Board was in agreement with the Recreation Committee recommendation to investigate and implement expanded fishing piers on the bay. The Planning Board recommends that the City should plan and fund for the extension of the 59th Street fishing pier and investigate other areas along the bay for suitable piers.

MARINA PARK AMUSEMENT SITE

The Marina Park amusement site on JFK Boulevard near the marina, is currently vacant. It had been used for a family amusement park, but the park proprietor had left. The City had pursued expressions of interest on the property; but was not successful.

Planning Board recommended that the City should put out an Expression of Interest on the site and that recreation activities for kids were considered very important and should be stressed. The Recreation Commission recommended that any future use conform to the Green Acres agreement that applies to the entire Marina Park.

KAYAK and PADDLE BOARD STORAGE & LAUNCH

The Planning Board recommends that kayak and paddle board storage and launch facilities on both the bay and ocean be investigated and installed to address boater needs.

38TH STREET MARINA

This area along the bay north of JFK Boulevard, has been identified since the 1988 Master Plan as a possible candidate for a waterfront park and marina. This should be considered by the City to augment the marina facilities to the south of JFK Boulevard. Initially a planning study should be done to examine land ownership, site access and other features.

ECONOMIC DEVELOPMENT

There is an ongoing public/private partnership of the City and the Sea Isle Chamber of Commerce. This has resulted in new programs, marketing efforts, events, and the start-up of many new businesses since 2007.

The 2015 Reexamination Survey had a number of questions related to the economic climate in the City. Ninety business owners were identified on the survey. The survey respondents rated the current retail businesses and services in the City as being Good (49%) or Fair (37%). Both excellent and poor categories fell in the 7% range. Regarding the question on additional types of businesses needed in the City, food market ranked highest at (48%), followed by hardware stores (47%), restaurants (31%) and specialty foods (29%). A recurring theme of the comments indicated a desire for more diversity in the City’s restaurants, a gas station and movie theatre.

The City requires all businesses in the City apply for an annual mercantile license. Of the fees, 33.33% is allotted to the Tourism Development Commission.

Table 12 shows the number of mercantile licenses issued in the last six years. The number of businesses reflected in the mercantile licenses has remained fairly constant during this time period. The mean is 136 mercantile licenses issued during this period.

Based on input from the public, the Planning Board recommends that the following actions be taken to further support the business community.

Table 12 - Mercantile Licenses	
Year	No. of Licenses
2010	144
2011	125
2012	141
2013	136
2014	137
2015	136
Source: City Clerk	

ZONING CHANGES

The Planning Board recommends reducing the size of the C-1 business district downtown on Landis Avenue and adding a shopping center district on Central Avenue and 63rd Street encompassing the ACME shopping center which is now under construction, and changes to the C-2 and C-3 business districts. (These zoning recommendations are addressed under the Land Use section.)

Concern was raised about the extent of commercial zoning with mixed use development and the parking problems associated with these uses. There was concern about the lack of parking for mixed use development. The Planning Board recommends that parking standards for commercial uses as part of mixed use building in the C-2 and C-3 zones be considered in the outlying commercial zones. (This is addressed in the Circulation and Parking Section.)

For the C-1 zone in the downtown, the Planning Board felt that the public off-street parking areas provides parking options that are not available for the other commercial areas not close to JFK Boulevard or other public off-street parking lots. (As noted under the Parking Section, parking capacity of off-street public parking lots should be surveyed and analyzed in the Summer 2016 to determine if the C-1 zone parking standards should be amended.)

CITY MARKETING LIAISON

A City liaison should be designated that will work directly with the business community and the Chamber of Commerce Strategic Revitalization Committee (CCSRC). This individual could help to market the City, through

webpage displays, arranging events in coordination with the City's marketing program, engaging business leads and providing City information and contacts.

COMMERCIAL MARKETING ENHANCEMENTS

The Planning Board recommends that City look at other regulations for outdoor activities to encourage more outdoor business activity. The City currently permits on sidewalk tables/chairs related to restaurant uses. Other sidewalk uses/vendors should be considered. These uses expand the 'street life' and encourage visitors and shoppers to support the local businesses.

City should consider permitting kiosks at the end of the marina (subject to Green Acre rules) near the Spinnaker Condos area near the Promenade and other locations should be considered as well.

The City should continue to work with County Tourism office to expand and coordinate marketing of Sea Isle City activities.

The City should promote additional events at other venues such as 63rd street area/Dealy Field area or at the Marina.

The Planning Board recommends that the City establish a fund to promote improved signage and other façade improvement that will upgrade the building facades within business area streetscape. A Design Committee could be appointed to work with businesses to upgrade their facades. This could be funded through a portion of the mercantile license fees or possibly other grant funds that may be available.

STORMWATER MANAGEMENT

The City adopted a Stormwater Management Plan in 2005 and implemented stormwater management ordinances in June 2006. The City has been operating and maintaining their stormwater system in accordance with the management plan and ordinances.

Map 12 shows the flood prone areas as mapped by NJDEP based on a combination of FEMA, NJDEP and aerial photography data. The entire municipality of Sea Isle City is located within the 100-year floodplain of the Atlantic Ocean and surrounding waters, including Ludlams Bay, Townsends Inlet and Ingram Thorofare. Large expanses of wetlands are present. These wetlands include High and Low Saltmarsh, Brackish and Freshwater Tidal Marshes.

In 2013, the City amended the special flood hazard rules Ordinance Section 14-3 requiring in areas of special flood hazard all construction to meet those standards and height requirements for the Identified "A" Zones eleven (11') feet NAVD 88 and Identified "V" Zones at an elevation of fourteen (14') feet NAVD 88.

FLOOD CONDITIONS

The rising ocean level and a greater number of extreme weather conditions and storms and flooding incidents that have inundated the City and even smaller storms during high tides have flooded areas in the City. The Planning

Board determined that specific measures must be taken to further address the storm water drainage system in the City to reduce flooding incidents. The City has undertaken projects, over the last 7 years to address drainage conditions. Check valves are being addressed and maintained as part of the current Five-Year Capital Plan. This supports the Planning Board consensus that the #1 priority should be to reduce bay flooding and to provide funding for the required infrastructure.

The Planning Board recommends that the City work with Federal and State governments to address bay flooding solutions. This should be an expedited effort to address future flooding. Some of the options that had been identified were a breakwater parallel to the beach along the entire Ludlam Island and a dike along the bayfront.

The Planning Board recommends that the City implement a comprehensive Flood Control Plan in partnership with the County to address flooding issues. A partnership is especially important since JFK Boulevard and Landis Avenue are under County jurisdiction. City should work with County to address flooding issues. The City should initially prepare a flood area study which will:

- Identify all flooding areas in the entire City and break down into drainage basins
- Assess likely causes for flooding
- Identify responsible party
- Identify possible solutions
- Require public education program

The Planning Board strongly supports the priority for the City to address bay flooding and pursue planning and funding for the required infrastructure.

STORM RESILIENCY

With global warming and the more extreme storms hitting the coast, and with the damage caused by the 2012 Super Storm Sandy, storm resiliency is a major issue to be address by the City. Over 56% of the 2015 Reexamination Survey respondents expressed concern about the future ‘Sandy’ storms affecting Sea Isle City. A majority of the comments dealt with replenishing beaches and dunes and improving drainage and flooding. Evacuation procedures and better evacuation route signs were also identified as being needed.

ALL HAZARDS MITIGATION PLAN

In January 2009, the Cape May County Multi-Jurisdictional All Hazards Mitigation Plan (CMC All Hazards Mitigation Plan) was prepared in response to the Disaster Mitigation Act of 2000 (DMA 2000). DMA 2000 requires states and local governments to prepare all hazard mitigation plans in order to remain eligible to receive pre-disaster mitigation funds that are annually appropriated or made available in the wake of federally-declared disasters.

On November 9, 2010, Sea Isle City adopted the CMC All Hazards Mitigation Plan as the City’s natural hazard and flood protection plan. A September 2013 progress report addressed the status of the City’s Hazard Mitigation Plan¹⁵. The Plan contains 14 hazard mitigation initiatives for the City to implement to reduce or prevent flood damage. The report notes that the City has expanded its program to help guide property owners to sources of

funding to mitigate and elevate structures in flood prone areas. A number of projects are either in progress or have been completed to reduce and mitigate flood damage.

In October 2012, the City was admitted in to the Community Rating System (CRS) program as a Class 6 community which entitled property owners of compliant structures to a 20% discount on their flood insurance premium. With the City’s fast track adoption of the Advisory Base Flood Elevation, the City achieved a Class 5 rating which will give homeowners of compliant structures a 25% discount on their flood insurance premiums.

The City has engaged in a number of actions to improve emergency evacuation and response. Some, but not all, are listed below:

- The new City Hall (which opened in 2015) was flood zone and FEMA compliant and has an emergency generator.
- In 2013, 71 repetitive loss properties have either been demolished or brought into compliance.
- The elevation of the JFK Boulevard from the Sea Isle City Bridge to Landis Avenue was designed in 2013 and the improvements have since been constructed.
- The elevation of Sea Isle Boulevard by the County and NJDOT which is underway
- The City has an on-going bulkhead maintenance plan.
- The City has an on-going education program to inform the public on preparedness for flooding situation.

¹⁵Status of Hazard Mitigation Plan, prepared by Cornelius Byrne, Sea Isle City Construction Official/Floodplain Manager, dated September 20, 2013.

The City has worked hard to implement the Hazard Mitigation Plan and to be part of the CRS program. This program must continue to be implemented to protect the City residents and structures.

STRATEGIC RECOVERY PLANNING REPORT

Cape May County has prepared a Strategic Recovery Planning Report (SRPR)¹⁶, funded through the NJDCA Post Sandy Planning Assistance Grant Program to support long range planning for community redevelopment in the municipalities and counties sustaining damage from Superstorm Sandy. The purpose of the SRPR is to evaluate the impacts of the disaster on relevant community features. The evaluation can be broad or narrow but should focus on planning goals, strategies, and priorities leading to actions that are most urgently needed for public safety and economic recovery. The SRPR should serve as a guide for actions to not only recover from the effects of Superstorm Sandy, but also to reduce vulnerabilities to future disasters.

The SRPR includes an Identification of Projects table which identifies Recovery Projects, the Responsible Entity, Funding, Duration and Recovery Values. Many of the Recovery Projects have the Cape May County Planning Department, County or FEMA as the Responsible Entity. However, there are a number of Recovery Projects which are relevant for Sea Isle City. Some projects are already underway in the City, such as beach and dune replenishment. Others should be reviewed and pursued as needed. These include, but are not limited to the following:

- Support retrofitting or relocation of structures located in hazard-prone areas.
- Promote municipal participation in incentive based programs, such as NFPA Firewise Program and others.
- Address flooding issues on County roadways.
- Obtain backup power to ensure continuity of operations for stormwater, wastewater, public potable water, pumping stations, etc. (The new City Hall is equipped with emergency generators.)
- County to work with municipalities and property owners to assess vulnerability to wind damage.
- County to support municipalities in the update of local Stormwater Master Plan

The City should work with the County to address these projects to ensure storm resiliency.

BEACH NOURISHMENT PROJECT

The current Beach Nourishment Project was unanimously considered to be a good project to protect the City from flooding. The Planning Board recommends that elevated platforms be constructed over the sand dune to allow people to view the ocean since the elevation of the sand dune is now higher than the Promenade. These platforms would be primarily for people who do not go to the beach such as elderly people and/or disabled people.

¹⁶ Cape May County Strategic Recovery Planning Report, Draft November 13, 2015, prepared by Maser Consulting, P.A., presented to the Public on February 2016.

UTILITY INFRASTRUCTURE

WASTEWATER MANAGEMENT PLAN

The Sea Isle City existing sewer service area encompasses the majority of the City south of 22nd Street, excluding the beaches and the wetland areas. The City is served by the Cape May County Municipal Utilities Authority (“CMCMUA”) Seven Mile Beach / Middle Township Regional Wastewater Treatment Plant (“WTP”). Sea Isle City has a wastewater allocation of 2.39 million gallons per day (MGD) in the Seven Mile Beach / Middle Township Regional WTP service area.

As of 2016, Cape May County is the lead agency updating the Water Quality Management Plan (WQMP) for the County municipalities. The WQMP has been underway since 2011, but has been on hold since 2013 due to funding limitations. In 2012, Sea Isle City adopted an amended Sewer Service Area Map which was filed with NJDEP and has been accepted. At this time, the WQMP for all 16 municipalities and the County has not been completed.

It should be noted that the City adopted the sewer service area map which does not include the North End. The area north of 22nd Street was rejected for inclusion by the NJDEP; the City had wanted to include this area to sewer only those existing residences located north of 22nd Street.

¹⁷ Cape May County Wastewater Management Plan, Municipal Buildout Report for the City of Sea Isle, Chapter 10, prepared by Maser Consulting and the Cape May County Planning Department, dated August 7, 2012.

WASTEWATER PROJECTIONS

As part of the 2012 WQMP, a Municipal Buildout Report was prepared for the City.¹⁷ This report assesses the potential wastewater demand generated by possible development and redevelopment within the municipality’s future sewer service area. The analysis provides a maximum yield for potential additional residential units and non-residential floor area within the future sewer service area. This is then added to existing wastewater demand.

The estimated wastewater flows are calculated by multiplying the net future residential and non-residential development by NJDEP projected flows of 300 gallons per day (GPD) per residential unit and 0.100 GPD per square foot of non-residential floor area. The analysis estimates a net of 0.522 MGD for net future development and redevelopment. The results of the buildout analysis are presented in Table 13.

Table 13 - Wastewater Impact Analysis Results							
Wastewater Capacity Analysis of Future Sewer Service Area							
Existing ¹ (MGD)	Future (MGD)	Other ¹ (MGD)	Total (MGD)	Current ¹ Allocation (MGD)	Surplus(+) /Deficit(-) (MGD)	Phase 2 ¹ Allocation (MGD)	Surplus(+) /Deficit(-) (MGD)
2.251	0.522	0.035	2.808	1.910	-0.898	2.390	-0.418

Sea Isle City has an existing allocation of 1.910 MGD and Phase 2 allocation of 2.390 MGD from the Seven Mile Beach/ Middle Township Regional WTP. The Wastewater Capacity Analysis prepared in 2012, shows that the existing peak flow generated from existing development is 2.251 MGD. Future development is projected to generate an additional 0.522 MGD and existing development to be connected will generate 0.035 MGD, for a total demand of 2.807 MGD. This would result in a deficit of 0.898 MGD above the existing allocation and 0.418 MGD above the Phase 2 allocation. The City will require additional allocation in order to serve the projected development at full buildout based on current zoning.

The Cape May County Capacity Assurance Program, which sets the allocation levels, is no longer in effect due to legislation which technically altered the concept of ‘Sewage Allocations’ and instead allocations will rely on the final results of the County’s Water Quality Management Plan to establish actual allocations for each of the municipalities that are customers of the Cape May County Municipal Utilities Authority (CMCMUA). The CMCMUA will evaluate the allocations for each of the municipalities which are customers of the CMCMUA, once the NJDEP approves the County’s Water Quality Management Plan¹⁸.

WATER SERVICES

Water service in Sea Isle City is provided by Sea Isle City. The Department of Public Works maintains the water system. The City draws water from the

Atlantic City 800 Foot Sands Aquifer via a network of five wells. The City’s water allocation permit was renewed in June 2015 and expires May 31, 2020. The current Water Allocation Permit limits the withdrawal from the Atlantic City 800 Foot Sands Aquifer to an average of 77.1 MGM and 402.5 MGY. According to the Sea Isle City Water Allocation permit, the system has a storage capacity of 1.4 MG compared with a 2013 average water demand of 0.726 MGD. The peak daily water use in 2015 was 2.77 MGD. The average use in the peak month of July 2015 was 57.99 MGM. Sea Isle City has an emergency interconnection with New Jersey American Water (Strathmere). The City reports no current plans to expand the system which will be sufficient for future buildout. According to their recent allocation permit, the City submitted a Water Conservation Plan on December 22, 2013 and is required to conduct an Enhanced Water Conservation Program.

RECYCLING

The CMCMUA is the implementing agency for the Cape May County Recycling and Solid Waste Management Plan. All 16 Cape May County municipalities are partners with the County in the County Regional Recycling Program (CRRP). In 2012, the CRRP was amended with NJDEP approval to switch to a single stream collection and processing system and to expand the types and quantities of source separated materials that are recycled. Sea Isle City amended its Recycling Ordinance 18-1 et. seq. in 2013 to accommodate single stream recycling.

¹⁸ Documentation of meeting with Charles Norkis, Executive Director of the CMCMUA on September 12, 2012.

The County’s recycling program is designed to achieve the 50% municipal solid waste and 60% total solid waste recycling goals as mandated by the State. Sea Isle City recycling program is operated through the Department of Public Works under a Recycling Coordinator. Table 14 shows the City’s efforts to meet the State’s recycling goals. The City should continue to work to expand its efforts in recycling and through public education. It is more difficult with the challenge of summer visitors, but it should be identified as an important priority. Using the City’s e-newsletter, providing information as part of the renter mercantile licensure process and creating information handouts that are available for visitors are means to distribute recycling information to the public.

Table 14 - Sea Isle City Recycling Efforts		
Year	50% Goal	60% Goal
2013	34.64%	23.73%
2014	36.12%	25.82%
2015	36.04%	33.06%

CONSERVATION OF NATURAL RESOURCES

SUSTAINABLE DEVELOPMENT

The question on the 2015 Reexamination Survey - “Should Sea Isle City work to improve community-wide “Green” efforts?” - had 1,438 responses, discounting ‘don’t know’ responses. Of these responses, 80% said that the City should work to improve conditions by adding more trees and plants,

preserving open space, protecting the dunes and beach, adding solar facilities and alternative power sources and education. This is wide Community support to initiate more sustainable practices in the City.

The recommendation by the Environmental Commission to obtain Sustainable Jersey certification is consistent with this effort. The Environmental Commission had previously brought this request to the City Council, but it had not yet been acted upon. Sustainable Jersey is a certification program for municipalities in New Jersey that “want to go green, save money, and take steps to sustain their quality of life over the long term.” The program identifies actions for municipalities to become certified; provides guidance and tools to enable progress on the program; provides access to grants and funding opportunities. The benefits of becoming certified is a ‘prestigious’ designation, priority access to many grant programs, free training, special events and resources.

To become certified, there is no fee. The City must pass a resolution requesting certification, establish a Green Committee and undertake certain programs to be sustainable. Presently seven Cape May municipalities are certified under this program.

The Environmental Commission noted that many sustainable elements are already being done by the City and the City should likely have enough points to meet Bronze Certification.

The Planning Board recommends that the City support of joining Sustainable Jersey.

NATURAL RESOURCES INVENTORY

The Sea Isle City Natural Resources Inventory (NRI) was prepared in 2007 as a required document as part of the City's Plan Endorsement Petition to the New Jersey Office of Smart Growth. This Plan Endorsement Petition was adopted by the Sea Isle City Planning Board on April 23, 2007 and refers to the City's NRI.

The NRI is an important tool that can inform the planning process by providing a factual basis for land-use decision-making. It can support the conservation and protection of existing natural areas. The extent of floral diversity in plant communities is mirrored by a similar diversity in fauna, particularly for birds and butterflies. Numerous threatened and endangered plants and animals are documented to occur in Sea Isle City. Portions of Sea Isle City are included within three Natural Heritage Program Priority Sites: Avalon-Stone Harbor Marsh, Corson Inlet South/Whale Beach and Townsends Inlet.

Sea Isle City has also retained a portion of its historical heritage. Properties have been identified in Sea Isle City that are eligible for listing on the National and New Jersey Registers of Historic Places. The sum of these resources and the awareness thereof helps to establish a sense of place for Sea Isle City citizens. This inventory can provide the framework for planning the future of the City. Valuable environmental resources can be preserved and the restoration of degraded resources can be undertaken.

¹⁹ Community Forestry Management Plan, prepared for the City of Sea Isle City, prepared by The Lomax Consulting Group, dated April 2013.

This 2007 NRI is included and will be officially adopted with the 2017 MPR as part of the City Master Plan documents. It is an invaluable source of information on the natural environment of Sea Isle City.

COMMUNITY FORESTRY MANAGEMENT PLAN

A Community Forestry Management Plan (CFMP) was adopted by the City in 2013¹⁹. It was prepared to recognize the unique nature of the tree resources in Sea Isle City. The mission of the CFMP is "to protect, enhance and sustain productive community shade tree and forest resources that will improve the quality of life for residents, visitors and wildlife that inhabit this unique resort community."

The CFMP has six goals and related objectives that form the basis of the CFMP. The goals include: (1) Review and adopt the CFMP; (2) inventory and assess the community forest resources within the City; (3) develop a plan for tree resource enhancement within the City; (4) develop outreach initiative the encourage public awareness and support of community forestry programs; (5) develop a plan for sustaining forestry resources within the City; and (6) provide educational opportunities in support of the plan.

The Sea Isle City Community Forestry Program is under the direction of the City's Department of Public Works which works directly with the Shade Tree

Committee and cooperatively with the Environmental Commission. The City has already filed three annual reports which document how the CFMP is being appropriately implemented.

The Planning Board also recommends that the Community Forestry Management Plan be incorporated into the Master Plan documents.

BEACH MANAGEMENT PLAN

To protect endangered and threatened beach-nesting birds and flora occurring on the City's beaches, a Beach Management Plan for the Protection of Federally & State-Listed Species was prepared in March 2011. It was a cooperative effort by Sea Isle City with the NJDEP, Division of Fish and Wildlife, Endangered and Nongame Species Program and the United States Department of the Interior, Fish and Wildlife Services, New Jersey Field Office. As stated, "Through this plan, the parties seek to provide for the long-term protection and recovery of species populations in the City and the State, while balancing potentially conflicting missions." The plan establishes three separate management zones consisting of two Protected Zones and one Recreational Zone that are based on their current and historical use by beach-nesting birds and colonization by listed plants. These zones include:

- Northern Protected Zone (1st to 20th Streets)
- Southern Protected Zone (South end of the Island -93rd Street to the bridge at Townsends Inlet Park)
- Recreational Zone (20th to 93rd Street)

The management issues addressed in the plan include the following: biological monitoring, predator management, human disturbance, fireworks and beach management and maintenance. Each of these management issues is described, and then specific action tasks are identified by party that has responsibility for action.

The City currently coordinates with the NJDEP Division of Fish and Wildlife to ensure that activities on the beach are consistent with the guidelines established in the Beach Management Plan. This is done primarily through the City's Public Works beach crew. There is also coordination with the Police Department, primarily to ensure that the officers (including lifeguard staff, who fall under the Police Department) are aware of restrictions for vehicles and human activities. Prior to the start of the season, the NJDEP notifies the City of identified restricted areas and protected species; and during the season, the NJDEP monitors for the presence of endangered or threatened species. For specific project activities that take place on the beach from time to time, primarily beach replenishment, the Army Corps of Engineers and National Fish and Wildlife Service are involved. Prior to projects being performed, the planned work is reviewed by the aforementioned agencies in order that the necessary protocols are put in place prior to construction. As with ongoing operations, projects are monitored for the presence of threatened or endangered species, and activities are restricted as needed to ensure appropriate protection of those species.

In response to comments from members of the Environmental Commission, the Planning Board recommends that the Beach Management Plan be reviewed with appropriate agencies to identify other plant materials that are appropriate for planting on the sand dunes, in addition to beach grass.

The Planning Board supports the City's initiative to undertake this important effort which is consistent with the conservation objectives of the Master Plan.

ENERGY CONSERVATION

An Energy Conservation Element was included in the 1988 Master Plan and recommendations included in the 2007 MPR. The City owned street lights along JFK Boulevard and at municipal lots are LED fixtures. In 2010, the City adopted Solar Energy Systems standard and regulations under Section 26-30. The City should continue to promote high energy efficiency equipment in all departments and purchases.

The Planning Board also supports the City joining Sustainable Jersey program, which will provide public education tools and guidance to support energy conservation among other sustainability tools. Should the City become certified as a Sustainable Jersey community, as is being recommended, there are a number of projects addressing energy efficiency for the City and residents and visitors to initiate or continue.

STATE POLICIES AND REGULATIONS

PLAN ENDORSEMENT PROCESS

On July 20, 2007, Sea Isle City petitioned the New Jersey State Planning Commission ("NJSPC") for Plan Endorsement. On August 9, 2007, the NJSPC determined the petition to be complete and on November 13, 2007, the

NJOSG found significant consistency issues that need to be resolved prior to recommendation for Plan Endorsement. On July 16, 2008, Sea Isle City and NJOSG entered into a Memorandum of Understanding and adopted an Action Plan to address the remaining issues to be resolved prior to Plan Endorsement. On October 6, 2008, the Memorandum of Understanding between Sea Isle City and the NJDCA Office of Smart Growth was signed by the State. The City's Plan was never certified and the entire State Plan Endorsement process with the NJ Planning Commission has since been terminated.

STATE DEVELOPMENT AND REDEVELOPMENT PLAN

The State Planning Commission recognizes the importance of the idea of sustainable development. The adopted 2001 State of New Jersey Development and Redevelopment Plan (SDRP) is intended to serve as a guide for public and private sector investment in New Jersey's future. The State Plan includes the entirety of Sea Isle City, in PA5B Environmentally Sensitive Barrier Island Planning Area. As documented in the City's 2007 Plan Endorsement Petition, Sea Isle's planning policies, as evidenced by the 1988 Master Plan and the subsequent Reexamination Reports are consistent with the 2001 State Plan goals and objectives for its Planning Area PA5B.

2012 DRAFT FINAL STATE STRATEGIC PLAN

The Draft 2012 State Strategic Plan (SSP) is New Jersey's revised State Development and Redevelopment Plan designed to meet the statutory charges of the State Planning Act. The SSP was intended to be adopted by the State Planning Commission in November 2012, but was postponed due to Super Storm Sandy. The State Planning Commission is revising the SSP to

incorporate disaster planning goals in light of Super Storm Sandy. The overall goal of the SSP is to guide future growth by balancing development and conservation objectives best suited to meet the needs of New Jersey.

Sea Isle City is shown on the draft SSP as Environmentally Sensitive/Barrier Islands Planning Area (PA5B) with planning guidance “to promote redevelopment and development in areas with existing infrastructure that maintains the character, density and function of existing communities and to insure efficient and beneficial use of scarce land and resources to strengthen the unique character and compact nature of barrier island communities.” Sea Isle City’s planning policies are consistent with these goals.

RECOMMENDED CHANGES TO MASTER PLAN AND REGULATIONS

Under N.J.S.A.40:55D-89d, the MPR includes specific changes recommended for the master plan or development regulations, if any, including underlying objectives, policies and standards, or whether a new plan or regulations should be prepared.

As identified in the prior sections of this report, the Planning Board has made many recommendations both to update the Master Plan and development regulations and to encourage other actions to be taken by the City. These are detailed in the previous section. This section provides a summary of these recommendations. The prior section should be reviewed in all cases, for further details.

ZONING CHANGES

1. Residential Zone Amendments

- **Floor Area Ratio (FAR)** – The Planning Board provided various recommendations to address the density of development in the residential zones, including reinstating a FAR requirement. A FAR of 0.70 was required up until 2010. In the fall of 2015, the Planning Board recommended that a FAR be reinstated to reduce what was seen as over-development with greater lot coverage and parking impacts due to the larger dwellings being constructed without the FAR limitation. In response to the Planning Board’s request to adopt FAR standards before completion of the MPR, in January 2016, the City adopted a 0.80 FAR standard. This was amended to a 0.85 FAR in July 2016.

The Planning Board recommends that a floor area ratio requirement be maintained that ensures appropriate building density. Residential zoning should take into account concerns relative to building mass, aesthetics, and parking, with the objective of reduced building mass and increased light, air, and open space.

- **Residential Yard Setbacks** - The Planning Board recommends the following modifications to the side yard setback standards for all residential zones which will increase distance between residential structures, reduce

building footprint and provide for additional off-street parking area in the side yards:

- Front yard setback - No change
 - Rear yard setback - No change
 - Side yard setback - Minimum 10 feet / side yard at ground level; Minimum 7.5 feet /side yard on levels above ground level
 - All yards shall be measured to the closest point on the exterior building wall and no building encroachment shall be located in the minimum yard.
- **Accessory Use Setbacks** - The Planning Board felt that the setbacks for accessory uses in residential zones may be too limiting, especially for small sheds. The current regulations permit up to 10% of the lot area to contain an accessory structure. The current minimum setback requirements are 5 feet rear yard and side yard setbacks.

The Planning Board recommends that a reduced 2.5' setback be permitted for smaller accessory structures only, which should be limited in size. The 5' setback should be retained for any larger structures.

- **Residential Driveways** – The Planning Board recommends that the City review driveway design standards to refine current driveway standards to maximize on-street parking in residential areas.

2. Commercial Zone Amendments

- **C-3 Marina Commercial Industrial Zone** - The Planning Board recommends that the C-3 Zone on Park Road and

43rd Place be a standalone zone and that no changes be made to the existing bulk requirements. The remaining C-3 Zone District areas along the bayfront should be rezoned to C-3A Marina Zone encouraging marina uses.

- **Mixed-Use Development Density**

- The Planning Board recommends that consideration be given to reduce the parking needs and level of activity within the C-2 neighborhood commercial zone.
- No change in housing unit density is recommended for the C-1, C-3, C-4 and C-5 zones.

- **Commercial Zone Setbacks** - The Planning Board recommends that the side yard setbacks in the City's commercial zones be increased to provide greater open space, light and air between buildings.

- For the C-1, C-4, C-5 zones, change minimum side yard setback from a minimum of 0 feet and a maximum 15 feet total to a minimum of 5 feet on each side.
- For the C-2 zone, change minimum side yard setback from a minimum of 0 feet and a maximum 15 feet total to a minimum of 7.5 feet on each side.

- **Commercial Zone Uses** – The Planning Board recommends that the City amend the permitted uses in the C-2 and C-3 zones to permit bike rental businesses.

3. Impervious Coverage

- The Planning Board recommends that the impervious coverage standards for all districts should be reviewed and amended, after further study, to address the concern about increased flooding due to greater impervious coverage resulting from building and pavement construction. The Planning Board also recommends that the impervious surfaces around swimming pools be included in the analysis and that the overall standards for swimming pools be reviewed and amended.
- The definition of impervious coverage and building coverage should be clarified.
- The City should institute Continuing Certificates of Occupancy inspections to ensure that impervious coverage standards continue to be met.

4. Landscape Standards - The Planning Board recommends that the Landscape Standards be amended to ensure appropriate species will be selected that will survive with the sandy soil, flooding and other difficult environmental conditions. The Board also recommends that the landscape requirements for all development should be revised and that the effect of other recommended

changes, which are proposed in this report, should be considered in the Landscape Standards.

5. Zone District Amendments - The Planning Board recommends that the City adopt the zoning district changes as detailed on Table 15 and shown on Maps 4- 9 - Proposed Rezoning and Map 10 – Proposed Zoning.)

- The C-1 zone on Landis Avenue from 35th Street to 38th Street should be rezoned to R-2 zone with the exception of properties that front on the west side of the 36th Street and Landis Avenue intersection which should be rezoned from C-1 to C-2. (See Map 4 - Proposed Rezoning)
- One property located between West Jersey Avenue and 42nd Street is a residential use surrounded by other residential uses. This property is at the edge of the C-1 zone. It should be rezoned from C-1 to R-2. (See Map 5 - Proposed Rezoning)
- One property located on the northeast side of 42nd Street and Park Road should be rezoned from C-3 to C-1, which is consistent with the adjacent property use. (See Map 5 - Proposed Rezoning)
- The C-1 zone on Landis Avenue between 45th Street and 47th Street should be modified. Properties located on the west side of Landis Avenue are all residential uses. The zoning should be amended to R-2 zone. The properties on the east side of Landis Avenue between 45th Street and 46th Street are also residential uses and should be rezoned R-2. Further south between 46th Street and 47th Street are

commercial and mixed-use buildings. The zoning should change from C-1 to C-2. (See Map 6 - Proposed Rezoning)

- Further south on Landis Avenue between 49th Street and 51st Street, this is currently in the C-2 zone. Modifications to selected lots which are currently residential uses are recommended, changing the zoning from C-2 to R-2. Existing commercial and mixed-use buildings would remain in the C-2 zone. (See Map 6 - Proposed Rezoning)
- Certain properties located on Landis Avenue and Central Avenue between 61st Street and 63rd Street are recommended for zoning changes. Along the west side of Landis Avenue and 61st Street are existing residential units located currently in the C-2 zone. The zoning should be amended from C-2 to R-2 to reflect existing uses. (See Map 7 - Proposed Rezoning)
- The Acme Shopping Center development on the west side of Landis Avenue should be rezoned from C-1 to a new zone – SC Shopping Center. New shopping center standards should be prepared for the site which would eliminate residential uses and would require parking standards consistent with shopping center use. (See Map 7 - Proposed Rezoning)
- The vacant lot located on the northeast corner of Central Avenue and 63rd Street should be rezoned from C-1 to R-2. There is tentative discussion to develop this property for duplex units together with the adjoining property to the north which is under the same ownership. This would be consistent with the development pattern along this

section of Central Avenue. (See Map 7 - Proposed Rezoning)

- At the Landis Avenue and East Landis Avenue intersection are commercial uses which are currently zoned C-1. The Planning Board recommends that this property be rezoned C-2. This would continue to permit commercial uses, but at a lower intensity. (See Map 8 - Proposed Rezoning)
- Between 85th Street and 87th Street is a C-2 zone. Selective rezoning changes are recommended to address existing residential properties. These would be rezoned from C-2 to R-2. (See Map 8 - Proposed Rezoning)
- Along the bay terminating at 84th Street, 85th Street, 87th Street and 88th Street are properties currently with residential uses, although they are zone C-3. These properties should be rezoned R-2 consistent with the surrounding residential development pattern and zone. (See Map 8 - Proposed Rezoning)
- The Planning Board recommends that the C-3 Zone along the bayfront at the ends of 85th, 86th, 87th and 88th Streets become a new C-3A Zone with standards encouraging marina type uses. (See Map 8 – Proposed Rezoning)
- The Planning Board recommends that the C-3 zone north of the JFK Bridge and west of Kneass Street become a new C-3A Zone with standards encouraging marina type uses. (See Map 9 – Proposed Rezoning)

Table 15 - Properties Proposed for Rezoning	
C-1 to C-2	Block 35.03, Lot 11 Block 36.03, Lot 24 Block 46.02, Lots 1.01, 1.02, 2.01, 2.02, 8.01, 8.02, 9 Block 83.02, Lots 46, 47 Block 35.02, Lots 1, 2, 8, 9 Block 35.03, Lots 12, 23, 24 Block 36.02, Lots 1, 2, 8.01, 8.02, 9.01, 9.02 Block 36.03, Lots 11.01, 11.02, 12, 23 Block 37.02, Lots 1.01, 1.02, 2.01, 3.01, 3.02, 4.01, 4.02, 8, 9, 10, 11
C-1 to R-2	Block 41.03, Lot 9 Block 45.02, Lots 1.01, 1.02, 2.01, 2.02, 8.01, 8.02, 9.01, 9.02 Block 45.03, Lots 11.01, 11.02, 11.03, 12.01, 12.02, 23, 24 Block 46.03, Lots 11.01, 11.02, 11.03, 11.04, 12.01, 12.02, 12.03, 12.04, 22.01, 22.02, 23.01, 23.02, 24.01, 24.02 Block 61.03, Lot 1
C-1 to SC	Block 61.03, Lots 20.01, 25.01
C-2 to R-2	Block 49.02, Lots 1.02, 2.03, 8, 9 Block 49.03, Lots 11.02, 12.02, 23, 24 Block 50.02, Lots 2, 8.01, 8.02, 9.01, 9.02, 9.03 Block 50.03, Lots 22.02, 23.01, 23.02, 939 Block 86.02, Lots 13.01, 13.02, 14.01, 14.02, 15, 16 Block 87.02, Lots 13.05, 14.03, 14.04
C-3 to C-1	Block 41.04, Lots 1, 2, 3.01
C-3 to R-2	Block 85.04, Lots 24.01, 24.02, 25, 26.01, 26.02 Block 88.03, Lots 1.02, 2, 2.01, 4.01, 4.02, 4.03, 4.04, 4.05, 5, 5.01 Block 89.03, Lots 26, 27, 28, 29, 30.01, 30.02, 31.01, 31.02
C-3 to C-3A	Block 38.06, Lots 1 - 22 Block 38.07, Lots 1 - 10.01 Block 39.06, Lots 1 - 22 Block 39.07, Lots 1 - 10 Block 40.07, Lots 1 - 10 Block 86.03, Lots 1.01, 1.02, 1.03, 2.01, 2.02, 3, 4, 5, 6, 18.01 Block 88.04, Lots 1.01, 1.02, 2.01, 2.02, 4.01 Block 89.03, Lots 8, 9, 10 Block 90.04, Lots 22, 23, 24

HOUSING

- Housing Element and Fair Share Plan** – The City should complete and adopt an updated Housing Element and Fair Share Plan to both update their Master Plan and to comply with affordable housing obligations.

CIRCULATION AND PARKING

- Trail System** - The Planning Board recommends that the City study the development of a trail system as a component of the City's Pedestrian Circulation Plan.
- Beach Access** - The City should continue its efforts to improve beach access and amenities including walk overs, restrooms, bike racks and kayak storage facilities. This should also include investigating and installing, where feasible on the North End, parking, restrooms and portable concessions improvements.
- Bicycle Facilities** – The Planning Board recommends that a City-wide bicycle facilities plan including off-road routes be prepared. The City should also continue to work with Cape May County to plan and implement a County bike route.
- Transit** – The City should continue working with the Sea Isle City Jitney Association to continue the successful program which has been established.

11. Multimodal Transportation Study – The Planning Board recommends that the City should fund a comprehensive multimodal transportation study that addresses all transportation modes, and the linkages between them and parking options including satellite lots and extended stay lots.

12. Traffic Safety – City should review and implement transportation safety measures including continuing the crosswalk painting program, to have the Police review problem intersection to improve visibility and to continue to promote the Police Public Safety Programs for pedestrian and bicyclists.

13. Parking

- **Satellite Lots** - Evaluate satellite/intercept parking lots (to be included in the proposed multimodal transportation study). Also extended stay and boat storage lots should be investigated.
- **Parking Survey** – A survey of off-street public lots should be made in the Summer 2016 to confirm utilization and update the 2015 Parking Survey. With this data, an assessment could then be made of the parking needs, especially in commercial areas.
- **Additional Public Parking Lots** - The City should consider constructing off-street public parking areas where land is available, where parking is identified at over-capacity. This would be based on the results of the updated Parking Survey mentioned above.

- **Parking Permits** – The City should vigorously publicize seasonal and weekly parking permits for residents and visitors to reduce on-street parking and to provide overnight spaces.

- **Changes in Parking Regulations** – The Planning Board recommends that the City amend parking standards for mixed use structures and for commercial uses in commercial zones as detailed in Table 16 and the parking standards for residential uses in residential zones as detailed in Table 17.

- **NJRSIS Waiver** - The City should request a waiver from the State Residential Site Improvement Standard for the proposed amended parking standards for residential uses exceed the RSIS requirements.

14. Gateways – The City should work with Cape May County to implement plans to enhance JFK Boulevard Bridge gateway with signage, landscaping and other design elements.

15. Wayfinding Signage – The City should fund a wayfinding Signage Plan and with its completion fund the implementation of this plan. A Sea Isle City unique sign system will not only provide directions and market businesses and services and important City points of interest, but it would also help to ‘brand’ the City as a special destination.

PARKS, RECREATION AND OPEN SPACE

Table 16 - Proposed Parking Requirements for Mixed Use Structures and Commercial Uses in C Zones	
Residential Uses	
<1,500 sf	2 parking spaces
1,501 – 2,000 sf	3 parking spaces
>2,000	1 additional space for every 500 s.f.
Commercial Uses	
C-1, C-3, C-4 and C-5 Zones	Parking is not required
C-2 Zones	Require parking spaces for commercial uses
	Parking standards will depend on type of use; parking standards will depend upon use to be determined.

Table 17 - Proposed Residential Parking Requirements	
<1000 sf	2 parking spaces
1,001-1,500 sf	3 parking spaces
1,501–2,200 sf	4 parking spaces
> 2,200 sf	1 parking spaces /500 sf

- 16. **Former Public School Building** – The Planning Board recommends that the City retain the property for recreation use. A professional facilities study should be done and should have high funding priority. The Planning Board also recommends that parking facilities for this recreation use be limited to the recreation use and that the property not be used as a public parking lot.
- 17. **Old Fire House** – The Planning Board recommends that the City retain this site for recreation purposes to augment park facilities in area.
- 18. **Dealy Field** – Working with the Recreation Committee, the City should prepare and fund plans for a kayak and paddle board launch and storage, a boardwalk over the bay area and educational nature trails in the Dealy Field area.
- 19. **Fishing Piers** – The City should plan and fund for the extension of 59th Street fishing pier and investigate other areas along the bay for suitable piers.
- 20. **Marina Park Amusement Site** - The City should put out another Expression of Interest to seek a use on this site that provides recreational opportunities for children.
- 21. **38th Street Marina** – The City should evaluate the bay front site between JFK Boulevard and 38th Street for development as a waterfront park and marina.

22. Kayak and Paddle Board Storage & Launch – The City should undertake a plan for kayak and paddle board storage and launch facilities in appropriate locations along bay and ocean front.

ECONOMIC DEVELOPMENT

23. City Business Assistance - A City Business Liaison should be designated that will work directly with the business community and the Chamber of Commerce Strategic Revitalization Committee (CCSRC). This individual could help to market the City, through webpage displays, arranging events in coordination with the City's marketing program, engaging business leads and providing City information and contacts.

24. Sidewalk Use Regulations - City should review sidewalk use regulations to encourage other appropriate uses, where in addition to restaurant uses, while ensuring that there is sufficient space for pedestrians.

25. Expanded Outdoor Business Activity - The City should review its regulations for outdoor activities to encourage more outdoor business activity to expand 'street life'. Other sidewalk uses and vendors should be considered.

26. Kiosks - The City should consider permitting kiosks at the far end of the Marina (subject to Green Acres rules), near the Spinnaker Condos area near the Promenade and other locations should be considered as well.

27. Coordination with County Tourism – City should continue this effort to market the City's activities together with the County Tourism office.

28. Expanded Events – City should promote public events at many locations to expand the reach and provide more visitor traffic and increase business opportunities such as the 63rd Street area/Dealy Field area or at the Marina.

29. Façade Upgrades - City should consider funding improved commercial signage and other façade improvements to upgrade the commercial streetscape. The City could establish a volunteer Design Committee to work with business owners on façade improvements. Funding options would need to be considered, such as through a percentage of the mercantile license fee being set-aside for façade or streetscape upgrades.

STORMWATER MANAGEMENT

30. Bay Flooding Solutions Plan – The Planning Board strongly supports the priority for the City to address bay flooding and pursue planning and funding for the required infrastructure.

The City should work with the Federal and State governments to address bay flooding solutions. This should be an expedited effort to address future flooding. Some possible options identified were a breakwater parallel to the beach along the entire Ludlam Island and a dike along the bayfront. These and other options need to be thoroughly investigated.

31. Comprehensive Flood Control Plan - The City should implement a comprehensive Flood Control Plan in partnership with the County to address flooding issues. The City should initially prepare a flood area study which will:

- Identify all flooding areas in the entire City and break down into drainage basins
- Assess likely causes for flooding
- Identify responsible party
- Identify possible solutions
- Require public education program

32. All Hazards Mitigation Plan - The City should continue to implement the necessary provisions of All Hazards Mitigation Plan.

33. Strategic Recovery Plan – City should work with County to address projects identified in the County Strategic Recovery Plan. There are a number of Recovery Projects which are relevant for Sea Isle City. Some projects are already underway in the City, such as beach and dune replenishment. Others should be reviewed and pursued as needed. These include, but are not limited to the following:

- Support retrofitting or relocation of structures located in hazard-prone areas.
- Promote municipal participation in incentive based programs, such as NFPA Firewise Program and others.
- Address flooding issues on County roadways.
- Obtain backup power to ensure continuity of operations for stormwater, wastewater, public potable water, pumping stations, etc. (*The new City Hall is equipped with emergency generators.*)

- County to work with municipalities and property owners to assess vulnerability to wind damage.
- County to support municipalities in the update of local Stormwater Master Plan

The City should work with the County to address these projects to ensure storm resiliency.

BEACH NOURISHMENT PROJECT

34. The current Beach Nourishment Project was unanimously considered to be a good project to protect the City from flooding. The Planning Board recommends that elevated platforms be constructed over the sand dune to allow people to view the ocean since the elevation of the sand dune is now higher than the Promenade. These platforms would be primarily for people who do not go to the beach such as elderly people and/or disabled people.

UTILITY INFRASTRUCTURE

35. Wastewater Management Plan – City should continue to work with Cape May County to finalize and adopt the Water Quality Management Plan.

36. Water Service - City should implement the Enhanced Water Conservation Plan and provide public education accordingly.

RECYCLING

37. The City should continue to work to expand its efforts to meet recycling goals and to provide a public education program especially for summer visitors.

CONSERVATION OF NATURAL RESOURCES

38. **Sustainable Development** – The Planning Board recommends that the City should join Sustainable Jersey and achieve certification working with the Environmental Commission on this effort.
39. **Natural Resources Inventory** – Planning Board should adopt NRI as a component of the 2017 MPR.
40. **Community Forestry Management Plan**
 - The City should continue to implement the activities of CFMP with the City’s DPW working directly with the Shade Tree Committee and cooperatively with the Environmental Commission.
 - The CFMP should be adopted as an element of the 2017 MPR.
41. **Beach Management Plan**
 - The City should continue to implement the procedures of Beach Management Plan working cooperatively with the state and federal agencies to provide long term protection and

recovery of species populations in the City, while balancing conflicting agency missions.

- Dune Plantings – The City should review with the cooperative agency partners, the use of alternative plant species appropriate to the sand dunes, in addition to the beach grass.

42. **Energy Conservation** – The City should continue to promote use of high energy efficiency material in buildings and equipment and should join the Sustainable Jersey to support energy conservation efforts.

REDEVELOPMENT PLANS

Under N.J.S. A.40:55D-89e. *The recommendations of the planning board concerning the incorporation of redevelopment plans adopted pursuant to the “Local Redevelopment and Housing Plan,” P.L.1992, c.79 (C.40A:12A-1 et al.) into the land use plan element of the municipal master plan, and recommended changes, if any, in the local development regulations necessary to effectuate the redevelopment plans of the municipality. No redevelopment plans are recommended at this time.*

APPENDIX

Map 1 - Existing Land Use

Map 2 - Existing Land Use/Land Cover

Map 3 - Existing Zoning

Map 4 - Proposed Rezoning

Map 5 - Proposed Rezoning

Map 6 - Proposed Rezoning

Map 7 - Proposed Rezoning

Map 8 - Proposed Rezoning

Map 9 - Proposed Rezoning

Map 10 - Proposed Zoning

Map 11 - Recreation & Open Space

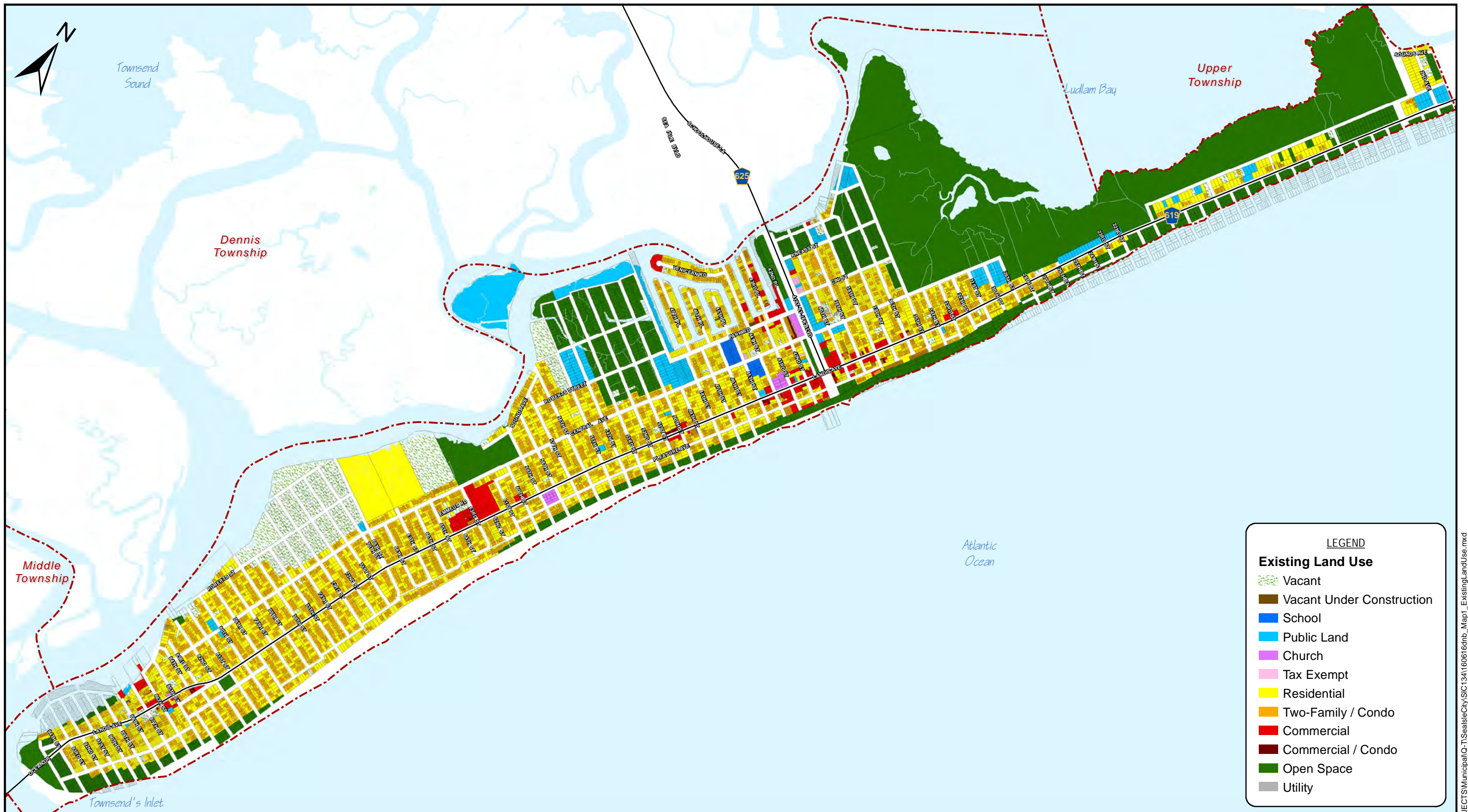
Map 12 - FEMA Preliminary Flood Hazard Areas

Sea Isle City Master Plan Reexamination Survey Summary, dated September 2015

Memorandum 2015 Parking Survey, prepared by Marcia R. Shiffman, PP, AICP, LLA, dated January 16, 2016

Community Forestry Management Plan, prepared for the City of Sea Isle City, prepared by The Lomax Consulting Group, dated April 2013

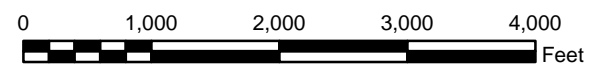
Natural Resources Inventory, City of Sea Isle City, Cape May County, New Jersey, prepared by Maser Consulting, PA, dated February 2007



LEGEND

Existing Land Use

- Vacant
- Vacant Under Construction
- School
- Public Land
- Church
- Tax Exempt
- Residential
- Two-Family / Condo
- Commercial
- Commercial / Condo
- Open Space
- Utility



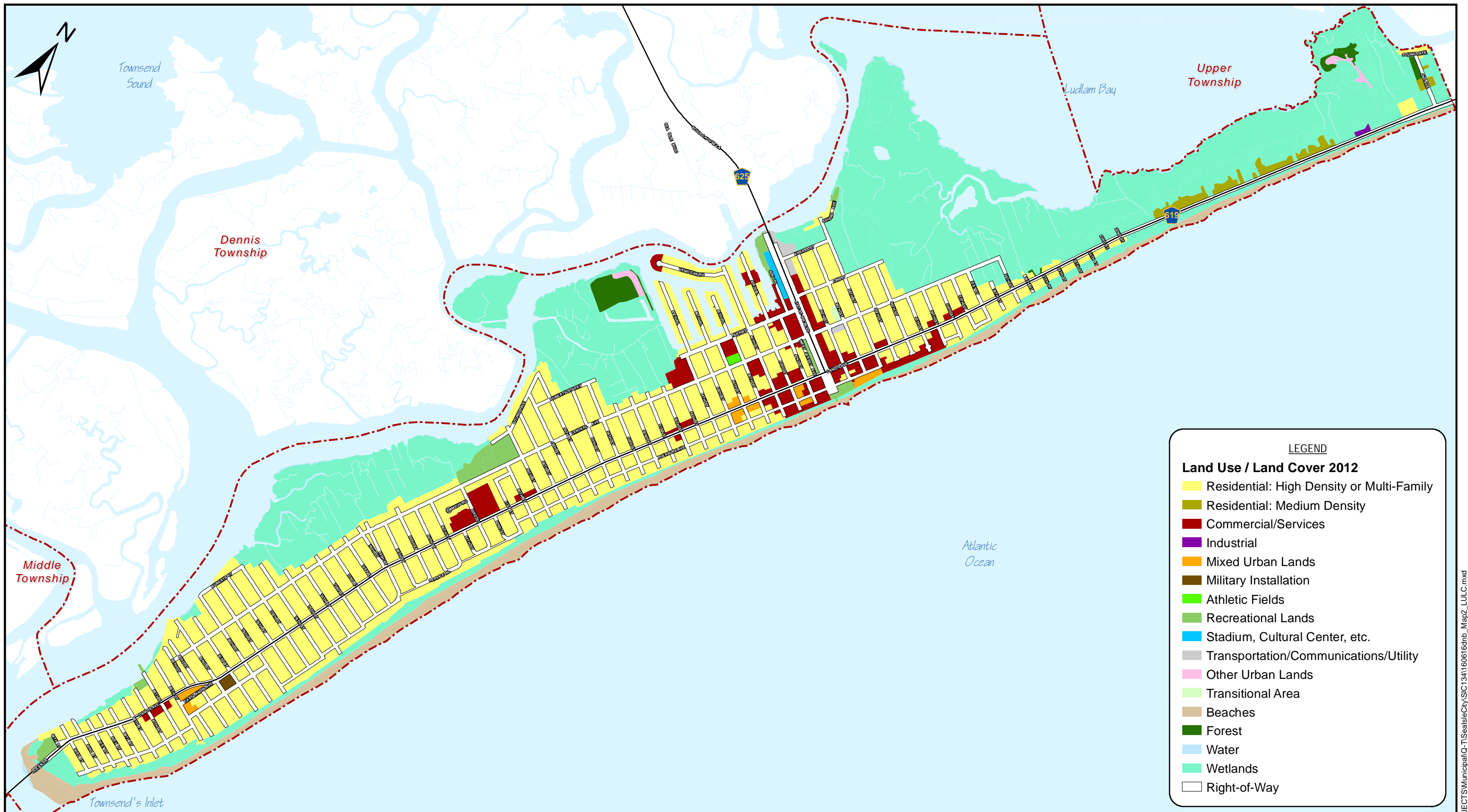
NOTE: THIS MAP CONTAINS DATA FROM THE STATE AND COUNTY GIS DATABASES. THIS SECONDARY PRODUCT HAS NOT BEEN VERIFIED BY NJDEP AND IS NOT STATE OR COUNTY AUTHORIZED.

Map 1
Existing Land Use
 Sea Isle City
 County of Cape May, New Jersey



June 2016

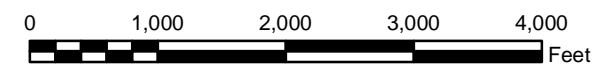
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LEGEND

Land Use / Land Cover 2012

- Residential: High Density or Multi-Family
- Residential: Medium Density
- Commercial/Services
- Industrial
- Mixed Urban Lands
- Military Installation
- Athletic Fields
- Recreational Lands
- Stadium, Cultural Center, etc.
- Transportation/Communications/Utility
- Other Urban Lands
- Transitional Area
- Beaches
- Forest
- Water
- Wetlands
- Right-of-Way



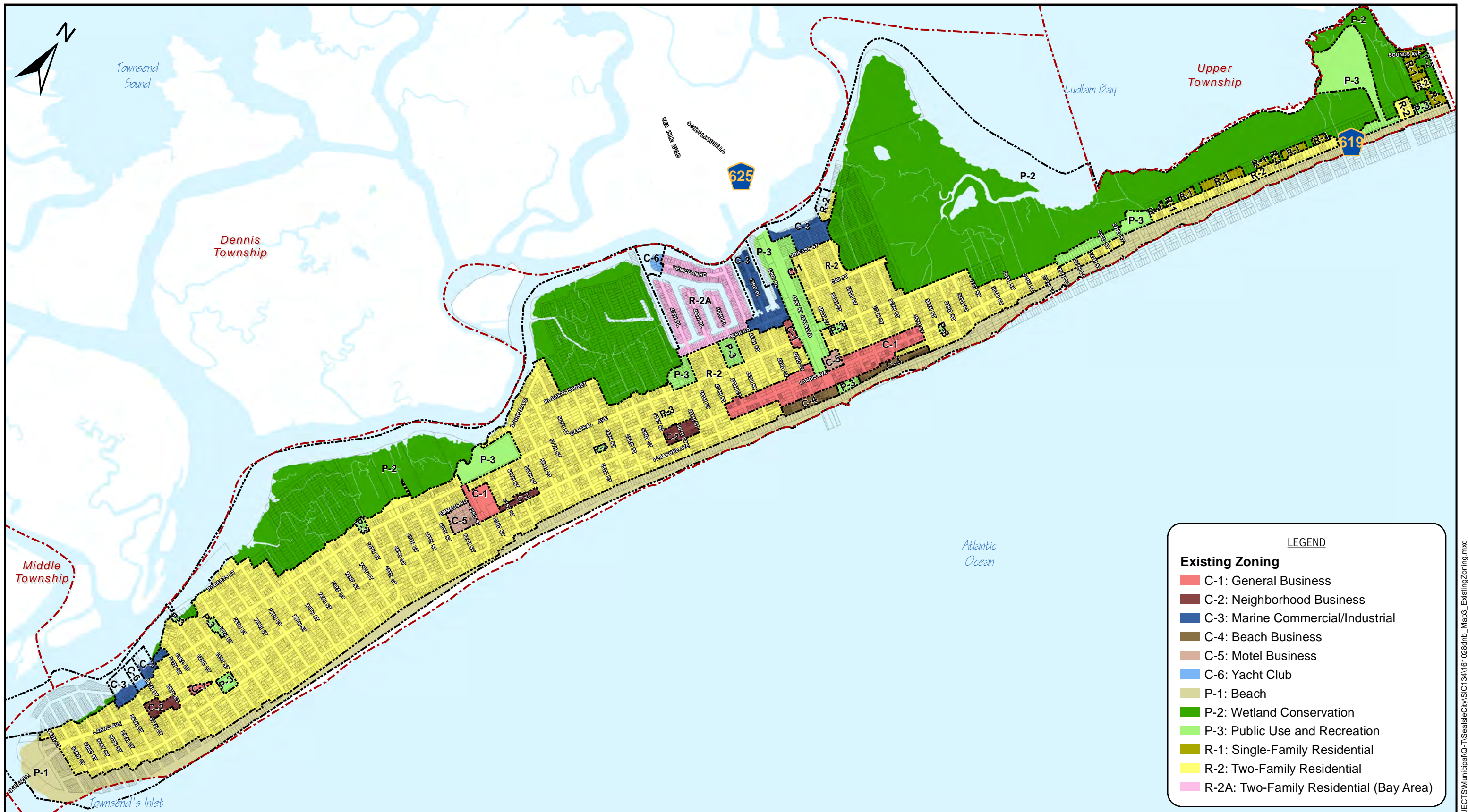
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Map 2
Land Use / Land Cover
 Sea Isle City
 County of Cape May, New Jersey



June 2016

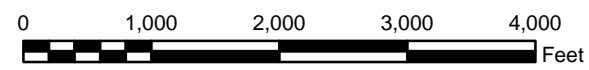
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LEGEND

Existing Zoning

- C-1: General Business
- C-2: Neighborhood Business
- C-3: Marine Commercial/Industrial
- C-4: Beach Business
- C-5: Motel Business
- C-6: Yacht Club
- P-1: Beach
- P-2: Wetland Conservation
- P-3: Public Use and Recreation
- R-1: Single-Family Residential
- R-2: Two-Family Residential
- R-2A: Two-Family Residential (Bay Area)



Map 3
Existing Zoning
 Sea Isle City
 County of Cape May, New Jersey



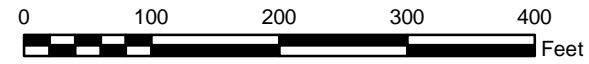
October 2016

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LEGEND

- Proposed Zoning Changes
- Existing Zone Boundary
- Existing Land Use**
- Vacant
- Public Land
- Residential
- Two-Family / Condo
- Commercial
- Commercial / Condo
- Open Space



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Map 4
Proposed Rezoning
 Sea Isle City
 County of Cape May, New Jersey



October 2016

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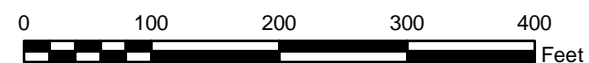


LEGEND

- Proposed Zoning Changes
- Existing Zone Boundary

Existing Land Use

- Vacant
- Vacant Under Construction
- School
- Public Land
- Church
- Tax Exempt
- Residential
- Two-Family / Condo
- Commercial
- Commercial / Condo
- Open Space
- Utility



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Map 5
Proposed Rezoning
 Sea Isle City
 County of Cape May, New Jersey



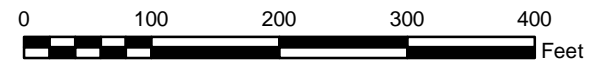
October 2016

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LEGEND

- Proposed Zoning Changes
- Existing Zone Boundary
- Existing Land Use**
- Vacant
- School
- Public Land
- Residential
- Two-Family / Condo
- Commercial
- Commercial / Condo
- Open Space

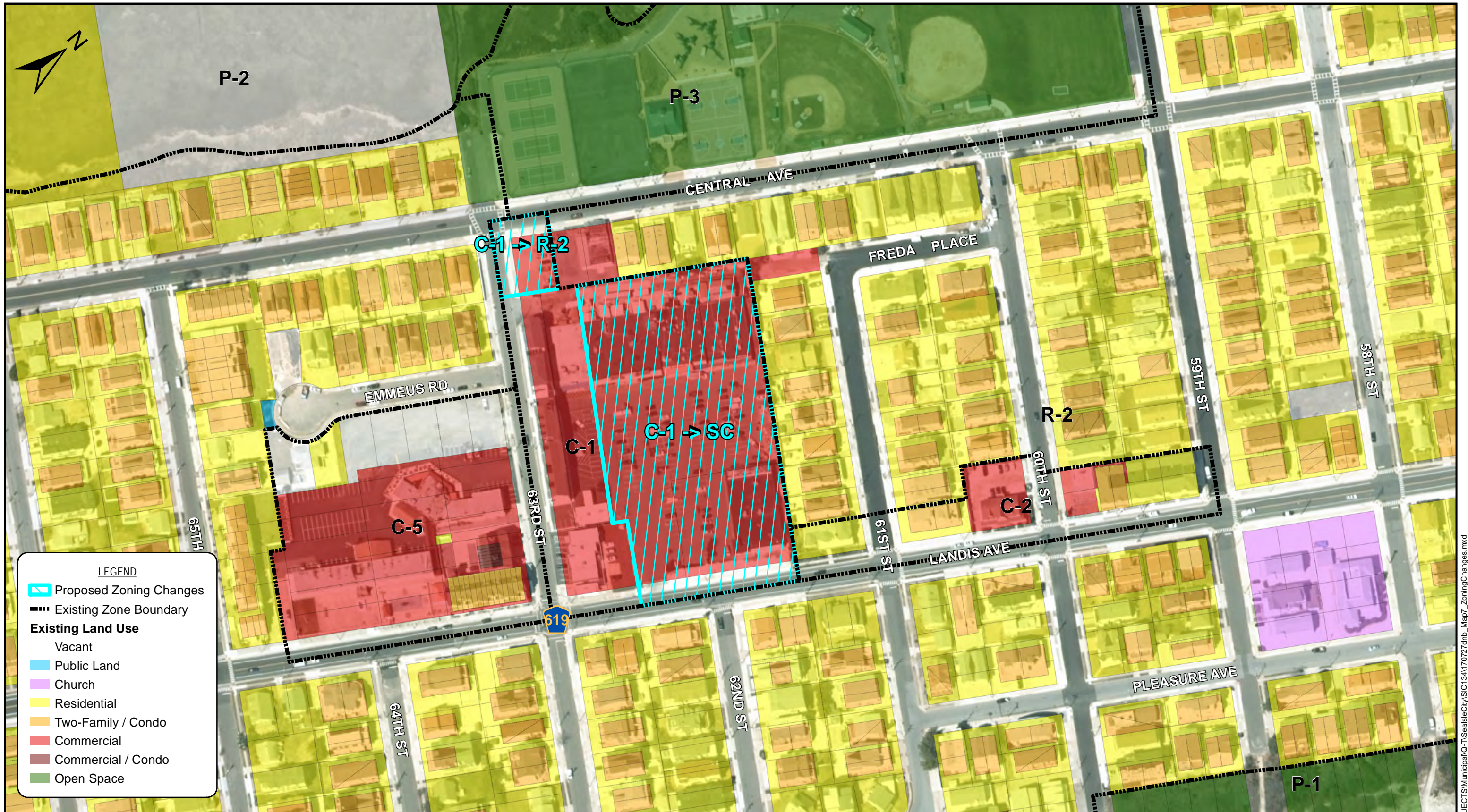


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Map 6
Proposed Rezoning
 Sea Isle City
 County of Cape May, New Jersey



October 2016

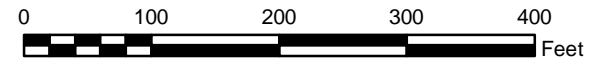


LEGEND

- ▭ Proposed Zoning Changes
- Existing Zone Boundary

Existing Land Use

- Vacant
- Public Land
- Church
- Residential
- Two-Family / Condo
- Commercial
- Commercial / Condo
- Open Space

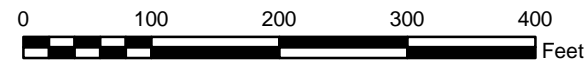


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Map 7
Proposed Rezoning
 Sea Isle City
 County of Cape May, New Jersey



July 2017



Map 8
Proposed Rezoning
 Sea Isle City
 County of Cape May, New Jersey









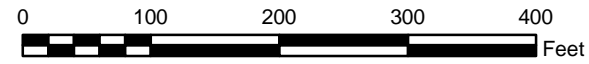
October 2016

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LEGEND

-  Proposed Zoning Changes
- Existing Land Use**
-  Vacant
-  Public Land
-  Residential
-  Two-Family / Condo
-  Commercial
-  Open Space

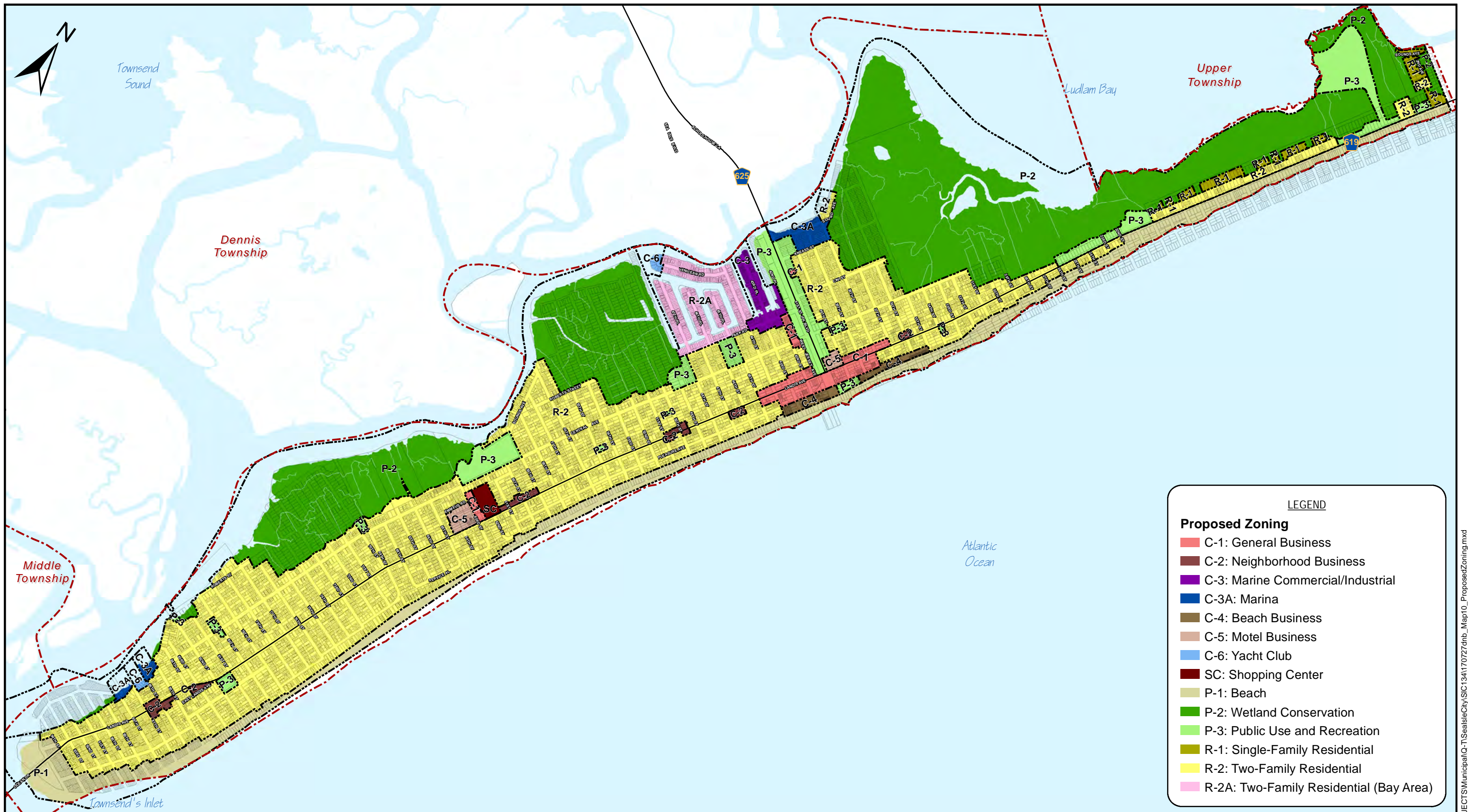


Map 9
Proposed Rezoning
 Sea Isle City
 County of Cape May, New Jersey



October 2016

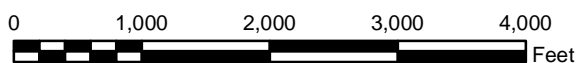
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LEGEND

Proposed Zoning

- C-1: General Business
- C-2: Neighborhood Business
- C-3: Marine Commercial/Industrial
- C-3A: Marina
- C-4: Beach Business
- C-5: Motel Business
- C-6: Yacht Club
- SC: Shopping Center
- P-1: Beach
- P-2: Wetland Conservation
- P-3: Public Use and Recreation
- R-1: Single-Family Residential
- R-2: Two-Family Residential
- R-2A: Two-Family Residential (Bay Area)



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Map 10 Proposed Zoning Sea Isle City County of Cape May, New Jersey



July 2017

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LEGEND

Recreation & Open Space Inventory

Developed and Partially Developed

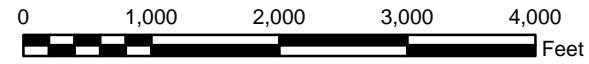
- 59th Street Fishing Pier
- 85th Street Playground
- Dealy Recreation Center
- Excursion Park (Cospar Acquisition)
- Veterans Memorial Park (JFK Blvd Park)
- SIC Community (Mini Park)
- SIC Marina Recreational
- Townsend's Inlet Waterfront Park

Undeveloped

- Beach, Dunes, Uplands & Promenade Lands
- SIC Promenade
- Wetlands

Recreation Facilities Not Listed on the ROSI

- Former Public School
- Library Park
- Welcome Center / Community Lodge



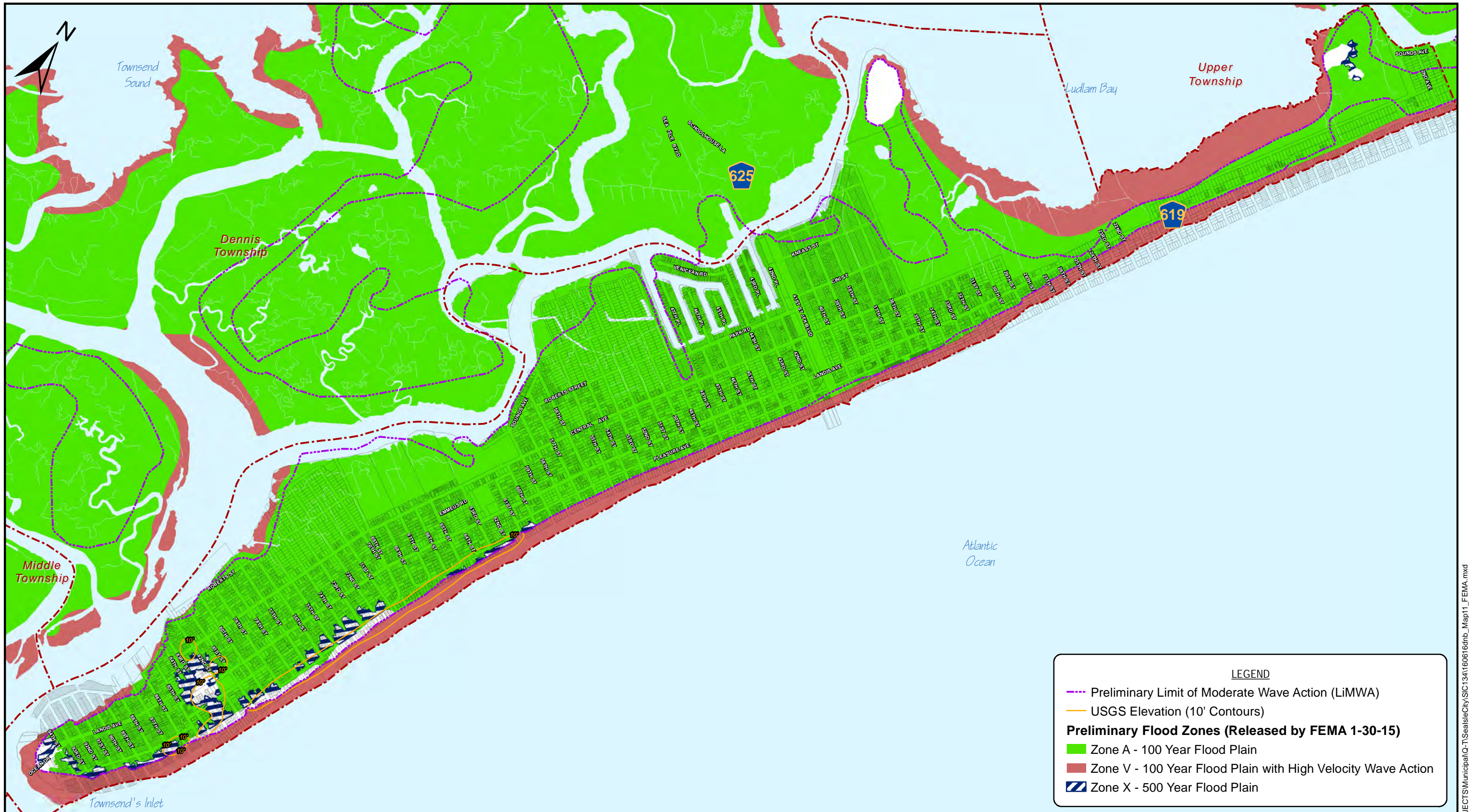
Map 11
Recreation & Open Space
 Sea Isle City
 County of Cape May, New Jersey



June 2016

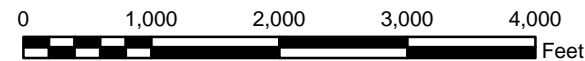
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LEGEND

- - - Preliminary Limit of Moderate Wave Action (LiMWA)
- USGS Elevation (10' Contours)
- Preliminary Flood Zones (Released by FEMA 1-30-15)**
- Zone A - 100 Year Flood Plain
- Zone V - 100 Year Flood Plain with High Velocity Wave Action
- Zone X - 500 Year Flood Plain



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Map 12
FEMA Preliminary Flood Hazard Areas
 Sea Isle City
 County of Cape May, New Jersey



June 2016

Sea Isle City Master Plan Reexamination Survey Summary
September 2015

1. How would you describe Sea Isle City? (In 5 words or less)

The 3.195 response(s) to this question can be found in the appendix.

2. What is your gender?

Response	Chart	Percentage	Count
Male		45.3%	1493
Female		54.7%	1804
		Total Responses	3297

3. How old are you?

Response	Chart	Percentage	Count
17 years or younger		0.9%	31
18 to 24 years old		0.9%	30
25 to 34 years old		2.6%	86
35 to 49 years old		17.7%	586
50 to 65 years old		51.6%	1712
66 to 75 years old		22.0%	728
Over 75 years old		4.3%	142
		Total Responses	3315

4. How many people, including yourself, live in your household?

Response	Chart	Percentage	Count
1		6.8%	226
2		40.7%	1343
3		12.3%	407
4		16.8%	556
More than 4		23.3%	771
		Total Responses	3303

5. Are you a..... (choose only one)

Response	Chart	Percentage	Count
Property Owner		77.6%	2572
Year Round Renter		1.1%	36
Seasonal Renter		8.6%	285
Business Owner		0.4%	12
Visitor		5.8%	193
Other, please specify...		6.6%	218
		Total Responses	3316


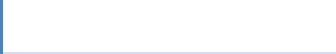
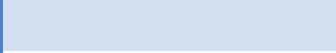

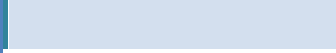
6. How long have you either lived in Sea Isle City or owned a business in Sea Isle City?

Response	Chart	Percentage	Count
Less than one year		2.6%	86
2 to 4 years		10.4%	342
5 to 10 years		13.1%	431
More than 10 years		51.0%	1682
Do not live or own a business in Sea Isle City		23.0%	758
		Total Responses	3299



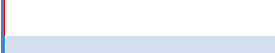
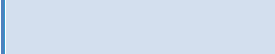
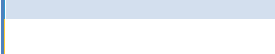
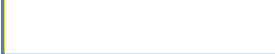
7. If you are a visitor to Sea Isle City, how many times a year do you visit?

Response	Chart	Percentage	Count
Not a visitor		67.4%	1932
This is my first time!		0.2%	7
1 to 5 times a year		12.7%	364
6 to 10 times a year		4.2%	121
More than 10 times a year		15.4%	442
		Total Responses	2866



8. If you are a business owner, how long have you owned a business in Sea Isle City?

Response	Chart	Percentage	Count
Not a business owner		96.8%	2692
Less than 1 year		0.3%	7
2 to 5 years		0.5%	15
6 to 10 years		0.4%	12
Over 10 years		2.0%	56
		Total Responses	2782

9. If you are a business owner, describe your business:

Response	Chart	Percentage	Count
Not a business owner		96.5%	2631
Retail Services (restaurant, clothing, gifts, food)		0.8%	21
Personal Services (beauty shop, yoga studio, etc.)		0.0%	1
Business Services (bank, real estate office, contractor, etc.)		0.7%	19
Offices (general, professional, medical etc.)		0.2%	5
Other, please specify...		1.8%	49
		Total Responses	2726

10. Is parking a problem for you in the summer season?

Response	Chart	Percentage	Count
Yes		71.3%	2307
No		28.7%	929
		Total Responses	3236

11. What areas do you find a parking problem in the summer season?

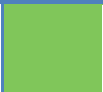


Response	Chart	Percentage	Count
Downtown Business District		63.1%	2005
Near the Promenade		55.4%	1760
Fish Alley		42.1%	1337
Shopping Center at 63rd Street		30.5%	968
Townsend Inlet Business District		12.3%	391
Residential Areas (Which ones?)		43.7%	1389
Other areas with parking problems please specify...		13.4%	426
No parking problems during summer season		9.3%	296
Total Responses			3177

We have reached a saturation point
 Mark parking spaces in residential areas
 Renters with larger homes bring multiple cars
 People park to close to driveway
 Problem increases when duplexes are built
 Not a unique problem, all shore towns have similar problems
 Especially on major weekend
 What are the reasons/requirements for yellow lines
 Corners are blind spots at most intersections

12. Are the current wayfinding signs sufficient to find your way around Sea Isle City?

Response	Chart	Percentage	Count
YES. Wayfinding signage system is okay		67.0%	2142
NO. Wayfinding signage system needs improvement		7.0%	224
Don't know		26.0%	833
Total Responses			3199

13. Streetscape improvements have been made to JFK Boulevard and the Landis Avenue Business Area. Would you like to see these improvements extended to other business areas?




Response	Chart	Percentage	Count
YES Tell us which areas should be improved?		34.9%	1097
NO		26.0%	815
Don't know		39.1%	1227
		Total Responses	3139

- Improvements look great
- Extend Landis Ave.
- All business areas
- More colorful plantings along the promenade
- 63rd street shopping area
- Townsend Inlet area
- Bay area near fish alley, move city garage to another area
- Cleanup junky looking and dated stores
- Plant more greenery
- Bury all utility lines

14. Do you think Sea Isle City is a safe place to bicycle?

Response	Chart	Percentage	Count
Yes		48.1%	1535
No		51.9%	1656
		Total Responses	3191

15. Should bicycle routes and /or bike lanes be installed in Sea Isle City to promote bicycle use?

Response	Chart	Percentage	Count
YES Bicycle facilities are needed here		64.8%	2067
NO Bicycle facilities are not needed.		23.8%	758
Don't know		11.5%	366
		Total Responses	3191

Everywhere

Pleasure Ave is a disaster waiting to happen

Safe bike lanes for north/south routes

Roads are not wide enough to allow for bike lanes

Bike paths yes, but not on main streets add to congestion

Surrounding towns have much better biking conditions due to the size of their roads

If bike lanes are added parking will be eliminated

Suggestions:

Pleasure local traffic only

Pleasure local traffic only on weekend

Extend the promenade

No bikes on sidewalks

Enforce traffic regulations for bikers

Enforce city regulations for bikers on the promenade




Bike lanes on the causeway

Get bikes off the promenade

Establish a bicycle safety program for residents and visitors

Develop a bike route that covers the entire length of the island

16. Is traffic congestion a problem for you during the summer season?

Response	Chart	Percentage	Count
NO Traffic congestion is not a problem.		32.1%	1021
YES Traffic congestion is a problem. The worst congested areas area:		61.7%	1964
Don't know.		6.2%	199
		Total Responses	3184






Summer months most of the main roads

Saturday mornings at change over time, need officers to direct traffic




63rd street business area

- JFK on weekends
- Boulevard off shore
- Pleasure Ave is mess
- When TI Bridge closes
- Catholic Church Area
- Combination of heavy rains and high tides


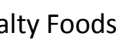







17. There is a jitney service provided by Sea Isle City during in the summer season for residents and visitors. What improvements would you like to see in the jitney service?

Response	Chart	Percentage	Count
Works great! No improvements needed		30.8%	989
More frequent hourly service		13.4%	429
Greater jitney route coverage		18.4%	590
More hours of service		15.3%	492
Don't use the jitney!		35.1%	1128
		Total Responses	3211

18. How would you rank the current retail businesses and services in Sea Isle City?

Response	Chart	Percentage	Count
Good		54.3%	1727
Fair		41.5%	1320
Poor		4.3%	136
		Total Responses	3183




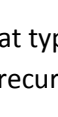
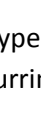

19. What types of additional businesses would you like to see in Sea Isle City?

Response	Chart	Percentage	Count
Food Market		47.7%	1427
Specialty Foods		29.2%	875
Clothing and Apparel Shops		16.4%	492
Book Stores		14.4%	432
Games and Recreation		20.7%	620
Hardware Stores		47.3%	1417
Restaurants		30.5%	913
Kids Oriented Activity Shops		24.3%	727
Other, please specify...		22.8%	683
Total Responses			2994

For the “other, please specify” section, there were 683 responses. Of these responses, there were clearly several that were most prevalent:

- *A recurring theme of the comments indicated a desire for more diversity in the City’s restaurants.
- * In conjunction with the food market category, many comments indicated the need for a larger supermarket and/or renovation/expansion of the current ACME.
- *Even though it was specifically included in a separate item of the survey, #21, which asked what type of development would be preferred at the former amusement park site, amusements were most recurring as another type of business desired in the City.
- *Gas station *Movie theater

20. The former Sea Isle City school building on Park Road will be vacant when the new City Hall is completed. What do you want to see happen with this public property?

Response	Chart	Percentage	Count
Sell for residential development		5.4%	168
Sell for commercial development		6.3%	196
Sell for mixed use (commercial/residential development)		8.5%	266
Develop as a park & recreation area		36.0%	1126
Use as a parking lot		28.1%	880
Other, please specify...		15.8%	496
Total Responses			3132








47	Community Center with a Pool
42	Pool
36	Parking Lot
30	Parking Garage
14	Free Parking
12	12 Parking 12 Green Space
37	Dog Park
31	Amusement Park
24	Recreation Building
14	Develop for recreation
10	Water Park
9	Food Market/ Whole Foods
8	Community Center with gym
8	Community Center
8	Movie Theatre
8	55 and over Housing
6	Senior Center
6	Park
5	Green Space
5	Section 8 Housing
5	No mixed use
5	Sell and Pay down Debt
4	Overnight Parking Lot
4	Open Space I Green Space
4	Something for Children
4	YMCA
4	NO Pool
4	Restaurants
4	Urgent Care Center
4	Commercial Development
3	Bowling Alley
2	Restaurant, Park, Parking
2	Senior Rec. Center with Pool
2	Hardware Store
2	Single Family Homes
2	Keep Gym and classrooms for senior hobbies
2	Gas Station
2	Retain for future use
2	Outdoor Rec. Center
2	Mini Golf
2	Teen Facility for dances, laser tag, go-carts, etc.
2	Residential Use
2	Keep School and rent out classrooms
2	Pickle ball courts
2	Park w/picnic area, tables and grills
2	High End Hotel w/restaurant and banquet facility
2	Mixed Use/

- 2 Retail Center / Town Center
- + RV site
- + Bird Sanctuary

The following had one response:

No residential development, tear down building and sell land when value increases, Indoor water amusements, skating rink, Public safety activities, Transportation Center (for parking, Jitney Hub, Bus Terminal), Combine (Park, Recreation and parking), Mall with food court, Covered basketball courts, a SCHOOL, Teen Center, Small part for commercial and the rest for a park and recreation, put Acme there, Keep the gym rest as a park and parking garage, Public Works Facility, Fire Training, Park and Recreation, High Quality Dinning / Retail Center, Museum type building, Shower / Bathroom Facilities for day visitors, Preservation, Volleyball courts, Bar / Restaurant, Shuffle board courts, Senior Care Facility, Golf Cart Rental, Wildlife Sanctuary, Apple Store, WaWa or 7Eleven, Hotel, Gym Indoor Walking Track, Keep School and turn into a real Community Center.

21. The former Amusement Park Site at the City Marina facility is now vacant and is used for parking. What type of development would you like to see in this area?

Response	Chart	Percentage	Count
Additional Parking		34.8%	1091
Amusement Park		43.1%	1352
Water Park		40.0%	1254
Miniature Golf Course		26.0%	816
Traveling Carnival / Fair		10.3%	323
Go-Cart Park		12.7%	397
Other, please specify...		11.3%	353
		Total Responses	3137

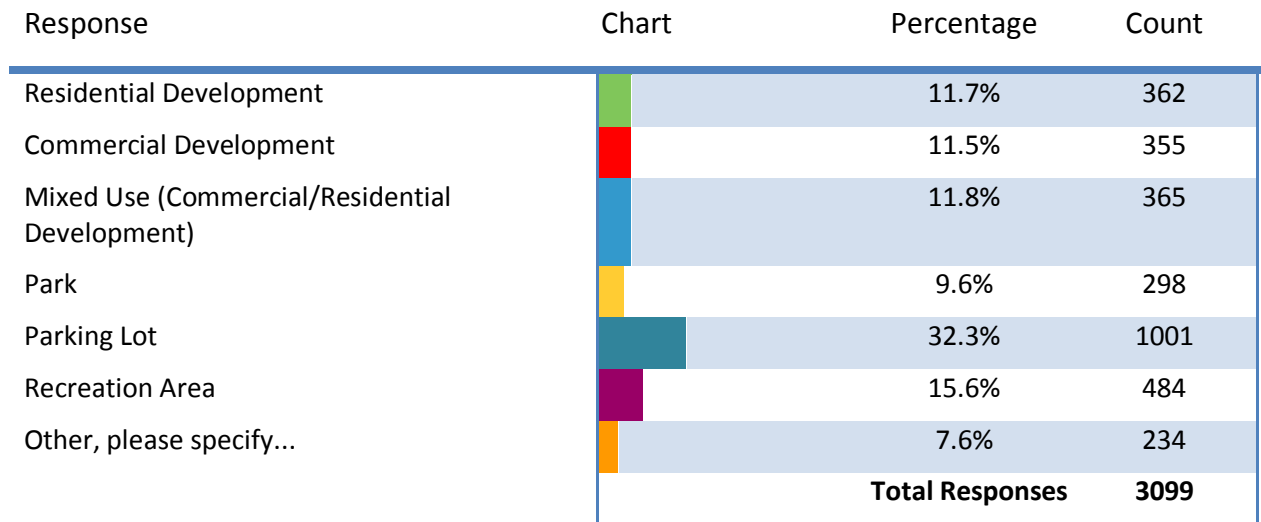
- 31 Something for Kids and Teens
- 27 Open Space / Green Space
- 25 Dog Park
- 16 Restaurant with Parking
- 15 Remain and use for Parking
- 14 Amusement Park
- 12 Something for Families
- 10 Parking Garage
- 10 Free Parking Lot
- 9 Pool
- 8 Movie Theatre
- 7 Park

- 7 Flea Market
- 5 Small Shops / Stores
- 4 Rec Activities
- 3 Community Center with a Pool
- 3 Roller Skating Rink
- 3 Long Term Parking
- 2 Covered Rec Area
- 2 Brew Pub
- 2 Relocate WaWa with Gas Pumps
- 2 Farmers Market
- 2 Hotel
- 2 Interactive Learning ex. How to fish, Kayak, Sail
- 2 Senior Center
- 2 Shuffleboard
- + More boat ramp parking
- + Trailer storage parking
- + Festival Grounds for items such as Food Truck Festival
- + High Ropes Adventure Park

The following had one response:

Sell and Pay down debt, Tennis Courts, Warehouse or flow rider, Marina Stores, Traveling Carnival, Beer Garden, Playground with elevated view of water, Golf Cart Parking, River Walk, Area for Vendors with seating, mixed use (Residential/Commercial)

22. The old, former Fire House on Jersey Avenue, across from JFK Boulevard Recreation Area, is currently vacant and used for storage. What type of development would you like to see at this site?



- 35 Historical Restoration
- 15 Dog Park
- 14 Parking Lot, Parking Garage, Overnight Parking, Free Parking
- 13 Museum
- 11 Shuffle Board, Pickle Ball, Bocce Courts

- 11 Restaurant other than Italian
- 9 Commercial Development
- 7 Green Park
- 7 Residential Development incl. 1 for Section 8 housing
- 6 Movie Theatre
- 5 Teen Center
- 5 Recreation Building
- 4 Medical Clinic / Urgent Care
- 4 Keep for Storage
- 4 Bar
- 3 Brewery
- 3 Art Studio / Education Center
- 2 Boutique Motel
- 2 Hardware Store
- 2 Roller Skating
- 2 Indoor Pool
- + Green Acres
- + Boat trailer storage
- + Fire House themed Tavern

The following had one response:

Mini Golf, Doggie Daycare, Condos Only, Indoor Flea / Antique Mall, Casino, Trader Joes type Market, Racquet Ball, Bowling Alley, Climbing Wall, Laser Tag, Splash Zone, Senior Care Facility, Ice Cream Parlor, Amusement Park, Hall, Sell and pay down debt, Handicap Parking Only, Fire Safety Education Building

23. Sea Isle City's land use ordinance regulates the type of uses allowed along with the size, height and setback from property lines of permitted structures. Do you have any concerns with, or suggested changes to, the City's current land use ordinances?

Response	Chart	Percentage	Count
I am not familiar with the City's land use ordinances		49.3%	1544
No changes are needed. They work well.		16.5%	518
YES If yes, describe your concerns with and possible changes you would like made in the land use ordinance.		34.2%	1071
Total Responses			3133

Size of Homes:

- Feeling of too much density and congestion
- Seashore feeling is being lost
- Eliminate Mega houses 7 bedrooms replacing 4 bedrooms
- Can existing infrastructure support the continued building of larger homes
- Restore the FAR requirement
- Town looks crowded and overdeveloped
- More single family homes

Larger homes cause more flooding
 Maintain setbacks
 Larger buildings add to the parking concerns
 Larger buildings takeaway from the charm
 Building huge monster houses on undersize lots adds to the unattractive density
 Increase parking requirements



Mixed Use:

Not enough parking required
 Eliminate the need for stores on the first level
 Setbacks requirements insufficient, to close to the sidewalks
 Looks crowded and overdeveloped
 Buildings too close

General comments:

Moratorium on building
 Building is out of control
 Only enforcing certain people
 Boards favor local residents
 Not enough permeable ground for drainage
 Sea Isle is already overbuilt

24. Do you participate in Sea Isle City's recreational programs?

Response	Chart	Percentage	Count
YES If yes, which one(s)?		37.6%	1137
NO If no, why not?		62.4%	1884
		Total Responses	3021

- 404 Enjoys Dealy Field / B-Ball / Tennis / Summer Camps / Playgrounds / etc
- 337 Enjoys Band Shell / Concerts / Movies / Dance Parties
- 143 Enjoys Exercise / Fitness Classes / Aerobics / Yoga / Sit-B-Fit / etc
- 110 Other Interests (Beach, Bike, Walk, Boat, Family, Relax, etc.)
- 85 No Time / I work
- 81 Don't have (young) Children / Our Kids are grown
- 80 Not interested
- 77 Too Old / I'm a Senior / Age
- 35 Don't like any / Not enough offered / Nothing Interests Me
- 33 Not sure what they are
- 24 Wrong Times
- 20 Parking / Traffic concerns
- 18 Junior Olympics
- 16 Enjoys Pickle Ball
- 15 New Resident / Just Learning about SIC

- 8 I am Disabled / Health Issues / Special Needs
- 5 We Go To O.C. or Stone Harbor for Recreation
- 8 Need More for Children / We Have Little Children (age 3, 4, 5, etc.)
- 7 Need More for Seniors

The following had one response: Too crowded, Don't Want to Pay \$ for Recreation activities, We need an Indoor Recreation Facility, Home Run Derby, want a Pool, Occasionally people also mentioned that they enjoy the parades.

25. Do you feel additional recreation facilities and / or programs are needed?

Response	Chart	Percentage	Count
YES		37.4%	1139
NO		29.2%	887
Don't know		33.4%	1016
		Total Responses	3042

26. What additional recreation programs / and or facilities are needed?

Response	Chart	Percentage	Count
Senior Activity Center		21.8%	539
Senior Programs (Tell us what kind of programs)		6.5%	161
Playground for young children		14.8%	366
Play area for teens		24.0%	594
More indoor recreation facilities (Tell us what kind of facilities?)		19.6%	485
Outdoor community pool		24.1%	596
Walking trails		34.9%	865
Picnic areas		15.4%	382
Dog Park		40.4%	999
Cultural programs (Tell us what kind of programs)		5.5%	135
Other, please specify...		11.6%	287
		Total Responses	2475

- 103 Swimming Pool (mostly indoor – typically mentioned at Park Road location)
- 33 Basketball Courts / Programs (most often indoors)
- 32 Fitness Programs / A Fitness Center
- 30 Games / Game Room (ping pong, mahjong, cards, etc.)

30	Gymnasium
25	Art / Arts & Crafts Programs
23	No needs
17	Bike Trails / Lanes / Areas
15	Dog Beach / Dog Park
12	Volleyball Courts / Volleyball League
11	Community / Recreation Center
11	Tennis (sometimes requested indoors)
11	No Swimming Pool
10	Indoor Activities (rainy days / winter)
9	Bayside Recreation / water sports / kayak storage
9	Dance Lessons / Dance Programs
9	More Parks / Trees / Shade
8	More Parks / Bird-Nature Preserve / Passive Parks
8	Pickle Ball (mentioned at Fire House too)
8	Bowling Alley
8	Amusement Park / Rides
7	Walking Trails / Indoor Walking / Nature Trails
7	Bingo
6	More Fishing Piers
6	Racquetball
6	Water Park
6	Yoga (indoor /outdoor)
5	Cooking Classes
5	Pickle Ball
5	More Playgrounds
5	Computer / Camera / Phone Classes
4	Bathrooms (on Beach etc.)
4	Add Playgrounds specifically in south-end
4	Theater / Theater Programs / Music
3	Shuffleboard
3	Miniature Golf
3	Book Clubs
3	Pavilions with Shade / Umbrellas / Shade at Dealy Field
3	Beaches for Picnicking / Grilling / Bon Fires
3	Rock Climbing Wall
2	Add Outdoor Showers (including at south end of Prom)
2	Baby Sitting Day Care Services
2	Skate Park / Roller Blade Park
2	Tai Chi:
2	Indoor Walking Track
2	Outdoor Park at former Public School facility
1	More Parking
1	Ocean Piers on the Promenade
1	Eliminate parking on Landis north of 29th one side for bikes
1	Bigger Boardwalk with more stores
1	Bayside Boardwalk
1	Beach Tags Eliminated:
1	Extended Farmers Market (spring to fall)
1	Summer camps (non-sports)

- 1 Sports Camps on Weekends
- 1 Smoking Banned on Beach
- 1 Softball
- 1 Activities for People with Special Needs Activities
- 1 Water Safety / Water Education








AGE SPECIFIC COMMENTS:

- 33 Teen Activities / Facility / Dances
- 14 Children’s Activities / Programs
- 7 Trips / Programs for Seniors:
- 4 Sports Camps for Kids (soccer, football, etc.)
- 3 Activities for Adults (Special Needs too)
- 2 -Sports activities for Children
- 2 Adult Education / Wellness Education

The following had 1 response: Adult Exercise, Adult Exercise (specifically other than yoga, aerobics, and beach), Elderly Activities

Something to attract teens so they don’t clog up the Promenade and Teens on the promenade are an issue / ignored by Police (each mentioned several times)

27. If the former School Building on Park Road is used for recreation, what recreation activities and programs would you like to see there?

Response	Chart	Percentage	Count
Gymnasium		51.8%	1354
Senior Programs		43.1%	1127
Teen Activities		49.2%	1288
Adult Education Programs		30.7%	804
After-School Programs		19.8%	517
Arts & Crafts Programs		38.7%	1012
Other, please specify...		18.2%	476
		Total Responses	2616




- 130 Pool Indoor Swimming Pool
- 13 Gym with Pool
- 8 Community Center with Gym
- 7 Pickle Ball
- 7 Teen Activities
- 6 Park with Benches and Grills
- 5 Pre Teen Activities

- 5 Basketball
- 5 Summer Camps with possible transportation
- 5 Park
- 4 Show Movies
- 3 Dances, Teen Dances, Theme Dances Work out programs
- 3 Senior Activities
- 2 Open Air Park
- 2 Gym YMCA Bowling Alley
- 2 Racquet Ball Courts
- 2 Water Color Painting Classes
- 2 Art, Humanities and Language Classes
- 2 Yoga Classes

The following had one response:

Bridge Lessons and card playing, Museum ship building center, Stress Management, Sitting Park, Silver Sneaker Gym, Computer Lab, evening Summer Classes, Cooking Classes, Sewing Classes, Master Gardeners, Aerobic Classes, Health Fitness Programs, Stem Classes, Chess, Robotics, Bongo Room Concepts, indoor skating, Arts and crafts, Scrap Booking, Track and field, Exercise Classes, Daycare, Indoor Mini Golf, Salon I Day Spa, Indoor Tennis Courts, Nature Conservancy, Live Plays, Family Oriented Activities, Meeting Hall, Adult Sports, Indoor Walking Facility, Cultural Activities and Events, Bingo, Indoor Volley Ball, Bocce Ball, Shuffle Board, Soccer Field, Writing Camp for Kids, Pilates, Environmental Education, Wine Classes, 6 - 9 Hole Golf Course, rock wall, handball courts

28. Should Sea Isle City work to improve community-wide "GREEN" efforts?



Response	Chart	Percentage	Count
YES If yes, what programs do you suggest?		38.3%	1147
NO If no, why not?		9.7%	291
Don't know		52.0%	1557
		Total Responses	2995

- 164 "Recycling is enough"
- "Green enough"
- "Keep up recycling efforts"

- 196 "More trees & plants"
- "Less stone & concrete"
- "Too much concrete. Need trees, grass & shrubs"
- "Grass for new housing"
- "More green lawns"

- 57 "Preserve open space"
"Protect dunes & beach"
"Additional small parks"
- 98 "Solar facilities"
"Water use/education"
"Alternative power sources"
"Solar panels on City buildings"
- 1557 Don't know

29. Are you concerned about future "Sandy" storms affecting Sea Isle City?

Response	Chart	Percentage	Count
YES If yes, what would you like to see done to make Sea Isle City more storm resilient?		56.1%	1686
NO Not a concern.		43.9%	1322
		Total Responses	3008

- 344 "Replenish beaches & dunes"
"Wider dunes"
"Higher dunes" "Maintain dunes"
"Plant dune vegetation"

- 164 "Improve drainage"
"Less impervious surface"
"A way to drain water away as quickly as possible"
"Clean storm drains more often"
"Raise road in flood prone area"
"Address flooding in low areas"
"Install pump stations to alleviate flooding"

- 58 "Complete Sea Isle Blvd. & repair Townsends Inlet Bridge"
"Evacuation procedures"
"Better Evacuation Route signs"

- 48 "Extend Promenade"
"Build higher sea wall"
"Reinforce sea walls"

"Install breakwaters"
"Extend jetties & groins"
"Extend Promenade along entire island"

34 "Flood resistant construction"
"Raise elevation of houses"

1178 No not a concern

30. How would you rate the following aspects of Sea Isle City life?

	Excellent	Good	Fair	Poor	Don't know	Total Responses
Overall quality of life	1033 (33.3%)	1823 (58.7%)	216 (7.0%)	20 (0.6%)	14 (0.5%)	3106
City appearance	811 (26.1%)	1816 (58.5%)	423 (13.6%)	54 (1.7%)	2 (0.1%)	3106
Business mix	216 (7.0%)	1509 (48.6%)	1150 (37.0%)	203 (6.5%)	27 (0.9%)	3105
Place to bring young children (10 years old or younger)	770 (24.8%)	1324 (42.7%)	653 (21.0%)	265 (8.5%)	92 (3.0%)	3104
Place to bring older children (11 years old or older)	522 (16.8%)	1346 (43.4%)	860 (27.7%)	268 (8.6%)	108 (3.5%)	3104
A safe place	1325 (42.7%)	1528 (49.2%)	212 (6.8%)	25 (0.8%)	13 (0.4%)	3103
Environmental sustainability ("GREEN")	323 (10.4%)	1566 (50.5%)	695 (22.4%)	141 (4.5%)	377 (12.2%)	3102
Beach conditions	1109 (35.7%)	1675 (53.9%)	250 (8.1%)	66 (2.1%)	5 (0.2%)	3105
Walking conditions	760 (24.5%)	1707 (55.0%)	541 (17.4%)	86 (2.8%)	8 (0.3%)	3102
Bicycling conditions	187 (6.0%)	895 (28.8%)	1119 (36.1%)	806 (26.0%)	97 (3.1%)	3104
Traffic conditions	77 (2.5%)	852 (27.4%)	1464 (47.2%)	687 (22.1%)	24 (0.8%)	3104
Transit services (Bus services/ jitney)	444 (14.3%)	1539 (49.6%)	588 (18.9%)	85 (2.7%)	447 (14.4%)	3103
Public information (e-newsletter, Reverse 911)	1240 (40.0%)	1385 (44.6%)	224 (7.2%)	43 (1.4%)	211 (6.8%)	3103
Property maintenance	576 (18.6%)	1994 (64.3%)	412 (13.3%)	56 (1.8%)	65 (2.1%)	3103
Beach access	997 (32.1%)	1622 (52.3%)	364 (11.7%)	117 (3.8%)	4 (0.1%)	3104
Recreation programs	259 (8.3%)	1604 (51.7%)	683 (22.0%)	79 (2.5%)	477 (15.4%)	3102

31. Please provide any additional comments here.

In regard to survey item #31, where respondents were asked to provide “any additional comments,” there were a variety of concerns, ideas, suggestions, and comments relative to many issues, including those within the body of the survey, as well as items not specifically asked in the survey questionnaire. Of the 1,410 responses to this item, many comments noted favorably the capital improvements made in the City over the past several years and many comments simply indicated satisfaction with the City. The following represents those items of concern which were most recurring in one fashion or another throughout the “additional comments” section:

- A desire for amusements or activities of some kind, given the departure of Funland Amusement Park
- Concern with bicycle safety and the ability to properly bike throughout the City
- Concern with adequacy of parking throughout the City
- Concern with development, including size of structures and the continuation of mixed use development
- A desire for a dog park
- Concern with public behavior relative to alcohol, and a desire for enhanced police enforcement, particularly on the beach, promenade, and in the downtown bar zone
- Desire for easier beach access, particularly for ease of travel over the sand
- Desire for more beach restrooms
- Concern with water/sewer rates (too high, unfair to non-residents)
- Concern with the disposition of the school building. Comments indicated the desire for recreation services, parking, parkland, and a review of the cost/benefit prior to capital investment
- Desire for enhanced jitney service (extended routes, longer hours of service)
- Desire for more trees, greenery citywide
- Concern with property maintenance
- Concern with the ACME site

32. YOUR NAME and ADDRESS (Optional)

The 1006 response(s) to this question can be found in the appendix.

33. PLEASE PROVIDE YOUR EMAIL ADDRESS (Optional)

The 1347 response(s) to this question can be found in the appendix.



Engineers
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MEMORANDUM

To: Sea Isle City Planning Board

From: Marcia Shiffman, PP, AICP, LLA

Date: January 16, 2016

Re: 2015 Parking Survey
MC Project No. SIC134

On August 8th and 9th, 2015, a survey of on-street public parking spaces was conducted by the Sea Isle City Police. Maser Consulting PA (Maser) compiled the results of this parking utilization survey into a composite Parking Availability Table and Public Parking Availability Map, dated January 2016.

The Parking Availability Table has been organized by east/west and north/south streets. It provides a measurement of on-street parking capacity and observed cars parked on these streets. This data does not include public parking lots or off-street private parking lots.

It should be noted that some data was missing from the observed parking counts as follows:

On-street parking space capacity data that is missing from the survey:

- 47th Place

Observed car counts missing from the survey:

- 29th Street
- 41st Street and JFK Boulevard
- 56th to 60th Street
- East Landis Avenue
- Pleasure Avenue between 29th Street to 42nd Street

The GROSS total on-street parking space capacity is 5,789 parking spaces. However, to correct the missing data, a refined parking count assessment was done, which eliminated all parking counts on those streets, identified above, which lacked data. The NET parking capacity overall is 5,418 parking spaces. The net observed usage is 4,770 parking spaces or a difference of 648 excess parking spaces (or 12%) unoccupied parking spaces overall in the City.

Looking at the north/south streets, the overall net capacity is 1,917 parking spaces with an observed parking space usage of 1,527 spaces with a difference of 390 spaces. In other words, 79.6% of the spaces are occupied.. However, 83% of the unoccupied spaces occurred along Central Avenue.



For the east/west primarily residential streets, the net capacity is 3,501 parking spaces with an observed net parking space usage of 3,243 spaces or a difference of 258 excess spaces (or 7.4%) unoccupied parking spaces.

As noted on the accompanying map and table, parking capacity varies on a street by street basis. There are wide capacity and usage variations, which may be due to either observation error or illegal parking in some areas. The zone boundaries are overlain on the map to assist in evaluating parking capacity in the City's commercial zones.

LANDIS AVENUE

Landis Avenue had only 30 vacant spaces along its length or only 4% vacant spaces. Landis Avenue is at over-capacity from 38th to 46th Street which reflects the downtown C-1 zone. On Landis Avenue between 53rd and 60th Streets, the west side is over-capacity with the east side having some available unoccupied parking spaces. The opposite is true between 69th and 82th Streets where the east side is over-capacity. So there may be available spaces overall within these street segments, if cars cross the street. Also there is off-street public parking proximate to this area, which can affect the parking utilization rates.

CENTRAL AVENUE

Central Avenue data shows significant numbers of unoccupied parking spaces along the total length of Central Avenue, except between 38th to 46th Street. This section of Central Avenue intersects residential streets that are over-capacity. This area is close to the downtown, to public facilities along JFK Boulevard and to Fish Alley. The highest number of vacant parking spaces along Central Avenue is located between 53rd and 75th Streets (201 parking spaces) and between 29th and 38th Streets (81 parking spaces).

PLEASURE AVENUE

Pleasure Avenue shows vacant parking spaces which range from only 1 space to 14 spaces depending upon the street segment. Between 53rd and 85th Street, parking is at capacity with very limited vacant spaces. Overall Pleasure Avenue had only about 36 vacant spaces along its length or about 8% unoccupied spaces.

EAST- WEST STREETS

East-west streets that are shown to be over-capacity are scattered throughout the City. Those streets that are at over-capacity of 10 parked cars or greater are identified below. Those that are in a commercial zone are indicated by (C) on the list. These are listed going from north to south:

- 35th Street (C-1)
- 39th Street (C-1)
- 46th Street
- 48th Street



53rd Street
61 Street/Freda (C-2)
85th Street (C-1)
91st Street

CONCLUSION

Without data on the utilization of the public parking lots, it is difficult to assess the complete parking picture in the City.

Based on the available data, it appears there are limited available unutilized parking spaces in selected areas in the City. A number of residential streets show parking to be over-capacity. These streets may be candidates for residential permit parking during the high season, to address parking deficiencies.

For the north-south streets, the assessment is more unclear. For the downtown commercial zones, there is off-street public parking available; but without survey data on the utilization of these off-street public parking spaces, it is not possible to assess whether there is an actual parking shortfall or not. Around the downtown C-1 zone along Landis Avenue, from 38th to 46th Streets, occupied parking spaces exceed actual capacity. Overall on Landis Avenue, there is a limited supply of on-street parking with only 4% space vacancies available.

Similarly on Central Avenue, between 38th and 46th Street (Fish Alley), there is a shortfall of available unoccupied parking spaces. However, overall Central Avenue is at 57% of its parking capacity.

The City should consider the following options:

1. Conduct an evaluation of off-street public parking areas during summer season to confirm parking space utilization in off-street public parking lots. (This data was inadvertently not compiled during the August 2015 parking survey.)
2. Increase residential parking requirements for mixed use development in commercial zones (which is under Planning Board discussion).
3. Increase parking requirements for residential zones (which is under Planning Board discussion).
4. Consider constructing off-street public parking areas where land is available, focusing on areas which exhibit parking over-capacity, after review of the current utilization of off-street public parking areas.



5. For commercial uses with high parking needs, businesses should consider valet parking in coordination with City off-street parking areas.
6. Consider residential permit parking during high season in selected areas that have limited parking spaces available.
7. Outside of downtown commercial areas, consider requiring on-site parking spaces for all uses including commercial uses, since there is no available off-street public parking outside of the downtown areas.
8. Consider creating a remote parking area for day visitors with regular shuttles to beach areas and downtown during daytime during high season.
9. Consider providing extended stay parking areas to serve long-term visitors and for boat trailers.

Possibilities for these remote parking areas include:

- 5th-8th Street outside of the Landfill area for parking.
- North Landis Area.
- Garden State Parkway (GSP) commuter parking area, which would require coordination and approval of State.
- Dennis Township property near the GSP entrance ramps to be leased or purchased. (Note that this use may require a zoning variance depending upon location and zoning.)
- Other areas to be determined.

Attachments:

Public Parking Availability Map

Parking Availability Table

Sea Isle City
Parking Availability

1/14/2016

Street	# of Parking Spaces		
	Capacity	Observed	Difference
29th	14	N/A	N/A
30th	13	12	1
31st	34	41	-7
32nd	37	29	8
33rd	27	26	1
34th	36	41	-5
35th	36	46	-10
36th	67	72	-5
37th	71	69	2
Sound Ave (off 38th)	52	33	19
Cini St.	93	47	46
Kneass St.	81	62	19
38th	173	125	48
39th	110	120	-10
40th	99	101	-2
41st/JFK Blvd	36	N/A	N/A
Park Rd	67	58	9
West Jersey Ave	42	23	19
42nd	43	38	5
43rd Place	13	21	-8
43rd	67	65	2
Venicean Rd	42	45	-3
44th	102	100	2
45th	74	70	4
45th Place	30	25	5
46th	70	89	-19
46th Place	35	40	-5
47th	59	57	2
47th Place	N/A	47	N/A
48th	39	60	-21
49th	37	33	4
50th	45	48	-3
51st	45	38	7
52nd	39	41	-2
53rd	36	70	-34
54th	58	48	10
55th	60	57	3
56th	71	N/A	N/A
57th	75	N/A	N/A
58th	57	N/A	N/A
59th	35	N/A	N/A
60th	29	N/A	N/A
61st/Freda	18	33	-15
62nd	13	17	-4

Sea Isle City
Parking Availability

1/14/2016

Street	# of Parking Spaces		
	Capacity	Observed	Difference
Emmeus Road	17	14	3
63rd	19	28	-9
64th	16	16	0
65th	43	24	19
66th	37	34	3
67th	49	48	1
68th	36	35	1
69th	60	30	30
70th	46	21	25
71st	67	42	25
72nd	49	46	3
73rd	47	45	2
74th	55	47	8
75th	55	45	10
76th	54	63	-9
Roberts (b/w 77th-80th Sts)	30	38	-8
77th	81	63	18
78th	87	75	12
79th	72	48	24
80th	53	58	-5
81st	72	59	13
East Landis	20	N/A	N/A
82nd	89	72	17
83rd	50	44	6
84th	41	48	-7
85th	43	60	-17
86th	35	37	-2
87th	42	28	14
88th	32	37	-5
89th	43	35	8
90th	33	23	10
91st	30	41	-11
92nd	34	13	21
93rd	17	21	-4
94th	4	5	-1
Gross Totals	3,838	3,290	548
Net Totals	3,501	3,243	258

Sea Isle City
Parking Availability

1/14/2016

Street	# of Parking Spaces		
	Capacity	Observed	Difference
Landis Avenue	Capacity	Observed	Difference
85th-94th	105	54	51
75th-82nd (West)	68	67	1
60th-75th (West)	96	79	17
53rd-60th (West)	38	70	-32
69th-85th (East)	75	105	-30
53rd-69th (East)	69	47	22
46th-53rd	80	70	10
42nd-46th	33	43	-10
38th-42nd	36	40	-4
29th-38th	126	121	5
Total	726	696	30

Central Avenue	# of Parking Spaces		
	Capacity	Observed	Difference
75th-84th	76	65	11
60th-75th	165	60	105
53rd-60th	172	72	100
46th-53rd	95	64	31
42nd-46th	53	53	0
38th-42nd	42	46	-4
29th-38th	159	78	81
Total	762	438	324

Pleasure Avenue	# of Parking Spaces		
	Capacity	Observed	Difference
85th-93rd	60	46	14
69th-85th	143	142	1
53rd-69th	68	66	2
46th-53rd	96	82	14
42nd-46th	62	57	5
38th-42nd	3	N/A	N/A
29th-38th	31	N/A	N/A
Gross Totals	463	393	70
Net Totals	429	393	36

North-South Streets	Capacity	Observed	Difference
Gross	1,951	1,527	424
Net	1,917	1,527	390

City-Wide Totals	Capacity	Observed	Difference
Gross	5,789	4,817	972
Net	5,418	4,770	648

Source: Sea Isle City Police Department counts 08/08-09/2015.

Sea Isle City
Parking Availability

1/14/2016

Street	# of Parking Spaces		
	Capacity	Observed	Difference

Note: Data for several streets are incomplete and wide capacity spreads may be due to observation error or illegal parking.



COMMUNITY FORESTRY MANAGEMENT PLAN

CITY OF SEA ISLE CITY

CAPE MAY COUNTY

NEW JERSEY

April 2013



PREPARED FOR: THE CITY OF SEA ISLE CITY
4416 Landis Avenue
Sea Isle City, NJ 08243

PREPARED BY: THE LOMAX CONSULTING GROUP, LLC
PO Box 9, 1435 Route 9 North
Cape May Court House, NJ 08210

TLCG FILE No.: 11-756

TABLE OF CONTENTS

COMMUNITY FORESTRY MANAGEMENT PLAN


<u>SECTION</u>	<u>PAGE</u>
1. MUNICIPAL / COUNTY INFORMATION FORM.....	1
2. INTRODUCTION.....	2
A. BACKGROUND.....	2
B. MISSION STATEMENT.....	3
C. GOALS AND OBJECTIVES.....	3
D. LIABILITY STATEMENT	6
3. COMMUNITY OVERVIEW – PAST, PRESENT AND FUTURE.....	7
A. INTRODUCTION.....	7
B. ENVIRONMENTAL CONTEXT.....	7
C. HISTORY	8
D. CULTURE.....	8
E. COMMUNITY VALUES.....	9
4. COMMUNITY FORESTRY PROGRAM ADMINISTRATION.....	11
CITY OF SEA ISLE CITY ORGANIZATIONAL CHART.....	13
5. COMMUNITY MAP.....	14
6. TRAINING PLAN.....	15
7. PUBLIC EDUCATION, AWARENESS AND OUTREACH.....	16
8. STATEMENT OF TREE BUDGET.....	18
9. STATEMENT OF PLAN IMPLEMENTATION.....	19
A. BACKGROUND	19
B. YEARLY IMPLEMENTATION TIMELINE.....	19
C. SUMMARY.....	24
10. COMMUNITY STEWARDSHIP INCENTIVE PROGRAM.....	27
11. SELECTED REFERENCES.....	36

APPENDICES

- A. Figures
 - FIGURE 1: City of Sea Isle City USGS Topographic Map
 - FIGURE 2: City of Sea Isle City Aerial Overview with Land Cover Overlay
 - FIGURE 3: City of Sea Isle City Forestry Base Map with Preliminary Tree Inventory Overlay - North
 - FIGURE 4: City of Sea Isle City Forestry Base Map with Preliminary Tree Inventory Overlay - South
- B. Relevant City of Sea Isle City Ordinances/Guidance Documents
- C. Sea Isle City Forestry Training Records

Community Forestry Management Plan

1. Municipal/County Information Form (*Attachment A*)

Municipality	City of Sea Isle City
County	Cape May County
Address	4416 Landis Avenue, Sea Isle City, NJ 08243
Contact Name and Title	George Savastano, Business Administrator/Director of Public Works
Phone #	609-263-4461
Fax # and E-mail	609-263-6139 / gsavastano@seaislecitynj.us
Organization Name	City of Sea Isle City
Mayor/County Freeholder's Signature	Mayor Leonard C. Desiderio 
Date of Management Plan Submission	May 20, 2013
Time Period Covered in Management Plan	2013 - 2017
Community Stewardship Incentive Program (CSIP) Practices Identified in Management Plan	<input checked="" type="checkbox"/> CSIP #1 Training <input checked="" type="checkbox"/> CSIP #2 Community Forestry Ordinance Establishment <input checked="" type="checkbox"/> CSIP #3 Public Education and Awareness <input checked="" type="checkbox"/> CSIP #4 Arbor Day <input checked="" type="checkbox"/> CSIP #5 Tree Inventory <input checked="" type="checkbox"/> CSIP #6 Hazard Tree Assessment <input checked="" type="checkbox"/> CSIP #7 Storm Damage Assessment <input checked="" type="checkbox"/> CSIP #8 Tree Maintenance and Removals <input checked="" type="checkbox"/> CSIP #9 Insect and Disease Management <input checked="" type="checkbox"/> CSIP #10 Wildfire Protection <input checked="" type="checkbox"/> CSIP #11 Tree Planting <input checked="" type="checkbox"/> CSIP #12 Tree Recycling <input checked="" type="checkbox"/> CSIP #13 Sidewalk Maintenance Program <input checked="" type="checkbox"/> CSIP #14 Storm Water Management <input checked="" type="checkbox"/> CSIP #15 Other

**Official Use Only
Certification**

The above named municipality/county has made formal application to the New Jersey Forest Service. I am pleased to advise you that after our review, the NJ Forest Service has concluded that this plan meets the standards set forth by the State and the NJ Community Forestry Council and is approved for the period covered.

Signed _____

State Forester

Approved Date

2. INTRODUCTION

A. Background

The Community Forestry Management Plan (CFM Plan or Plan) of City of Sea Isle City (City) has been prepared to establish programs that recognize the unique nature of its tree resources and to plan future programs that will continue to protect and enhance these resources.

The City has established goals and objectives compatible with the forestry planning process vision to provide forest and tree streetscapes for the benefit of its residents and visitors in addition to the wildlife that rely on them. The Plan presented herein recognizes the accomplishments of the Shade Tree Commission and City Environmental Commission since the mid-1970s. More recently, the Shade Tree Committee of the Environmental Commission was formed to support in the preparation of the CFM Plan and will serve in its implementation. Further, a current five year schedule of activities guides Plan implementation consistent with its Goals and Objectives.

The Plan recognizes that the City, a barrier island, seashore resort community, experiences a unique set of opportunities and challenges. One of the most important aspects of the City is that it owns and controls virtually all of the park, streetscape and naturally occurring tree assets within its boundaries. In addition, the City leadership and administration, supported and advised by the Sea Isle City Environmental Commission, Shade Tree Committee, the City Planning and Zoning Boards and the Sea Isle City Garden Club, are committed to the maintenance and enhancement of its natural resources.

The principal challenge faced by the City revolves around the resort nature of the community, with a relatively small year round population, but large summer population. Trees are an asset that requires full year care. Further, the overall environment of the City ranges from moderate to severe at times. The droughty, sandy soil of the coastal plain has low water and nutrient holding capacity. The soil composition of the City combined with frequent coastal storms results in flooding with saline water and salt spray that kills the windward side of the deciduous trees and shrubs. These challenges require a carefully studied approach to the management of the City's tree resources.

Notwithstanding these challenges, the City expresses, through this Plan, its intention to protect and enhance the tree resources, including streetscapes, while at the same time engaging in efforts to avoid accidents caused by these resources, thereby obtaining liability protection for damage and/or injury caused by trees.

B. Mission Statement

The mission of the City CFM Plan is to protect, enhance and sustain productive community shade tree and forest resources that will improve the quality of life for the residents, visitors and wildlife that inhabit this unique resort community.

The approach to fulfill this mission entails engaging the community through education and outreach programs while concurrently enlisting support and guidance from the Mayor and City Council, the Shade Tree Commission, the Environmental Commission, the City Planning and Zoning Boards, the Department of Public Works and their community forestry and landscape consultants. This community effort will ensure that the overarching values expressed by the community include appropriate management and improvement of the open space, active recreational areas and the streetscapes of the residential and commercial districts. While enhancing the tree resources, the City is committed to promoting the safety and welfare of its citizens by inventorying the extent and condition of its trees and by maintaining them, while still recognizing the limits of its resources.

C. Goals and Objectives

GOAL 1

Review and adopt the CFM Plan

Objectives:

- A. Review the City organizational structure for management of tree/forest resources.
- B. Prepare the draft CFM Plan with input from the City, the Environmental Commission, the Shade Tree Committee and the Department of Public Works.
- C. Present the draft CFM Plan to the City, its reviewing organization/agencies and the public.
- D. Review and revise the CFM Plan to facilitate appropriate portions of the City Ordinances consistent with the adopted CFM Plan.
- E. Provide training to the Shade Tree Committee and the Environmental Commission members, as well as Department of Public Works staff, concerning the scope and provisions of the CFM Plan to facilitate implementation.

GOAL 2

Inventory and Assessment of the Community Forest Resources within the City

Objectives:

- A. Conduct a preliminary inventory of the naturally occurring forest areas and active recreational park and streetscape tree resources on public property within the City.
- B. Establish a base map of the City for inventorying existing trees and tracking landscape/streetscape improvements on public property.
- C. Inventory the invasive trees threatening the integrity of the natural areas within the City.
- D. Prepare an inventory of trees on public property that may be hazardous and prepare a list of priority trees requiring maintenance by the Sea Isle City Department of Public Works.
- E. Define the existing tree canopy estimate and establish a tree canopy goal for the City.

GOAL 3

Develop a Plan for Tree Resource Enhancement within the City

Objectives:

- A. Identify areas within the City streetscapes that could benefit from the planting of selected tree species.
- B. Identify areas within the City parks and properties that could be enhanced by the planting of selected tree species.
- C. Develop lists of tree species and other vegetation suitable for planting in the City's diverse landscapes and environmental conditions in order to minimize water requirements and minimize insect and disease damage, while sustaining pollinators and appropriate wildlife and enhancing the aesthetics of the city view.

GOAL 4

Develop Outreach Initiatives that Encourage Public Awareness and Support of Community Forestry Programs.

Objectives:

- A. Develop information with the assistance of the Public Information Officer and Department of Public Works staff for dissemination to the public concerning the value of trees in the City, existing tree resource protections (i.e., ordinances/guidance documents/CFM Plan) and appropriate notification procedures for reporting violations.
- B. Identify City resources available for the dissemination of information to the public.

- C. Prepare a plan that coordinates planting, care and management of the City tree resources utilizing the Department of Public Works, the Shade Tree Commission, the Environmental Commission, Beautification Committee, the Sea Isle City Garden Club and other volunteer organizations and interested citizens. Included in this objective is the identification of potential volunteers and development of a strategy to engage them in tree planting and care activities.
- D. Incorporate Community Forestry messages in community communications (e.g. website and newsletters), City resources, public relations news releases and events. Consult with the Public Information Officer to develop an inventory and schedule of outreach communications and events, including engaging speakers and authors who present programs on tree-related topics.
- E. Develop a Commemorative Tree program and a brochure describing the program along with a list of qualified landscapers. Included in this objective is the dissemination of this brochure through City resources.
- F. Host an annual tree sale in the City (in cooperation with other City stakeholder(s)).

GOAL 5

Develop a Plan for Sustaining Forestry Resources in the City

Objectives:

- A. Develop a process with the Mayor and the Council for allocation of City resources to obtain funding from within the City, as well as from other sources, to implement the CFM Plan.
- B. Develop a plan to train City personnel regarding the importance of maintaining and caring for tree resources and responding to inquiries or reports from the public concerning tree-related issues.
- C. Coordinate with the City land use board to incorporate elements of the CFM Plan into the next master plan re-examination.
- D. Prepare a plan that coordinates planting, care and management of the City tree resources utilizing the Department of Public Works, the Shade Tree Commission, the Environmental Commission, Beautification Committee, the Sea Isle City Garden Club and other volunteer organizations and interested citizens. Included in this objective is the identification of potential volunteers and the development of a strategy to engage them in tree planting and care activities.

GOAL 6

Provide Educational Opportunities in Support of the CFM Plan.

Objectives:

- A. Expand the number of City personnel and volunteers who have attended CORE and advanced training required by the Community Forestry Act.
- B. Provide an educational program to professional landscapers concerning City Ordinances in addition to the selection and care of native trees and other vegetation meeting landscaping needs while at the same time conserving water and minimizing disease and insect damage.
- C. Develop information guiding the use of suitable trees and shrubs to be used in the community to minimize water requirements and to minimize insect and disease damage while sustaining pollinators and appropriate wildlife.

D. Liability Statement

Although street and public open space trees are an asset to the community, it is inevitable that they mature and require care, maintenance and eventually replacement. Care and maintenance, in addition to planting "the right tree in the right place," can help insure that community trees not only contribute to the aesthetic, environmental and economic vitality of the area, but also reduce the potential hazards to public safety. Our community must work within a reasonable budget that may not be able to meet each and every need of our community forest immediately. Therefore, it is the intent of this Plan to focus available resources to the greatest need and work step-by-step towards healthy trees in streetscapes and public open spaces with commensurate reduced risk to public safety.

The City feels by taking logical steps outlined in the CFM Plan that the City will garner public support for Plan implementation and demonstrate the long-term benefits to the environment and public safety.

The City also wants to become more pro-active in the management and care of its trees. Through inventory and hazard assessment, the City will position the Shade Tree Committee of the Environmental Commission to coordinate with the Department of Public Works to take corrective action prior to structural tree failure and other hazardous tree-related conditions. It is acknowledged that not all hazardous conditions can be predicted. Good maintenance and care will reduce the probability, but unexpected events may still occur.

Following this Management Plan will demonstrate that the City is devoting reasonable levels of resources in a planned manner to mitigate the number of tree-related incidents/accidents, thereby reducing its exposure to liabilities and increasing public safety.

3. Community Overview - Past, Present and Future...

A. Introduction

The City initiated the development of this Plan as part of City-wide planning initiatives to address streetscape and gateway design, revise landscaping standards and engage in proactive stewardship of its natural resources. In anticipation of the formation of the Shade Tree Committee of the Environmental Commission, the City engaged in the preliminary stages of the Plan development to reflect its long term objectives. After formation of the Committee, its members convened to outline and identify goals and objectives specific to the needs of the community. The City is recommitted to its prior history of planting street trees, a practice that was quite active in the 1970s. In the intervening years, the City has re-examined its streetscapes and natural areas and has recognized the need for maintenance, care and management of these resources. This Plan was prepared to update the mission and goals for tree resource management and to define objectives and an organizational structure to support this effort. The City continues its interest in tree resources by planting trees and shrubs around new public buildings and by supporting the forestry/landscaping efforts of the Sea Isle City Environmental Commission and community partners.

B. Environmental Context

The City is located on the southern portion of Ludlam Barrier Island along Cape May County's Atlantic Ocean coastline. It is bordered to the west by the New Jersey Intercoastal Waterway, the tidal marshes of Upper, Dennis and Middle Townships and Ludlam Bay. It is bordered to the east by the Atlantic Ocean. It is bordered to the north by the Strathmere section of Upper Township. It is bordered to the south by Townsend's Inlet and the Borough of Avalon. The municipality encompasses approximately 2.55 square miles of which 2.2 square miles is land area and 0.35 square miles is comprised of water, as illustrated in **FIGURE 1 (APPENDIX A)**.

In order to place the CFM Plan in a meaningful context, it is note-worthy that the beaches, foredunes of the Atlantic coast and the tidal marshes of the back bays (western portion of the City) are very limited in natural forested areas. The majority of tree/forest resources are located at the margins between intensely developed areas and the environmentally sensitive surroundings. The high energy waves associated with coastal storms and tidal fluctuation, in addition to the saline water (ranging to 35 ppt), have precluded the establishment of extensive forested areas in these undeveloped environs. The Land Cover Map of the City illustrates the

distribution of urban (developed) areas and open space/natural areas (**FIGURE 2 – APPENDIX A**). The limited forest resources within the City are contained within four types of ecological communities (underlined below). These areas represent portions of the City suitable for application of the CFM Plan. The Maritime Forest in the southern (Townsend's Inlet Waterfront Park) and northern (Landfill Site) limits of the City, as well as portions of the Dune Complex provide the opportunity for tree management and enhancement. Similarly the City's Parks, Gardens and Landscaped Boulevard, in addition to the Streetscapes, provide the opportunity for significant programmatic tree enhancement. These areas will require routine tree inspection and maintenance.

C. History

This barrier island was used in the 18th century for grazing of livestock, as well as fishing, hunting and recreation. The island later became an important resource for coastal safety with the establishment of life saving stations in the 1840s. The City was officially established in 1882, and is presently governed under a Mayor-Council structure. Within just a few years of the City's founding, a railroad linkage to the mainland was established. The West Jersey and Seashore Railroad provided for accessibility and quickly established the City as a seashore resort. Economic development within the community continued into the 1920s; however, growth was thwarted in the 1930s and 1940s by a severe economic climate and a devastating hurricane in 1944. Redevelopment during the 1950s and beyond continued to grow the community and attract people for beach excursions and as a vacation destination. To this day the vast majority of the City's tourism is derived from metropolitan and suburban areas in the four state area (Delaware, Pennsylvania, New York and New Jersey).

D. Culture

The culture of the community revolves around the natural resources of the community, namely the extensive natural areas including beaches and tidal marshes. The majority of properties are utilized for seasonal vacation homes; consequently, from Memorial Day to Labor Day, the population increases dramatically during the summer tourist season to over 40,000 people. As of the census of 2010, there were 2,114 people, 1,041 households and 646 families residing in the City. Residents of the community are largely receptive to environmental stewardship, as evident through their active Environmental Commission, Shade Tree Committee, Beautification Committee and Garden Club and have a broad base of community involvement rooted in natural resource conservation.

E. Community Values

Public policy and its associated planning documents reflect the values of this community. Accordingly, the City's 2007 Natural Resource Inventory identified important natural features and the 2007 Master Plan Re-Examination provided for recommendations to improve the City's natural environment through the implementation of revised design standards, establishment of landscapes and gateways, beautification of the Cityscape through the use of planters and addressing natural areas access and preservation, including development of a passive recreation park. The City's 2003 Recreation and Open Space Inventory indicates that, of the total undeveloped lands (± 403 acres), preserved open space consists of publicly-owned wetlands (± 292 acres) and beach/dune/upland/promenade (± 111 acres). Of the upland areas a small portion is dedicated to active recreation. The City preserved a 39,140 sf parcel (Cospar) through participating funds under the Green Acres Program and County Open Space Board.

The City has continued to engage in essential beach replenishment and dune management projects providing for ample sand resources and the establishment of dunes. Successional growth has been encouraged within these dune systems and requires a maintenance strategy for the long term management of this resource. This dune system provides a protective barrier during the coastal storms. As such, the City has historically had close ties to the natural resources of the community and embraces efforts to maintain and enhance this natural asset. The balanced environmental ethic and values of the City are illustrated by the Mayor's and Council's support of the work by the Sea Isle City Environmental Commission, Shade Tree Committee, Beautification Committee, Garden Club and volunteer programs, in addition to the City Ordinances (**APPENDIX B**) that have established standards for environmental protection and enforcement.

Tree resources of the City were preliminarily inventoried during the fall of 2012 for purposes of identifying the distribution of trees on the newly established Forestry Base Maps for the municipality (**FIGURES 3 and 4 – APPENDIX A**). Commonly occurring streetscapes of the community include Bradford pear, red maple cultivars, and honey locust. Dominant tree species within the naturally occurring landscapes of the community include eastern red cedar, black cherry, mimosa, sassafras, hackberry, winged sumac, American holly and mulberry. The Japanese black pine is an invasive species that is ubiquitous throughout the City, both in natural and planted landscapes. However, because of its past success in the coastal environment, it has displaced significant stands of native vegetation. Currently this pine has become susceptible to pests and diseases leaving these natural areas vulnerable to storm damage.

Relevant Ordinances/Amendments and guidance documents related to tree resources of the City are presented in **APPENDIX B**. They include:

1. Chapter 26-25 Landscaping
2. Chapter 14 Flood Damage Prevention
3. Chapter 21 Beaches, Boardwalk and Protection of Dunes
4. (Proposed) Acceptable Plant Material List for Coastal Areas

While the existing City planning documents and associated ordinances provide information and standards for natural resource protection and management, this CFM Plan will bring a finer focus to the tree resources of the City. Subsequent to the approval of this Plan, it is anticipated that Plan will be integrated into relevant sections of City Ordinances as they are modified and updated (**APPENDIX B**).

There are no State-owned properties containing significant tree resources suitable for management; however, the Green Acres Program has been a partner with the City in securing environmentally sensitive areas and these areas are included in the Plan.

4. Community Forestry Program Administration

Two groups within the City are committed to overseeing the management of the municipal tree resources, as illustrated in the Organizational Chart. The Shade Tree Committee of the Environmental Commission is responsible for the tree inventory, assessment, planning and education, while the Sea Isle City Department of Public Works is responsible for the maintenance and care of municipal trees. Any maintenance requests beyond the capability or expertise of the Department of Public Works are contracted to professional landscapers or certified tree experts on an “as needed” basis.

The membership of the current Sea Isle City Shade Tree Committee includes:

Eleanor Moore – Chairperson
Susan Ahern
Steve Ahern
Annette Lombardo
Dudley McGinty
Councilman Mike McHale
Alan Nesensohn
Gerry Nesensohn
Anne Organ
Fran Steelman
Bob Thibault
Mike Tumolo
Dolores Volker
Vicky Rutledge – Secretary (non-voting)

The membership of the current Sea Isle City Environmental Commission includes:

Annette Lombardo - Chairperson
Susan Ahern
Mary Caruso
Colleen Falcone
Phyllis Linn
Dudley McGinty
Councilman Mike McHale – Council Liaison
Eleanor Moore
Fran Steelman
Mary Ellen Stefenack
Bob Thibault
Mike Tumolo
Vicky Rutledge – Secretary (non-voting)

The Department of Public Works is accessed through the Office of the Mayor and the City Administrator:

Mayor Leonard C. Desiderio
4416 Landis Avenue
Sea Isle City, New Jersey 08243
(609) 263-4461

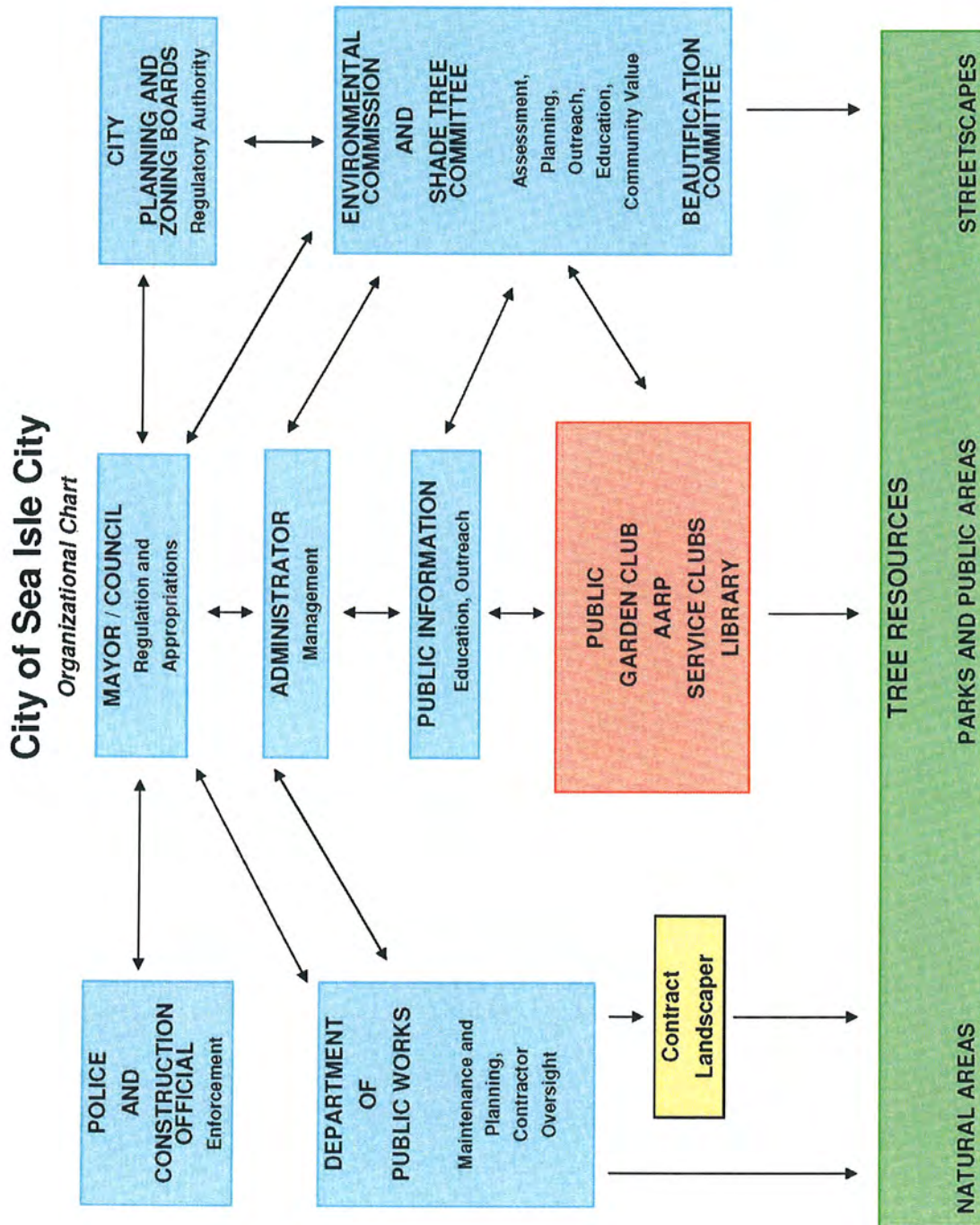
Business Administrator George J. Savastano, P.E.
4416 Landis Avenue
Sea Isle City, New Jersey 08243
(609) 263-4461, ext. 223

The continuity and flow of the City administration and organization is imperative to the success of the community tree resources. The City Organizational Chart is presented on the following page. The Mayor and Council receive input from the Shade Tree Committee of the Environmental Commission, City Planning and Zoning Boards and the public. This input provides a vision for the future of the community. There are emerging working relationships with various departments and community groups within the City, each performing its individual duties to ensure a healthy, sustainable population of trees.

Requests for Municipal tree services are addressed through one of two processes: (1) City tree service and maintenance requests or (2) new plantings on City properties. The Department of Public Works ultimately carries out the maintenance and service requests on City property and will use outside contractors, as appropriate. New plantings typically follow the protocol illustrated on the Organizational Chart to ensure that the new plantings are consistent with the vision of the City and to ensure that adequate comment has been provided by the City Planning and Zoning Boards, the Shade Tree Committee of the Environmental Commission and the public. After a consensus has been reached by the advisory groups, the City Business Administrator implements the tree management and planting through the Department of Public Works, contracted professionals or volunteer organizations, as appropriate.

New plantings within the City on private properties are required to follow the standards and specifications of City Code Chapter 26 Zoning, Section 25 Landscaping and Buffers. Persons or entities desiring to install new project landscaping as provided for in the ordinance shall select from species identified therein and specified in the approved plans. Additionally, persons or entities desiring to remove or destroy trees on their property must first apply for a landscaping permit from the zoning office.

Additionally, no person or entity (with the exception of public utilities and city contractors for limited activities) shall engage in landscaping practices of any kind on public land.



Prepared by The Lomax Consulting Group

5. Community Map

The City Forestry Base Maps for the Plan are presented in **APPENDIX A, FIGURES 3 and 4**. The first base map (**FIGURE 3**) details the northern end of the municipality, while the second base map (**FIGURE 4**) details the southern end. These base maps are provided as 2010 color aerials at a scale of 1" = 1,000' such that important community features can be clearly identified. These base maps clearly label the City streets and roadways, and identify select landmarks for user reference. Additionally, these base maps contain important tree resource information as part of this initial forestry assessment of the City. Natural Forest Areas are preliminarily delineated and streetscapes with a significant density of street trees are depicted.

A preliminary inventory of tree resources within the City indicates that higher densities of street trees are located along residential streets nearest the John F. Kennedy Boulevard gateway/entry and central commercial district of the City, as well as along streets with a presence of public facilities. Natural areas with tree resources are fairly limited within the City; the greatest concentrations are located along the dune and coastal marsh margins. The landfill at the northern end of the City represents the largest core area of trees. The southern limits of the City host a park and dune area that provides for more expansive areas of tree resources as well.

The Land Cover Map of the City illustrates the distribution of urban (developed) areas and open space/natural areas (**FIGURE 2 – APPENDIX A**). This map provides an overview of land cover for this barrier island community that is largely comprised of urban lands (dense residential development and expansive impervious coverage), which tends to limit opportunities for forestry enhancement beyond street tree plantings.

6. Training Plan

CORE employee training serves as the basis for implementing the CFM Plan. The State recommends that at least one employee of the municipality (often Public Works employees) and one volunteer (Shade Tree Committee or Environmental Commission member) receive this training. In addition, The Lomax Consulting Group has obtained CORE and relevant advanced training for multiple employees to assist the City in development and implementation of its CFM Plan. Proactively, the City has secured training for a number of its employees and volunteers, including the necessary CORE training and additional Continuing Education Units (CEUs) to operate the tree-related programs (**APPENDIX C**). Furthermore, the City intends to extend its training efforts to additional personnel in upcoming years, as outlined in the Goals section of this Plan. The City intends to allocate funds in its Tree Budget to accomplish this training.

The training proposed by the City includes the following:

1. Expanding the number of City staff and volunteers that are CORE trained and participation in skills training through Continuing Education Programs. The objective is to increase the number of trained staff and volunteers while increasing the depth of knowledge and experience of this working group.
2. Training focused on members of the Shade Tree Committee, the Environmental Commission and the Department of Public Works regarding their roles and responsibilities, understanding the CFM Plan and City Ordinances relating to tree resources management.
3. Training the Department of Public Works employees and the Commissions' members to identify and report tree hazards, in addition to the process through which the problems are resolved.
4. Training of the Department of Public Works employees in advanced tree pruning techniques.
5. Conducting training programs for professional landscapers regarding protection of the City tree resources in a manner consistent with City Ordinances.

7. Public Education/Awareness/Outreach

The City is engaged in tree and vegetation resource management through its Shade Tree Committee, Department of Public Works, Environmental Commission, Planning and Zoning Board and affiliated organizations. The venues through which the community anticipates conducting public outreach and education are listed below.

Programs

- *Educational Information at Community Facilities*
- *Commemorative Tree Planting Programs*
- *Educational Booths at Community Events*
- *Guest Speaker Programs*

Media Communications

- *News Releases*

Outreach to Groups

- *City Website*
- *City Newsletter*
- *Shared Government Access TV Channel*
- *Community Organizations*

Through the use of existing resources the Shade Tree Committee will develop a network of distribution outlets for dissemination of important information specific to the value of trees, forestry-related programs and events, existing tree resource protections (e.g., ordinances, guidance documents, CFM Plan), as well as procedures for reporting violations. As part of the development of this Plan a number of City information outlets were identified, including the municipal website, Welcome Center, Construction Office and Code Enforcement Office. The Sea Isle City Branch of the Cape May County Library was also identified as another important channel for distribution of information to the public. Other community partners anticipated to assist in the outreach of the Shade Tree Committee include the Garden Club, AARP and the Sea Isle City Taxpayers Association.

It is anticipated that the CFM Plan, in addition to the existing tree resource protection documents, will be posted to the City's website for easy access and reference by the public.

Although the City does not have a school system within which to conduct Arbor Day activities, there are existing events, including the Annual Garden Club Flower Sale and Community Day, which will serve as another point of access to the public for outreach and communication of the City's efforts to protect and enhance its tree resources. Further, the Shade Tree Committee has set as an objective of this Plan the development of an Annual Tree Sale, which will provide ample opportunity to promote public awareness and facilitate the enhancement of tree planting throughout the community.

Additionally, as part of this Plan, the Shade Tree Committee has set as an objective, the formalization of a Commemorative Tree program and associated brochure. Through this program, an opportunity will be created for citizens and groups to honor and remember individuals through the enhancement of public lands and streetscapes with tree plantings.

The aforementioned community partners, outlets, events and City website will serve to carry the mission and message of the Shade Tree Committee and the CFM Plan. Media communication opportunities through the issuance of new releases will also be utilized to promote events and programs in support of tree resource enhancement and management.

8. Statement of Tree Budget

The City is distinct from many municipalities in that its tree programs need special training and experience to enhance and protect its tree resources because of the coastal environmental conditions. In order for the City to act as steward of the landscape, the allocation of resources is important. The 2013 Estimated Tree Budget includes City plantings and public funds associated with this project.

CITY ESTIMATED TREE BUDGET 2013

Parks and Shade Tree Personnel	
Salaries: <u>\$16,548.00</u>	\$16,848.00
Clothing Allowance: <u>\$300.00</u>	
Education and Training	\$500.00
CORE Training / CEU Participation	
Tree Planting	\$1,000.00
Plants and Materials	
Tree Maintenance Materials	\$1,100.00
Equipment Rental	0
Shade Tree Committee Volunteer Time (127 hours @ \$21.79/hour)	\$2,729.00
Partner Organization(s) Volunteer Time (60 hours @ \$21.79/hour)	\$1,307.40
Garden Club Donations	\$500.00
Pruning shrubs and planting annuals in parks	
Consultant Fees (CFM Plan Preparation, Adoption and assistance with Implementation of Year 1 Objectives.)	\$6,100.00

TOTAL \$28,602.00

Budgeting is limited at this time, as significant municipal resources are prioritized and directed towards clean-up and recovery efforts associated with Hurricane Sandy.

Volunteers, groups and service clubs, such as the Sea Isle City Garden Club and Environmental Commission, can offer major in-kind contributions to the community, valued as cost share in grant applications. Estimated volunteer hours have been included in the 2013 Estimated Tree Budget as well.

9. Statement of Plan Implementation

The following Statement of Plan Implementation addresses the specific actions proposed to carry out the City CFM Plan's goals and objectives, as identified in Section 2, and establishes a yearly Implementation Timeline.

A. Background

The CFM Plan addresses tree-related opportunities and issues within the City, while concurrently coordinating the actions within the City, of its volunteers and interested state and federal agencies. The Plan has been approved by the City, after receiving public input, and the implementation strategy is presented below along with the timeline for each action.

B. Yearly Implementation Timeline

The following yearly implementation timeline defines the planned actions (Tasks) to achieve the goals and objectives discussed in Section 2 (pages 3 to 6).

Year 1, 2013

1. Review the City organizational structure for management of tree/forest resources.
2. Prepare the draft CFM Plan with input from the City, the Environmental Commission, the Shade Tree Committee and the Department of Public Works.
3. Present the draft CFM Plan to the City, its reviewing organization/agencies and the public.
4. Review and revise the CFM Plan to facilitate appropriate portions of the City Ordinances consistent with the adopted CFM Plan.
5. Provide training to the Shade Tree Committee and the Environmental Commission members, as well as Department of Public Works staff, concerning the scope and provisions of the CFM Plan to facilitate implementation.
6. Adopt CFM Plan.
7. Establish a base map of the City for inventorying existing trees and tracking landscape/streetscape improvements on public property.
8. Conduct a preliminary inventory of the naturally occurring forest areas and active recreational park and streetscape tree resources on public property within the City.
9. Inventory the invasive trees threatening the integrity of the natural areas within the City.
10. Identify areas within the City streetscapes that could benefit from the planting of selected tree species.
11. Identify areas within the City parks and properties that could be enhanced by the planting

of selected tree species.

12. Develop lists of tree species and other vegetation suitable for planting in the City's diverse landscapes and environmental conditions in order to minimize water requirements, minimize insect and disease damage while sustaining pollinators and appropriate wildlife and enhancing the aesthetics of the city.
13. Identify City resources available for the dissemination of information to the public.
14. Expand the number of City personnel and volunteers who have attended CORE and advanced training required by the Community Forestry Act.
15. Initiate a process with the Mayor and Council for allocation of City resources for implementation of the CFM Plan.
16. Develop a budget for the next year's program and seek supplementary funding sources.
17. Prepare and submit the Annual Report to the NJDEP Community Forestry Program.

Year 2, 2014

1. Continue to inventory the invasive trees threatening the integrity of the natural areas within the City.
2. Continue to identify areas within the City streetscapes that could benefit from the planting of selected tree species.
3. Continue to identify areas within the City parks and properties that could be enhanced by the planting of selected tree species.
4. Prepare an inventory of trees on public property that may be hazardous and prepare a list of priority trees requiring maintenance by the Sea Isle City Department of Public Works.
5. Define the existing tree canopy estimate and establish a tree canopy goal for the City.
6. Develop information with the assistance of the Public Information Officer and Department of Public Works staff for dissemination concerning the value of trees in the City, existing tree resource protections (i.e., ordinances/guidance documents/CFM Plan) and appropriate notification procedures for reporting violations.
7. Incorporate Community Forestry messages in community communications (e.g. website and newsletters), through City resources, public relations news releases and events. Consult with the Public Information Officer to develop an inventory and schedule of outreach communications and events, including engaging speakers and authors who present programs on tree-related topics.
8. Develop a process with the Mayor and the Council for allocation of City resources to obtain funding from within the City, as well as from other sources, to implement the CFM Plan.

9. Develop a plan to train City personnel regarding the importance of maintaining and caring for tree resources and responding to inquiries or reports from the public concerning tree-related issues.
10. Coordinate with the City land use board to incorporate elements of the CFM Plan into the next master plan re-examination.
11. Prepare a plan that coordinates planting, care and management of the City tree resources utilizing the Department of Public Works, the Shade Tree Commission, the Environmental Commission, Beautification Committee, the Sea Isle City Garden Club and other volunteer organizations and interested citizens. Included in this objective is the identification of potential volunteers and development of a strategy to engage them in tree planting and care activities.
12. Continue to expand the number of City personnel and volunteers who have attended CORE and advanced training required by the Community Forestry Act.
13. Provide an educational program to professional landscapers concerning City Ordinances, in addition to the selection and care of native trees and other vegetation meeting landscaping needs while conserving water and minimizing disease and insect damage.
14. Develop information guiding the use of suitable trees and shrubs to be used in the community to minimize water requirements and minimize insect and disease damage while sustaining pollinators and appropriate wildlife.
15. Develop a budget for the next year's program and seek supplementary funding sources.
16. Prepare and submit the Annual Report to the NJDEP Community Forestry Program.

Year 3, 2015

1. Continue to inventory the invasive trees threatening the integrity of the natural areas within the City.
2. Continue to identify areas within the City streetscapes that could benefit from the planting of selected tree species.
3. Continue to identify areas within the City parks and properties that could be enhanced by the planting of selected tree species.
4. Continue to prepare an inventory of trees on public property that may be hazardous and prepare a list of priority trees requiring maintenance by the Sea Isle City Department of Public Works.
5. Prepare a plan that coordinates planting, care and management of the City tree resources utilizing the Department of Public Works, the Shade Tree Commission, the Environmental Commission, Beautification Committee, the Sea Isle City Garden Club and other volunteer

- organizations and interested citizens. Included in this objective is the identification of potential volunteers and development of a strategy to engage them in tree planting and care activities.
6. Continue to incorporate Community Forestry messages in community communications (e.g. website and newsletters), City resources, public relations news releases and events. Consult with the Public Information Officer to develop an inventory and schedule of outreach communications and events, including engaging speakers and authors who present programs on tree-related topics.
 7. Host an annual tree sale in the City (in cooperation with other City stakeholder(s)).
 8. Continue to coordinate with the City land use board to incorporate elements of the CFM Plan into the next master plan re-examination.
 9. Continue to prepare a plan that coordinates planting, care and management of the City tree resources utilizing the Department of Public Works, the Shade Tree Commission, the Environmental Commission, Beautification Committee, the Sea Isle City Garden Club and other volunteer organizations and interested citizens. Included in this objective is the identification of potential volunteers and development of a strategy to engage them in tree planting and care activities.
 10. Continue to expand the number of City personnel and volunteers who have attended CORE and advanced training required by the Community Forestry Act.
 11. Continue to provide an educational program to professional landscapers concerning City Ordinances, in addition to the selection and care of native trees and other vegetation meeting landscaping needs while conserving water and minimizing disease and insect damage.
 12. Continue to develop information guiding the use of suitable trees and shrubs to be used in the community to minimize water requirements and minimize insect and disease damage while sustaining pollinators and appropriate wildlife.
 13. Develop a budget for the next year's program and seek supplementary funding sources.
 14. Prepare and submit the Annual Report to the NJDEP Community Forestry Program.

Year 4, 2016

1. Continue to inventory the invasive trees threatening the integrity of the natural areas within the City.
2. Continue to identify areas within the City streetscapes that could benefit from the planting of selected tree species.
3. Continue to identify areas within the City parks and properties that could be enhanced by

- the planting of selected tree species.
4. Continue to prepare an inventory of trees on public property that may be hazardous and prepare a list of priority trees requiring maintenance by the Sea Isle City Department of Public Works.
 5. Continue to incorporate Community Forestry messages in community communications (e.g. website and newsletters), City resources, public relations news releases and events. Consult with the Public Information Officer to develop an inventory and schedule of outreach communications and events, including engaging speakers and authors who present programs on tree-related topics.
 6. Develop a Commemorative Tree program and brochure describing the program along with a list of qualified landscapers. Included in this objective is the dissemination of this brochure through City resources.
 7. Continue to host an annual tree sale in the City (in cooperation with other City stakeholder(s)).
 8. Continue to expand the number of City personnel and volunteers who have attended CORE and advanced training required by the Community Forestry Act.
 9. Continue to provide an educational program to professional landscapers concerning City Ordinances, in addition to the selection and care of native trees and other vegetation meeting landscaping needs while conserving water and minimizing disease and insect damage.
 10. Continue to develop information guiding the use of suitable trees and shrubs to be used in the community to minimize water requirements, minimize insect and disease damage while sustaining pollinators and appropriate wildlife.
 11. Develop a budget for the next year's program and seek supplementary funding sources.
 12. Prepare and submit the Annual Report to the NJDEP Community Forestry Program.

Year 5, 2017

1. Continue to inventory the invasive trees threatening the integrity of the natural areas within the City.
2. Continue to identify areas within the City streetscapes that could benefit from the planting of selected tree species.
3. Continue to identify areas within the City parks and properties that could be enhanced by the planting of selected tree species.
4. Continue to prepare an inventory of trees on public property that may be hazardous and prepare a list of priority trees requiring maintenance by the Sea Isle City Department of

Public Works.

5. Continue to incorporate Community Forestry messages in community communications (e.g. website and newsletters), City resources, public relations news releases and events. Consult with the Public Information Officer to develop an inventory and schedule of outreach communications and events, including engaging speakers and authors who present programs on tree-related topics.
6. Continue to develop a Commemorative Tree program and brochure describing the program along with a list of qualified landscapers. Included in this objective is the dissemination of this brochure through City resources.
7. Continue to host an annual tree sale in the City (in cooperation with other City stakeholder(s)).
8. Continue to expand the number of City personnel and volunteers who have attended CORE and advanced training required by the Community Forestry Act.
9. Continue to provide an educational program to professional landscapers concerning City Ordinances in addition to the selection and care of native trees and other vegetation meeting landscaping needs while conserving water and minimizing disease and insect damage.
10. Continue to develop information guiding the use of suitable trees and shrubs to be used in the community to minimize water requirements and minimize insect and disease damage while sustaining pollinators and appropriate wildlife.
11. Develop a budget for the next year's program and seek supplementary funding sources.
12. Prepare for the 5-year required update to the CFM Plan.

C. Summary

1. A Tree Inventory and Assessment has been initiated in the form of a preliminary survey of the distribution of trees within the City. This survey provides a general location of natural forest areas, almost exclusively along the vegetated dunes and within the City's former landfill site. The presence of invasive tree species was noted as part of this preliminary survey, particularly the presence of extensive Japanese black pine stands within municipal parks and dunes. Additionally, the survey established the preliminary location of street tree plantings of a significant density. These densities correspond to locations along residential streets nearest the John F. Kennedy Boulevard gateway/entry and central commercial district of the City, as well as along streets with a presence of public facilities. This information is useful in tailoring future programs and planting efforts in the City. It is expected that throughout the term of this Plan, Years 1-5 will include an on-going inventory and updated assessment of locations within the

City, including streetscapes, public parks and natural areas, that require forestry management and/or enhancement. During Year 2 the initial tree inventory database will be established and tested. Additionally, Year 2 will include an evaluation of the percentage of tree canopy in the municipality, which will aid in setting the tree canopy goal for the City.

2. As part of the initial tree resource survey, attention was paid to Hazard Tree Identification and Management. The presence of Japanese black pine stands and plantings within municipal parks and dunes was noted. The dominance of these species was evident in several locations within the City, which serves as an initial objective to specifically document these areas and formulate a plan to address invasive species. Additionally, the preliminary survey of trees in the City indicated that there are hazard trees within the streetscapes that will need to be specifically identified and addressed in the near term. Dead and dying trees and tree growth into utility lines occurrences will need to be catalogued and reported. It is expected that throughout the term of this Plan, Years 1-5 will identify and monitor invasive tree species within the City that need to be addressed. During Year 2 the initial tree inventory database will be established and tested. Additionally, Year 2 will include an inventory of hazard trees and a prioritization for maintenance and/or removal. The complete tree hazard identification will be completed during Years 3, 4 and 5. Continued training of City staff and volunteers during all five years of the Plan is intended to increase awareness and improve reporting of hazard trees.

3. Tree Planting efforts are anticipated to focus on priority areas identified as part of the Tree Inventory and Assessment and Hazard Tree Identification efforts identified above. Enhancement of streetscapes and planting of appropriate trees and shrubs in public open spaces, as well as on private property, will be accomplished through a number of programs and outreach efforts. Initially, in Year 1, the City will develop a list of tree species and other vegetation suitable for use in the diverse and challenging growing conditions of this barrier island. The foundation component of the Plan is the development of events that will support tree planting and enhancement. An annual tree sale will be organized in Years 3-5 to facilitate public access to trees for planting on their own property. It is expected that these tree sales will focus on preferred species adapted to the coastal region and consistent with the list prepared in Year 1. A Commemorative Tree program will be organized in Years 4 and 5 along with a brochure. Through this program, an opportunity will be created for citizens and groups to honor and remember individuals through the enhancement of public lands and streetscapes with tree plantings.

4. Tree Maintenance and Care of the City's forestry resources is presently provided through the Department of Public Works. Greater awareness community-wide will be facilitated through the communication network identified in Year 1. Further, in Years 2-5, information will be developed to concerning the value of trees, existing resource protections and the appropriate notification procedures for reporting violations specific to trees. Plans are anticipated to be developed in Years 2 and 3. These include the coordination of planting, care and management of the City tree resources utilizing the Department of Public Works, the Shade Tree Commission, the Environmental Commission, Beautification Committee, the Sea Isle City Garden Club and other volunteer organizations and interested citizens. Additionally, a plan will be developed in this period that establishes an educational program for professional landscapers concerning City Ordinances, in addition to the selection and care of native trees and other vegetation meeting landscaping needs while conserving water and minimizing disease and insect damage, such that tree resources on private lands are similarly benefitted by enhanced awareness and responsible tree management practices.

Central to all four basic elements of the Plan are the education, outreach and continued training of City staff and volunteers. The City will continue to face challenges from environmental conditions and funding of the tree enhancement and protection programs. The Community Forestry Management Plan, as proposed, will address these challenges. The environmental ethic of the City and its residents is a critical strength; however, tightening budgets will require that the City seek supplementary funds to aid in the implementation of the Plan.

10. Community Stewardship Incentive Program

In recognition that the CORE Training and continued education requirements have been met over the last year and in anticipation of the approval of the CFM Plan, the City anticipates that it will be eligible to apply for Community Stewardship Incentive Program (CSIP) grants helpful in implementing this Management Plan. The 15 CSIP practices are addressed below in terms of their location in the Plan along with a brief summary of the goals and objectives relating to each practice. Implementation of specific CSIPs is dependent upon adequate funding.

CSIP #1 Training

Training is one of the foundation components of the CFM Plan update, as identified in Sections 2, C. "Goals and Objectives," pages 3 through 6. Training of the Environmental Commission, Shade Tree Committee and City personnel is proposed to efficiently: (a) implement the CFM Plan through the review, adoption and integration of the Plan into City Ordinance and Department Programs (Goal 1, A-D); (b) provide training to the Shade Tree Committee of the Environmental Commission (Goal 1, E); (c) develop and seek support to train City personnel in caring for municipal tree resources and in responding to inquiries or reports from the public concerning tree-related issues (Goal 5, B); (d) incorporate in the Plan coordinating City tree planting, care and management in addition to a training component (Goal 5, D) and (e) expand training, both CORE and advanced training, for City personnel and volunteers, in addition to landscapers (Goal 6, A and B).

The specific components of the Yearly Implementation Timeline (Section 9, B) include:

2013 – Tasks – 5, 14

2014 – Tasks – 9, 12, 13

2015 Tasks – 10,11

2016 – Tasks – 8, 9

2017 – Tasks – 8, 9

In summary, training will be accomplished in the City through the Tree Inventory and Assessment component of the Plan that will be conducted by a qualified consultant who will train the City personnel and volunteers regarding its importance and use. The Tree Hazard Identification and Management aspects of the Plan will be implemented through the above-mentioned training of City personnel and volunteers. The Tree Maintenance and Care component of the Plan will be accomplished through the training of the City personnel using

established standards. The Tree Planting training portion of the Plan will include selection and planting of trees and shrubs that are appropriate to the barrier island conditions and City tree planting goals. Finally, efforts will be made to engage more City personnel and volunteers to attend state-wide training programs to comply with the CFM Plan requirements.

CSIP#2 Community Forestry Ordinance Establishment

The City has established a base of municipal Ordinances to protect and manage its community tree and other natural resources. The Sections of the Ordinances germane to tree preservation are presented in Appendix B of this Plan. These Ordinances will be reviewed and incorporated, along with appropriate elements of the CFM Plan into the City Master Plan (Goal 1, D and Goal 5, C)..

City Council adoption of the CFM Plan (Goal 1, Objectives A, B and C) in consultation with City Departments, programs and the public is a key element to establishing forestry policy in the municipality. Included in its approval is the authorization of the Shade Tree Committee/ Environmental Commission to oversee the City's tree resources based upon review of the City organizational management for tree resources. The intent of the City is to utilize the immediately available institutions (Shade Tree Committee and Environmental Commission) to aid in the implementation of the Plan. The City will evaluate the role of these groups and determine how their roles and responsibilities should be evolved over the life of the Plan.

The specific components of the Yearly Implementation Timeline Section 9, B include:

2013 – Tasks – 1, 2, 3, 4, 6

2014 – Tasks – 8 10, 15

2015 – Tasks – 8, 13

2016 – Tasks -- 11

2017 – Tasks -- 11

In summary, the City proposes incorporation of appropriate components of the CFM Plan into their Ordinances and Master Plan. As such, the City will establish the regulatory, management and oversight framework to protect its tree resources.

CSIP #3 Public Education and Awareness

The education and outreach components are foundation elements of this Plan. Community education is incorporated within many of the Plan Goals and Objectives. The public will be informed of the value of their tree resources and how the City intends to protect, preserve and enhance these resources. Through the Plan review and adoption, City officials, personnel and the public will be made aware of the City's tree resources and the provisions of the Plan (Goal1, A, B, C and E).

Community events, programs at the library and volunteer activities will be utilized as opportunities to inform and educate the public of the Plan (Goal 4, A, B and D). Educational/outreach will be directed toward residents, visitors and professional landscapers working within the City (Goal 4, A, B and C) using the city website and communications (Goal 4, D, E and F) associated with activities such as the Commemorative Tree and Annual Tree Sale programs. A guide to trees suitable for use in the coastal environment; and a guide for care and maintenance of trees will also be provided.

The specific components of the Yearly Implementation Timeline Section 9, B include:

2013 – Tasks – 3, 4, 13, 17

2014 – Tasks – 6, 7, 10, 13, 15, 16

2015 – Tasks – 8, 11, 14

2016 – Tasks – 5, 6, 7, 8, 12

2017 – Tasks – 5, 6, 7, 8, 12

In summary, the Public Education and Awareness Program provides insights and experiences concerning the value, protection and care of its trees to the residents and the large visitor population. A diversity of venues and materials, as well as various outreach channels, are included in the Plan.

CSIP #4 Arbor Day

An Arbor Day Celebration has not been a traditional and ongoing City event because of the lack of schools in the City. It is proposed that the variety of outreach and educational activities in the City be evaluated for the feasibility of expanding the Arbor Day event as resources are available.

The specific component of the Yearly Implementation Timeline Section 9, B includes:

2013 – Tasks -- 6

2014 – Tasks – 6, 7, 13

2015 – Tasks – 6, 7, 11

2016 –Tasks – 5, 6, 7, 9

2017 – Tasks – 5, 6, 7, 9

In summary, the City will explore the utilization of the national focus on trees during the celebration of Arbor Day to provide a venue to consider tree value, protection and care. Associated with this effort will be the Commemorative Tree Planting and Tree Sales programs.

CSIP #5 Tree Inventory

The City has positioned itself to conduct a meaningful Tree Inventory. The principal focus of Goal 2 (A and B) is to inventory the community tree resources. A preliminary inventory of naturally occurring forests and park/streetscape tree resources clearly indicates the need for a tree inventory database system and a standardized mapping system.

The specific components of the Yearly Implementation Timeline Section 9, B include:

2013 – Tasks – 7, 8, 10, 11

2014 – Tasks – 2, 3, 5

2015 – Tasks – 2, 3

2016 – Tasks – 2, 3

2017 – Tasks – 2, 3

The Tree Inventory is the critical component of the Plan to assess and manage the tree resources of the City. In order that the tree resources are accurately monitored and that a program/system is in place to identify the tree hazards, to program tree maintenance and care, and to improve the tree planting plan, a database system and mapping is essential. The Plan incorporates the development of this system and mapping.

CSIP #6 Hazard Tree Assessment

The inventory database and mapping will aid in the tree hazard assessment that will be methodically conducted. The focus of this assessment is to identify hazardous trees occurring in close proximity to “targets” or areas of risk, in addition to invasive trees (Goal 2, C and D). In the interim, the organizational structure within the City, principally through the Offices of the Mayor and Department of Public Works, in addition to the Shade Tree Committee/Environmental Commission, will report hazardous tree conditions to the City Administrator and the Department of Public Works. This Department will take corrective actions to address the hazardous tree conditions.

The specific components of the Yearly Implementation Timeline Section 9, B include:

2013 – Tasks -- 9

2014 – Tasks – 1, 4

2015 – Tasks – 1, 4

2016 – Tasks – 1, 4

2017 – Tasks – 1, 4

In summary, the City recognizes its responsibility of assessing hazardous trees or stands of trees and taking corrective actions in a timely manner by training City personnel. The organizational structure for reporting and addressing tree problems is an important part of the Plan – the existing process will be reviewed and revised as need.

CSIP #7 Storm Damage Assessment

The storm damages assessment is treated concurrently with CSIP# 5 and #6. The tree inventory provides the database and mapping to monitor the tree resources (Goal 2, A and B). The adoption of the Plan, including the City organizational structure and Shade Tree Committee, has positioned the City to respond to storm damage. The inventory and assessments described above function as a pre-storm assessment. Because of the intensity of the coastal storms and exposure of the City, all City tree resources are at risk. The Department of Public Works is experienced in addressing these challenges. The Plan provides the opportunity to evaluate the policies and procedures used by the City (Goal 2, C and D).

The specific components of the Yearly Implementation Timeline Section 9, B include:

2013 – Tasks -- 4

2014 – Tasks -- 4

2015 – Tasks -- 4

2016 – Tasks -- 4

2017 – Tasks -- 4

The City, exposed to severe coastal storms, has evolved a strategic approach to protecting the community from storm damage to the maximum extent possible. The adoption and adequate implementation for funding of this Plan provides the City with the opportunity to factor trees into the storm damage assessment, especially in terms of the tree inventory, tree hazard identification and tree management and care.

CSIP #8 Tree Maintenance and Removals

Tree maintenance and removal is an important component of the Plan to project the need for additional City programs and services to routinely care for the trees in the community. As the streetscape and park trees are enhanced, the maintenance program will require evaluation and refinement. The development of this Plan will address these needs in Goal1, A; Goal 2, B, C and D; and Goal 5, B and D.

The specific component of the Yearly Implementation Timeline Section 9, B includes:

2013 – Tasks – 12, 16

2014 – Tasks – 11, 14, 15

2015 – Tasks – 5, 9, 12, 13

2016 – Tasks – 10, 11

2017 – Tasks – 10, 11

Recognizing the value of trees in the City, their maintenance and care is essential to protect this investment for the residents, visitors and inhabitants of this natural feature. The Tree Inventory and Assessment in the Plan (Goal 2, A, B, C and D) provides the database system and maps to organize, prioritize and monitor the maintenance and care of the tree resources (Goal 5, B and D).

CSIP #9 Insect and Disease Management

To protect the tree resources in the Inventory, the City will initiate a program that entails the replacement of damaged and diseased trees with adapted species. The Shade Tree Committee/Environmental Commission are expected, through training and networking, to remain current regarding emerging tree insect and disease issues. The continued training and tree hazard assessment through Goal 1, E, Goal 4, C, Goal 5, B and Goal 2, A and D will aid in early detection of pests and disease. Only properly trained and state-certified pesticide applicators will be contracted to control pests and disease.

The specific components of the Yearly Implementation Timeline Section 9, B include:

2013 – Tasks -- 8

2014 – Tasks – 4, 11

2015 – Tasks – 4, 5, 9

2016 – Tasks -- 4

2017 – Tasks -- 4

It is recognized that the City must be proactive in addressing insects and diseases that impact the community's tree resources by focusing attention on tree inventory and hazardous tree assessment along with the need for additional training.

CSIP #10 Wildfire Protection

The City recognized the potential risks associated with wildfire in its public open spaces containing concentration of woody vegetation; however, these areas are limited in Sea Isle. Wildfires can result from an accidental occurrence (human source, e.g. a discarded cigarette) or naturally from lightning. In either case, the fire can spread to and destroy the forest ecosystem and residences or obscure visibility on this major access highway. In addition, a fire could volatilize the oils of poison ivy, one of the major plants associated with natural areas in the coastal zone. The Department of Public Works will respond to these issues in coordination with the Police and Emergency Management Departments.

The specific components of the Yearly Implementation Timeline Section 9, B include:

2013 – Tasks -- 7

2014 – Tasks -- 4

2015 – Tasks -- 4

2016 – Tasks -- 4

2017 – Tasks -- 4

The presence of combustible material with the stands of woody vegetation and high exposure to anthropogenic sources of fire warrants continuing efforts to address wildlife fire issues. An assessment by the City's Emergency Management Coordinator will determine whether it is warranted to consult with the N. J. Forest Fire Service for wildfire planning, preparedness, emergency operation and rehabilitation.

CSIP #11 Tree Planting

The planting of trees in the City has been almost as important as preserving the natural stands of trees and planted streetscapes. The City has continued to enhance the tree resources of the community through its planting efforts. The number of trees in the streetscapes focuses attention on the need to plant appropriate trees in the community. The Plan includes the development of strategies to encourage the community to contribute trees through the Tree Resource Enhancement Goal 3, A, B and C, in addition to the Commemorative Tree and Annual Tree Sale programs (Goal 4, E and F).

The specific components of the Yearly Implementation Timeline Section 9, B include:

2013 – Tasks – 10, 11, 12, 16

2014 – Tasks – 2, 3, 8, 11, 14, 15

2015 – Tasks – 2, 3, 5, 7, 9, 12, 13

2016 – Tasks – 2, 3, 6, 7, 10, 11

2017 – Tasks – 2, 3, 6, 7, 10, 11

Tree planting is another foundation element to enhancing the tree resources of the City. The Tree Inventory and Assessment is important to the tree planting component of the Plan because it focuses limited resources on where and which trees should be planted. The environment, which can be severe and droughty, necessitates careful plant selection. A list of recommended plants (trees, shrubs and herbaceous plants) should be incorporated in City Ordinances (Goal 3, A and Goal 5, D). The City will need to allocate resources and engage community support to enhance the streetscapes to expand the benefits of trees to the City.

CSIP #12 Tree Recycling

The tree resources of the City, at present, have not warranted a tree recycling program. The City will continue to utilize the Cape May County Municipal Utilities Authority's program to recycle trees to mulch. As such, no components of the Plan focus specifically on recycling at this time. The priority during this planning period is to establish strong tree resources in the City.

CSIP #13 Sidewalk Maintenance Program

The sidewalks require regular inspection and maintenance to ensure safe pedestrian access through the City. Sidewalk inspections are included in Goal 2, A and D utilizing criteria to be established (e.g. sidewalk heaving and breaking, overhanging trees and trees growing into power lines, etc).

The specific components of the Yearly Implementation Timeline Section 9, B include:

2013 – Tasks – 8, 10, 12

2014 – Tasks – 2, 4, 11

2015 – Tasks – 4, 5, 9

2016 – Tasks -- 4

2017 – Tasks -- 4

These Plan criteria will be developed early in the Plan implementation process, funding available.

CSIP #14 Storm Water Management

The storm water associated with inundation in the City is primarily a result of astronomical high tides and storms. Flooding storm water under these conditions generally has a high salinity only diluted by precipitation. After significant storm events, an inventory of trees in public areas will be conducted pursuant to Goal 2, D focusing not only on tree damage, but also on the impact of excessive salt loading in the soils on tree health.

CSIP #15 Other

None.

11. Selected References

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- United States Census Bureau. 2010. Census Data for Sea Isle City, NJ
- United States Department of Interior, Geological Survey. 1998. Topographic Quad Maps (Sea Isle City and Avalon). Washington D.C.

APPENDIX A

Figures

- FIGURE 1: City of Sea Isle City USGS Topographic Map
- FIGURE 2: City of Sea Isle City Aerial Overview with Land Cover Overlay
- FIGURE 3: City of Sea Isle City Forestry Base Map with Preliminary Tree Inventory Overlay - North
- FIGURE 4: City of Sea Isle City Forestry Base Map with Preliminary Tree Inventory Overlay - South

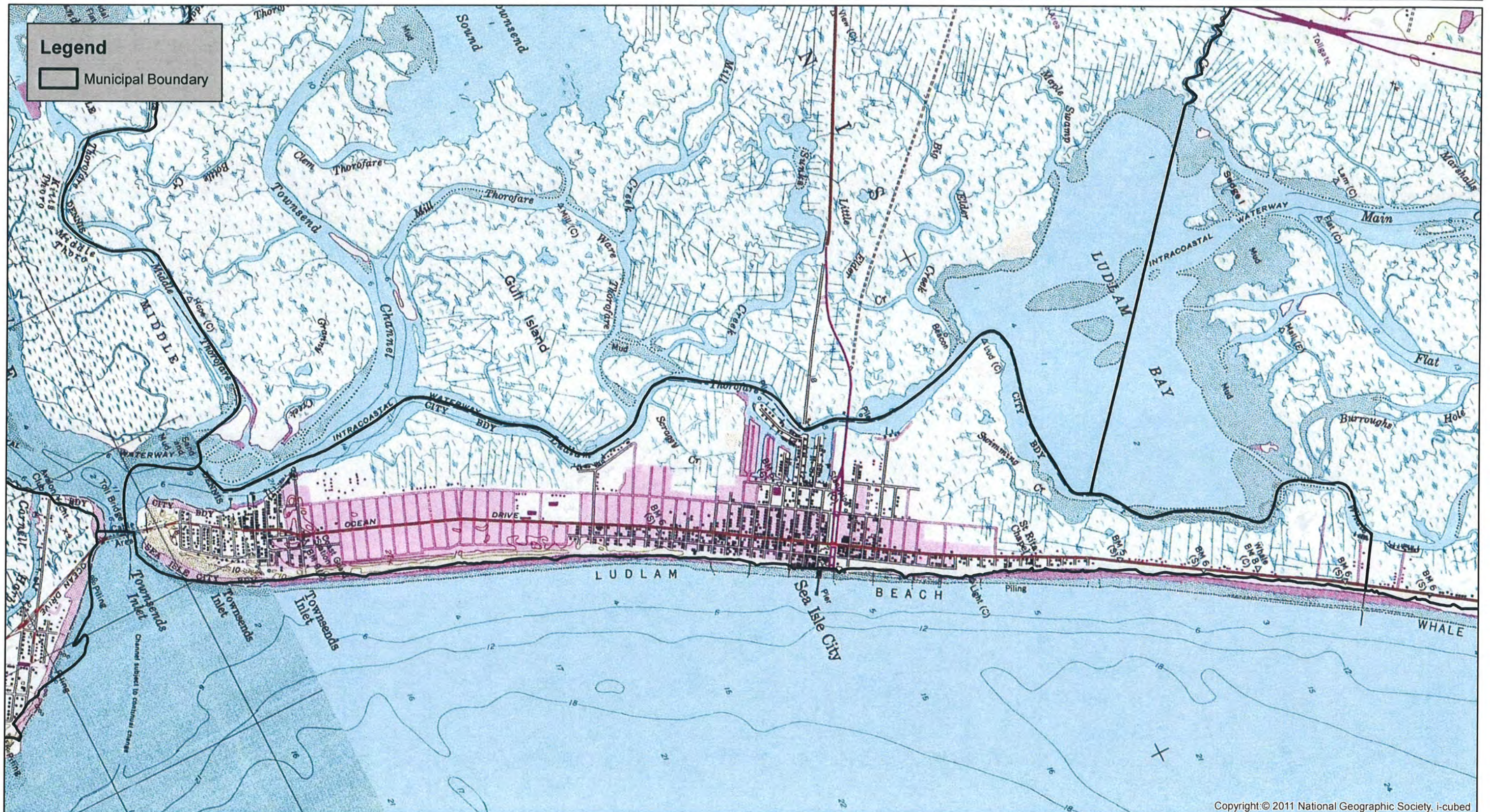


FIGURE 1: USGS TOPOGRAPHIC MAP OF SEA ISLE CITY
SEA ISLE CITY & AVALON QUADS

SOURCE: GIS DATA PROVIDED BY THE NJDEP AT <http://njgin.nj.gov/> &
US DEPT OF INTERIOR GEOLOGICAL SURVEY

DATE:
4-15-13

DRAWN BY:
PLL

1 inch = 2,000 feet

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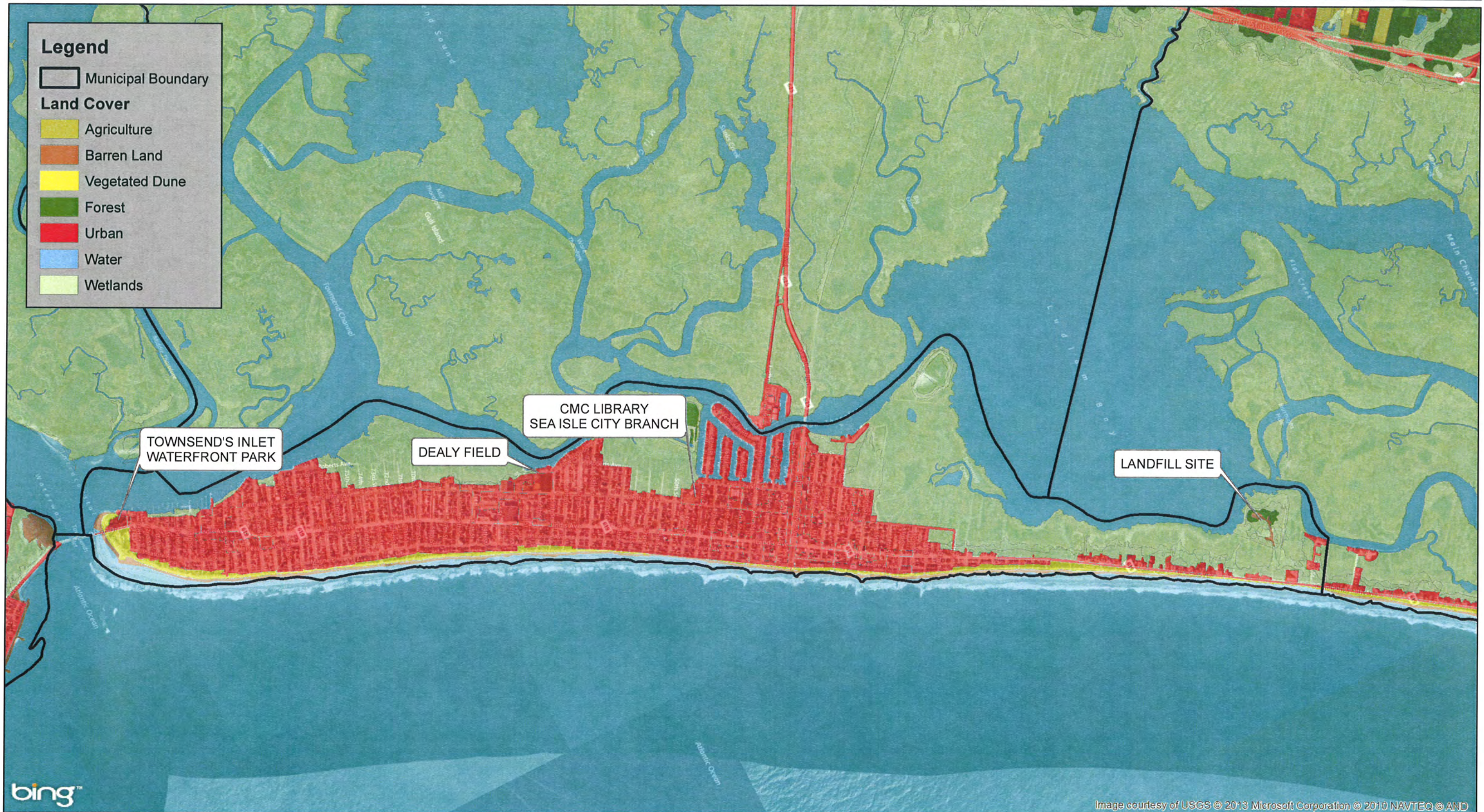


FIGURE 2: AERIAL OVERVIEW OF SEA ISLE CITY WITH LAND COVER OVERLAY

SOURCE: GIS DATA PROVIDED BY THE NJDEP AT <http://njgin.nj.gov/> & THE CAPE MAY COUNTY PLANNING DEPARTMENT

DATE:
4-15-13

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1 inch = 2,000 feet



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FIGURE 3.: FORESTRY BASE MAP WITH PRELIMINARY TREE INVENTORY OVERLAY ON 2010 BINGMAPS AERIAL IMAGERY - NORTH

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4-15-13

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1 inch = 1,000 feet



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FIGURE 4: FORESTRY BASE MAP WITH PRELIMINARY TREE INVENTORY OVERLAY ON 2010 BINGMAPS AERIAL IMAGERY - SOUTH

SOURCE: GIS DATA PROVIDED BY THE NJDEP AT <http://njgin.nj.gov/>,
THE CAPE MAY COUNTY PLANNING DEPARTMENT & BINGMAPS

DATE:
4-15-13

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1 inch = 1,000 feet



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APPENDIX B

**Relevant City of Sea Isle City
Ordinances/Guidance Documents**

CHAPTER XIV FLOOD DAMAGE PREVENTION*

14-1 AUTHORITY; FINDINGS; PURPOSE; METHODS.

14-1.1 Statutory Authority.

N.J.S.A. 40:48-2, provides that a municipal governing body may adopt regulations designed to promote the public health, safety and general welfare of its citizenry.

The Commissioners of the City of Sea Isle City desire to enact the following regulations. (1976 Code § 10.1-1; Ord. No. 736 preamble)

14-1.2 Findings of Fact.

a. The flood hazard areas of the City are subject to periodic inundation which results in loss of life and property, health and safety hazards, disruption of commerce and governmental services, extraordinary public expenditures for flood protection and relief, and impairment of the tax base, all of which adversely affect the public health, safety and general welfare.

b. These flood losses are caused by the cumulative effect of obstructions in areas of special flood hazard which increase flood heights and velocities, and when inadequately anchored, damage uses in other areas. Uses that are inadequately floodproofed, elevated or otherwise protected from flood damage also contribute to the flood loss.

(1976 Code § 10.1-2; Ord. No. 736 § 1.1)

14-1.3 Statement of Purpose.

It is the purpose of this chapter to promote the public health, safety and general welfare and to minimize public and private losses due to flood conditions in specific areas by provisions designed:

- a. To protect human life and health;
- b. To minimize expenditure of public money for costly flood control projects;
- c. To minimize the need for rescue and relief efforts associated with flooding and generally undertaken at the expense of the general public;
- d. To minimize prolonged business interruptions;
- e. To minimize damage to public facilities and utilities such as water and gas mains, electric, telephone and sewer lines, streets and bridges located in areas of special flood hazard;
- f. To help maintain a stable tax base by providing for the second use and development of areas of special flood hazard so as to minimize future flood blight areas;
- g. To insure that potential buyers are notified that property is in an area of special flood hazard;
and
- h. To ensure that those who occupy the areas of special flood hazard assume responsibility for their actions.

(1976 Code § 10.1-3; Ord. No. 736 § 1.2)

14-1.4 Methods of Reducing Flood Losses.

In order to accomplish its purposes, this chapter includes methods and provisions for:

- a. Restricting or prohibiting uses which are dangerous to health, safety and property due to water or erosion hazards, or which result in damaging increases in erosion or in flood heights or velocities;
- b. Requiring that uses vulnerable to floods, including facilities which serve such uses, be protected against flood damage at the time of initial construction;
- c. Controlling the alteration of natural flood plains, stream channels, and natural protective barriers, which help accommodate or channel flood waters;
- d. Controlling filling, grading, dredging and other development which increase flood damage; and
- e. Preventing or regulating the construction of flood barriers which will unnaturally divert flood waters or which may increase flood hazards in other areas.

(1976 Code § 10.1-4; Ord. No. 736 § 1.3)

14-2 DEFINITIONS AND WORD USAGE.

14-2.1 Word Usage.

Unless specifically defined below, words or phrases used in this chapter shall be interpreted so as to give them the meaning they have in common usage and to give this chapter its most reasonable application. (1976 Code § 10.1-5; Ord. No. 736 § 2.0)

14-2.2 Definitions.

As used in this chapter:

Appeal shall mean a request for a review of the Construction Official's interpretation of any provision of this chapter or a request for a variance.

Area of shallow flooding shall mean a designated AO or VO Zone on the Flood Insurance Rate Map (FIRM). The base flood depths range from one (1') to three (3') feet; a clearly defined channel does not exist; the path of flooding is unpredictable and indeterminate; and, velocity flow may be evident.

Area of special flood hazard shall mean the land in the flood plain within a community subject to a one (1%) percent or greater chance of flooding in any given year.

Base flood shall mean the flood having a one (1%) percent chance of being equalled or exceeded in any given year.

Basement shall mean any area of the building having its floor subgrade (below ground level) on all sides.

Coastal high hazard area shall mean an area of special flood hazard extending from offshore to the inland limit of primary frontal dune along an open coast and any other area subject to high velocity wave action from storms or seismic sources.

Development shall mean any man-made change to improved or unimproved real estate, including but not limited to buildings or other structures, mining, dredging, filling, grading, paving, excavation, drilling operations, or storage of equipment or materials.

Elevated building shall mean a non-basement building:

- a. Built in the case of a building in an area of special flood hazard to have the top of the elevated floor or in the case of a building in a coastal high hazard area to have the bottom of the lowest horizontal structural member of the elevated floor elevated above the ground level by means of piling, columns (posts and piers), or shear walls parallel to the flow of the water; and
- b. Adequately anchored so as not to impair the structural integrity of the building during a flood of up to the magnitude of the base flood. In an area of special flood hazard "elevated building" also includes a building elevated by means of fill or solid foundation perimeter walls with openings sufficient to facilitate the unimpeded movement of flood waters. In areas of coastal high hazard "elevated building" also includes a building otherwise meeting the definition of "elevated building" even though the lower area is enclosed by means of open wood lattice-work or insect screening.

Flood or flooding shall mean a general and temporary condition of partial or complete inundation of normally dry areas from:

- a. The overflow of inland or tidal waters; and/or
- b. The unusual and rapid accumulation or runoff of surface waters from any source.

Flood Insurance Rate Map (FIRM) shall mean the official map on which the Federal Insurance Administration has delineated both the areas of special flood hazards and the risk premium zones applicable to the community.

Flood Insurance Study shall mean the official report in which the Federal Insurance Administration has provided flood profiles, as well as the Flood Hazard Boundary-Floodway Map and the water surface elevation of the base flood.

Flood proofing shall mean any combination of structural and nonstructural additions, changes, or adjustments to structures which reduce or eliminate flood damage to real estate or improved real property, water and sanitary facilities, structures and their contents.

Freeboard shall mean a factor of safety usually expressed in feet above the base flood elevation. Freeboard tends to compensate for the many unknown factors that could contribute to flood heights greater than the base flood elevation. One (1') foot freeboard is to be measured to the bottom of floor joist in an "A" zone or the bottom of the lowest horizontal structural member in a "V" zone.

Historic structure shall mean any structure that is:

- a. Listed individually in the National Register of Historic Places or preliminarily determined by the Secretary of the Interior as meeting the requirements for individual listing on the National Register;
- b. Certified or preliminarily determined by the Secretary of the Interior as contributing to the historic significance of a registered historic district or a district preliminarily determined by the Secretary to qualify as a registered historic district;
- c. Individually listed on a State Inventory of Historic Places approved by the Secretary of the Interior;
- d. Individually listed on a local inventory of historic places approved by a State authorized by the Secretary of the Interior, or directly approved by the Secretary.

Lowest floor shall mean the lowest floor of the lowest enclosed area (including basement). An

unfinished or flood resistant enclosure, useable solely for the parking of vehicles, building access or storage in an area other than a basement is not considered a building's lowest floor provided that such enclosure is not built so as to render the structure in violation of other applicable non-elevation design requirements.

Manufactured home shall mean a structure, transportable in one (1) or more sections, which is built on a permanent chassis and is designed for use with or without a permanent foundation when connected to the required utilities. The term manufactured home does not include a recreation vehicle.

Manufactured home park or *manufactured home subdivision* shall mean a parcel (or contiguous parcels) of land divided into two (2) or more manufactured home lots for rent or sale.

New construction shall mean structures for which the "start of construction" commenced on or after the date of original adoption of local floodplain management standards in 1970.

Primary frontal dune shall mean a continuous or nearly continuous mound or ridge of sand with relatively steep seaward and landward slopes immediately landward and adjacent to the beach and subject to erosion and overtopping from high tides and waves during major coastal storms. The inland limit of the primary frontal dune occurs at the point where there is a distinct change from a relatively steep slope to a relatively mild slope.

Recreation vehicle shall mean a vehicle which is:

- a. Built on a single chassis;
- b. Four hundred (400) square feet or less when measured at the largest horizontal projection;
- c. Designed to be self propelled or permanently towable by a light duty truck; and
- d. Designed primarily not for use as a permanent dwelling but as temporary living quarters for recreational, camping, travel or seasonal use.

Sand dunes shall mean naturally occurring accumulations of sand in ridges or mounds landward of the beach.

Start of construction shall mean excluding new construction or substantial improvement under the Coastal Barrier Resources Act [P.L. 97-348] but shall include substantial improvement and shall mean the date the building permit was issued, provided the actual start of construction, repair, reconstruction, placement or other improvement was within one hundred eighty (180) days of the permit date. For a substantial improvement, the actual start of construction means the first alteration of any wall, ceiling, floor or other structural part of a building whether or not that alteration affects the external dimensions of the building. The actual start shall mean either the first placement of permanent construction of a structure on a site such as the pouring of a slab or footings, the installation of piles, the construction of columns, or any work beyond the stages of excavation, or the placement of a manufactured home on a foundation. Permanent construction does not include land preparation, such as clearing, grading and filling nor does it include excavation for a basement, footings, piers, or foundations or the erection of temporary forms; nor does it include the installation on the property of accessory buildings, such as garages or sheds not occupied as dwelling units or not part of the main structure.

Structure shall mean a walled and roofed building, including a gas or liquid storage tank that is principally above ground as well as a manufactured home.

Substantial damage shall mean damage of any origin sustained by a structure whereby the cost of

restoring the structure to its before damaged condition would equal or exceed fifty (50%) percent of the market value of the structure before the damage occurred.

Substantial improvement/cumulative substantial improvement shall mean any combination of reconstruction, rehabilitation, addition or other improvement of a structure, during a ten (10) year time period, in which cumulative cost equals or exceeds fifty (50%) percent of the market value of the structure before the "start of construction" of the improvement. This term includes structures which have incurred substantial damage, regardless of the actual repair work performed.

For the purposes of this definition "substantial improvement" is considered to occur when the first alteration of any wall, ceiling, floor or other structural part of the building commences, whether or not that alteration affects the external dimensions of the structure.

The term does not, however, include either:

- a. Any project for improvement of a structure to comply with existing State or local health, sanitary or safety code specifications which are solely necessary to assure safe living conditions; or
- b. Any alteration of a structure listed on the National Register of Historic Places or a State Inventory of Historic Places.

Variance shall mean a grant of relief from the requirements of this chapter which permits construction in a manner that would otherwise be prohibited by this chapter.

(1976 Code § 10.1-5; Ord. No. 736 § 2.0; Ord. No. 903 § 1; Ord. No. 1105 § 1; Ord. No. 1124 § 1; Ord. No. 1515 (2012))

14-3 GENERAL PROVISIONS.

14-3.1 Lands to Which This Chapter Applies.

This chapter shall apply to all areas of special flood hazards within the jurisdiction of the City. (1976 Code § 10.1-6; Ord. No. 736 § 3.1)

14-3.2 Basis for Establishing the Areas of Special Flood Hazard.

The areas of special flood hazard identified by the Federal Insurance Administration in a scientific and engineering report entitled "The Flood Insurance Study for the City of Sea Isle City," dated July, 1982, with accompanying Flood Insurance Rate Maps and any revision thereto, is hereby adopted by reference and declared to be a part of this chapter. The Flood Insurance Study is on file in the City Clerk's Office, Sea Isle City Hall, 4416 Landis Avenue, Sea Isle City, New Jersey. (1976 Code § 10.1-7; Ord. No. 736 § 3.2)

14-3.3 Penalties for Noncompliance.

- a. No structure or land shall hereafter be constructed, located, extended, converted or altered without full compliance with the terms of this chapter and other applicable regulations.
- b. Violation of the provisions of this chapter by failure to comply with any of its requirements (including violations of conditions and safeguards established in connection with conditions on permits) shall constitute a misdemeanor. Each calendar day of violation shall constitute a separate and individual violation.

c. Any person who violates this chapter or fails to comply with any of its requirements shall upon conviction thereof be fined not more than five hundred (\$500.00) dollars per day of violation or imprisoned for not more than ninety (90) days, or both, for each violation, and in addition shall pay all costs and expenses involved in the case and shall bear the full cost of correcting any and all violations.

d. Nothing herein contained shall prevent the City of Sea Isle City from taking such other lawful action as is necessary to prevent or remedy any violation.

(1976 Code § 10.1-8; Ord. No. 726 § 3.3; Ord. No. 1124 § 2; Ord. No. 1266 § I)

14-3.4 Repealer; Abrogation; Greater Restrictions.

This chapter is not intended to repeal, abrogate, or impair any existing easements, covenants, or deed restrictions. However, where this chapter and another ordinance, easement, covenant, or deed restriction conflict or overlap, whichever imposes the more stringent restrictions shall prevail. (1976 Code § 10.1-9; Ord. No. 736 § 3.4)

14-3.5 Interpretation.

In the interpretation and application of this chapter, all provisions shall be:

a. Considered as minimum requirements;

b. Liberally construed in favor of the governing body; and

c. Deemed neither to limit nor repeal any other powers granted under State Statutes.

(1976 Code § 10.1-10; Ord. No. 736 § 3.5)

14-3.6 Warning and Disclaimer of Liability.

The degree of flood protection required by this chapter is considered reasonable for regulatory purposes and is based on scientific and engineering considerations. Larger floods can and will occur on rare occasions. Flood heights may be increased by man-made or natural causes. This chapter does not imply that land outside the area of special flood hazards or uses permitted within such areas will be free from flooding or flood damages. This chapter shall not create liability on the part of the City, any officer or employee thereof, or the Federal Insurance Administration, for any flood damages that result from reliance on this chapter or any administrative decision lawfully made thereunder. (1976 Code § 10.1-11; Ord. No. 736 § 3.6)

14-4 ADMINISTRATION.

14-4.1 Establishment of Development Permit.

A development permit shall be obtained before construction or development begins within any area of special flood hazard established in subsection 14-3.2. Application for a development permit shall be made to the Construction Official on forms furnished by him, and may include, but not be limited to: plans in duplicate drawn to scale showing the nature, location, dimensions, and elevations of the area in question; existing or proposed structures, fill, storage of materials, drainage facilities; and the location of the foregoing.

Specifically, the following information is required:

a. Elevation in relation to mean sea level, of the lowest floor, (including basement) of all structures;

- b. Elevation in relation to mean sea level to which any structure has been floodproofed;
- c. Certification by a registered professional engineer or architect that the floodproofing methods for any nonresidential structure meet the floodproofing criteria in subsection 14-6.3;
- d. Description of the extent to which any watercourse will be altered or relocated as a result of proposed development; and
- e. Plans for any walls to be used to enclose space below base flood level.
(1976 Code § 10.1-12; Ord. No. 736 § 4.1)

14-4.2 Designation of the Construction Official.

The Construction Official is hereby appointed to administer and implement this chapter by granting or denying development permit applications in accordance with its provisions. (1976 Code § 10.1-13; Ord. No. 736 § 4.2)

14-4.3 Duties and Responsibilities of the Construction Official.

Duties of the Construction Official shall include, but not be limited to:

a. *Permit Review.*

1. Review all development permits to determine that the permit requirements of this chapter have been satisfied.
2. Review all development permits to determine that all necessary permits have been obtained from those Federal, State or local governmental agencies from which prior approval is required.
3. Review all development permits in the coastal high hazard area of the area of special flood hazard to determine if the proposed development alters sand dunes so as to increase potential flood damage.
4. Review plans for walls to be used to enclose space below the base flood level in accordance with subsection 14-7.3d.

b. *Use of Other Base Flood Data.* When base flood elevation and floodway data has not been provided in accordance with subsection 14-3.2, Basis for Establishing the Areas of Special Flood Hazard, the Construction Official shall obtain, review, and reasonably utilize any base flood elevation and floodway data available from a Federal, State or other source in order to administer subsections 14-6.2, Residential Construction, and 14-6.3, Nonresidential Construction.

c. *Information to Be Obtained and Maintained.* The Construction Official shall:

1. Obtain and record the actual elevation (in relation to mean sea level) of the lowest floor (including basement) of all new or substantially improved structures, and whether or not the structure contains a basement.
2. For all new substantially improved floodproofed structures:
 - (a) Verify and record the actual elevation (in relation to mean sea level); and
 - (b) Maintain the floodproofing certifications required in subsection 14-4.1c.
3. In coastal high hazard areas, certification shall be obtained from a registered professional engineer or architect that the provisions of subsections 14-7.3a. and 14-7.3b, 1. and 2. are met.

4. Maintain for public inspection all records pertaining to the provisions of this chapter.

d. *Alteration of Watercourses.* The Construction Official shall:

1. Notify adjacent communities and the New Jersey Department of Environmental Protection prior to any alteration or relocation of a watercourse, and submit evidence of such notification to the Federal Insurance Administration.

2. Require that maintenance is provided within the altered or relocated portion of the watercourse so that the flood carrying capacity is not diminished.

e. *Interpretation of "FIRM" Boundaries.* The Construction Official shall make interpretations where needed, as to the exact location of the boundaries of the areas of special flood hazards (for example, where there appears to be a conflict between a mapped boundary and actual field conditions). The person contesting the location of the boundary shall be given a reasonable opportunity to appeal the interpretation as provided in subsection 14-4.4.

(1976 Code § 10.1-14; Ord. No. 736 § 4.3; Ord. No. 903 § 3)

14-4.4 Variance Procedure.

a. *Appeal Board.*

1. The Zoning Board as established by N.J.S.A. 40:55D-1 et seq. (the Municipal Land Use Law) shall hear and decide appeals and requests for variances from the requirements of this chapter.

2. The Zoning Board shall hear and decide appeals when it is alleged there is an error in any requirement, decision, or determination made by the Construction Official in the enforcement or administration of this chapter.

3. Those aggrieved by the decision of the Zoning Board or any taxpayer may appeal such decision to the Governing Body as provided in Chapter 26 of the Revised General Ordinances of the City of Sea Isle City.

4. In passing upon such applications, the Zoning Board shall consider all technical evaluations, all relevant factors, standards specified in other sections of this ordinance, and:

(a) The danger that materials may be swept onto other lands to the injury of others;

(b) The danger to life and property due to flooding or erosion damage;

(c) The susceptibility of the proposed facility and its contents to flood damage and the effect of such damage on the individual owner;

(d) The importance of the services provided by the proposed facility to the community;

(e) The necessity to the facility of a waterfront location, where applicable;

(f) The availability of alternative locations for the proposed use which are not subject to flooding or erosion damage;

(g) The compatibility of the proposed use with existing and anticipated development;

(h) The relationship of the proposed use to the comprehensive plan and flood plain management program of that area;

(i) The safety of access to the property in times of flood for ordinary and emergency vehicles;

(j) The expected heights, velocity, duration, rate of rise, and sediment transport of the flood waters and the effects of wave action, if applicable, expected at the site; and

(k) The costs of providing governmental services during and after flood conditions, including maintenance and repair of public utilities and facilities, such as sewer, gas, electrical and water systems and bridges.

5. Upon consideration of the factors of subsection 14-4.4a,4. and the purposes of this chapter, the Appeal Board may attach such conditions to the granting of variances as it deems necessary to further the purposes of this chapter.

6. The Construction Official shall maintain the records of all appeal actions, including technical information, and report any variances to the Federal Insurance Administration upon request.

b. *Conditions for Variances.*

1. Generally, variances may be issued for new construction and substantial improvements to be erected on a lot of one-half (1/2) acre or less in size contiguous to and surrounded by lots with existing structures constructed below the base flood level, providing items in paragraphs (a)—(k) of subsection 14-4.4a, 4. have been fully considered.

2. Variances may be issued for the reconstruction, rehabilitation or restoration of structures listed on the National Register of Historic Places or the State Inventory of Historic Places, without regard to the procedures set forth in the remainder of this paragraph.

3. Variances shall not be issued within any designated floodway if any increase in flood levels during the base flood discharge would result.

4. Variances shall only be issued upon a determination that the variance is the minimum necessary, considering the flood hazard, to afford relief.

5. Variances shall only be issued upon:

(a) A showing of good and sufficient cause;

(b) A determination that failure to grant the variance would result in exceptional hardship to the applicant; and

(c) A determination that the granting of a variance will not result in increased flood heights, additional threats to public safety, extraordinary public expense, create nuisances, cause fraud on or victimization of the public as identified in subsection 14-4.4a,4. or conflict with existing local laws or ordinances.

6. Any applicant to whom a variance is granted shall be given written notice that the structure will be permitted to be built with a lowest floor elevation below the base flood elevation and that the cost of flood insurance will be commensurate with the increased risk resulting from the reduced lowest floor elevation.

7. Notwithstanding any provision contained within to the contrary, no variance shall be given unless the applicant/appellant can establish a factual basis therefor pursuant to N.J.S.A. 40:55D-70 as interpreted by applicable judicial decision.

(1976 Code § 10.1-15; Ord. No. 736 § 4.4; Ord. No. 1431 § LXVII)

14-5 PROVISIONS FOR FLOOD HAZARD REDUCTION.

14-5.1 General Standards.

In all areas of special flood hazards the following standards are required. (1976 Code § 10.1-16; Ord. No. 736 § 5.1)

14-5.2 Anchoring.

a. All new construction and substantial improvements shall be anchored to prevent flotation, collapse, or lateral movement of the structure.

b. All manufactured homes shall be anchored to resist flotation, collapse or lateral movement. Methods of anchoring may include, but are not to be limited to, use of over-the-top or frame ties to ground anchors. This requirement is in addition to applicable State and local anchoring requirements for resisting wind forces.

(1976 Code § 10.1-16; Ord. No. 736 § 5.1-1; Ord. No. 903 § 4)

14-5.3 Construction Materials and Methods.

a. All new construction and substantial improvements shall be constructed with materials and utility equipment resistant to flood damage.

b. All new construction and substantial improvements shall be constructed using methods and practices that minimize flood damage.

(1976 Code § 10.1-16; Ord. No. 736 § 5.1-2)

14-5.4 Utilities.

a. All new and replacement water supply systems shall be designed to minimize or eliminate infiltration of flood waters into the system;

b. New and replacement sanitary sewage systems shall be designed to minimize or eliminate infiltration of flood waters into the systems and discharge from the systems into flood waters;

c. On-site waste disposal systems shall be located to avoid impairment to them or contamination from them during flooding; and

d. Electrical, heating, ventilation, plumbing and air-conditioning equipment and other service facilities shall be designed and/or located so as to prevent water from entering or accumulating within the components during conditions of flooding.

(1976 Code § 10.1-16; Ord. No. 736 § 5.1-3; Ord. No. 903 § 5)

14-5.5 Subdivision Proposals.

a. All subdivision proposals shall be consistent with the need to minimize flood damage;

b. All subdivision proposals shall have public utilities and facilities such as sewer, gas, electrical and water systems located and constructed to minimize flood damage;

c. All subdivision proposals shall have adequate drainage provided to reduce exposure to flood damage; and

d. Base flood elevation shall be provided for subdivision proposals and other proposed development which contain at least fifty (50) lots or five (5) acres (whichever is less).

(1976 Code § 10.1-16; Ord. No. 736 § 5.1-4)

14-5.6 Enclosure Openings.

For all new construction and substantial improvements fully enclosed areas below the lowest floor that are subject to flooding shall be designed to automatically equalize hydrostatic flood forces on exterior walls by allowing for the entry and exit of floodwaters. Designs for meeting this requirement must either be certified by a registered professional engineer or architect or must meet or exceed the following minimum criteria: A minimum of two (2) openings have a total net area of not less than one (1) square inch for every square foot of enclosed area subject to flooding shall be provided. The bottom of all openings shall be no higher than one (1') foot above grade. Openings may be equipped with screens, louvers or other coverings or devices provided that they permit the automatic entry and exit of floodwaters.

Crawl space is defined as that area of the structure below base flood not used for parking.

Crawl space for residential structures shall meet all criteria above, provide for access via an exterior opening no larger than nine (9) square feet. There shall be no access to the crawl space from inside the structure. Crawl space shall be unfinished construction only and shall not be used for any purpose other than access to substructure. No Certificate of Occupancy shall be issued to any residential structure failing to comply with this provision.

For all new construction and substantial improvements the owner shall execute and deliver to the Construction Official a fully completed Floodplain Venting Affidavit on a form supplied by the Construction Office certifying full compliance with this section and agreeing to maintain compliance before a Certificate of Occupancy shall be issued or reoccupying of the property.

Prior to transfer of any property the owner shall obtain an inspection for compliance with the requirements of this section and any new owner shall certify compliance and agree to maintain compliance on a form supplied by the construction office. (Ord. No. 903 § 6; Ord. No. 1482 (2010) § III; Ord. No. 1489 (2010) § I; Ord. No. 1500 (2011) § I)

14-6 ADDITIONAL PROVISIONS FOR FLOOD HAZARD REDUCTION.

14-6.1 Specific Standards.

In all areas of special flood hazard where the base flood elevation data have been provided as set forth in subsection 14-3.2, Basis for Establishing the Areas of Special Flood Hazard or in subsection 14-4.3b, Use of Other Base Flood Data, the following standards are required. (1976 Code § 10.1-17; Ord. No. 736 § 5.2)

14-6.2 Residential Construction.

All new construction and substantial improvement of any residential structure shall have the lowest floor, including basement, elevated to one (1') foot freeboard above base flood elevation as reflected on the Flood Insurance Rate Map. (1976 Code § 10.1-17; Ord. No. 736 § 5.2-1; Ord. No. 1124 § 3)

14-6.3 Nonresidential Construction.

New construction and substantial improvement of any commercial, industrial or other nonresidential structure shall either have the lowest floor, including basement, elevated one (1') foot freeboard above base flood elevation as reflected on the Flood Insurance Rate Map; or alternatively

a. If a structure is below the base flood level, is watertight and floodproofed to one (1') foot above the base flood elevation with walls substantially impermeable to the passage of water there will be annual recertification and inspections of these nonresidential structures that have been floodproofed to assure that they are properly maintained. The responsibility of obtaining the annual recertification is on the owner;

b. Have structural components capable of resisting hydrostatic and hydrodynamic loads and effects of buoyancy; and

c. Be certified by a registered professional engineer or architect that the design and methods of construction are in accordance with accepted standards of practice for meeting the applicable provisions of this subsection. Such certification shall be provided to the official as set forth in subsection 14-4.3c, 2. (1976 Code § 10.1-17; Ord. No. 736 § 5.2-2; Ord. No. 903 § 7; Ord. No. 1124 § 4)

14-6.4 Mobile Homes.

a. Mobile homes shall be anchored in accordance with subsection 14-5.2b.

b. All manufactured homes to be placed or substantially improved within an area of special flood hazard shall be elevated on a permanent foundation such that the top of the lowest floor is elevated to one (1') foot freeboard above base flood elevation as reflected on the Flood Insurance Rate Map. (Ord. No. 903 § 8; Ord. No. 1124 § 5)

14-7 FLOOD HAZARD REDUCTION IN COASTAL HIGH HAZARD AREAS.

14-7.1 Coastal High Hazard Area; Special Provisions.

Coastal high hazard areas (V Zones) are located within the areas of special flood hazard established in subsection 14-3.2. These areas have special flood hazards associated with high velocity waters from tidal surges and hurricane wave wash; therefore, the following provisions shall apply. (1976 Code § 10.1-18; Ord. No. 736 § 5.3)

14-7.2 Location of Structures.

a. All buildings or structures shall be located landward of the reach of the mean high tide.

b. The placement of mobile homes shall be prohibited, except in an existing mobile home park or mobile home subdivision.

(1976 Code § 10.1-18; Ord. No. 736 § 5.3-1)

14-7.3 Construction Methods.

a. *Elevation.* All new construction and substantial improvements shall be elevated on piling or columns so that the bottom of the lowest horizontal structural member of the lowest floor (excluding the piling or columns) is elevated to or above the base flood level, with all space below the lowest floor's supporting member open so as not to impede the flow of water, except for open wood lattice-work or insect screening as provided for in subsection 14-7.3d.

b. *Structural Support.*

1. All new construction and substantial improvements shall be securely anchored on piling or columns.

2. The pile or column foundation and structure attached thereto shall be anchored to resist flotation, collapse or lateral movement due to the effects of wind and water loading values each of which shall have a one (1%) percent chance of being equalled or exceeded in any given year [one hundred (100)-year mean recurrence interval].

3. There shall be no fill used for structural support.

c. *Certification.* A registered professional engineer or architect shall develop or review the structural design specifications and plans for the construction and shall certify that the design and methods of construction to be used are in accordance with accepted standards of practice for compliance with the provisions of subsections 14-7.3a. and 14-7.3b, 1. and 2.

d. *Space Below the Lowest Floor.*

1. Any alteration, repair, reconstruction or improvement to a structure started after the enactment of this chapter² shall not enclose the space below the lowest floor unless open wood lattice-work or insect screening are used as provided for in this subsection.

2. Open wood lattice-work or insect screening shall be allowed below the base flood elevation provided that they are intended to collapse under wind and water loads without causing collapse, displacement or other structural damage to the elevated portion of the building or supporting foundation system.

(1976 Code § 10.1-18; Ord. No. 736 § 5.3-1; Ord. No. 792 §§ 2.1, 3.1; Ord. No. 903 § 10)

14-7.4 Sand Dunes.

There shall be no alteration of sand dunes which would increase potential flood damage. The only acceptable development in a dune area is that which has no prudent or feasible alternative in an area other than a dune and will not cause significant adverse long-term impacts on the natural functioning of the beach and dune systems. (1976 Code § 10.1-18; Ord. No. 736 § 5.3-3; Ord. No. 851 § 1)

14-8 SEVERABILITY AND REPEAL OF ORDINANCES.

14-8.1 Severability.

If for any reason any section of this chapter shall be declared illegal by any Court of competent jurisdiction, the remaining sections of this chapter shall remain in full force and effect notwithstanding. (Ord. No. 736 § 6.0)

14-8.2 Repealer.

Any ordinance or provision thereof inconsistent with this chapter is repealed to the extent of such inconsistency. (Ord. No. 903 § 11)

²**History Notes:** This chapter was originally adopted as Ord. No. 611, and codified as Chapter 10.1 of the 1976 Code which was repealed by Ord. No. 736.

³**Editor's Note:** This chapter was originally adopted as Ordinance No. 736 on December 14, 1982.

CHAPTER XXI BEACHES, BOARDWALK AND PROTECTION OF DUNES

21-1 BEACH BADGES.

21-1.1 Establishment of Facilities; Location.

Beaches, bathing and recreational facilities are hereby established in the City for the public health, safety and recreation. Fees are required for their use.

Such places shall be located at the oceanfront upon all lands in the City on the Atlantic Ocean between 1st Street and 95th Street within the City in the area commonly known as the "Beach," including any inlet or bay beach. (1976 Code § 6-16)

21-1.2 Fees and Charges.

In order to provide the necessary funds to improve, maintain, protect and police the beaches, the following fees shall be charged for such facilities:

- a. No fee shall be charged to or collected from person under the age of twelve (12) years.
- b. Twenty (\$20.00) dollars per person per season provided that application is made to the proper authorities on or before the cut-off date of May 15th of each year.
- c. Twenty-five (\$25.00) dollars per person per season in the event that application is made to the proper authorities subsequent to the cut-off date of May 15th of each year and for the remainder of the bathing season.
- d. Ten (\$10.00) dollars per person per week for any week or fractional part thereof of the bathing season. Weekly badges shall be valid from Saturday at 10:00 a.m. to the following Saturday (eight (8) days later) at 5:00 p.m.
- e. Five (\$5.00) dollars per person per day for a daily bathing privilege subsequent to the City observed day for Memorial Day.
- f. All mail applications for seasonal beach badges pursuant to this subsection shall be made upon written forms to be supplied by the City.
- g. Any person owning a motel within the City shall be entitled to purchase an unlimited number of seasonal badges. Notwithstanding any provisions contained herein to the contrary, the owner of a motel may lend, without charge, any of the badges issued pursuant to this subsection to any registered guest of the motel.
- h. No fee shall be charged or collected from any person in active military service in any of the Armed Forces of the United States, their spouse or dependent children over the age of twelve (12) years.
- i. No fee shall be charged or collected from any persons who are active members of the New Jersey National Guard who have completed Initial Active Duty Training and to their spouse or dependent children over the age of twelve (12) years. As used in this paragraph, "Initial Active Duty Training" means Basic Military Training, for members of the New Jersey Air National Guard, and Basic Combat Training and Advanced Individual Training, for members of the New Jersey Army National Guard.

(1976 Code § 6-17; Ord. No. 691 § 1; Ord. No. 714 § 1; Ord. No. 727 § 1; Ord. No. 883 § 1; Ord. No. 1063 § 1; Ord. No. 1096 § 1; Ord. No. 1141 § 1; Ord. No. 1220 § XIII; Ord. No. 1285 §§ I, II; Ord. No. 1433 §§ I-IV; Ord. No. 1506 (2011) § I; Ord. No. 1511 (2011) § 8)

21-1.3 Badge Required.

No person over the age of twelve (12) years shall bathe at or otherwise use the beaches set forth in subsection 21-1.1 without having first acquired and then having in his or her possession a proper and effective badge, license or permit to use the beaches, which shall be worn conspicuously by the person during such use, so that it shall be visible at all times and shall be exhibited on demand to the Beach Inspector or other duly authorized representative of the City. (1976 Code § 6-18)

21-1.4 Assignment or Transfer of Badge; Conduct of Bathers.

a. No privilege, right, badge, ticket or other evidence of right to use the beaches, issued to or to be issued upon the payment of any of the fees provided for in subsection 21-1.2 shall be assigned, transferred, loaned, given, sold, rented or in any other way set over to another person by the person to whom the same is issued; however, nothing in this subsection will prevent the use of any badge purchased by a homeowner or tenant by any member of the family of such owner or tenant.

b. No person shall accept and use, upon such beaches, any badge or ticket not issued to or for the person by the City and its duly constituted representative, except as stated in paragraph a. above.

c. No person shall conspire, aid, advise, abet or otherwise assist in any violation of any provision of this subsection or any other subsection of this section.

d. No person shall use the beaches without having in his or her possession and prominently displayed at all times upon the exterior of his or her clothing, a badge, ticket or other evidence of the right to use the beaches.

e. The conduct of all persons on public beaches during the bathing season shall be controlled by the same regulations as outlined in Section 21-2 and Chapter III, Police Regulations of this Code. (1976 Code § 6-19)

21-1.5 Control of Beaches.

a. *Governing Body.* The Governing Body is hereby authorized and empowered to:

1. Adopt by resolution, in addition to the rules and regulations herein enumerated, such other rules and regulations as may be necessary for the proper control and regulation of the beachfront and the waters adjacent thereto.

2. Designated by resolution the protected bathing beaches where boats and lifeguards are to be provided by the City, and from which beaches persons may bathe and swim, and to change or abolish the precise location of any one (1) or more bathing beaches from time to time, as safety and attending circumstances shall require.

3. To determine and establish by resolution the period during each year when each of the paid bathing beaches shall be opened and closed, and the times during which such beaches will be protected.

b. *Mayor.* The Mayor is hereby authorized and empowered to:

1. Employ inspectors, lifeguards and such other employees as may be necessary to carry

out and enforce the provisions of this section and all rules and regulations established herein or subsequently adopted by resolution.

2. Purchase badges, checks or other insignia and such other supplies, materials and equipment as may be necessary.
(1976 Code § 6-20; Ord. No. 1431 § LXXXVII)

21-1.6 Revocation of Privileges.

The City reserves the right to revoke any beach privileges granted under this section for any violations of its provisions, or other rules, regulations, resolutions and ordinances and to retake and impound any beach identification badge or permit which has been improperly used or obtained.

Such revocation shall not preclude the imposition of any other penalties provided for such violation. (1976 Code § 6-21)

21-2 REGULATIONS AND SUPERVISION OF BEACHES.*

21-2.1 Applicability of Regulations.

It shall be unlawful and an offensive course of conduct to violate or participate in the violation of any rule or regulation hereinafter set forth, which rules and regulations are hereby adopted for and shall apply to the government, supervision, use and policing of the public beach areas, during the months of May, June, July, August and September of each year. (1976 Code § 6-3; Ord. No. 768 § 3)

21-2.2 Vehicles Prohibited; Exceptions.

The driving or moving of any vehicle on the beach, Promenade, or approaches thereto, is prohibited, except in cases where a written permit therefore, signed by the Director of Public Safety or by such person designated by the Director, has been issued. Vehicle beach access permits shall be provided upon submitting a complete application and the application fee. The application fee for a vehicle beach access permit shall be fifty (\$50.00) dollars. Vehicle beach access permits shall only allow for vehicle beach access between September 15th and May 15th of each year. (1976 Code § 6-1; Ord. No. 768 § 2; Ord. No. 1459 (2009) § IV)

21-2.3 Use Prohibited at Certain Times; Exceptions.

a. No person, during the months of May, June, July, August and September in each year, shall walk, drive, ride, bathe, sleep, swim or otherwise be on any public beach area of the City from 10:00 p.m. in the evening of any day to 6:00 a.m. in the morning of the following day, prevailing time; except employees of the City, County, State or Federal government in the performance of their duties as employees; and except any person, persons, or group of persons who have been granted written permission so to do in accordance with the provisions of paragraph b. below.

b. The Director of Public Safety or any person designated by him/her is hereby authorized to grant permission to any person, persons or group of persons to be on the public beach areas of the City during the time referred to in paragraph a. hereof, for such purposes and under such terms and conditions as are consistent with the general meaning, intent and purposes of this section, namely, the protection of the people, their property and rights, the protection of public property, and the general public safety, health and welfare of the inhabitants and guests in the City.
(1976 Code § 6-4; Ord. No. 768 § 2)

21-2.4 Playing of Certain Games.

No person shall throw, bat, or catch a baseball, football, basketball, softball, or engage in the playing of any game endangering the health and safety of others. This subsection shall not apply to the playing of beach tennis or reasonable playing "at catch" with a soft rubber or beach ball; except at designated areas. (1976 Code § 6-5; Ord. No. 786 § 3)

21-2.5 Swimming.

No person shall swim or bathe beyond a safe depth in the ocean, as from time to time indicated, determined or regulated, by the City lifeguards, or to swim or bathe at other than designated areas. No person shall be permitted on or shall dive, jump, or swim from any stone groin located in the City of Sea Isle City. (1976 Code § 6-6; Ord. No. 786 § 3; Ord. No. 1243 § I)

21-2.6 Use of Surfboards, Rafts, Etc.

No person shall use a surfboard, canoe, boat, noninflatable raft, inflatable raft, inner tube, water wings or any floating or inflated object of any kind or description except at designated areas. (1976 Code § 6-7; Ord. No. 786 § 3)

21-2.7 Littering Prohibited.

No person shall throw, place, deposit or leave any bottles, cans, glass, crockery, sharp or pointed article or thing, paper, refuse or debris of any kind, in beach areas except in the proper receptacles provided therefor on the Promenade and public beach. (1976 Code § 6-8; Ord. No. 786 § 3)

21-2.8 Boisterous Conduct Prohibited.

No person shall revel, disport or behave in a loud, noisy, boisterous, indecent, or obscene manner, or in any manner which inconveniences, disrupts, or disturbs others and the general peace and good order. (1976 Code § 6-9; Ord. No. 768 § 3)

21-2.9 Railings and Benches; Lifeguard Equipment.

No person shall climb upon or stand on the railings, fences or benches on the Promenade, pavilions or approaches thereto and jetties or tamper with or handle the lifeguard boats, stands or other equipment used by the lifeguards. (1976 Code § 6-10; Ord. No. 768 § 3)

21-2.10 Hawking, Peddling or Vending Prohibited.

No person shall hawk or peddle, sell or offer for sale any article, goods, wares or merchandise within the beach areas. No person shall hawk or peddle on the Promenade. (1976 Code § 6-11; Ord. No. 768 § 3)

21-2.11 Disrobing Prohibited.

No person shall change clothes, dress, undress or otherwise disrobe; except in outer wraps. (1976 Code § 6-12; Ord. No. 768 § 3)

21-2.12 Picnics Prohibited; Exception.

No person shall use any public place, beach or area for picnics, except at such places or areas as

may be designated by resolution of the Governing Body. (1976 Code § 6-13; Ord. No. 768 § 3; Ord. No. 1431 § LXXXVIII)

21-2.13 Directives of Lifeguards and Police.

All orders, directions, whistles or other signals used by the City lifeguards and Police shall be immediately obeyed. (1976 Code § 6-14; Ord. No. 768 § 3)

21-2.14 Enclosures Prohibited.

Enclosures of any type or description on the public beaches are prohibited. (1976 Code § 6-15; Ord. No. 768 § 3)

21-2.15 Beach Nesting Bird Management Plan for Sea Isle City.

There shall be established protection areas within the City of Sea Isle City, pursuant to the City of Sea Isle City Beach Management Plan, for the Protection of Federally & State-Listed Species, dated March, 2011, prepared by Sea Isle City in cooperation with the NJDEP, Division of Fish and Wildlife, and the U.S. Department of the Interior, Fish and Wildlife Service. The following activities are prohibited in the management area during the times specified:

a. Beach raking shall be consistent with the approved Beach Management Plan (referenced above) of any year.

b. Vehicle use on the beach shall be consistent with the approved Beach Management Plan and subsection 21-2.2.

c. There shall be no kite flying, pets, or fireworks, including public fireworks displays, within the protected areas during the dates specified in the Beach Management Plan.

d. No person shall alter, destroy, or in any way tamper with the nesting enclosures established by the New Jersey Division of Fish, Game and Wildlife Endangered and Non-Game Species Program (ENSP).

e. There shall be appropriate buffers around all piping plover (*Charadrius melodous*) nests and beach nesting bird colonies (e.g. least tern (*Sterna antillarum*)) free from all recreational activities (e.g. pedestrians, joggers, sunbathers, picnickers, fishermen, boaters, or other recreational users), consistent with the approved Beach Management Plan.

f. The City of Sea Isle City will allow the New Jersey Department of Environmental Protection, or their agents, to implement a predator-control program to reduce the threat of predators (e.g. red fox, feral cats, Norway rats), if necessary.
(Ord. No. 1253 § II; Ord. No. 1504 (2011) § XIX)

21-2.16 Penalty for Violations.

Any person who shall violate any provision hereof shall be liable, upon conviction, to the penalty stated in Chapter I, Section 1-5. Any repetition of any prohibited act shall be declared a new offense. (Ord. No. 768 §§ 6,7; New; Ord. No. 1253 § I)

21-3 SEA ISLE CITY PROMENADE.

Editor's Note: Ordinance No. 678 established the Sea Isle City Promenade by metes and bounds. This ordinance is on file

in the office of the City Clerk for review by the public.

21-3.1 Authority; Decision.

a. N.J.S.A. 40-179:78 et seq. permits the City to lay out and open streets along the beach or ocean.

b. The Governing Body deems it in the best interest of the City to dedicate that portion of the public property bordering the ocean or beach between 29th Street and 57th Street as a public street with certain restrictions, to be known as "Sea Isle City Promenade."
(Ord. No. 678 Preamble; Ord. No. 1431 § LXXXIX)

21-3.2 Dedication of Promenade; Naming.

a. All that property described on the attachment hereto, which attachment is incorporated herein by this reference thereto, is dedicated as a public street, which street shall be known as "Sea Isle City Promenade."

b. Sea Isle City Promenade shall become a public street of the City and shall remain open and shall be a public way.
(Ord. No. 678 §§ 2, 3)

21-3.3 Motor Vehicles Prohibited; Exceptions.

No person or persons shall operate or permit to be operated a motor or other vehicle upon Sea Isle City Promenade except for the following exceptions which shall be strictly construed:

a. Police, fire, ambulance or other emergency vehicles;

b. Lifeguard vehicles and Public Works vehicles;

c. Such other vehicles that obtain a permit from the Mayor or his/her designee, which permit application shall state the name and address of the applicant, the license number, make, year and model of the vehicle, the purpose necessitating the application, the date and hours applied for and such other information as the City may require in ascertaining whether or not a permit for a specified time shall issue.

(Ord. No. 678 § 4)

21-3.4 Penalties for Violations.

a. Any person, persons, corporation or other legal entity which violates the terms of this section shall be liable, upon conviction, to the penalty stated in Chapter I, Section 1-5. For the first offense, a fine shall be not less than fifty (\$50.00) dollars.

b. A person need not be charged as a second or subsequent offender in order to be prosecuted as such.

c. The Municipal Court shall have jurisdiction over this section.

(Ord. No. 678 § 5)

21-3.5 Grading or Improvements.

From time to time, as may be necessary or expedient, the City may grade or otherwise improve Sea Isle City Promenade. (Ord. No. 678 § 7)

21-3.6 Roller Skates, Skateboards, Bicycles and Scooters on Promenade.

Editor's Note: For restrictions on the use of motorized bicycles on the Promenade, see Section 3-12 of Chapter III, Police Regulations.

a. The use of roller skates, skateboards, scooters, bicycles and similar means of conveyance upon the Promenade and its approaches within the City from May 15 to September 15 of each year hereby are prohibited except during the hours of:

5:00 a.m. to 3:00 p.m. on weekdays, 5:00 a.m. to 12:00 noon on Saturdays and Sundays.

b. All places of business renting, leasing, selling, giving or in any way transferring roller skates, skateboards, scooters and similar means of conveyance within the City shall prominently display during all business hours a sign, which shall state "The use of roller skates, skateboards, scooters and similar means of conveyance upon the Promenade and its approaches within the City from May 15 to September 15 is prohibited except during the hours of 5:00 a.m. to 3:00 p.m. weekdays, 5:00 a.m. to 12:00 noon on Saturdays and Sundays."

c. Any person violating the terms of this subsection shall be liable, upon conviction, for a fine for a first offense of not more than fifty (\$50.00) dollars. For each and every subsequent offense within ninety (90) days of a prior conviction, the penalty shall be a fine of not less than twenty-five (\$25.00) dollars nor more than one hundred (\$100.00) dollars.

(1976 Code § 17-22; Ord. No. 662 §§ 2, 3, 5; Ord. No. 856 § 1; Ord. No. 927 § 1)

21-4 PROTECTION OF DUNES.

21-4.1 Short Title.

This section shall be known as the "Sea Isle City Beach Protection Ordinance." (1976 Code § 6-22; Ord. No. 889 § 1)

21-4.2 Findings and Declaration.

a. It has been clearly demonstrated that well established and protected sand dunes, together with berms, beaches and underwater slopes of suitable configuration and of proper grade and height are a durable and effective protection against damage by the ocean under storm conditions and are the natural protection of the coastal areas adjacent thereto, and the State and its subdivisions and their inhabitants have an interest in the combined protection thereof and the right to restore them in the event of damage or destruction.

b. The dunes are vulnerable to erosion by both wind and water, but primarily by wind since its attacks against the dunes are sustained for substantial and frequently recurring periods of time; whereas, if protected by typical berms, beaches and underwater slopes, the dunes are attacked by water only at infrequent intervals. The best available means of protecting the dunes against wind erosion is by preventing indiscriminate trespassing, construction or other acts which might destroy or damage the dunes, and through the use of native plantings, supplemented by sand fencing and other devices designed to prevent the free blowing of the sand and the maintenance of the surface tensions, root accumulations, normal contours and other features found in typical natural dunes.

c. The immediate dune and beach area is not capable of rigid definition or delineation or of completely firm stabilization so that particular sites, at one time free of dunes, may, as the result of natural forces, become part of the dune area necessary for the continuation of the protection above

outlined and persons purchasing or owning such property do so subject to the public interest therein.

d. It is a purpose of this section to define the areas so affected and to establish regulations to assure their continued effectiveness. This section is declared to be an exercise of the police power in the interest of safety and welfare and the protection of persons and property.

e. Past storms have graphically illustrated to public and officials alike that destruction of sand and other barriers protecting the adjacent coastal areas creates an imminent and continuing threat and danger to life and property. Such erosion and destruction make it necessary to the health, safety and welfare of the City to maintain, repair, restore, replace and construct protective barriers on both public and private property within the City.

f. The interference with or the depletion of the beach and sand dunes tends to permit encroachment by the sea and the conditions above recited make it imperative that the Governing Body, with the City Engineer, in consultation with the Environmental Commission, regulate and control the removal of sand from the beach or dunes or any other interference with or depletion of the protective barrier on the oceanfront of the City.

(1976 Code § 6-23; Ord. No. 889 § 2)

21-4.3 Map.

The City will in the future adopt the "Sea Isle City Beach Dune Area Map Showing the Dune Line" to be prepared by Andrew A. Previti, P.E., which map, upon completion and adoption, will replace the dune line determination required under this section. Upon adoption by the Governing Body the "Sea Isle City Beach Dune Area Map Showing the Dune Line" shall be incorporated by reference into this section. True copies of the map shall be filed with the City Clerk, the Planning Board, the Environmental Commission, the Clerk of the County of Cape May and the Planning Board of the County of Cape May. (1976 Code § 6-25; Ord. No. 889 § 3; Ord. No. 1431 § XC)

21-4.4 Definitions.

As used in this section:

Backshore shall mean that zone of the shore or beach lying between the foreshore and the dune area and normally acted upon by waves only during severe storms, especially when combined with exceptionally high water.

Beach shall mean the zone of unconsolidated material that extends landward from the low water line to the place where there is marked change in material or physio-graphic form, i.e. dune or bulkhead. Includes foreshore and backshore.

Beach dune area shall mean until the adoption of the "Sea Isle City Beach Dune Area Map Showing the Dune Line" as referred to in subsection 21-4.3, that the City Engineer will make a dune line determination in accordance with the provisions herein. Prior to the adoption of said map, the beach dune line area shall be that district set off by ordinance to include the dunes, beaches, strand, backshore and foreshore, and the area where, according to normal beach profile, the same would or should exist as determined by the City Engineer.

Dune area shall mean the area actually or normally occupied by dunes. For purposes of this section, it shall be construed to include its actual dimensions or according to a computed profile with a height of at least twelve (12') feet above mean sea level.

Dune line shall mean a row of dunes which may blend in with a berm or berms, which blend in with each other, are roughly parallel to the ocean, and serve as a protective barrier against the

elements.

Dunes shall mean a hill of sand accumulated along the beachfront usually by natural means. It shall extend from the backshore to the line where the normal leeward slope intersects the established grade of the hinterland.

Foreshore shall mean this part of the shore lying between the crest of the seaward berm and the ordinary low water mark; this is ordinarily traversed by the uprush and backrush of the waves.

Mean sea level shall mean and include the term "sea level" and shall refer to the 1929 Sea Level Datum established by the U.S. Coast and Geodetic Survey or such other datum as may be established by the U.S. Army Corps of Engineers or other properly authorized agencies.

Natural dune shall mean a dune created by natural forces or one that has developed the contours, vegetation, root systems, etc., characteristic of dunes so created.

Natural vegetation shall mean and include the terms "native vegetation" or "indigenous vegetation." Specifically, it shall mean such plants as "beach grass" (*Ammophila breviligulata*), dusty miller (*Artemisin stelleriana*), hudsonia (*Hudsonia tomentosa*), sea rocket (*Cakile endental*), seaside goldenrod (*Solidago sempervieus*), bayberry (*Myrica Pennsylvanica*), or beach plum (*Prunus maritima*) which normally grow or may be planted on the slope of dunes or behind them. No distinction is made as to how such plants are introduced into their locations.

Roadway shall mean areas constructed at various designations across the dune or berm(s) to connect the street ends or other property with the open beach mainly for the use of such vehicular traffic as the Department of Public Safety of this City may, from time to time, direct and for such use as may have been designated by law or a court of competent jurisdiction.

Sand fence shall mean and include the term "snow fence" and may mean either of three (3) types of barricade established in a line or a pattern to accumulate sand and aid in the formation of a dune.

- a. *Brush type*. This consists of dead bushes, trees, reeds or similar debris collected in bundles and fixed by stakes or similar means.
- b. *Picket type*. This shall be the commercial variety of light wooden fence held together by wire and secured by posts.
- c. *Plastic type*. This shall be the commercial variety of slotted plastic sheeting manufactured especially for the purpose of promoting accretion of wind blown sand.

Slope leeward shall mean the face or surface of the dune or berm going from its crest or plateau away from the ocean.

Strand shall mean the same included within the definition of beach.

Walkway shall mean a walk or steps installed for use by pedestrians, built across the dune or berm(s) to connect the street ends with the open beach. These shall be approximately perpendicular to the sand dune and the height, width, length, material and type of construction thereof shall be such as will be required by the City Engineer in consultation with the Environmental Commission to carry out the intent of this section.

(1976 Code § 6-24; Ord. No. 889 § 4)

21-4.5 Regulations.

a. This section shall be applicable to the beach-dune area as hereinbefore defined. See sketch attached hereto and made a part hereof (Schedule A)* as a representation of the definitions of subsection 21-4.4.

b. Access to the open beach shall be obtained only across street ends.

c. No permit will be granted and it shall be unlawful for any individual, firm or corporation to authorize or participate in the removal of sand or natural vegetation from any street end.

d. Removal of sand from any opening of a structure is permitted only after notification to the Construction Official in writing requesting an inspection by that Official in conjunction with the Environmental Commission prior to removal. If removal is not approved, an individual, firm or corporation may appeal to the Administrator, who shall determine whether an error has been made and whether or not removal shall be permitted. The provisions of this subsection shall apply only where an applicant has followed all procedures under this section prior to applying to the Administrator.

e. No individual, firm or corporation shall authorize or participate in any manner in the moving or displacement of sand within the beach-dune area unless a permit therefor shall have been issued pursuant to the Administrator in consultation with the Environmental Commission. The application issued by the Construction Office shall contain the following information:

1. Name and address of the applicant;
2. Location of sand to be moved or displaced;
3. The nature and purpose of the proposed moving or displacement;
4. Proposed method by which the applicant desires to move or displace the sand, including a description of the equipment, machinery or other apparatus to be used;
5. Estimate in terms of cubic yards as to the quantity of sand to be moved or displaced;
6. Such other information as may be required by the Governing Body with the concurrence of the Environmental Commission.

f. No permit shall be issued without a determination by the Administrator based upon an inspection of the area involved and a report thereon by the City Engineer in consultation with the Environmental Commission that such removal will not create or increase a danger or hazard to life or property. No permit will be granted if the proposed moving or displacement will:

1. Adversely affect the littoral drift of the beach-dune area;
2. Result in a reduction of dune protection and the dune area as defined in subsection 21-4.4 or reduce the safety of the property of others;
3. Interfere with the general configuration of the beach-dune area of the subject property or neighboring properties.

g. No construction shall be allowed in the beach dune areas except:

1. Protective works undertaken by the City with the approval of the Department of Environmental Protection of the State of New Jersey and/or the U.S. Army Corps of Engineers with the review of the Environmental Commission of the City as applicable.
2. Walkways and steps to permit access across the dunes or berms to the open beach at

street ends only without damage to the dunes themselves as established by the City Engineer in consultation with the Environmental Commission.

3. Sand fences to encourage the accumulation of sand as established by the City Engineer in consultation with the Environmental Commission.

4. Pavilions, platforms and other construction undertaken by the City consistent with the Beach Open Space Program, provided it can be established to the satisfaction of the City Engineer in consultation with the Environmental Commission that the proposed design and construction methods as applied to the particular site, situation and time will not:

- (a) Adversely affect the existing dunes;
- (b) Be likely to create wind currents detrimental to the existing dunes;
- (c) Be likely to create, increase or prolong any other hazard.

The design and construction of such pavilions, platforms or structures shall be submitted to the City Engineer who, in consultation with the Environmental Commission shall require where necessary any features, device or provision to carry out the intent of this section.

Final approval shall reside with the Administrator who shall conduct a hearing and require the production of such proof as it shall reasonably consider necessary, where the Administrator deems appropriate, to establish the fulfillment of this section.

5. Nothing herein contained shall be construed to prevent surveyors from placing survey stakes in the course of surveying property boundaries, nor to prohibit the surveyors from going on and about the dune, berms thereof, or the lands lying East of the acquisition line in the performance of their professional duties, provided that such stakes be of no greater dimensions than two inches by two inches by two (2" x 2" x 2') feet high.

h. Until the adoption of the map referred to in subsection 21-4.3 hereof, all construction in the beachfront area will require the owner to submit an application with survey for a dune line determination. The determination will be performed by the City Engineer in consultation with the Environmental Commission. This dune line determination is to be performed at the owner's expense, the cost of which is four hundred twenty-five (\$425.00) dollars. Any additional fees incurred will also be the homeowner's responsibility. The property owner must erect a dune fence along the westerly limit of the dune line following the standards on file in the office of the Construction Official which shall be established by the City Engineer in consultation with the Environmental Commission. A dune line determination made under any provision of this section shall be valid until the adoption of the map referred to in subsection 21-4.3 hereof. At the time of the adoption of the map by the Governing Body, this subsection of this section shall become void.

i. The designation, erecting, addition, removal, repair, maintenance, etc., of the dune fence and cleaning of such beach shall be administered by the City with the work being performed by the Department of Public Works, Parks and Public Property or such other persons as authorized by the City.

j. The removal, diverting, cutting, burning, trespassing on or other destruction of snow fencing and other type of beach protection devices placed by the City or its authorized agents on or in any portion of the beach-dune in the City is prohibited.

(1976 Code §§ 6-27-6-29, 6-31-6-32; Ord. No. 889 § 5; Ord. No. 1431 § XC1)

21-4.6 Administration and Penalties.

a. With reference to the map adopted in subsection 21-4.3 hereof, the City Engineer is authorized five (5) years from the date of adoption of the map and in the event of a major storm to create a new map which shall be filed with the City Clerk, the Planning Board, the Environmental Commission, the Clerk of the County of Cape May and the Planning Board of the County of Cape May.

Any person, firm or corporation who disturbs the beach dune area (beachfront property) prior to a dune line determination shall be in violation of this section. Should the site be so disturbed, the City Engineer in consultation with the Environmental Commission shall determine the dune line.

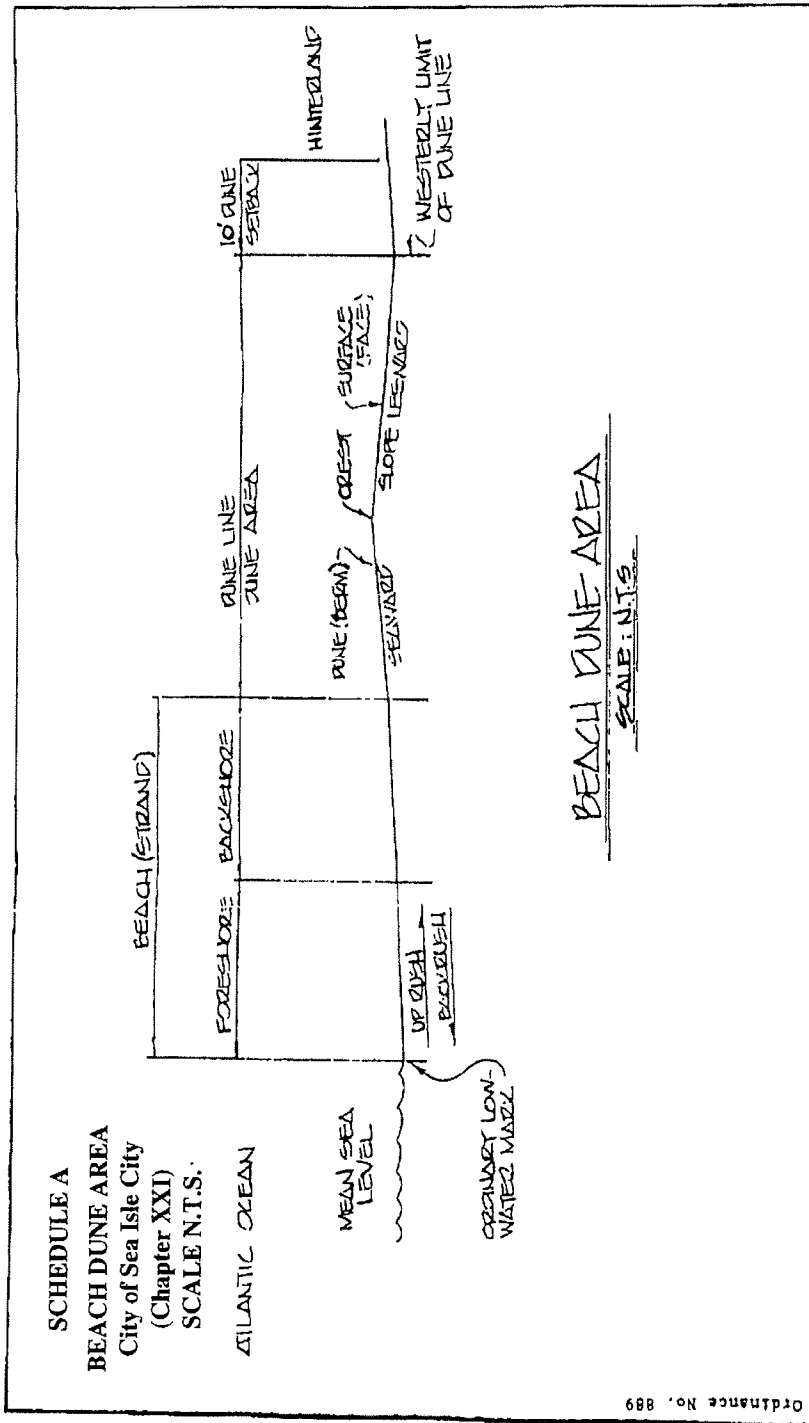
b. The Police Department and the Construction Official shall jointly, individually and in the alternative be responsible for the enforcement of this section.

c. Any person violating any of the provisions of this section shall be liable, upon conviction, to the penalty stated in Chapter I, Section 1-5, for each separate offense, and each day any such violation continues shall be construed as a separate offense.
(1976 Code § 6-30; Ord. No. 889 § 6; Ord. No. 919 § 1)

SCHEDULE A

BEACH DUNE AREA
City of Sea Isle City
(Chapter XXI)
SCALE N.T.S.

CITY OF SEA ISLE CITY CODE



CITY OF SEA ISLE CITY

NEW JERSEY

ORDINANCE NO. 1510 (2011)

AN ORDINANCE TO AMEND THE REVISED GENERAL ORDINANCES OF SEA ISLE CITY, CHAPTER 26, VARIOUS SECTIONS ENTITLED "ZONING" TO ADDRESS LANDSCAPING REQUIREMENTS AND DESIGN STANDARDS

WHEREAS, the City of Sea Isle City continues to review the zoning ordinance;

WHEREAS, the City intends further implementation of the master plan review and recommendations of December 2007;

WHEREAS, landscaping requirements have been a major concern, particularly when juxtaposed over the revised commercial district changes;

WHEREAS, the City hired planner Marcia R. Shiffman to review aspects of the master plan, design standards in particular, and review the landscaping ordinance for possible revision. Planner Shiffman has reviewed and made recommendations by report dated July 14, 2011.

WHEREAS, the City has considered said report, held workshops and accepted public input.

WHEREAS, this ordinance is adopted under the general police powers and Council determines that the changes incorporated herein promote various municipal land use law proposes, as follows:

- a. To encourage municipal action to guide the appropriate use or development of all lands in this State, in a manner which will promote the public health, safety, morals, and general welfare;
- b. To secure safety from fire, flood, panic and other natural and man-made disasters;
- c. To provide adequate light, air and open space;
- d. To promote the establishment of appropriate population densities and concentrations that will contribute to the well being of persons, neighborhoods, communities and regions and preservation of the environment;
- e. To encourage the appropriate and efficient expenditure of public funds by the coordination of public development with land use policies;
- f. To provide sufficient space in appropriate locations for a variety of agricultural, residential, recreational, commercial and industrial uses and open space, both public and private, according to their respective environmental requirements in order to meet the needs of all New Jersey citizens;
- g. To promote a desirable visual environment through creative development techniques and good civic design and arrangement;
- h. To promote the conservation of historic sites and districts, open space, energy resources and valuable natural resources in the State and to prevent urban sprawl and degradation of the environment through improper use of land;

i. To encourage planned unit developments, which incorporate the best features of design and relate the type, design and layout of residential, commercial, industrial and recreational development to the particular site;

j. To encourage coordination of the various public and private procedures and activities shaping land development with a view of lessening the cost of such development and to the more efficient use of land;

WHEREAS, the City determines the changes herein are consistent with the Smart Growth Plan submitted to the State by the City;

NOW, THEREFORE BE IT ORDAINED by the Council of the City of Sea Isle City, County of Cape May and State of New Jersey as follows:

SECTION I. Chapter 15 Section 15-2.6a of the Revised General Ordinances of the City of Sea Isle City, entitled "Specifications" is hereby amended to delete the existing subsection "a" in its entirety and replace same as follows, with the remainder of 15-2.6 to remain unchanged;

DELETED SECTION:

15-2.6 Specifications.

a. All materials and work shall be in accordance with City specifications on file in the office of the Department of Public Works, Parks and Public Property, or in the absence thereof according to reasonable and usual specifications to be established by the City Engineer and/or Construction Official.

REPLACEMENT SECTION:

15-2.6 Specifications.

a. All materials and work shall be in accordance with City specifications on file in the office of the Department of Public Works, Parks and Public Property, or in the absence thereof according to reasonable and usual specifications to be established by the City Engineer and/or Construction Official. See section 26-23.10 for sidewalk standards.

SECTION II. Chapter 26 Section 11 of the Revised General Ordinances of the City of Sea Isle City, entitled "Definitions" is hereby amended to add these definition in alphabetical order,

ADDED SECTION:

26-11 Definition.

Awning shall mean a flexible roof-like cover that extends out from an exterior wall and shields a window, doorway, sidewalk or other space below from the elements.

Belt course shall mean a continuous row or layer of stones, tile, brick, shingles, etc. in a wall

Canopy shall mean an overhead roof or structure that provides shade or other shelter

Cornice shall mean a decorative horizontal feature that projects outward near the top of an exterior wall.

Cupola shall mean a small dome, particularly a dome atop a roof or small tower.

Dormer shall mean a projection from a sloping roof that contains a window and its own roof.

Façade shall mean the exterior face of a building, including but not limited to, walls, window sills, doorways and such traditional design elements as horizontal lines, cornice and parapet.

Gable roof shall mean a ridge roof forming a gable at both ends.

Hip roof shall mean a roof with pitched ends and sides.

Lintel shall mean a structural or merely decorative horizontal member spanning a window opening.

Kickplate shall mean a plate used on the bottom of doors and buildings to protect them from shoe marks.

Muntin shall mean a strip of wood or metal separating and holding panes of glass in a window.

Parapet shall mean a short vertical extension of a wall that rises above roof level, hiding the roof's edge and any roof-mounted mechanical equipment.

SECTION III. Chapter 26 Section 23 and 23.1 of the Revised General Ordinances of the City of Sea Isle City, entitled "Off-Street Parking" are hereby amended to delete the existing sections and replace as follows,

DELETED TITLE:

26-23 OFF-STREET PARKING.

REPLACEMENT TITLE:

26-23 OFF-STREET PARKING, DRIVEWAYS, SIDEWALKS.

DELETED SECTION:

26-23.1 Parking Space Dimensions.

The minimum parking dimensions for each parking space exclusive of drives, aisles, paths and sidewalks shall be:

a. For all parking spaces parallel to the travel of traffic: Eight feet six inches by twenty-two feet (8'6" x 22').

b. For all other parking spaces: Ten feet by twenty feet (10' x 20') for a standard space and twelve feet six inches by twenty feet (12'6" x 20') for a handicapped space.

REPLACEMENT SECTION:

26-23.1 Parking Space Dimensions.

The minimum parking dimensions for each parking space exclusive of drives, aisles, paths and sidewalks shall be:

a. For all parking spaces parallel to the travel of traffic: Eight feet six inches by twenty-two feet (8'6" x 22').

b. For all other parking spaces: nine feet by eighteen feet (9' x 18') for a standard space and eight (8') feet for a handicapped car space and eleven (11') feet for a

handicapped van space, both with an access aisle of five (5') feet in width. Handicapped spaces shall be eighteen (18') feet in length.

c. Parking spaces and access aisles shall be level with surface slopes not exceeding 1:50 (2%) in all directions.

SECTION IV. Chapter 26 Section 23.2 of the Revised General Ordinances of the City of Sea Isle City, entitled "Parking Lot Aisle Width" is hereby amended to delete the existing section in its entirety and replace same as follows,

DELETED SECTION:

26-23.2 Parking Lot Aisle Width

The dimensions of aisles shall be no less than those specified below:

<i>Angle of Parking Space to Aisle</i>	<i>One-Way Traffic</i>	<i>Two-Way Traffic</i>
90°	22'	25'
60°	18'	20'
45°	15'	18'
30°	12'	18'
Parallel	12'	18'

REPLACEMENT SECTION:

26-23.2 Parking Lot Aisle Width.

The dimensions of aisles shall be no less than those specified below:

<i>Angle of Parking Space to Aisle</i>	<i>One-Way Traffic</i>	<i>Two-Way Traffic</i>
90°	24'	24'
60°	18'	N/A
45°	13'	N/A
30°	12'	N/A
Parallel	12'	24'

SECTION V. Chapter 26 Section 23.4 of the Revised General Ordinances of the City of Sea Isle City, entitled "Driveways" is hereby amended to add a subsection "c" as follows,

ADDED SECTION:

26-23.4 Driveways.

- c. All lots.
 - 1. Vehicular turning radii at driveways should vary between ten (10') feet and twenty (20') feet depending on site conditions and property use.

SECTION VI. Chapter 26 Section 23.9 of the Revised General Ordinances of the City of Sea Isle City, entitled "Americans with Disabilities Act " is hereby amended to add this section as follows,

ADDED SECTION:

26-23.9 Americans with Disabilities Act.

Any and all rules, guidelines and/or directives established regarding parking and pedestrian and vehicular movement shall be in accordance with applicable provisions of the Americans with Disabilities Act of 1990.

SECTION VII. Chapter 26 Section 23.10 of the Revised General Ordinances of the City of Sea Isle City, entitled "Sidewalk, Curbs and Gutters" is hereby amended to add this section as follows,

ADDED SECTION:

26-23.10 Sidewalk, Curbs and Gutters.

- a. All sidewalks shall be a minimum of four (4') feet wide and four (4") inches thick, except at driveway crossings where they shall be six (6") inches thick.
- b. All sidewalks along a commercial zone shall be a minimum of six (6) feet in width.
- c. Concrete curbs, gutters and sidewalks shall meet the following requirements:
 1. Materials for concrete shall conform to the requirements of the New Jersey State Highway Department Standard Specifications. Concrete shall be Class B. Metal forms shall be used for the construction of concrete curbs. Curbs are to be six (6") inches wide and eighteen (18") inches deep and are to be constructed true to the required lines, grades and curvatures.
 2. At all intersections a four (4') foot wide area of the sidewalk on each roadway corner shall be gradually ramped to meet the roadway at grade to enable persons in wheelchairs to easily cross roadways.
- d. In any area of the City where sidewalks do not line up, the transition shall be as approved by the Planning Board after review by the City engineer.

SECTION VIII. Chapter 26 Section 25.3 of the Revised General Ordinances of the City of Sea Isle City, entitled "Landscaping" is hereby amended to delete the existing section in its entirety and replace same as follows,

DELETED SECTION:

26-25.3 Landscaping.

All areas not covered by driveways, pedestrian walkways or parking areas shall be landscaped, and all construction within all districts shall retain natural vegetation to the extent possible. Landscaping shall require the following minimum standards:

- a. Dwellings in residential districts and residential uses in a commercial district shall have one (1) tree per dwelling;
- b. Dwellings in residential districts and residential uses in a commercial district shall have ten (10) shrubs per dwelling unit for two family housing (for a total of twenty (20)) and ten (10) shrubs for a single-family housing type;
- c. In commercial districts, except for those otherwise noted, there shall be one (1) tree per dwelling unit or two (2) per one thousand (1,000) square feet of gross floor area for business, commercial and industrial uses, with a minimum of four (4) trees for all other uses;
- d. Dwellings in commercial districts shall have ten (10) shrubs per dwelling unit or twenty (20) per one thousand (1,000) square feet of gross floor area for business, commercial and industrial uses;

e. Tree species selected shall be compatible with site soil conditions and shall be a minimum of six (6') feet in height above the ground. Any new tree planted between the curblin and twenty-four (24") inches from the sidewalk on the house side shall be a tree selected from the list of trees herein:

Cherries and Plums
Dogwoods and Mountainash
Ornament Crabapples
Hawthorns
Magnolias
Holly trees
Bradford Pear

f. Shrubs to be used as shrub material shall be compatible with the coastal environment. To assure variation, shrub material shall include at least four (4) distinct categories of shrubs. Such shrub material shall be at least forty (40%) percent mature at the time of planting;

g. Yards shall be made of grass, mulch, stone pavers, crushed stone or washed gravel as a minimum;

h. Nothing herein shall change the requirements of the City of Sea Isle City Zoning and Planning Boards.

REPLACEMENT SECTION:

26-25.3 Planting Details (General).

Plant selection shall conform to the following general design principles.

a. All landscape plants shall be typical full specimens conforming to the American Association of Nurserymen Standards (ANA) for quality and installation.

b. Local soil conditions and water availability shall be considered in the plan selection. All plants shall be tolerant of specific site conditions.

c. Landscaping shall not inhibit access by emergency vehicles or inhibit visibility within required vehicular sight triangles.

d. Irrigation systems are to be provided for all new plantings.

e. Deciduous shade trees shall have a minimum caliper of three and one-half inches to four inches. Ornamental trees shall be a minimum six (6) feet to eight (8) feet in height. Evergreen trees shall be a minimum six (6) feet to eight (8) feet in height. Shrubs shall be a minimum twenty four (24) inches to thirty (36) inches in height. These shall be the minimum measurements at the time of planting.

f. All trees to be installed shall be balled and burlapped in accordance with ANA standards. All trees shall be mulched to a depth of three (3) inches.

g. All trees shall be installed with proper subterranean preparation of the ground.

h. The owner or if a common element of condominium, the condominium shall be responsible to maintain or replace the tree or plantings, after one year from issuance of a certificate of occupancy. Prior to one year, the developer shall replace plantings that die.

SECTION IX. Chapter 26 Section 25.4 of the Revised General Ordinances of the City of Sea Isle City, entitled "Landscaping Approval" is hereby amended to delete the existing section in its entirety and replace same as follows,

DELETED SECTION:

26-25.4 Landscaping Approval.

Persons, corporations and other associations desiring to remove or otherwise destroy a tree, or trees, on their property, or to move or remove more than five (5) square yards of soil, shall first apply to the City of Sea Isle Zoning Officer for a landscaping permit.

- a. Application for a permit must be submitted to the Zoning Officer;*
- b. The Landscaping Permit Application shall include a plan that clearly delineates areas of preservation and proposed landscape treatment. The application shall also include:
 1. The name, address, and telephone number of the person supervising the landscaping project;
 2. The name and address of the owner of the premises;
 3. The name and address of the applicant for the permit, if other than the owner, accompanied by the owner's consent to said application;
 4. Construction details prepared by a certified landscape architect, licensed professional engineer or other professional proscribed by State law;
 5. A description by lot and block number of the premises for which the permit is sought;
 6. A detailed description of the work to be performed, including current planting areas and proposed planting areas;
 7. The number of trees, shrub or other vegetation to be removed, and/or the number of shrubs or other vegetation to be added;
 8. The reason for removal or destruction of vegetation;
 9. Projected dates for the beginning and ending of the tree or shrub removal project, and the construction itself;
 10. Projected dates for the beginning and ending of the implementation of new trees or shrubs;
 11. Any additional information requested by the Zoning Officer.
- c. The permit application shall be submitted to the Zoning Officer of the City of Sea Isle City, on an application form as required by the Zoning Officer. The application shall be submitted with a twenty-five (\$25.00) dollar fee for the landscaping permit;
- d. Permits for landscaping approval shall be enforced in conjunction with Section 26-38, entitled Stormwater Management Systems. To the extent there is any inconsistency among Section 26-25 (Landscaping and Buffers) and Section 26-38 (Stormwater Management Systems), Section 26-38 shall supersede Section 26-25;

e. Landscaping must be done in a manner that is consistent with all other requirements of the City of Sea Isle City rules and regulations. This includes but is not limited to the City of Sea Isle City Sections 26-32 (Impervious Surface Coverage), 26-37 (Certification of Front Yard, Side Yard, Rear Yard, Height Building Coverage and Impervious Surface Coverage Compliance), and 26-38 (Stormwater Management Systems). Accordingly, the use of unnatural materials, including but not limited to plastic, that prevent water from flowing into the ground are hereby prohibited;

f. Nothing herein shall alter the requirements of the City of Sea Isle City Zoning and Planning Boards;

g. A Certificate of Occupancy shall not be granted until the Zoning Officer has issued the landscaping permit.

REPLACEMENT SECTION:

26-25.4 Street Trees.

- a. Street trees shall be provided for all streets as a requirement for site plan and subdivision applications.
- b. The number of street trees shall average one (1) for every forty (40) feet of frontage.
- c. Spacing between trees shall be determined based upon species selection. In general, trees should be spaced between thirty (30) to fifty (50) feet on-center.
- d. Street trees should be a minimum of three and one half (3 ½) to four (4) inches caliper, based on ANA standards.
- e. Street trees shall be disease resistant and tolerant of road salts and air pollution.
- f. Branching height shall bear a relationship to the size and species of tree, but shall have a minimum clearance height of seven (7) feet above grade before branching begins.
- g. Fastigate and columnar trees shall be used on streets which have limited sidewalk depth between the cartway and building wall face.

SECTION X. Chapter 26 Section 25.5 of the Revised General Ordinances of the City of Sea Isle City, entitled "Prohibitions Regarding Landscaping on Public Land" is hereby amended to delete the existing section in its entirety and replace same as follows,

DELETED SECTION:

26-25.5 Prohibitions Regarding Landscaping on Public Land.

No person, corporation, or association shall do, or cause to be done by others, any of the following acts upon municipal property within the City of Sea Isle City without a prior permit from the Zoning Officer:

- a. Cut, damage, destroy, remove or injure any tree;
- b. Cut, disturb or interfere in any way with any tree root or root system;
- c. Spray, place or distribute any chemicals, including but not limited to salt, which would be deleterious to tree health;
- d. Remove or damage any guard or device placed to protect any tree or shrub;
- e. Maintain a stationary fire or device that vaporizes noxious fumes deleterious to tree health;

- f. Remove soil, either for trenching or otherwise;
- g. Construct new sidewalks or driveways with any material whatsoever within three and one-half (3 1/2') feet of any tree;
- h. Place, or maintain upon the ground, any substance or object impeding the free access of air and water to a tree's living components; or
- i. Apply any substance to any part of a tree, including roots, with the intention to injure or destroy a tree.

REPLACEMENT SECTION:

26-25.5 Landscaping

All areas not covered by buildings, driveways, pedestrian walkways or parking areas shall be landscaped, and all construction within all districts shall retain natural vegetation to the extent possible. Landscaping shall require the following minimum standards:

- a. Dwellings in residential districts and residential uses in a commercial district (excluding mixed nonresidential and residential use) shall have a minimum of one (1) tree per dwelling.
- b. Dwellings in residential districts and residential uses in a commercial district (excluding mixed nonresidential and residential use) shall have a minimum of ten (10) shrubs per dwelling unit for two (2) family housing (for a total of twenty (20)) and ten (10) shrubs for a single-family housing type;
- c. In commercial districts, there shall be a minimum of one (1) trees per two thousand (2,000) square feet of lot area, but no less than two (2) trees per lot.
- d. Commercial districts shall have a minimum of five (5) shrubs per one thousand (1,000) square feet of lot area.
- e. Nothing herein shall change the requirements of the City of Sea Isle City Zoning and Planning Boards.

SECTION XI. Chapter 26 Section 25.6 of the Revised General Ordinances of the City of Sea Isle City, entitled "Exceptions for Public Utility Companies and City Contractors" is hereby amended to delete the existing section in its entirety and replace same as follows,

DELETED SECTION:

26-25.6 Exceptions for Public Utility Companies and City Contractors.

- a. Notwithstanding other permit requirements, the Zoning Officer may grant a blanket permit to utility companies for:
 - 1. Tree pruning for line clearance; or
 - 2. The installation and the maintenance of subsurface and aboveground plant construction if there is interference with or endangerment to street trees.
- b. During periods of emergency, without specific prior permit, utility companies

may:

1. Install temporary attachments to trees; and
2. Remove trees that are diseased, dead, partially or completely fallen by acts of nature, and endanger public safety;
3. Make emergency subsurface repairs.

c. Public utility companies shall exercise reasonable diligence in the maintenance or removal of trees, shrubs or soil material, so as to avoid unnecessary damage to trees, shrubs or soil material within the jurisdiction of the City of Sea Isle City.

d. City contractors shall act at the direction of the City and will not be required to obtain a landscaping permit for services rendered on municipal property in the City of Sea Isle City.

REPLACEMENT SECTION:

26-25.6 Plant Materials.

Plant materials shall be selected from the following list. Any deviations shall be approved by the City Engineer in consultation with a Licensed Landscape Architect or Certified Arborist.

a. Trees

Botanical Name	Common Name
Acer campestre	Hedge Maple
Acer rubrum "Armstrong"	"Armstrong" Columnar Red Maple
Acer rubrum "October Glory"	"October Glory" Red Maple
Acer saccharum "Bonfire"	"Bonfire" Sugar Maple
Acer saccharum "Goldspire"	"Goldspire" Sugar Maple
Acer saccharum "Green Mountain"	"Green Mountain" Sugar Maple
Fraxinus americana "Autumn Purple"	"Autumn Purple" White Ash
Fraxinus americana "Greenspire"	"Greenspire" White Ash
Fraxinus pennsylvanica "Patmore"	"Patmore" Green Ash
Nyssa sylvatica	Black Gum or Sour Gum
Platanus acerifolia "Bloodgood"	"Bloodgood" London Planetree
Platanus occidentalis*	American Sycamore
Quercus bicolor*	Swamp White Oak
Quercus imbric	Shingle Oak
Quercus palustris*	Pin Oak
Quercus phellos*	Willow Oak
Taxodium distichum	Baldcypress
Tilia americana "Redmond"	"Redmond" Linden
Tilia cordata "Greenspire"	"Greenspire" Littleleaf Linden
Linden Tilia tomentosa	"Green Mountain" Linden
Ulmus americana "Princeton"	"Princeton" Elm
Zelkova serrata "Halka"	"Halka" Zelkova
Zelkova serrata "Village"	"Village Green" Zelkova

*Indicates street trees suitable for high wind and salt spray conditions.

Note that there are fall digging hazards for Quercus (Oak) species. Specific conditions, such as soil type, exposure, salt spray and other factors must be considered in the species selection process. A New Jersey certified arborist or landscape architect should be consulted in plant selection.

b. Recommended understory ornamental trees

Amelanchier canadensis

Shadtrees

Betula nigra
Carpinus caroliniana
Cercis canadensis
Chiananthus virginicus
Franklinia alata
Halsia diptera "Magniflora"
Hamamelis virginiana
Magnolia virginiana
Ostrya virginiana
Oxydendrum arboreum
Sassafras albidum

River Birch
American Hornbeam
Eastern Redbud
White Fringetree
Franklinia
Two-Winged Silverbell
Common Witchhazel
Sweetbay Magnolia
Hophornbeam
Sourwood
Sassafras

c. Recommended evergreen trees

Cryptomeria japonica "Yoshino"
Cedar Ilex opaca
Juniperus scopulorum "Cologreen"
"Juniperus virginiana "Cupressifolia"
Picea glauca 'Densata'
Pinus resinosa
Pinus strobus
Pseudotsuga menziesii

"Yoshino Japanese" Cedar
American Holly
"Cologreen" Juniper
"Hillspire" Juniper
"Black Hills" Spruce
Red Pine
White Pine
Douglas Fir

d. The following is a list of acceptable shrubs:

Clethra alnifolia "Hummingbird"
Cornus paniculata
Cornus sericea
Ilex glabra
Juniperus conferta "Blue Pacific"
Juniperus sargentii
Kalmia latifolia
Myrica pennsylvanica
Rhododendron maximum
Rosa rugosa
Vaccinium corymbosum
Viburnum acerifolium
Viburnum dentatum

"Hummingbird" Summersweet
Gray Dogwood
Red Osier Dogwood
Inkberry
"Blue Pacific" Japanese Shore Juniper
Sargent Juniper
Mountain Laurel
Northern Bayberry
Rosebay Rhododendron
Japanese Shore Rose
Highbush Blueberry
Maple-leaved Viburnum
Arrowwood Viburnum

SECTION XII. Chapter 26 Section 25.7 of the Revised General Ordinances of the City of Sea Isle City, entitled "Exceptions to the Permit Requirement for Landscaping Involving Residential Districts and Residential Uses in Commercial Districts" is hereby amended to delete the existing section in its entirety and replace same as follows, DELETED SECTION:

26-25.7 Exceptions to the Permit Requirement for Landscaping Involving Residential Districts and Residential Uses in Commercial Districts.

- a. A landscaping permit is not required for the cuffing, trimming, or maintenance of trees in a manner which is not harmful to the health of the tree;
- b. Nor is a landscaping permit required for the removal of trees posing an immediate danger to public safety.

REPLACEMENT SECTIONS:

26-25.7 Buffer Details.

A buffer treatment shall be provided to screen views of surface parking areas from the street.

- a. A buffer shall have a minimum average width of five (5) feet.
- b. A buffer shall consist of landscape materials, and may include masonry walls and/or fencing.
- c. When a masonry wall or fencing is used, it shall be of solid construction and shall be designed to coordinate with the building architecture.
- d. Buffer planting shall include at a minimum five (5) shade trees per one hundred (100) linear feet of street frontage.
- e. A continuous evergreen hedge shall be provided at a minimum installed height of thirty (36) inches.

SECTION XIII. Chapter 26 Section 25.8 of the Revised General Ordinances of the City of Sea Isle City, entitled "Minimum Requirements for a Permit" is hereby amended to delete the existing section in its entirety and replace same as follows,

DELETED SECTION:

26-25.8 Minimum Requirements for a Permit.

The provisions of this section shall be interpreted and applied as the minimum requirements for a landscaping permit in the City of Sea Isle City. No activities requiring the removal of trees or the movement of soil shall be permitted without first obtaining a valid permit in accordance with this section, except as otherwise noted.

REPLACEMENT SECTION:

26-25.8 Parking Lot Planting Details.

For all parking lots containing eight (8) or more cars, a landscape treatment shall be provided within the parking lot to reduce solar glare, reduce carbon footprint and provide for shade.

- a. One (1) shade tree shall be provided for every eight (8) parking spaces within the parking lots. This shall be in addition to trees required as part of buffer plantings.
- b. Shade trees shall be located within the parking lot on curbed islands of at least six (6) feet wide.
- c. Parking lots covered by the structure above shall meet these requirements for portions of the parking lot not covered by part of the structure.

SECTION XIV. Chapter 26 Section 25.9 of the Revised General Ordinances of the City of Sea Isle City, entitled "Criterion for Issuance of Permit" is hereby amended to delete the existing section in its entirety and replace same as follows,

DELETED SECTION:

26-25.9 Criterion for Issuance of Permit.

- a. The Zoning Officer shall grant or deny the requested permit in consideration of the following:
 1. Whether the proposed landscaping/tree removal will cause or contribute to drainage problems, soil erosion, or the loss of tree species;
 2. Whether the proposed landscaping/tree removal will have a substantial negative impact on the surrounding properties or endanger surrounding citizens;
 3. Whether the proposed landscaping/tree removal will lead to a loss of wildlife habitat;

4. Whether the proposed landscaping/tree removal is a part of an overall landscape plan for the property;
5. Whether denial of a permit for the proposed landscaping/tree removal would create an undue hardship on the applicant.

b. Exceptions to the requirements of this section may be granted if reasonable and within the purposes and intent of this section. Exceptions are appropriate where the literal enforcement of one (1) or more provisions is impracticable or will exact undue hardship because of peculiar conditions pertaining to the land in question. A request for special exceptions must be included in the permit application.

c. In rendering a decision on a permit application, the Zoning Officer shall at all times give weight to the basic intent of this section, which is to limit the adverse effect of tree removal and soil displacement, while not unduly interfering with the right of a City property owner to use and enjoy his/her property. The Zoning Officer shall also consider whether the permit can be granted subject to the imposition of reasonable conditions that will mitigate the adverse effect of the proposed landscaping/tree removal.

REPLACEMENT SECTION:

26-25.9 Landscape Planters.

Landscape planters may be used to incorporate seasonal color and to provide space of additional plant materials to improve appearance of site.

- a. Permanent planters may be installed only within the property.
- b. Permanent planters may be located within front yard between the building façade and the right-of-way in the commercial districts. Permanent planters along the street frontage shall not exceed twenty four (24) inches in height.
- c. Plant materials within permanent planters shall be of a species whose height will not obstruct the display windows.
- d. Moveable planters may be installed within the property and on the sidewalk within the right-of-way subject to approval of the City. These planters shall maintain a minimum six feet clearance on the sidewalk. Moveable planters within the sidewalk street frontage shall select those listed under section 26-40.

SECTION XV. Chapter 26 Section 25.12 of the Revised General Ordinances of the City of Sea Isle City, is hereby created and entitled "Landscaping Approval"

NEW SECTION:

26-25.12 Landscaping Approval.

Persons, corporations and other associations desiring to remove or otherwise destroy a tree, or trees, on their property, or to move or remove more than five (5) square yards of soil, shall first apply to the City of Sea Isle Zoning Officer for a landscaping permit.

- a. Application for a permit must be submitted to the Zoning Officer;
- b. The Landscaping Permit Application shall include a plan that clearly delineates areas of preservation and proposed landscape treatment. The application shall also include:
 1. The name, address, and telephone number of the person supervising the landscaping project;
 2. The name and address of the owner of the premises;
 3. The name and address of the applicant for the permit, if other than the owner, accompanied by the owner's consent to said application;
 4. Construction details prepared by a certified landscape architect, licensed

professional engineer or other professional proscribed by State law;

5. A description by lot and block number of the premises for which the permit is sought;
6. A detailed description of the work to be performed, including current planting areas and proposed planting areas;
7. The number of trees, shrub or other vegetation to be removed, and/or the number of shrubs or other vegetation to be added;
8. The reason for removal or destruction of vegetation;
9. Projected dates for the beginning and ending of the tree or shrub removal project, and the construction itself;
10. Projected dates for the beginning and ending of the implementation of new trees or shrubs;
11. Any additional information requested by the Zoning Officer.

c. The permit application shall be submitted to the Zoning Officer of the City of Sea Isle City, on an application form as required by the Zoning Officer. The application shall be submitted with a twenty-five (\$25.00) dollar fee for the landscaping permit;

d. Permits for landscaping approval shall be enforced in conjunction with Section 26-38, entitled Stormwater Management Systems. To the extent there is any inconsistency among Section 26-25 (Landscaping and Buffers) and Section 26-38 (Stormwater Management Systems), Section 26-38 shall supersede Section 26-25;

e. Landscaping must be done in a manner that is consistent with all other requirements of the City of Sea Isle City rules and regulations. This includes but is not limited to the City of Sea Isle City Sections 26-36 (Impervious Surface Coverage), 26-37 (Certification of Front Yard, Side Yard, Rear Yard, Height Building Coverage and Impervious Surface Coverage Compliance), and 26-38 (Stormwater Management Systems). Accordingly, the use of unnatural materials, including but not limited to plastic, that prevent water from flowing into the ground are hereby prohibited;

f. Nothing herein shall alter the requirements of the City of Sea Isle City Zoning and Planning Boards;

g. A Certificate of Occupancy shall not be granted until the Zoning Officer has issued the landscaping permit.

SECTION XVI. Chapter 26 Section 25.13 of the Revised General Ordinances of the City of Sea Isle City, is hereby created and entitled "Prohibitions Regarding Landscaping on Public Land"

NEW SECTION:

26-25.13 Prohibitions Regarding Landscaping on Public Land.

No person, corporation, or association shall do, or cause to be done by others, any of the following acts upon municipal property within the City of Sea Isle City without a prior permit from the Zoning Officer:

- a. Cut, damage, destroy, remove or injure any tree;
- b. Cut, disturb or interfere in any way with any tree root or root system;
- c. Spray, place or distribute any chemicals, including but not limited to salt, which would be deleterious to tree health;
- d. Remove or damage any guard or device placed to protect any tree or shrub;
- e. Maintain a stationary fire or device that vaporizes noxious fumes deleterious to tree health;
- f. Remove soil, either for trenching or otherwise;
- g. Construct new sidewalks or driveways with any material whatsoever within three and one-half (3 1/2') feet of any tree;
- h. Place, or maintain upon the ground, any substance or object impeding the free access of air and water to a tree's living components; or
- i. Apply any substance to any part of a tree, including roots, with the intention to injure or destroy a tree.

SECTION XVII. Chapter 26 Section 25.14 of the Revised General Ordinances of the City of Sea Isle City, is hereby created and entitled "Prohibitions Regarding Landscaping on Public Land"

NEW SECTION:

26-25.14 Exceptions for Public Utility Companies and City Contractors.

- a. Notwithstanding other permit requirements, the Zoning Officer may grant a blanket permit to utility companies for:
 - 1. Tree pruning for line clearance; or
 - 2. The installation and the maintenance of subsurface and aboveground plant construction if there is interference with or endangerment to street trees.
- b. During periods of emergency, without specific prior permit, utility companies may:
 - 1. Install temporary attachments to trees; and
 - 2. Remove trees that are diseased, dead, partially or completely fallen by acts of nature, and endanger public safety;
 - 3. Make emergency subsurface repairs.
- c. Public utility companies shall exercise reasonable diligence in the maintenance or removal of trees, shrubs or soil material, so as to avoid unnecessary damage to trees, shrubs or soil material within the jurisdiction of the City of Sea Isle City.
- d. City contractors shall act at the direction of the City and will not be required to obtain a landscaping permit for services rendered on municipal property in the City of Sea Isle City.

SECTION XVIII. Chapter 26 Section 25.15 of the Revised General Ordinances of the City of Sea Isle City, is hereby created and entitled "Exceptions to the Permit Requirement for Landscaping" as follows,

NEW SECTION:

26-25. 15 Exceptions to the Permit Requirement for Landscaping.

a. A landscaping permit is not required for the cutting, trimming, or maintenance of trees in a manner which is not harmful to the health of the tree;

b. Nor is a landscaping permit required for the removal of trees posing an immediate danger to public safety.

SECTION XIX. Chapter 26 Section 25.16 of the Revised General Ordinances of the City of Sea Isle City, is hereby created and entitled "Minimum Requirements for a Permit" as follows,

NEW SECTION:

26-25. 16 Minimum Requirements for a Permit.

The provisions of this section shall be interpreted and applied as the minimum requirements for a landscaping permit in the City of Sea Isle City. No activities requiring the removal of trees or the movement of soil shall be permitted without first obtaining a valid permit in accordance with this section, except as otherwise noted.

SECTION XX. Chapter 26 Section 25.17 of the Revised General Ordinances of the City of Sea Isle City, is hereby created and entitled "Criterion for Issuance of Permit"

NEW SECTION:

26-25. 17 Criterion for Issuance of Permit.

a. The Zoning Officer shall grant or deny the requested permit in consideration of the following:

1. Whether the proposed landscaping/tree removal will cause or contribute to drainage problems, soil erosion, or the loss of tree species;
2. Whether the proposed landscaping/tree removal will have a substantial negative impact on the surrounding properties or endanger surrounding citizens;
3. Whether the proposed landscaping/tree removal will lead to a loss of wildlife habitat;
4. Whether the proposed landscaping/tree removal is a part of an overall landscape plan for the property;
5. Whether denial of a permit for the proposed landscaping/tree removal would create an undue hardship on the applicant.

b. Exceptions to the requirements of this section may be granted if reasonable and within the purposes and intent of this section. Exceptions are appropriate where the literal enforcement of one (1) or more provisions is impracticable or will exact undue hardship because of peculiar conditions pertaining to the land in question. A request for special

exceptions must be included in the permit application.

c. In rendering a decision on a permit application, the Zoning Officer shall at all times give weight to the basic intent of this section, which is to limit the adverse effect of tree removal and soil displacement, while not unduly interfering with the right of a City property owner to use and enjoy his/her property. The Zoning Officer shall also consider whether the permit can be granted subject to the imposition of reasonable conditions that will mitigate the adverse effect of the proposed landscaping/tree removal.

SECTION XXI. Chapter 26 Section 25.18 of the Revised General Ordinances of the City of Sea Isle City, is hereby created and entitled "Enforcement" as follows,

NEW SECTION:

26-25. 18 Enforcement.

Enforcement of this section shall be the primary duty of the Zoning Officer.

SECTION XXII. Chapter 26 Section 25.19 of the Revised General Ordinances of the City of Sea Isle City, is hereby created and entitled "Penalties" as follows,

NEW SECTION:

26-25. 19 Penalties.

Each violation of this section shall be deemed a separate and distinct violation. Failure to obtain a landscaping permit will result in the following:

- a. The issuance of a summons with a fine no less than one hundred (\$100.00) dollars and not to exceed five hundred (\$500.00) dollars, per violation; and/or
- b. Ten (10) hours of community service.

SECTION XXIII. Chapter 26 Section 29.4 of the Revised General Ordinances of the City of Sea Isle City, entitled "Other Requirements" is hereby amended to delete the existing section in its entirety and replace same as follows,

DELETED SECTION:

26-29.4 Other Requirements.

Lighting shall additionally be designed to:

- a. Blend with the architectural style of buildings.
- b. Provide for safe movement of pedestrians and vehicles, and shall include low or mushroom type standards along pedestrian walkways.

REPLACEMENT SECTION:

26-29.4 Other Requirements.

Lighting shall additionally be designed to:

- a. Blend with the architectural style of buildings.
- b. Provide for safe movement of pedestrians and vehicles, and shall include low or mushroom type standards along pedestrian walkways or wall hung fixtures.
- c. Lighting standards of all rights-of-way should meet the Illuminating Engineering Society (IES) photometric requirements.
- d. The types of lights and fixtures used on the site should be consistent throughout.

1. Sternberg Lighting's Ripon A 1130A, 150 watt, colored black or Reno 1910-508-5, 100 watt, colored black or approved equivalent shall be installed.
 2. Bollards are recommended to be used to light pedestrian areas. Sternberg Lighting's 7701LB Birmingham 70 watt high pressure sodium with a four (4) foot mounting height, colored black or approved equivalent shall be installed.
- e. Not create a hazard to vehicular traffic within in the public street.

SECTION XXIV. Chapter 26 Sections 40 and 40.1 of the Revised General Ordinances of the City of Sea Isle City, are hereby amended to create this section entitled "Street Furnishings" as follows,

NEW SECTION:

26-40 STREET FURNISHINGS.

26-40.1 Purpose.

Street furnishings are the objects and equipment installed on streets for various purposes, which includes benches, bollards, streetlights, bicycle stands, trashcans, etc. Street furnishings have the potential to provide visual unity for the City and enhance the public realm. Additionally, a coordinated approach to furnishings allow for creativity and branding of Sea Isle.

SECTION XXV. Chapter 26 Sections 40.2 of the Revised General Ordinances of the City of Sea Isle City, are hereby amended to create this section entitled " Required Street Furnishings" as follows,

NEW SECTION:

26-40.2 Required Street Furnishings.

In the event street furnishings are to be installed on a City street the following street furnishing shall be utilized

- a. Benches.
 1. Benches are required on all sidewalks greater than eight (8) feet in width.
 2. Benches shall be placed adjacent to the curb and parallel to the street.
 3. Benches shall be placed every 100 linear feet or as determined by the City Engineer.
 4. Benches shall be the Prestige Series style #PP412 from the manufacturer Wabash Valley Manufacturing, Inc. six (6) foot with back and are surface mounted, welded wire pattern and mounting plate cover, colored black or approved equivalent.
- b. Trash cans.
 1. Trash cans are required on all sidewalks greater than 6 feet in width.
 2. Trash cans shall be placed adjacent to the curb.
 3. Trash cans shall be placed every 100 linear feet, alternating with the benches or as determined by the City Engineer.
 4. Trash cans shall be style #FR400 from the manufacturer Wabash Valley Manufacturing, Inc., thirty-two (32) gallon, welded wire pattern, colored black or approved equivalent.

The following street furnishings are required to be installed on all City-owned street:

- a. Tree grates.
 1. Tree grates are required where street trees are mandated along public right-of-ways.
 2. Tree grates shall be the Bond Street style #M4891 from the manufacturer Ironsmith, which are ADA compliant, cast from either gray iron or approved equivalent.
- b. Planters.

1. Planters are required where it has been determined that the required street trees may not be installed due to utilities or other obstructions.
 2. Planters shall be style #PL104 from the manufacturer Wabash Valley Manufacturing, Inc., and in height, welded wire pattern, colored black or approved equivalent.
- c. Lighting.
1. Lighting is required where to provide safe movement of vehicles and pedestrians.
 2. The types of lights and fixtures used on the site should be consistent throughout.
 3. Sternberg Lighting's Ripon A 1130A, 150 watt (black) or Reno 1910-508-5, 100 watt (black) or approved equivalent shall be installed for streetlights.
 4. Bollards are recommended to be used to light pedestrian areas. Sternberg Lighting's 7701LB Birmingham 70 watt high pressure sodium with a four (4) foot mounting height (black) or approved equivalent shall be installed.

SECTION XXVI. Chapter 26 Sections 41 and 41.1 of the Revised General Ordinances of the City of Sea Isle City, are hereby amended to create this section entitled "Architectural Design Review Guidelines" as follows,

NEW SECTION:

26-41 ARCHITECTURAL DESIGN REVIEW GUIDELINES.

26-41.1 Applicability.

This article shall apply to all site plan applications in a commercial zone.

SECTION XXVII. Chapter 26 Sections 41.2 of the Revised General Ordinances of the City of Sea Isle City, are hereby amended to create this section entitled "Architectural Design Review Guidelines" as follows,

NEW SECTION:

26-41.2 Architectural Design Review Guidelines.

The following guidelines shall be used to prepare and review the physical, visual and spatial characteristics and overall appearance of a development plan in relationship to the existing streetscape, neighborhood and district in which such is located and to the City generally.

a. An individual development plan shall not be considered on its own, but with sufficient regard to the existing streetscape neighborhood and district in which it is located and to the City generally. Consideration and respect shall be given to abutting and nearby properties and the existing buildings, site improvements and open spaces located thereon and in adjacent portions of the public right-of-way.

b. The physical, visual and spatial characteristics of a streetscape, neighborhood, district and the City generally shall be established and reinforced through the consistent use of compatible design elements. Such design elements shall relate the physical, visual and spatial characteristics of an individual development to other existing and planned developments in a harmonious manner, resulting in a coherent overall development pattern for an entire streetscape, neighborhood and district and the City generally. In the case of an addition or renovation to an existing building, the development plan shall also relate to and reinforce design elements of such existing building. Design elements to be addressed in a development plan shall include but not be limited to the following:

1. Scale, as defined by the height of a building and its component elements.
2. Massing, as defined by the shape, dimensions and volume of the solid form of a building.
3. Proportion, as defined by comparing the width of a building wall to the height of the same.

4. Rhythm of solid to voids, as defined by comparing the solid portions of a building wall to the voids formed by door and window openings and recesses in the same.
5. Horizontal courses, as defined by the base course, middle wall section, belt courses and cornice of a building.
6. Projections and recesses, as defined by the projections formed by such elements as bay windows, dormers, cornices and eaves from the building wall surface and the indentations formed by such elements as porch and window recesses from the same.
7. Roof form, as defined by the type, shape and pitch of the roof of a building.
8. Entrance treatment, as defined by the placement and articulation of the entrance to a building.
9. Street orientation, as defined by the visual and functional orientation of the front facade and entrance of a building to the street and sidewalk.
10. Architectural style, materials, colors and details.

SECTION XXVIII. Chapter 26 Sections 42 and 42.1 of the Revised General Ordinances of the City of Sea Isle City, are hereby amended to create this section entitled "Architectural Design Standards" as follows,

NEW SECTION:

26-42 ARCHITECTURAL DESIGN STANDARDS.

26-42.1 Applicability.

This article shall apply to all site plan applications in a commercial zone.

SECTION XXIX. Chapter 26 Sections 42.2 of the Revised General Ordinances of the City of Sea Isle City, are hereby amended to create this section entitled "Purpose" as follows,

NEW SECTION:

26-42.2 Purpose.

The purpose of the architecture design standards is to establish a set of principles and requirements that reflect the City's desire for a coastal seashore village. These principles will enhance the commercial zones and encourage development and redevelopment at a scale that is pedestrian-oriented. The guidelines work to provide standards that allow for flexibility and creativity while encouraging high-quality development. High-quality development is long-lasting and will increase property values. The goal is to create buildings that are attractive, improve the City's commercial zones image and enliven the streetscape.

SECTION XXX. Chapter 26 Sections 42.3 of the Revised General Ordinances of the City of Sea Isle City, are hereby amended to create this section entitled "Design Standards" as follows,

NEW SECTION:

26-42.3 Design Standards.

The following standards shall be used to prepare and review the architectural design of all buildings and structures in a development plan. All buildings shall be designed to convey a coastal seashore village scale and character. Where a development plan involves an existing building or a site upon which an existing building is located and the existing

building will remain, the existing building shall be repaired, renovated and restored to comply with this article.

- a. Massing.
 1. Building wall offsets, including both projections and recesses, shall be provided along any street-facing building wall measuring greater than fifty (50) feet in length in order to provide architectural interest and variety to the massing of a building and relieve the negative visual effect of a single, long wall.
 2. The maximum spacing between such vertical offsets shall be thirty-three (33) feet. The minimum projection or depth of any individual vertical offset shall not be less than two (2) feet.
 3. Vertical offsets can include pilasters, projecting bays, changes in façade materials, balconies, etc.
- b. Articulation.
 1. All street-facing building walls shall have a clearly defined base, body and cap.
 2. The base of the building shall align with either the kickplate or sill level of the first story.
 3. The body section of a building may be horizontally divided at floor, lintel or sill levels with belt courses.
 4. The architectural treatment of a façade shall be completely continued around all street facing façades of a building. All sides of a building shall be architecturally designed so as to be consistent with regard to style, materials, colors and details..
- c. Roof.
 1. The shape, pitch and color of a roof shall be architecturally compatible with the style, materials and colors of such building.
 2. If the building has a flat roof, a parapet shall project vertically to hide any roof-mounted mechanical equipment. Additionally, a cornice shall project out horizontally from the façade and shall be ornamented with moldings, brackets or other details.
 3. Pitched roofs are encouraged to have dormers, chimneys, cupolas and other similar elements to provide architectural interest. These elements shall be compatible with the style, materials, colors and details of the building.
 4. Roofline offsets shall be provided along any roof measuring more than 40 feet in length in order to provide architectural interest and articulation to a building.
 5. When viewed in elevation, no more than fifty (50) percent of the roofline shall be flat. In this instance, mansard roofs are considered to be flat roofs.
 6. Roof top heating, ventilating and air-conditioning (HVAC) systems, exhaust pipes and stacks, satellite dishes and other telecommunications receiving devices shall be screened or otherwise specially treated to be inconspicuous as viewed from the primary or secondary street and adjacent properties.
- d. Transparency.
 1. Ground floor uses in the commercial districts shall have large pane display windows on the street-facing frontages. Such windows shall be framed by the surrounding wall and shall be a minimum of sixty (60%) percent of the total ground level facade area.
 2. Transoms above display windows in the commercial districts are encouraged.
 3. Windowsills shall not be more than three (3) feet above the sidewalk in the commercial districts. Base panels or bulkheads are encouraged between the sidewalk and the windowsills.
 4. Windows shall be vertically proportioned (taller than wider) where possible.

5. Buildings of architectural styles that normally have windows with muntins (vertical dividers) or divided lights shall utilize those types of windows.
 6. Glass blocks are not permitted on facades that abut a public street in the commercial districts.
 7. Exterior security grates are prohibited.
- e. Entrances.
1. The primary entrance to any building shall front on a public street.
 2. All entrances to a building shall be defined and articulated by utilizing such elements as lintels, pediments, pilasters, columns, porticos, porches, overhangs, railings, balustrades and other such elements, where appropriate.
 3. Any such element utilized shall be architecturally compatible with the style, materials, colors and details of such building.
- f. Materials.
1. Building facades visible from a public street shall consist of durable, long-lasting materials. Appropriate materials include brick, stone, cast stone, clapboard, cedar shakes or other high-quality material.
 2. Each structure or building should have a maximum of three colors, excluding the roof.
- g. Lighting.
1. Light fixtures attached to the exterior of a building shall be designed to be architecturally compatible with the style, materials, colors and details of such building and other lighting fixtures used on the site.
 2. The type of light source used on buildings, signs, parking areas, pedestrian walkways and other areas of a site shall be the same or compatible.
 3. The use of low-pressure sodium or mercury vapor lighting either attached to buildings or to light the exterior of buildings shall be prohibited.
- h. Awnings and Canopies.
1. Awnings are encouraged in the commercial zones to add visual interest to the streetscape and to provide occasional shelter for pedestrians.
 2. Awnings or canopies that extend over the right-of-way of a street must maintain a nine (9) foot clearance. These awnings/canopies may extend a maximum of three and one-half (3.5) feet from the building façade.
 3. Awnings and canopies shall be designed proportionate to building height, massing, materials and color.

SECTION XXXI. Chapter 26 Section 52.13 of the Revised General Ordinances of the City of Sea Isle City, entitled "Landscaping" is hereby amended to delete the existing section in its entirety and replace same as follows,

DELETED SECTION:

26-52.13 Landscaping.

All areas not covered by buildings, driveways, pedestrian walkways or parking areas shall be landscaped in accordance with Section 26-25.

REPLACEMENT SECTION:

26-52.13 Landscaping.

All areas not covered by buildings, driveways, pedestrian walkways or parking areas shall be landscaped in accordance with Section 26-25.

- a. Landscape screening is also required for:
 1. Ground-mounted heating, ventilation and air conditioning equipment visible from a public street.

2. Above ground tanks and utility meters visible from a public street.

SECTION XXXII. Chapter 26 Section 53.13 of the Revised General Ordinances of the City of Sea Isle City, entitled "Landscaping" is hereby amended to delete the existing section in its entirety and replace same as follows,

DELETED SECTION:

26-53.13 Landscaping.

All areas not covered by buildings, driveways, pedestrian walkways or parking areas shall be landscaped in accordance with Section 26-25.

REPLACEMENT SECTION:

26-53.13 Landscaping.

All areas not covered by buildings, driveways, pedestrian walkways or parking areas shall be landscaped in accordance with Section 26-25.

- a. Landscape screening is also required for:
 1. Ground-mounted heating, ventilation and air conditioning equipment visible from a public street.
 2. Above ground tanks and utility meters visible from a public street.

SECTION XXXIII. Chapter 26 Section 54.13 of the Revised General Ordinances of the City of Sea Isle City, entitled "Landscaping" is hereby amended to delete the existing section in its entirety and replace same as follows,

DELETED SECTION:

26-54.13 Landscaping.

All areas not covered by buildings, driveways, pedestrian walkways or parking areas shall be landscaped in accordance with Section 26-25.

REPLACEMENT SECTION:

26-54.13 Landscaping.

All areas not covered by buildings, driveways, pedestrian walkways or parking areas shall be landscaped in accordance with Section 26-25.

- a. Landscape screening is also required for:
 1. Ground-mounted heating, ventilation and air conditioning equipment visible from a public street.
 2. Above ground tanks and utility meters visible from a public street.

SECTION XXXIV. Chapter 26 Section 55.12 of the Revised General Ordinances of the City of Sea Isle City, entitled "Landscaping" is hereby amended to delete the existing section in its entirety and replace same as follows,

DELETED SECTION:

26-55.12 Landscaping.

All areas not covered by buildings, driveways, pedestrian walkways or parking areas shall be landscaped in accordance with Section 26-25.

REPLACEMENT SECTION:

26-55.12 Landscaping.

All areas not covered by buildings, driveways, pedestrian walkways or parking areas shall be landscaped in accordance with Section 26-25.

- a. Landscape screening is also required for:
 1. Ground-mounted heating, ventilation and air conditioning equipment visible from a public street.
 2. Above ground tanks and utility meters visible from a public street.

SECTION XXXV. Chapter 26 Section 56.13 of the Revised General Ordinances of the City of Sea Isle City, entitled "Landscaping" is hereby amended to delete the existing section in its entirety and replace same as follows,

DELETED SECTION:

26-56.13 Landscaping.

All areas not covered by buildings, driveways, pedestrian walkways or parking areas shall be landscaped in accordance with Section 26-25.

REPLACEMENT SECTION:

26-56.12 Landscaping.

All areas not covered by buildings, driveways, pedestrian walkways or parking areas shall be landscaped in accordance with Section 26-25.

- a. Landscape screening is also required for:
 1. Ground-mounted heating, ventilation and air conditioning equipment visible from a public street.
 2. Above ground tanks and utility meters visible from a public street.

SECTION XXXVI. Chapter 26 Section 57.12 of the Revised General Ordinances of the City of Sea Isle City, entitled "Landscaping" is hereby amended to delete the existing section in its entirety and replace same as follows,

DELETED SECTION:

26-57.12 Landscaping.

All areas not covered by buildings, driveways, pedestrian walkways or parking areas shall be landscaped in accordance with Section 26-25.

REPLACEMENT:

26-57.12 Landscaping.

All areas not covered by buildings, driveways, pedestrian walkways or parking areas shall be landscaped in accordance with Section 26-25.

- a. Landscape screening is also required for:
 1. Ground-mounted heating, ventilation and air conditioning equipment visible from a public street.
 2. Above ground tanks and utility meters visible from a public street.

SECTION XXXVII. Chapter 30 Section 2.4 of the Revised General Ordinances of the City of Sea Isle City, entitled "Site Plan Requirements" is hereby amended to add the following sections,

NEW SECTION

30-2.4 Site Plan Requirements.

- kk. Show proposed art (murals, sculptures, etc.) that would be visible from a public street.
- ll. Show all requirements under the Americans with Disabilities Act of 1990 for parking and pedestrian and vehicular movement.

SECTION XXXVIII. Chapter 30 Section EXHIBIT A of the Revised General Ordinances of the City of Sea Isle City, entitled "Site Plan Checklist Requirements" is hereby amended to add the following requirements in numerical order,

NEW SECTION:

Exhibit A Site Plan Checklist Requirements.

- 37. Show proposed art (murals, sculptures, etc.) that would be visible from a public street.
- 38. Show all requirements under the Americans with Disabilities Act of 1990 for parking and pedestrian and vehicular movement.

SECTION XXXIX. Chapter 32 Section 6.5d of the Revised General Ordinances of the City of Sea Isle City, entitled "Streets" is hereby amended to add the following sections to the end of subsection "d",

NEW SECTION:

32-6.5d Streets.

- 1. See 32-6.7 for standards for sidewalks in commercial zones.
- 2. Sidewalks in residential zones shall follow the standards contained in the Residential Site Improvement Standards at N.J.A.C. 5:21-1.2.

SECTION XXXX. Chapter 32 Section 6.7 of the Revised General Ordinances of the City of Sea Isle City, entitled "Sidewalk, Curbs and Gutters" is hereby amended to delete the existing section in its entirety and replace same as follows,

DELETED SECTION:

32-6.7 Sidewalk, Curbs and Gutters.

a. Sidewalks shall be installed on one (1) or both sides of streets, as the Planning Board may direct, and at such widths as may be determined by the Planning Board.

b. All sidewalks shall be a minimum of four (4') feet wide and four (4") inches thick, except at driveway crossings where they shall be six (6") inches thick.

c. Concrete curbs, gutters and sidewalks shall meet the following requirements:

- 1. Materials for concrete shall conform to the requirements of the New Jersey State Highway Department Standard Specifications. Concrete shall be Class B. Metal forms shall be used for the construction of concrete curbs. Curbs are to be six (6") inches wide and eighteen (18") inches deep and are to be constructed true to the required lines, grades and curvatures.

2. At all intersections a four (4') foot wide area of the sidewalk on each roadway corner shall be gradually ramped to meet the roadway at grade to enable persons in wheelchairs to easily cross roadways.

REPLACEMENT SECTION:

32-6.7 Sidewalk, Curbs and Gutters.

- a. Sidewalks shall be installed on one (1) or both sides of streets, as the Planning Board may direct, and at such widths as may be determined by the Planning Board.
- b. All sidewalks shall be a minimum of four (4') feet wide and four (4") inches thick, except at driveway crossings where they shall be six (6") inches thick.
- c. All sidewalks along a commercial zone shall be a minimum of six (6) feet in width.
- d. Concrete curbs, gutters and sidewalks shall meet the following requirements:
 1. Materials for concrete shall conform to the requirements of the New Jersey State Highway Department Standard Specifications. Concrete shall be Class B. Metal forms shall be used for the construction of concrete curbs. Curbs are to be six (6") inches wide and eighteen (18") inches deep and are to be constructed true to the required lines, grades and curvatures.
 2. At all intersections a four (4') foot wide area of the sidewalk on each roadway corner shall be gradually ramped to meet the roadway at grade to enable persons in wheelchairs to easily cross roadways.
- e. In any area of the City where sidewalks do not line up, the transition shall be as approved by the Planning Board after review by the City engineer.

SECTION XXXXI. Severability. If for any reason any section of this Ordinance shall be declared illegal by any Court of competent jurisdiction, the remaining sections of the Ordinance shall remaining full force and effect notwithstanding.

SECTION XXXXII. Repealer. Any Ordinance or provision thereof inconsistent with this Ordinance is hereby repealed to the extent of such inconsistency

SECTION XXXXIII. Publication. This Ordinance shall take effect immediately upon the adoption and publication in accordance with the law.

City of Sea Isle City

John J. Divney, Council President

Mayor Leonard C. Desiderio

I HEREBY CERTIFY THAT the foregoing ordinance was duly passed by the City Council of the City of Sea Isle City, New Jersey, on first reading at the regular meeting of said Council held on the 27th day of September, 2011 and was taken up for second reading, public hearing and final passage at the regular meeting of said Council held on the 25th day of October, 2011 in the Public Safety Building, 233 John F. Kennedy Blvd., Sea Isle City, New Jersey at 10:00 a.m.

Cindy L. Griffith, City Clerk

PROPOSED LIST OF DUNE VEGETATION

Adapted vegetation is an integral part of the overall dune system that is vital to the protection to the City from coastal storms. This vegetation not only aids sand deposition and accumulation but also serves to retain the sand in the dune system. Accordingly, the selection of plants that will survive and flourish in the harsh environment of the dune system is critical. The Sea Isle City dune system is a diverse ecosystem exposed to wind and salt spray. The dune soils are sandy; and as such are droughty. In recognition of these conditions, the following vegetation list has been divided into three main categories based upon exposure and soil moisture conditions: (A) Salt Spray Tolerant Vegetation, (B) Sheltered Upland Dune Vegetation and (C) Sheltered Wetland Dune Vegetation based on the species tolerance of conditions and location in the dune system. The criteria for selection of the following plants for dune re-vegetation with native species include: (1) adaptation to survival in the dune environment; (2) resistance to disease and pests; (3) drought hardiness after they are established; (4) ability to be pruned to control shape and height, if trimming is begun early in the tree/shrub development, and (5) availability from nurseries.

The following information has been provided through literature review, direct dune observations in natural areas of coastal barrier island communities and Island Beach State Park, in addition to personal experience and communications with other qualified professionals in the field. One asterisk (*) indicates that this species is used by wildlife for food (including pollinators) and cover. Two asterisks (**) indicates that the plant has high wildlife value. (E) indicates that the plant is evergreen.

A. Salt Spray Tolerant Vegetation

- | | | |
|-------------------------|--|--------------------------------|
| 1. Trees: | | |
| <u>Common Name</u> | | <u>Scientific Name</u> |
| Eastern red cedar *(E) | | <i>Juniperus virginiana</i> |
| Black cherry ** | | <i>Prunus serotina</i> |
| Winged sumac ** | | <i>Rhus copallinum</i> |
| Smooth sumac ** | | <i>R. glabra</i> |
| 2. Shrubs: | | |
| <u>Common Name</u> | | <u>Scientific Name</u> |
| Northern bayberry **(E) | | <i>Morella pensylvanica</i> |
| Wax myrtle * | | <i>M. cerifera</i> |
| Beach plum * | | <i>Prunus maritima</i> |
| Groundsel * | | <i>Baccharis halimifolia</i> |
| Bearberry (E) | | <i>Arctostaphylos uva-ursi</i> |
| Beach-heather (E) | | <i>Hudsonia tomentosa</i> |



Salt Spray Tolerant Vegetation (continued)

3. **Vines:**
- | <u>Common Name</u> | <u>Scientific Name</u> |
|---------------------|------------------------------------|
| Virginia creeper ** | <i>Parthenocissus quinquefolia</i> |
4. **Herbs:**
- | <u>Common Name</u> | <u>Scientific Name</u> |
|---------------------------|-------------------------------------|
| American beachgrass | <i>Ammophila breviligulata</i> |
| Sea rocket | <i>Cakile edentula</i> |
| Seaside spurge | <i>Euphorbia polygonifolia</i> |
| Coastal panicgrass * | <i>Panicum amarum var. amarulum</i> |
| Seaside goldenrod ** | <i>Solidago sempervirens</i> |
| Beach pea * | <i>Lathyrus japonicus</i> |
| Dusty miller | <i>Artemisia stelleriana</i> |
| Rough cocklebur | <i>Xanthium strumarium</i> |
| Prickly pear (cactus)*(E) | <i>Opuntia compressa</i> |

B. Sheltered Upland Dune Vegetation

1. **Trees:**
- | <u>Common Name</u> | <u>Scientific Name</u> |
|------------------------|-----------------------------|
| Pitch pine **(E) | <i>Pinus rigida</i> |
| Eastern red cedar *(E) | <i>Juniperus virginiana</i> |
| Sassafras ** | <i>Sassafras albidum</i> |
| Hackberry ** | <i>Celtis occidentalis</i> |
| American holly *(E) | <i>Ilex opaca</i> |
| Wild persimmon ** | <i>Diospyros virginiana</i> |
| Scarlet oak ** | <i>Quercus coccinea</i> |
| Black oak ** | <i>Q. valutina</i> |
| Blackjack oak ** | <i>Q. marilandica</i> |
| Scrub oak ** | <i>Q. ilicifolia</i> |
| Pignut hickory * | <i>Carya glabra</i> |
| Mockernut hickory * | <i>C. tomentosa</i> |
| Hop-hornbeam * | <i>Ostrya virginiana</i> |
| Winged sumac ** | <i>Rhus copallinum</i> |
| Smooth sumac ** | <i>R. glabra</i> |



Sheltered Upland Dune Vegetation (continued)

2. Shrubs:

<u>Common Name</u>	<u>Scientific Name</u>
Northern bayberry ** (E)	<i>Morella pensylvanica</i>
Wax myrtle *	<i>M. cerifera</i>
Beach plum *	<i>Prunus maritime</i>
Groundsel *	<i>Baccharis halimifolia</i>
Inkberry holly ** (E)	<i>Ilex glabra</i>
Low rose **	<i>Rosa carolina</i>
Sweet fern *	<i>Comptonia peregrina</i>
Toughleaf dogwood	<i>Cornus asperifolia</i>

3. Vines:

<u>Common Name</u>	<u>Scientific Name</u>
Climbing bittersweet *	<i>Celastrus scandens</i>
Trumpet vine *	<i>Campsis radicans</i>

4. Herbs:

<u>Common Name</u>	<u>Scientific Name</u>
Bitter panicgrass *	<i>Panicum amarum</i>
Coastal panicgrass *	<i>Panicum amarum</i> var. <i>amarulum</i>
Saltmeadow cordgrass	<i>Spartina patens</i>
Switchgrass **	<i>Panicum virgatum</i>
Bluestem	<i>Schizachyrium scoparium</i>
Seaside goldenrod **	<i>Solidago sempervirens</i>
Beach pea *	<i>Lathyrus japonicus</i>
Partridge pea *	<i>Chamaecrista fasciculata</i>
Rough cocklebur	<i>Xanthium strumarium</i>
Dusty miller	<i>Artemisia stelleriana</i>
Prickly pear * (E)	<i>Opuntia compressa</i>
Spanish bayonet * (E)	<i>Yucca filamentosa</i>



C. Sheltered Wetland Dune Vegetation (Interdunal Swales)

1. Trees:

<u>Common Name</u>	<u>Scientific Name</u>
Red maple *	<i>Acer rubrum</i>
Serviceberry *	<i>Amelanchier arborea</i>
Shadbush *	<i>A. canadensis</i>
Southern red oak *	<i>Quercus falcata</i>
Willow oak *	<i>Q. phellos</i>
Black gum *	<i>Nyssa sylvatica</i>
Sweetbay *(E)	<i>Magnolia virginiana</i>
Atlantic white cedar (E)	<i>Chamaecyparis thyoides</i>

2. Shrubs:

<u>Common Name</u>	<u>Scientific Name</u>
Maleberry *	<i>Lyonia ligustrina</i>
Black chokeberry *	<i>Photinia melanocarpa</i>
Red chokeberry *	<i>P. pyrifolia</i>
Inkberry **(E)	<i>Ilex glabra</i>
Southern arrowwood **	<i>Virburnum dentatum</i>
Sweet pepperbush *	<i>Clethra alnifolia</i>
Black huckleberry **	<i>Gaylussacia baccata</i>
Winterberry **	<i>Ilex verticillata</i>
Highbush blueberry **	<i>Vaccinium corymbosum</i>

3. Herbs:

<u>Common Name</u>	<u>Scientific Name</u>
Saltmeadow cordgrass	<i>Spartina patens</i>
Switchgrass **	<i>Panicum virgatum</i>
Spike grass	<i>Distichlis spicata</i>
Saltmeadow rush	<i>Juncus gerardii</i>
Salt-marsh bulrush	<i>Scirpus robustus</i>
Common threesquare	<i>S. pungens</i>

APPENDIX C

Sea Isle City Forestry Training Records

Please contact Todd Wyckoff at the New Jersey Community Forestry Program to update or correct the information found in this report: todd.wyckoff@dep.state.nj.us or 609-292-2532. If the tables are blank then there are no records on file.

CORE Trained Representatives

Municipality	Name	Type of Representative	Primary Contact
Sea Isle City	Michael McHale	Elected Official	YES
Sea Isle City	Eleanor Moore	Volunteer	YES
Sea Isle City	Jack Moore	Municipal Employee	NO

2010 CEU's To Date

Course Participant	Course Title	Course Date	CEU Credits
John Manganaro	Sustainable Jersey 3	9/29/2010	2
John Mazurie	Shade Tree Federation Meeting 1-3 A	10/22/2010	3

Please contact Todd Wyckoff at the New Jersey Community Forestry Program to update or correct the information found in this report: todd.wyckoff@dep.state.nj.us or 609-292-2532. If the tables are blank then there are no records on file.

CORE Trained Representative

Name	TypeofRepresentative	PrimaryContact	Date Of Training
Anne Organ	Volunteer	YES	10/26/2012
Michael McHale	Elected Official	YES	10/22/2010
Dolores Volker	Volunteer	NO	10/26/2012
Alan Nesensohn	Volunteer	NO	10/26/2012
Gerri Nesensohn	Volunteer	NO	10/26/2012
Eleanor Moore	Volunteer	NO	10/24/2008
Jack Moore	Municipal Employee	NO	10/24/2008

2012 CEU's To Date

CourseParticipant	CourseTitle	CourseDate	CEUCredits
Peter Lomax	Shade Tree Federation Meeting Day 1	10/26/2012	5.5
Michael McHale	Shade Tree Federation Meeting Day 1	10/26/2012	5.5

NATURAL RESOURCES INVENTORY

CITY OF SEA ISLE CITY

CAPE MAY COUNTY, NEW JERSEY



February 2007

Adopted by the City of Sea Isle City Planning Board on



Maser Consulting PA
American Metro Center
100 American Metro Boulevard
Suite 152
Hamilton, NJ 08619

Natural Resources Inventory

City of Sea Isle City

Cape May County, New Jersey

February 2007

Prepared by:

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Christopher Walker, Cultural Resources Specialist
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Daniel Bloch, Planner
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Table of Contents

EXECUTIVE SUMMARY	1
1.0 LOCATION.....	1
1.1 SEA ISLE CITY LOCATION	1
1.2 REGULATORY JURISDICTIONS.....	1
1.3 EXISTING LAND USE AND LAND COVER.....	1
2.0 PHYSICAL RESOURCES AND CONDITIONS	4
2.1 CLIMATE	4
2.2 PHYSIOGRAPHIC PROVINCE	7
2.3 GEOLOGY	9
2.4 TOPOGRAPHY AND SLOPES.....	9
2.5 SOILS	10
2.4 CONTAMINATED SITES.....	11
3.0 WATER RESOURCES AND CONDITIONS.....	12
3.1 GROUND WATER RESOURCES	12
3.1.1 <i>Aquifers</i>	12
3.1.2 <i>Aquifer Recharge</i>	14
3.1.3 <i>Well Head Protection Area</i>	15
3.2 WETLANDS	16
3.3 WATERSHEDS	17
3.4 SURFACE WATER QUALITY	18
3.4.1 <i>Surface Water Classifications</i>	18
3.4.2 <i>Shellfish Harvest Areas</i>	19
3.5 FLOODWAYS AND FLOODPLAINS.....	19
4.0 BIOLOGICAL RESOURCES	20
4.1 BOTANICAL RESOURCES.....	20
4.1.1 <i>Coastal Plant Communities</i>	20
4.1.2 <i>Inland Plant Communities</i>	25
4.1.3 <i>Rare Vegetation Communities and Species</i>	25
4.2 ZOOLOGICAL RESOURCES	26
4.2.1 <i>Aquatic Animals</i>	26
4.2.2 <i>Terrestrial Animals</i>	29
4.3 RARE SPECIES AND SPECIES OF SPECIAL CONCERN	33
4.4 CRITICAL HABITATS AND SPECIAL ECOLOGICAL COMMUNITIES	34
4.4.1 <i>Federal Habitat Complexes</i>	34
4.4.2 <i>State of New Jersey Critical Habitat Mapping</i>	34
4.4.3 <i>NJ Natural Heritage Program Priority Sites</i>	35
5.0 CULTURAL RESOURCE INVENTORY.....	36
5.1 PREHISTORIC CONTEXT	36
5.2 HISTORIC CONTEXT	37
5.3 OPEN SPACE / PUBLIC LAND	39
5.4 AESTHETIC RESOURCES	40

Figures

1. Seasonal Offshore Wind Direction
2. Physiographic Provinces of New Jersey
3. Groundwater Detail
4. Well Head Protection Areas

Tables

1. Land Use/Land Cover, 2002
2. Temperatures Measured at Atlantic City Marina and Belleplain State Forest
3. Precipitation Measured at Atlantic City Marina and Belleplain State Forest
4. Development Limitations of Soils
5. Known Contaminated Sites List
6. Plants of the Marine Intertidal Gravel/Sand Beach Community
7. Plants of the Dunegrass Community
8. Plants of the Beach Heather Community
9. Plants of the Shrub Thicket Community
10. Plants of the Dune Woodland Community
11. Plants of the High Marsh Community
12. Plants of the Low Marsh Community
13. Plants of the Brackish Tidal Marsh Community
14. Plants of the Freshwater Tidal Marsh Community
15. Plants of Submerged Aquatic Vegetation Beds
16. Rare Plants of Sea Isle City
17. New Jersey Saltwater Fishes
18. New Jersey Mammals
19. Birds of Cape May County, New Jersey
20. Cape May County Reptiles
21. Cape May County Amphibians
22. Butterflies of Cape May County, New Jersey
23. Rare Vertebrate Animals of Sea Isle City
24. Eligible or Potentially Eligible Structures from City of Sea Isle City Cultural Resource Survey

Appendix - Maps

- Location
- Land Use/Land Cover
- Existing Sewer Service Area
- Geology
- Soils
- Contaminated Sites
- Water Resources
- Wetlands
- Watershed
- Flood Zone Designations
- Threatened and Endangered Species
- Natural Heritage Priority Sites
- Historical Properties
- Parks and Open Space

EXECUTIVE SUMMARY

Sea Isle City has never prepared an inventory of natural resources, although such resources were sometimes mentioned in Master Planning documents. A detailed natural resources inventory serves to inform the planning process by providing a factual basis for land use decision-making. The mapping and description of sensitive areas facilitates the proper use and protection of existing natural areas, the appropriate development of the few remaining vacant, privately-owned land parcels and the redevelopment of developed lands. This inventory can serve in the refinement of zoning regulations and land use ordinances. The identification and understanding of natural systems and their inherent and regulatory limitations for development serve to prevent future environmental problems and associated mitigation costs. The inventory can identify possibilities for regional partnerships and planning activities that can improve environmental conditions and quality of life in the City.

Sea Isle City is located on the Outer Coastal Plain of New Jersey in the northeastern portion of Cape May County and represents one of its 16 municipalities. Occupying a land area of more than 1,400 acres (approximately 2.2 square miles), Sea Isle City includes most of Ludlams Island. It is bordered to the south by Avalon, to the west by the wetlands of Dennis Township, to the north by Strathmere (Upper Township), and to the east by the Atlantic Ocean.

Geologically, the City is underlain by the unconsolidated sediments of the Cohansey and Cape May Formations. The Atlantic City 800-foot Sand Aquifer System of the Lower Kirkwood Formation provides drinking water to residents of Sea Isle. The City is divided between the Cape May Bays and Tributaries East watershed and the Atlantic Coast watershed. Three subwatersheds of further subdivide Sea Isle City. These subwatersheds are the Corsons Inlet and Sound/Ludlams Bay watershed, the Cape May Bays (Reubens Wharf-Big Elder Creek watershed) and the Atlantic Coast watershed.

The entire municipality of Sea Isle City is located within the 100-year floodplain of the Atlantic Ocean and surrounding waters, including Ludlams Bay, Townsends Channel and Ingram Thorofare. Large expanses of wetlands are present. These wetlands include High and Low Saltmarsh, Brackish and Freshwater Tidal Marshes. There are also a number of upland plant communities present. These include the Marine Intertidal Gravel/Sand Beach, Dunegrass, Beach Heather, Shrub Thicket and Dune Woodland Communities. The extent of floral diversity in plant communities is mirrored by a similar diversity in fauna, particularly for birds and butterflies. Numerous threatened and endangered plants and animals are documented to occur in Sea Isle City. Portions of Sea Isle City are included within three Natural Heritage Program Priority Sites: Avalon-Stone Harbor Marsh, Corson Inlet South/Whale Beach and Townsends Inlet.

Sea Isle City has retained a portion of its historical heritage. Properties have been identified in Sea Isle City that are eligible for listing on the National and New Jersey Registers of Historic Places. The sum of these resources and the awareness thereof helps to establish a sense of place for Sea Isle City citizens. This inventory can provide the framework for planning the future of the City. Valuable environmental resources can be preserved and the restoration of degraded resources can be undertaken.

The mapping and description of sensitive areas facilitates the proper use and protection of existing natural areas, the appropriate development of the few remaining vacant, privately-owned land parcels and the redevelopment of developed lands. This inventory can serve in the refinement of zoning regulations and land use ordinances and in targeting land appropriate for preservation. The identification and understanding of natural systems and their inherent and regulatory limitations for development serve to prevent future environmental problems and associated mitigation costs. The inventory can identify possibilities for regional partnerships and planning activities that can protect environmental resources as well as the quality of life in the Sea Isle City.

1.0 LOCATION

1.1 Sea Isle City Location

Sea Isle City is located in the northeastern portion of Cape May County and represents one of its 16 municipalities. Cape May County forms the lower portion of a peninsula at the southern tip of the State of New Jersey. Occupying a land area of more than 1,400 acres (approximately 2.2 square miles), Sea Isle City includes most of Ludlams Island. It is bordered to the south by Avalon, to the west by the wetlands of Dennis Township, to the north by Strathmere (Upper Township), and to the east by the Atlantic Ocean (See Location Map in Appendix).

Separated from the mainland by the intercoastal waterway, Sea Isle City is a barrier island. Access to the island is from the John F. Kennedy Boulevard Bridge and Sea Isle Boulevard (County Route 625) which is a causeway to the Garden State Parkway and U.S. Route 9. Ocean Drive is the other access which connects to coastal communities to the north and south (Previti 2002).

1.2 Regulatory Jurisdictions

The State of New Jersey has established several areas within the State for extra protection. These are the Pinelands Area, the Coastal Zone, the New Jersey Meadowlands and the Highlands Region. Rules and regulations have been promulgated by the State to regulate development in these areas. Sea Isle City is completely encompassed the Coastal Zone.

The Federal Coastal Zone Management Act of 1972 gave States the authority to devise strategies and policies to manage development and use of coastal land and water areas. The Coastal Zone in New Jersey is regulated under the Coastal Permit Program Rules (N.J.A.C. 7:7) and the Coastal Zone Management Rules (N.J.A.C. 7:7E). The three major coastal statutes giving authority for the development of these rules are the Wetlands Act of 1970, the Waterfront Development Law and the Coastal Area Facility Review Act. The Freshwater Wetlands Protection Act allows the regulation of activities in freshwater wetlands within the Coastal Zone, as well as in other parts of the state. Lands that are tidally flowed are owned by the State of New Jersey. Most activities proposed below the mean high water line of any tidal water body require review and approval from the New Jersey Department of Environmental Protection ("NJDEP") Bureau of Tidelands. The United State Army Corps of Engineers also regulates activities conducted below the mean high water line and within wetlands that are tributary to a tidal water body and located within 1,000 feet from the mean high water line.

1.3 Existing Land Use and Land Cover

Sea Isle City is a barrier island encompassing over 1,650 acres of land and water on Ludlams Island and has very limited land available for development. The NJDEP recently released a Draft of the 2002 Land Use / Land Cover data for the Cape May Watershed Management Area ("CMWMA"), which can also be seen on the 2002 Land Use / Land Cover Map in the appendix. This data is based on 2002 aerial photographic images of the area. Figures 21 and 22 show the existing land use patterns for Sea Isle City based on this data. Figure 22 demonstrates that approximately half of the City's land is developable and half undevelopable. Urban and barren lands combined occupy just less than 50 percent (820 acres) of the 1,650 acres within the City's Limits. Water bodies and wetlands cover the other 50 percent (830 acres).

Residential uses occupy the majority (609 acres) of the 726 acres of developed urban lands, most of which consists of single family and two family residential dwelling units (594 acres). In addition there are a limited number of apartments. The remaining 55 acres are developed with mixed commercial and residential uses and recreational uses. Approximately 835 acres of Sea Isle are uninhabitable water bodies and wetlands. Most of this area is covered by tidal rivers, inland bays, other tidal waters, and saline marshes. These high density residential properties

are located south of 22nd Street. The existing properties north of 22nd Street are developed as single-family and 2-4 family residential at medium densities and occupy approximately 13.5 acres.

Commercial uses are limited (61.5 acres), most of which occur in a small commercial district near the JFK Boulevard and Ocean Drive intersection with some scattered businesses along the major roads. The remaining urban lands are generally developed with mixed commercial and residential uses, and recreational uses. Sea Isle City has no lands currently being used for agricultural or industrial purposes and minimal lands have forestry.

Approximately 830 acres of Sea Isle are uninhabitable water bodies and wetlands. Most of the water bodies consist of tidal rivers, inland bays, other tidal waters, and saline marshes, which would include portions of Ludlams Thorofare and Ludlams Bay.

<u>Table 1: Land Use / Land Cover, 2002</u>		
Land Use / Land Cover Type	Acreage	Percent
TOTAL	1,658.40	100.00%
Urban	726.57	43.81%
Commercial/Services	61.58	3.71%
Residential	609.03	36.72%
Residential, High Density Or Multiple Dwelling	594.40	35.84%
Residential, Rural, Single Unit	1.07	0.06%
Residential, Single Unit, Medium Density	13.56	0.82%
Mixed Urban or Built-Up Land	5.41	0.33%
Athletic Fields (Schools)	1.27	0.08%
Recreational Land	20.22	1.22%
Military Installations	1.68	0.10%
Phragmites Dominate Urban Area	0.29	0.02%
Transportation/Communication/Utilities	17.51	1.06%
Other Urban or Built-Up Land	9.58	0.58%
Barren land	94.06	5.67%
Altered Lands	9.19	0.55%
Beaches	81.09	4.89%
Transitional Areas	3.79	0.23%
Forest	2.74	0.16%
Deciduous Brush/Shrubland	1.38	0.08%
Mixed Deciduous/Coniferous Brush/Shrubland	1.24	0.07%
Phragmites Dominate Old Field	0.12	0.01%
Water	278.38	16.79%
Artificial Lakes	1.41	0.09%
Atlantic Ocean	10.37	0.63%
Bridge Over Water	0.11	0.01%
Dredged Lagoon	23.45	1.41%
Tidal Rivers, Inland Bays, and Other Tidal Waters	243.04	14.65%
Wetlands	556.65	33.57%
Deciduous scrub/shrub wetlands	31.01	1.87%
Disturbed wetlands (modified)	14.99	0.90%
Herbaceous wetlands	3.20	0.19%
Mixed scrub/shrub wetlands (deciduous dom.)	2.14	0.13%
Phragmites dominate interior wetlands	36.18	2.18%
Saline marsh (low marsh)	419.37	25.29%
Vegetated dune communities	49.76	3.00%
Source: 2002 Land Use / Land Cover Update, Cape May Watershed Management Area (w16lu02_D.shp), New Jersey Department of Environmental Protection (NJDEP), Office of Information Resource Management (OIRM), Bureau of Geographic Information Systems (BGIS) - October 30, 2006		

2.0 PHYSICAL RESOURCES AND CONDITIONS

2.1 Climate

The undulating flow of air masses, generally moving from west to east across the continent of North America dominates the climate of New Jersey. This pattern of air mass movement is called the westerlies. Since these streams of air vary in intensity and can be wet or dry, cold or warm, New Jersey weather is highly variable on a day to day basis. Despite its small size, differences in geology, proximity to the Atlantic Ocean and the pattern of north-south variation in the track of air masses across the State, allow five distinct climate regions to be delineated. These five regions are Northern, Central, Pine Barrens, Southwest and Coastal (ONJSC 2006a).

Sea Isle City is located in the Coastal region of the State of New Jersey in terms of climate characteristics. The adjacent Atlantic Ocean tempers and sometimes dominates the continental climate prevalent over inland areas. Because of this, seasonal temperatures are subject to less variation (ONJSC Accessed 2006a). The sea breeze causes local changes in temperature, humidity, wind speed, wind direction, cloud cover, and sometimes precipitation. Weather forecasts for near-shore locales must consider its modifying effects of sea breezes on weather conditions for the general public, as well as for boaters (Dunk 2005).

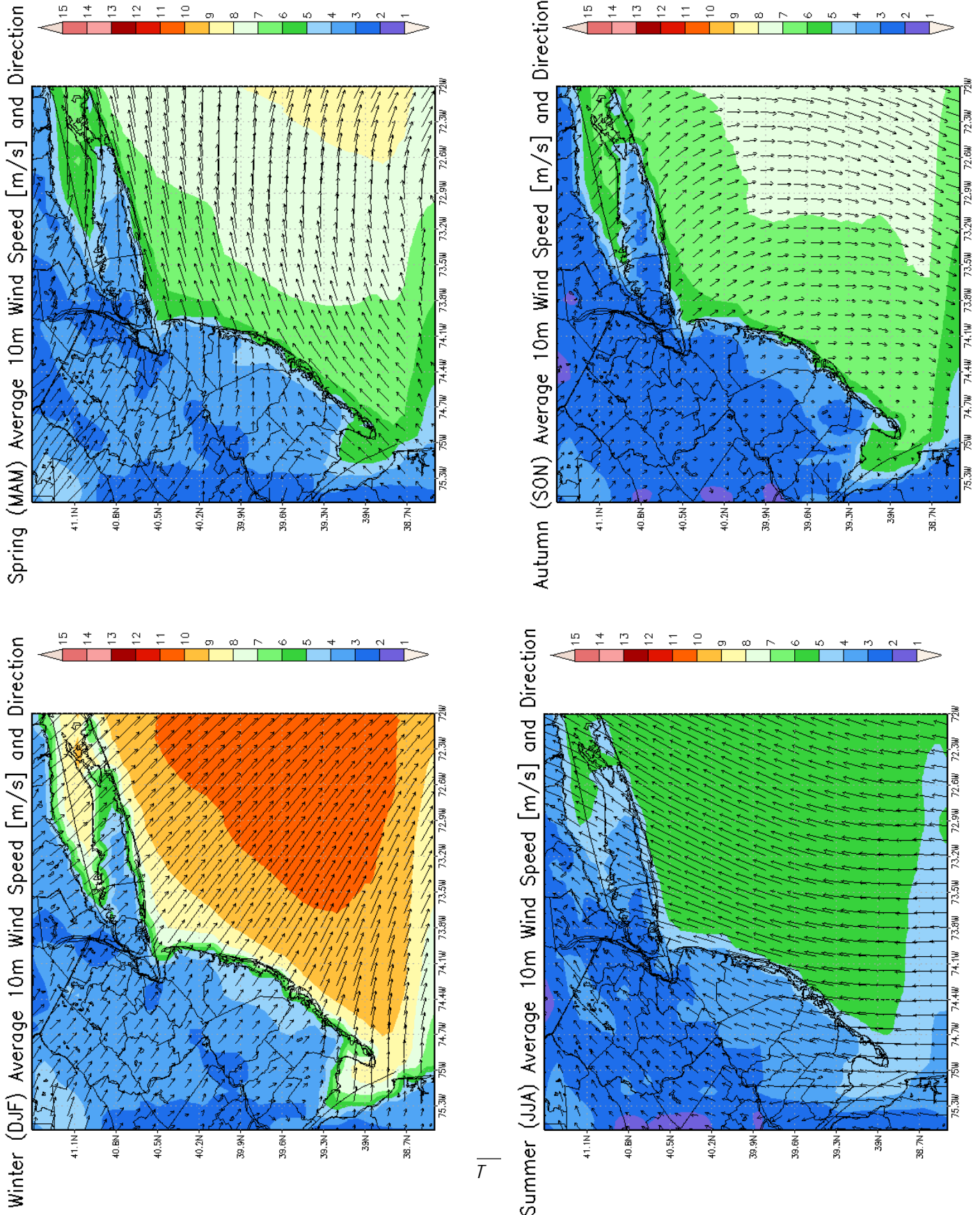
In the autumn and winter, air over the ocean is warmer than over the land and ocean breezes moderate the cold. The opposite is true in the spring and summer, when the ocean's influence is cooling. During spring and summer, land heats more quickly than the water. As the air over land rises, cooler air over the ocean moves inland (ONJSC 2006a). The patterns of prevalent seasonal wind direction are shown on Figure 1.

The distribution of sea surface temperature along and near the shore both influences and is influenced by sea breezes. During prolonged periods of southwesterly wind flow resulting from pressure differences in the atmosphere, the upwelling of colder water from below the ocean surface can be induced. This upwelling can produce near-shore pockets of water that are at least 5 to 10 degrees Centigrade (C) colder than the surrounding ocean. These cold pockets of upwelling help to get sea breezes started (Dunk 2005).

The National Oceanic and Atmospheric Agency (NOAA) operates one climate monitoring station in Cape May County for which data is available on the web sites of the Office of the New Jersey State Climatologist and the Natural Resources Conservation Service. Since this site is likely to experience more of a continental climate, the data from the Atlantic City Marina station in Atlantic County are also provided. Though slightly to the north of Sea Isle City, the weather will be moderated by the influence of the Atlantic Ocean, in a manner similar to the weather in Sea Isle City.

All stations in New Jersey have registered readings of 100 degrees Fahrenheit (F) or higher and have records of 0 degrees F or below. The record high temperatures recorded at the Atlantic City Marina and Belleplain State Forest were 102 degrees F and 103 degrees F respectively. The record high in Atlantic City occurred on August 20, 1983. The record high at Belleplain was on July 21, 1930. The lowest temperatures for these stations measured -3 degrees F on January 19, 1994 in Atlantic City and -22 degrees F on January 11, 1942 at Belleplain (ONJSC Accessed 2006b). Average monthly temperatures, average daily minimum and maximum temperatures extending to the year 2006 are depicted in Table 2.

Figure 1: Seasonal Off-shore Wind Direction (Dunk 2005)



Month	Average Daily Minimum		Average Daily Maximum		Monthly Average	
	ACM	BSF	ACM	BSF	ACM	BSF
January	28.3	23.4	41.1	44.3	34.7	34.0
February	29.8	24.1	42.8	46.2	36.3	35.2
March	35.8	30.6	48.6	53.8	42.2	42.2
April	44.5	38.9	57.5	64.5	51.0	51.7
May	53.7	48.8	66.0	74.8	59.8	61.9
June	63.0	58.2	74.9	82.6	69.0	70.4
July	68.9	63.3	80.5	86.3	74.7	74.8
August	68.6	62.1	79.8	84.6	74.2	73.4
September	62.4	55.1	74.3	79.0	68.4	67.1
October	51.8	43.2	64.9	68.9	58.3	56.1
November	42.0	34.7	55.2	58.1	48.6	46.4
December	32.8	26.5	45.9	47.6	39.3	37.1
Annual	48.4	42.4	60.9	66.0	54.7	54.2

1. Data from 1948 to 2006
2. Data from 1922 to 2006

As shown in Table 2, the variation in the average monthly temperatures between the weather stations at Atlantic City Marina and Belleplains State Forest, do not vary greatly (only 0.5 degrees F) in their annual average temperature. Variations in the Average daily minimums and maximums, in contrast, can vary by 8 degrees or more, demonstrating the difference between the continental and coastal climate regimes. There is less difference between the average daily minimum and maximum temperatures at the coastal station, indicating a more moderate temperature regime. These temperatures constitute a growing season that extends from approximately March 20 to November 30 in Sea Isle City (Collins & Robichaud 1994).

In the State of New Jersey, the average annual precipitation ranges from about 40 inches along the southeast coast to 51 inches in north-central parts of the state. Coastal storms, often called "nor'easters", frequently occur between October and April and can constitute a large proportion of the yearly precipitation amounts when they occur. These storms mainly impact coastal areas and may extend up to several hundred miles offshore, bringing strong winds and heavy rains. Typically at least one significant coastal storm occurs each winter, although as many as ten storms can be experienced in a season some years. Tropical storms and hurricanes, with their strong winds and storm surges can be extremely damaging to the natural and built environments (ONJSC 2006a).

Snowstorms in Cape May County produce an average of 14.2 inches of snowfall per year. The record snowfall to occur in one day at the Belleplains station was 14 inches on February 10, 1967 (up to 1990). The highest snow depth between 1961 and 1990 was 20 inches measured on February 19, 1979 (NOAA, NCDC accessed 2006).

The records for a single day's precipitation were 7.91 inches at the Atlantic City Marina on February 23, 1998 and 7.00 inches on August 19, 1939 at Belleplains State Forest (ONJSC 2006b). Table 3 below shows the average monthly precipitation amounts recorded at the Belleplains State Forest and the Atlantic City Marina weather stations. Snowfall was only recorded at the Belleplains station.

Table 3: Precipitation Measured at Atlantic City Marina ¹ and Belleplain State Forest ² (NOAA, NRCS)			
Month	Snowfall	Monthly Average	
	BSF	ACM	BSF
January	3.5	3.36	3.38
February	4.1	3.05	3.04
March	2.0	3.82	4.13
April	0.1	3.22	3.59
May	0.0	3.07	3.43
June	0.0	2.72	3.20
July	0.0	3.62	4.19
August	0.0	4.29	4.96
September	0.0	2.69	3.62
October	0.0	2.95	3.50
November	0.4	3.40	3.45
December	2.0	3.47	3.54
Annual	12.4	39.93	44.03
1. Data from 1948 to 2006			
2. Data from 1922 to 2006			

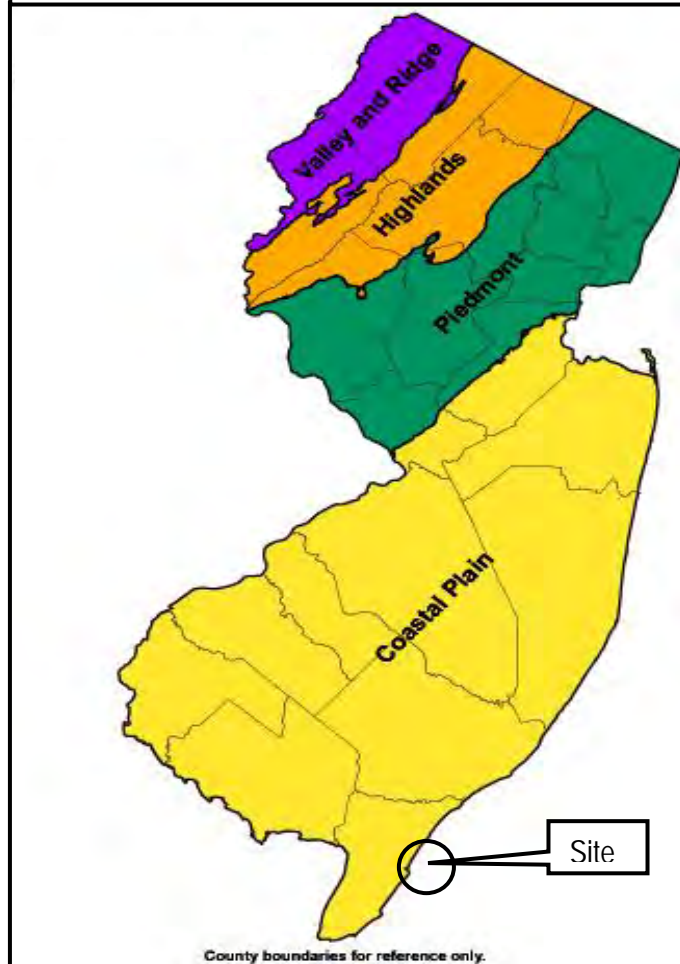
The average temperature in New Jersey in June 2006 was 70.9 degrees Fahrenheit. This was 1.9 degrees F warmer than the 20th century average, the 18th warmest June in 112 years. New Jersey temperature has tended to rise 0.1 degrees Fahrenheit per decade over the period of record, which is 1895 to present. Annual precipitation rates have increased 0.03 inches per decade trend for the period of record (NOAA 2006).

As a coastal municipality, Sea Isle City could experience significant impacts from global warming, if climate modelers are correct. Storm frequency and intensity could increase. The frequency of storm-associated floods would result, with the likelihood that events such as a 100-year storm and its attendant flooding could occur at intervals much less than 100 years (Gournich, Couch & Hartig 2002). Cape May County has undertaken an assessment of the capacities of the County to deal with a hurricane that might require the evacuation of coastal areas. Much of the roadway infrastructure was found to be inadequate, due to a lack of adequate capacity, particularly in the summer, or because roads were constructed at elevations below the 100 year flood elevation. One roadway providing access from Sea Isle City that is inadequate is Sea Isle Boulevard. Plans to raise Sea Isle Boulevard to above flood elevations are in the design stage (Foster 2006).

2.2 Physiographic Province

Areas that have similar rock types, geologic structures, landforms, and histories are organized into regions called Physiographic Provinces. New Jersey has five Physiographic Provinces, which make it a complex State for its small size. From northwest to southeast across the State, the provinces are known by the descriptive terms: (1) the Valley and Ridge, (2) Highlands, (3) Piedmont, (4) Inner Coastal Plain, and (5) Outer Coastal Plain. Each name refers to the rock belt that underlies the area. Sea Isle City is located within the Outer Coastal Plain Province (see Figure 2), the largest of the physiographic provinces in New Jersey (NJGS 2006).

Figure 2: Physiographic Provinces of New Jersey (NJGS 2006)



The Coastal Plain is characterized by unconsolidated sand, gravel, silt, and clay thickening seaward from a featheredge at the Fall Line to more than 6,500 feet (ft) thick in southern Cape May County (Gill and Farlekas 1976). The Coastal Plain Physiographic Province extends along the entire Atlantic Coast from Maine to the Gulf of Mexico. Differences in the amount and type of erosion coupled with variability in underlying rock composition distinguish differences in sediments and shoreline types along its length. In general, the Atlantic Coastal Plain is flat and slopes gently seaward. John Tedrow (1986) describes the Coastal Plain in New Jersey as having moderate elevation with 80% – 90% lying below the 100 foot contour on a topographic map. Low ridges of sand parallel the coast offshore and are physically separated from the coast by quiet water lagoons. Nearly 300 barrier islands exist between Massachusetts and Texas (Tedrow 1986).

Within the context of the Outer Coastal Plain, Sea Isle City, which is separated from the mainland by the intercoastal waterway, can be classified as a barrier island. The term barrier island can apply to landform features of varying size, from just a few meters in a small stream to marine depositions stretching for hundreds of miles along a coastline. The feature tends to be long and narrow, and develop where waves deposit granular material or sand. Both tidal currents and waves participate in the formation of barrier islands which represent a dynamic on-going process. Early in the formation of barrier islands, the separating waterways may be deep. Over time, currents alter the patterns of

deposition and gradually fill the waterway. For this reason, barrier islands are vulnerable to storm related flooding and wave damage.

The protected mainland coast and associated waterway develop unique characteristics. Protected from the full force of wind and wave action, diverse habitats emerge. Plants can grow along the shallow, protected margins of marshes and wetlands where finer sands have been deposited. Along with plants which contribute organic matter to the sandy deposits, animals and special communities are able to develop.

2.3 Geology

Over millions of years, geological processes have acted to shape the current landscape and landforms within the Outer Coastal Plain and the combined forces continue to exert influence on the barrier island of Sea Isle City. In the geologic past, continents moved together and split apart with enormous forces. Mountains formed as a result of tectonic plates colliding and forcing surfaces upward. Remnants of the most recent mountain building event are what we call the Appalachian Mountain Range. The Appalachian Range forms an inland ridge parallel to the east coast. As a variety of forces, such as rain and snow, freeze and thaw, act on the mountains, small particles are worn away and carried in rain water, river flows and wind, to be deposited eastward along the edge of the continental bedrock. Geologists are able to analyze the sediments. Samples have been collected by boring deep holes, analyzed, dated, identified and restudied again as new technology provides greater understanding. Many layers of sediment and particles form the Coastal Plain, which is a nearly horizontal surface that gently slopes to the edge of the Continental Shelf before steeply falling off under the Atlantic Ocean.

Over time, the rise and fall of the level of the sea acts upon the sediments. Wave action intensity increases with storms. During periods of higher ocean levels, which can completely cover the Coastal Plain sediments, marine deposits are added. The sediments are classified based on differences or similarities and the distinctions used to develop names for the layers. It would appear that the shoreline is a stable platform; however, geology is an on-going dynamic process. Change has occurred in the past, continues to take place at the present time and will continue into the future.

One of the geologic formations that occur at the surface in Sea Isle City is the Cape May Formation (see the Geology Map in Appendix I). This formation consists of a veneer of surface sediments overlying the Cohansey Formation. The Cape May deposits are also visible inland on the edges of the many streams and crop out in the southern half of Sea Isle City. The deposits were laid down during a time when the level of the ocean was 30 to 50 feet lower than today (Tedrow 1986). Underlying the Cape May Formation and overlying the entire Cape May Peninsula is the Cohansey Formation which will be discussed in greater detail due to its importance as a drinking water reservoir. Refer to the Geology Map to view the extent of the formation within Sea Isle City.

The Cohansey Formation consists of sediments laid down during the Miocene Era. It is comprised of white to yellow sand, with gravel and clay inclusions occurring locally. In some portions to the formation, the sediments are stained red or orange brown by iron oxides and / or cemented into large blocks of ironstone. Unweathered clay is typically dark gray, but the clay is white when subject to weathering. It is found to occur in thin beds of ironstone. The Cohansey is a mixture of marine and non-marine sediments. The quartz sand with siliceous rock fragments sorted from fine to coarse grains (Owens et. al. 1998).

Crossbedding can be observed in the Cohansey Formation (Owens et al 1998). Crossbedded deposits are a result of the shifting movement of stream beds or sand dunes, due to the force of streamflow or wind is typical of the formation (Leeder 1982).

2.4 Topography and Slopes

Sea Isle City exhibits little topographic relief. According to United States Geological Survey (USGS) topographic mapping, elevations range from a high of 10 feet along Townsend Inlet beaches to as much as 18 feet above sea

level in the southern portion of Sea Isle City (USGS a, b, c & d 1977) adjacent to Townsend Inlet itself. Slopes are minimal. Steep slopes only occur where they are manmade, such as along roadway embankments.

2.5 Soils

Soil material is composed of varying proportions of sand, silt and clay particles. These particles are the result of long term forces acting on mountains and rock to break down these large masses into small particles. The soils of Sea Isle City were formed in the sediments laid down in glacial outwash plains and marine sediments laid down when the ocean covered the current land area. Coastal Plain soils represent a “geologic-ecologic” blend. Unlike soils in the northern part of the State which can be identified with a particular location, the Coastal Plain soils are influenced by greater variability during geologic formation and subsequent modification.

The Soil Conservation Act of 1935 led to the establishment of the Soil Conservation Service and with it a focus on soil characteristics. Today we draw on a combination of factors to describe soils. The United States Department of Agriculture (USDA) has taken the lead in describing the characteristics of soils in New Jersey. Because of the complexity, soils are described as groups with similar characteristics, often based on location (NRCS 2006)

The soils types found in Sea Isle City are mapped on the Soils Map in Appendix I and are described below.

Appoquinimink-Transquaking-Mispillion complex (AptAv), 0 to 1 percent slopes very frequently flooded. This soil is very poorly drained and annual ponding is frequent. The parent material consists of loamy stream sediments over herbaceous material. This soil type is considered hydric.

Beaches (BEADV), 0 to 15 percent slopes. This soil is excessively drained. Annual flooding is very frequent, and ponding is none.

Hooksan sand (HorDr), 2 to 15 percent slopes. This soil is excessively drained. Annual flooding is rare, and annual ponding is none. This soil is not suitable for cultivated crops.

Pawcatuck-Transquaking complex (PdwAv), 0 to 1 percent slopes. This soil is very poorly drained. Annual flooding is very frequent and ponding is frequent. This soil is not suitable for cultivated crops. This soil is farmland of unique importance and is a hydric soil.

Psammets*, sulfidic substratum (PstAt), 0 to 3 percent slopes. This soil is composed of fill material over coastal plain sediments and is excessively drained. Annual flooding is frequent. This soil is not suitable for cultivated crops.

Urban land-Psammets, sulfidic substratum complex (USPSAS), 0 to 2 percent slopes. This soil is excessively drained. Annual flooding is occasional, and annual ponding is none. This soil is not suitable for cultivated crops. The Urban Land soil type is used to describe areas where much of the surface has been covered over by buildings or asphalt pavement.

Urban land-Psammets, wet substratum (USPSBR), 0 to 8 percent slopes. This soil is excessively drained. Annual flooding is rare and annual ponding is none. This soil is not suitable for cultivated crops. The Urban Land soil type is used to describe areas where much of the surface has been covered over by buildings or asphalt pavement.

The Soils Map shows the soil survey mapping units. The table below shows the limitations of Sea Isle City soils for certain types of development.

Mapping Units	Depth to Seasonal High Water Table (feet)	Septic Limitations	Erosion Potential (Kw)	Limitations for Building Foundations
Appoquinimink Transquaking Mispillion	0	Very limited	0.37	Severe
Beaches	3 - 12	Not rated	0.1	Not rated
Hooksan Sand	6	Very limited	0.10	severe
Pawcatuck Transquaking Complex	0	Very limited	0.10	Severe
Psammments, Sulfidic Substratum	0	Very limited	0.20	Slight
Psammments, Wet Substratum	1.5	Very limited	0.28	Slight
Urban land-Psammments, Sulfidic Substratum	0	Very limited	0.20	Not rated

2.4 Contaminated Sites

Locations, identified in NJDEP databases, were used to compile the list identified as contaminated sites. Often soils are contaminated at these sites, by leaking underground chemical or fuel storage tanks or by surface spills. Information gathered from the databases indicates that the contaminant source is often unknown and the potential for groundwater contamination is present.

The NJDEP websites called "Data Miner" and "Public Records, (OPRA)" which can be accessed from the home page (<http://www.state.nj.us/dep/index.html>) can provide greater information concerning the status of each incident.

Please reference "Site I.D. #" from the list below to find the map key number in the map legend of Contaminated Sites Map in Appendix I.

Site #	Site ID	Site Name	Site Address	Status Date
01	247627	324 42 nd Place	324 42 nd Place	02/22/05
02	007975	Ocean Drive Exxon 3-9665	4400 Landis Avenue	04/02/03
03	183985	Sea Isle City Coal Gas (JCP&L & NJNG)	39 th Street & Central Avenue	6/30/92
04	025704	Sea Isle City Marina	348 42 nd Place	12/26/00
05	011957	Sea Isle City Public Safety Building	J. F. Kennedy Bldg. & Central Ave.	12/29/00
06	11958	Sea Isle City Public Works Building	401 JFK Blvd. & Kneass Street	12/29/00
07	63965	Sea Isle City Treatment Plant	48 th & 49 th Street at Central Ave.	12/29/00
	013547	Sea Isle City Treatment Plant	48 th & 49 th Street at Central Ave.	06/30/92

3.0 WATER RESOURCES AND CONDITIONS

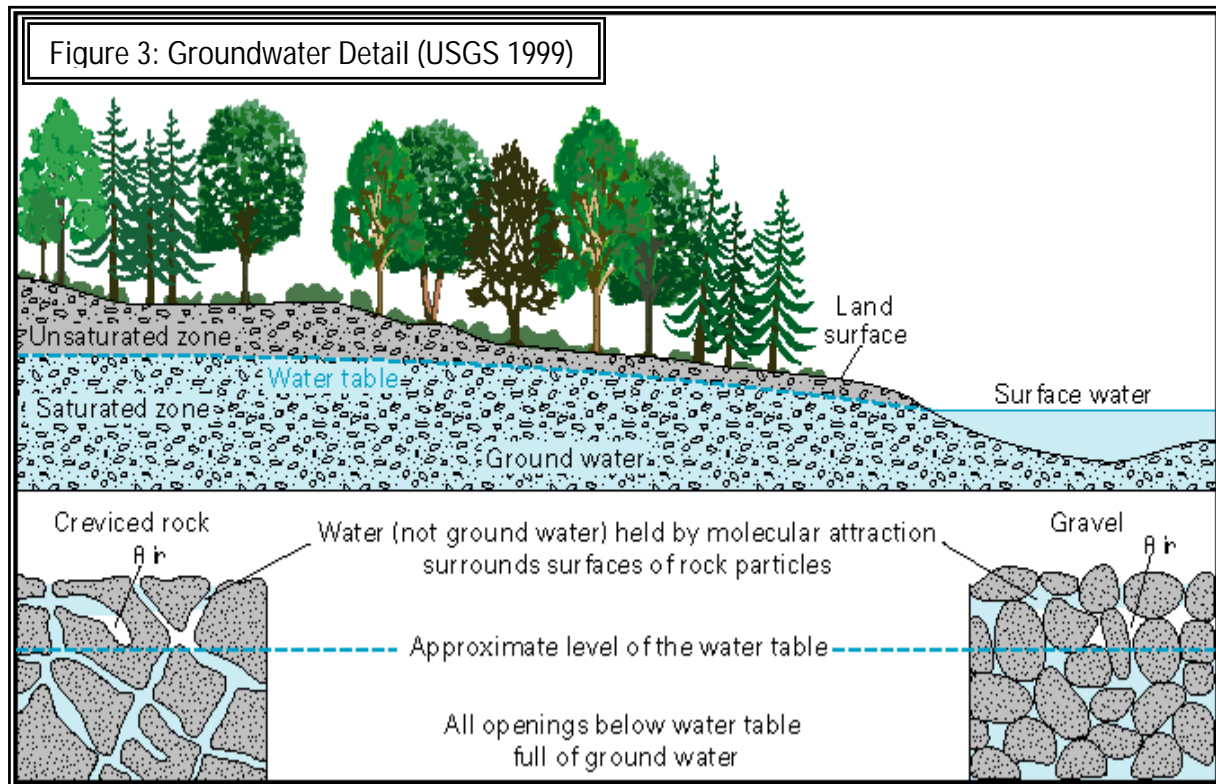
Water is a critical resource for life. Groundwater provides wells with drinking water and contributes the base flow of streams and water bodies. Groundwater is found below the ground surface in the spaces between soil and sediment particles in unconsolidated sediment and in the cracks and pore space within bedrock. Surface water, in contrast to groundwater, is water flowing in natural channels carved into the surface of the earth. We refer to this water as streams, rivers, or creeks. Surface water has many uses, including drinking water and recreation for humans. It provides habitat for fish and other aquatic life. Historically, surface water also had an enormous role in waste disposal until surface waters became degraded and required remediation. Groundwater also has been subject to degradation by underground septic disposal, over-application of fertilizers and pesticides and leaking underground fuel and other chemical storage tanks. This experience has shown that it is technically and economically much easier to take steps to avoid contamination than it is to restore the resource to the original state. The groundwater and surface water resources of Sea Isle City are described below.

3.1 Ground Water Resources

3.1.1 Aquifers

An aquifer is defined by the USGS as a water-bearing bed or stratum of permeable rock, sand or gravel through which water can move to supply springs and wells (USGS 1999). Groundwater, located mostly out of sight, is one of our most important resources. The underground rock, described in the Geology section and accompanying soils which are described more fully in the Soil section, provide a framework for storing groundwater. Between the rock and within the soil are spaces or openings that store water and allow fresh water, or precipitation, to replenish or recharge the supply. Rainfall is able to flow through the pores or empty spaces between the rock and soil to add to or replenish (recharge) the existing ground water supply. When the process of recharge occurs quickly, we say the rock or soil is permeable. Water, in useful amounts, which naturally collects within soil or rock underground and that can be removed easily by pumping (as in a well) is called an aquifer. If groundwater seeps out onto the surface, it is called a spring.

The diagram below shows how the ground below the water table (the blue area) is saturated with water. The "unsaturated zone" above the water table (the greenish area) still contains water (plant roots live in this area), but it is not totally saturated with water.



Sometimes there is another layer which is not as permeable and does not allow rain to easily flow into stored groundwater. This is an example of a confining layer and its presence defines a “confined aquifer.” Freshwater aquifers along the coast of the Atlantic Ocean, such as those located in Cape May County, are bordered by saline groundwater. Withdrawals from these aquifers can cause the movement of the surrounding saltwater. Saltwater intrusion has been documented throughout the east coast of the United States. Withdrawals can change the patterns of groundwater flow and discharge to coastal ecosystems, which can alter the salinity of coastal waterways and wetlands.

In Cape May County, five ground water reservoirs or freshwater aquifers have been mapped and studied by County, State and Federal agencies such as USGS. These aquifers are named as follows:

- Holly Beach is a shallow water bearing zone that is in direct contact with seawater
- Estuarine Sand Aquifer (about 50’ thick)
- Cohansey aquifer (varies from 60’ – 180’ thick)
- Rio Grande water bearing zone (50’ – 100’ thick)
- Atlantic City Sand (800’ thick)

The sediments underlying Cape May County consist mostly of unconsolidated gravel, sand, silt, clay and shell fragments. In most cases, these materials are permeable and readily allow rainfall to recharge ground water supplies, in most cases. These sediments are also capable of storing large amounts of water.

According to the map named Aquifers of New Jersey (Herman, et. al., 1998), the Holly Beach water bearing zone underlies the municipality and is composed of sand, gravel and silt. Clay is present where there are areas thicker than 50 feet. The water-table aquifer includes beach, dune, deltaic and marine sands, as well as recent alluvium. The Estuarine Clay confining unit and the Estuarine Sand aquifer underlie the Holly Beach water bearing zone. The water

found within this aquifer is fresh, acidic, and corrosive and it contains low dissolved solids. The corrosive nature of the water decreases in confined parts near the coastal areas of the aquifer. Sodium chloride water is common, due to the proximity of the aquifer to the coastal waters.

The Holly Beach water bearing zone which is at or near sea level, is in direct connection with seawater and therefore has limited use for freshwater supply. However, Holly Beach supplies non-potable uses.

One of the principal water resource issues within Cape May County is drinking water supply. The resource is largely dependent upon groundwater that is in turn highly vulnerable to saltwater intrusion from the west, south and east, especially in the southern portion of the peninsula. Residents in Sea Isle City supply water to their homes via public water supply from the municipality. According to the Sea Isle City Master Plan (Norman Day Associates, 1988), groundwater is withdrawn from the Lower Kirkwood Formation via five deep wells located at 40th Street, 50th Street, 55th Street, and two wells at 80th Street. The cumulative yield for these wells was 2,500 gallons per minute or 3,600,000 gallons per day as of 1988 (Norman Day Associates, 1988). Well # 3 at 50th Street is not viable at this time and needs to be replaced. In 1989, Well #6 was put into service at 80th Street to help relieve some of the burden on the system. The public water supply system also includes elevated water storage tanks at 40th and 80th Streets and additional wells constructed since 1988 at 80th Street/Central Avenue and 55th Street/Landis Avenue. The water towers are available at 1,400,000 gallons per day should power or wells fail (Norman Day Associates, 1988).

3.1.2 Aquifer Recharge

The NJ Geological Survey ("NJGS") has developed a method to estimate ground water recharge for Cape May County. Land-use, soil and climate data were combined to generate ground water recharge rates shown on the Water Resources Map in Appendix I. New Jersey receives an average of 44 inches of precipitation annually, of which approximately 15 to 39 inches recharge the ground-water reservoir by seeping into the ground.

According to *Aquifers of New Jersey* (Herman et. al., 1998) the aquifer rank associated with the Holly Beach water bearing zone is C, which yields a median of 100 to 250 gallons per minute. The According to the New Jersey Department of Environmental Protection iMAP and Water Resources Map (see Appendix I), the majority of the municipality has a ground water recharge rate of 8-10 inches per year (rank C). Small regions within the City have groundwater recharge rates of 1-7 inches per year (rank D) and 11-15 inches per year, mainly along the beach (rank B). Two small areas have a rank E, or 0 inches per year. The wetlands, beaches and State open waters of the municipality were not calculated, as the relationship between these features and aquifers are complex since the direction of flow between the features depend upon specific variables that change from season to season and site to site (French, 2003).

3.1.3 Well Head Protection Area

For a community such as Sea Isle City, in which water is supplied via wells drilled into the ground, knowledge about potential contamination and how contaminants can travel help safeguard the water supply. Safeguarding the susceptible area to prevent contaminants from entering the water supply reservoir is important for both individual wells and larger wells serving multiple dwellings. Wells become vulnerable to contamination when contaminated groundwater accrues within the area that a well draws water from. The NJDEP has mapped "Wellhead Protection Areas" around public wells, so that extra care can be taken in the development of these areas. According to the NJDEP iMap, six (6) public community wells are located throughout the municipality (as mentioned one well has been closed). Although not mentioned on the State's Well Head Protection Area Inventory, the NJDEP has mapped "Wellhead Protection Areas" around the NJDEP has established a well head protection area of 50 feet for these wells, since they are deep wells within confined aquifers and less susceptible to contamination than wells in unconfined aquifers (see Figure 4).



3.2 Wetlands

Wetlands occur between dry uplands and land permanently inundated with water (USFWS 1985). Activities in wetlands have been regulated under Section 404 of the Clean Water Act, since its passage in 1972. For the purpose of the regulation of wetlands, the Federal definition follows. Wetlands are:

“Those areas that are inundated or saturated by surface or groundwater at a frequency or duration sufficient to support, and that under normal circumstances do support, a prevalence of vegetation typically adapted for life in saturated soil condition” (EPA, 40 CFR 230.3 and CE 33 CFR 328.3).

The New Jersey Department of Environmental Protection (“NJDEP”) regulates wetlands in the State. Wetlands which are regulated under New Jersey’s Freshwater Wetlands Protection Act (N.J.A.C. 7:7A) are identified and delineated using the Army Corps of Engineer’s three-parameter approach. Wetlands must exhibit evidence that the seasonal high water table occurs near the surface, wetlands vegetation must be present and evidence that water stands or flows through the area should be evident (Federal Interagency Committee for Wetland Delineation 1989). The presence of hydric soils are indicative of the depth of the seasonal high water table and are one of the three parameters used in the evaluation of the presence of a regulated wetland feature.

The freshwater wetlands (FWW) included in this data set were originally mapped under the Fresh Water Wetlands Mapping Program, an effort undertaken to support the Freshwater Wetlands Protection Act, which was enacted in 1988. Using aerial photography captured in 1986 as the basis, a comprehensive, mapped inventory of non-tidal wetlands within New Jersey was produced. Mapped wetlands were classified according to the U.S Fish and Wildlife Service Cowardin Classification System. While these wetland delineations are not regulatory lines, they represent important resource data in determining potential wetland resources. In 1995, NJDEP acquired aerial imagery, and began updating the Land Use/Land Cover (“LU/LC”) layer from 1986. The 1986 layer was examined with the new imagery, and areas of change delineated, with any new line work and land use codes needed to map the changes added to the base data set. This updated LU/LC layer is identified as the 1995/97 LU/LC update. This information is shown on the 2002 Land Use/Land Cover Map in Appendix I.

As the municipality is a barrier island, a large portion of the City contains tidal wetlands (see the Wetlands Map in Appendix I). According to the municipal Master Plan (1988), wetlands within the City lie on the west side of the island, adjacent to Ludlams Bay and Ludlams Thorofare. Until the Wetland Act of 1970, both freshwater and tidal wetlands were filled to allow for development. Development at the edge of wetlands has resulted in a gradual migration of wetlands (Norman Day Associates, 1988). The municipality plans to prohibit filling lots in close proximity to wetlands, which will in turn decrease the amount of sand and silt that drift to the wetlands. The municipality also plans to prohibit development within wetlands buffer (transition areas), to allow a vegetative area to develop between the wetlands and upland areas (Norman Day Associates, 1988), as is required by the NJDEP.

Saltwater wetlands have formed adjacent to the main tidal water bodies of: Ludlams Bay, Ludlams Thorofare, Townsends Channel, Ingram Thorofare and Whale Creek.

The U.S. Fish and Wildlife Service has designated several wetlands on the Cape May Peninsula as priority wetland sites under the Federal Emergency Wetlands Resources Act of 1986, including Cape Island/Pond Creek, Great Cedar Swamp (Cape May National Wildlife Refuge), Great Egg/Jarvis, and Sewall Point. The Cape May marshes (Delaware Bay) and Great Egg/Jarvis wetlands (Atlantic coast) are focus areas under the Atlantic Coast Joint Venture of the North American Waterfowl Management Plan. Acquisition and protection of 7,690 hectares (19,000 acres) in the Cape May marshes and 5,422 hectares (13,400 acres) in the Great Egg-Jarvis wetlands is recommended (USFWS 1986).

The State of New Jersey Natural Heritage Program recognizes numerous Priority Sites for Biodiversity within the Cape May complex. A few of these are part of the Cape May Corridor Macrosite and are listed here with their biodiversity ranks: Corson Inlet South (B2 - very high biodiversity significance), Avalon Stone Harbor Marsh Macrosite (B4 - moderate biodiversity significance), Townsends Inlet (B4) (USFWS 1997).

Freshwater wetlands are regulated by the NJDEP, under the Freshwater Wetlands Protection Act Rules (N.J.A.C. 7:27A). Coastal wetlands are regulated in New Jersey under the New Jersey State Coastal Area Facilities Review Act (CAFRA). These statutes are in addition to federal regulation under Section 10 of the Rivers and Harbors Act of 1899, Section 404 of the Clean Water Act of 1977, and various Executive Orders (USFWS 1997). Some activities are prohibited in wetlands, while other activities are allowed, but are restricted in a real extent. In some cases mitigation is required for the disturbance or destruction of wetlands. In these cases, wetlands must be created, existing wetlands must be enhanced or a monetary donation to a wetlands mitigation bank must be made.

The NJDEP also determines the size of a wetlands buffer (transition area) assigned to freshwater and tidal wetlands. Activities in these buffers are also regulated. The freshwater wetlands buffer is zero feet for human-made ditches and swales. A freshwater wetlands buffer of one hundred and fifty (150) feet is assigned to exceptional resource value wetlands. Wetlands known to contain threatened or endangered animal species would be assigned this larger buffer width. Intermediate resource value wetlands receive a buffer of fifty (50) feet. Buffers for coastal wetlands vary and are based on the discretion of NJDEP.

3.3 Watersheds

The New Jersey Department of Environmental Protection defines watershed as "the area of land that drains into a body of water such as a river, lake, stream or bay. It is separated from other systems in the area by high points such as hills or slopes. It includes not only the waterway itself but also the entire land area that drains to it" (NJDEP Division of Watershed Management 2005)

Watershed Management Areas are a designation used by NJDEP. The entire municipality is located within the Atlantic Coastal Drainage Basin. This basin drains lands located adjacent to the Atlantic Ocean. The entire municipality is located within the Cape May Watershed Management Area #16 for NJDEP purposes. Refer to the Watershed Map in Appendix I to view the boundaries of the watershed and the Watershed Management Areas boundaries within the municipality.

In addition to the NJDEP Watershed Management Area designation, the USGS uses watershed units for the purpose of surface water management. The USGS designates Hydrologic Unit Codes (HUC 11 and HUC 14) for watersheds. The HUC 11 and HUC 14 area are displayed on the Watershed Map. At the HUC 11 level, Sea Isle City is divided between the Cape May Bays and Tributaries East (HUC-11: 02040302080) and Atlantic Coast (34th to Cape May Point) (HUC 11: 02040302940) watersheds. The subwatersheds of the HUC 11 watersheds subdivide Sea Isle City into three smaller drainage areas within the larger Great Egg Harbor and Cape May Watersheds at the HUC 14 level. These subwatersheds are described below.

- Corson Inlet & Sound/Ludlams Bay – HUC-14 02040302080020

This subwatershed includes the northwestern region of Sea Isle City from 22nd/23rd streets north and County Highway 619 west. This subwatershed discharges into Whale Creek and Ludlams Bay.

- Cape May Bays (Reubens Wharf-Big Elder Creek) – HUC-14 02040302080040

This subwatershed is located in the southwestern region of the municipality, from 22nd/23rd streets south and County Highway 619 west. The Cape May Bays subwatershed discharges into Ludlams Bay, Ludlams Thorofare, Townsends Channel and Ingram Thorofare.

- Atlantic Coast (Corson to Townsends Inlet)

The Atlantic Coast subwatershed includes the entire coast of Sea Isle City from 1st Street to Townsends Inlet and east of County Highway 619. This area drains to the Atlantic Ocean.

3.4 Surface Water Quality

Cape May County, located at the southern-most point of New Jersey, contains a continuation of the Atlantic Coastal Plain along its eastern border. The County is 267 square miles in area and is bounded on the north by Atlantic and Cumberland Counties, on east by the Atlantic Ocean and on the west and south by the Delaware Bay. The region is characterized by a low-lying, gently rolling plain whose highest point is 54 feet above sea level and whose surface is largely covered by wet soils and wetlands. Large swamps (Great Cedar, Timber and Beaver Swamps) occupy the north-central part of the County. Most, if not all streams are tidal in their lower reaches and terminate by flowing into fresh water swamps that, in turn, discharge into saltwater marshes near the shore (USFWS 1997). Only tidal waterways are present within the boundaries of Sea Isle City.

3.4.1 Surface Water Classifications

The NJDEP has established use designations in its Surface Water Quality Standards (N.J.A.C. 7:9-4.1). These designations are described briefly below.

- FW – signifies fresh waters and include all nontidal and tidal waters with a salinity of less than 3.5 parts per thousand.
- FW-1 – fresh waters that originate in and are wholly within federal or state parks, forests, fish and wildlife lands, and other special holdings, that are to be maintained in their natural state of quality and not subject to any man-made wastewater discharges.
- FW-2 – refers to fresh waters that are not designated FW1 or PL.
- PL – includes all waters within the boundaries of the Pinelands Area, as established in the Pinelands Protection Act.
- SE – is a general surface water classification of waters with a salinity greater than 3.5 parts per thousand.
- C1 (Category One) - waters are to be protected "...from measurable changes in water quality characteristics because of their clarity, color, scenic setting, other characteristics of aesthetic value, exceptional ecological significance, exceptional recreational significance, exceptional water supply significance, or exceptional fisheries resource(s)" (NJDEP 2005, p. 3).

Waters that are classified by the NJDEP as Category One waters receive extra protection under the State's Stormwater Management Rules (N.J.A.C.7:8).These rules apply to development projects that involve the disturbance of at least one acre of land or the placement of an additional one quarter acre of impervious cover on a site. Special water resource protection areas must be established along all waters designated Category One. This includes perennial or intermittent streams that drain into or upstream of the Category One waters as shown on the USGS Quadrangle Maps or in the County Soil Surveys, within the associated HUC 14 drainage area. These areas will consist of a 300-foot special buffer on each side of the waterway.

According to the same rules, "all those streams and segments of streams that flow directly into the Atlantic Ocean or into back bays of the Ocean which are not included elsewhere in this list, are not within the boundaries of the Pinelands Protection or Preservation Areas and are not mapped as C1 waters by the Department are classified as FW2-NT/SE (NJDEP 2005). Therefore, all unnamed and uncoded tributaries within the drainage area of Sea Isle City are classified as FW2-NT/SE1 waters.

All classifications have designated uses. For example, FW2 waters are designated for maintenance, mitigation and propagation of natural land and established biota, for primary and secondary contact recreation, for industrial and agricultural water supply, for public potable water supply after conventional filtration treatment (a series of sedimentation, resulting in substantial particulate removal but no consistent removal of chemical constituents) and disinfection and for other reasonable uses. SE1 designated uses are for shellfish harvesting in accordance with N.J.A.C. 7:12, for the maintenance, migration and propagation of the natural and established biota, for primary and secondary contact recreation and for any other reasonable uses.

3.4.2 Shellfish Harvest Areas

The NJDEP Bureau of Marine Monitoring periodically assesses water quality in the location of shellfish beds to determine the safety of ingesting shellfish growing there. The transmission of shellfish borne infectious diseases begins with the contamination of growing waters with fecal matter. Contamination can reach shellfish growing waters through storm water runoff from urban and agricultural areas and from direct discharges such as wastewater treatment facilities and septic systems. Since shellfish filter large quantities of water through their bodies while feeding, microorganisms, heavy metals and chemicals become concentrated in their tissues, which can lead to disease or poisoning in humans ingesting contaminated shellfish (Watkins 1998).

The waters adjacent to Sea Isle City are included in the sampling area extending from Ludlams Bay to Townsends Inlet. The northerly area is classified as approved for shellfish harvesting, since tidal flushing through Corsons Inlet removes many contaminants from the water here. Other areas approved for unrestricted shellfish harvesting are located along Ludlams Thorofare near its confluence with Townsends Channel and at the tip of the island (Watkins 1998).

The southerly portion of Ludlams Bay is classified as a Special Restricted area for shellfish harvesting. This means that shellfish may be harvested, but must be treated in a shellfish depuration plant to allow contaminants to be flushed from the shellfish. The central portion of Ludlams Thorofare and Middle Thorofare, which flows into Ludlams Thorofare, contain many marinas and party boat docking. This area exhibits higher levels of contamination than areas to the north and to the south. Shellfish Harvesting is prohibited here. In the vicinity of the Pier 88 Marina, shellfish harvesting is also prohibited (Watkins 1998).

3.5 Floodways and Floodplains

According to the Federal Emergency Management Agency ("FEMA") mapping (Community Panel Nos. 345318-0001C and 345318-0002C), the entire municipality of Sea Isle City is located within the 100-year floodplain of the Atlantic Ocean and surrounding waters, including Ludlams Bay, Townsends Channel and Ingram Thorofare (see Flood Zone Designations Map in Appendix I). According to the FEMA Flood Zone Designations and Explanations, flood areas classified as AE or as A1 through A30 represent areas subject to 100-year flood with the base flood elevation determined. Within the municipality, A7 and A8 classification exist with elevations of 10 and 11, respectively, along the western municipal boundary adjacent to the Ludlams Bay, Ludlams Thorofare and Townsends Channel. The remainder of the municipality has a "V" classification which is subject to the 100-year flood and additional velocity hazard (wave action), with base elevation undetermined. The FEMA maps show the V classifications (V11 with elevations of 12 further inland and 14 along the shore) the length of the shoreline and in the northern half of the municipality.

Any construction within the A and V zones must meet certain construction standards which elevate habitable areas above the base flood elevation line. The NJDEP regulates development in floodplains under the Flood Hazard Area Control Act Rules (N.J.A.C. 7:13).

According to the *Cape May County 2006 Hurricane Conference Local Impacts Report* (Foster 2006), minor tidal flooding begins to occur within the municipality at an elevation of 6.7 feet above Mean Lower Low Water (MLLW). At 7.5 feet above MLLW, Landis Avenue at 29th Street and the north end of Strathmere begin to flood. The report also states that Sea Isle Boulevard will be improved from the Garden State Parkway through to Ludlams Thorofare Bridge. Overall Sea Isle Boulevard is expected to be raised approximately 4 feet in elevation to the 100-year flood elevation to avoid future flooding. The design phase for this project was anticipated to be completed in 2006 (Foster 2006).

4.0 BIOLOGICAL RESOURCES

Biological resources include the botanical (plant) and zoological (animal) related attributes of an area. Botanical resources include the flora (e.g., checklist and analysis of species), and vegetation (plant communities) and the zoological resources include the invertebrate and vertebrate animals and animal communities. Rare, threatened, and endangered species and species of special concern also are considered within this section.

4.1 Botanical Resources

Sea Isle City extends geographically from the Atlantic Ocean shoreline to approximately 5,275 feet at the widest part of the City. The City extends approximately 26,000 feet from southern to northern tip (1st Street). Wetlands within the municipality mostly consist of tidal saltmarshes, with few patches of freshwater wetlands. Since Sea Isle City is a barrier island and is largely made up of marshlands, beaches and dunes. Some plant communities are of exceptional quality, containing threatened and endangered plants. Some plant communities are rare in and of themselves.

4.1.1 Coastal Plant Communities

Plant communities can be broadly divided into upland and wetlands communities. In coastal areas, extremely dry or xeric sandy soils are typical. These harsh conditions strongly limit the number of vegetation species able to grow on beaches and coastal sand dunes. These habitats are mapped as beaches on the Threatened and Endangered Species Map in Appendix I. The composition of wetland communities in coastal areas is controlled by the concentration of salt in adjacent water bodies. Important wetland types include the Low Tidal Salt Marsh and High Tidal Salt Marsh, which compose the Salt Marsh Complex and the Brackish Tidal Marsh (Breden 1989, Collins & Anderson 1994). These habitats are mapped as emergent wetlands on the Threatened and Endangered Species Map. Also notable in coastal areas are subtidal aquatic plant communities, called submerged aquatic vegetation (SAV) beds. Activities in the latter community type are regulated by the NJDEP under the Rules on Coastal Zone Management (N.J.A.C. 7:7E-1.1 et seq). Upland coastal communities include the Marine Intertidal Gravel/Sand Beach Community (Breden 1989), the Dunegrass Community, the Beach Heather Community, the Shrub Thicket Community and the Dune Woodland Community (Collins & Anderson 1994).

The tables below list the typical plant species that potentially occur in each of the major coastal plant communities likely to be present in Sea Isle City. The Marine Intertidal Gravel/Sand Beach Community occurs between the mean low water line and the spring high tide line on ocean beaches. Plants in this community must be tolerant of salt-spray and periodic inundation with salty ocean waters. This community is a part of necessary habitat for feeding and nesting shorebirds (Breden 1989).

Plants of the Marine Intertidal Gravel/Sand Beach Community are listed in the Table below.

Common Name	Scientific Name	Common Name	Scientific Name
Sea Rocket	<i>Cakile edentula</i>	Seaside Spurge	<i>Euphorbia polygonifolia</i>
Saltwort	<i>Salsola kali</i>	Sandbur	<i>Cenchrus tribuloides</i>
American Beachgrass	<i>Ammophila breviligulata</i>	Slender Seapurslane	<i>Sesuvium maritimum</i>

Sand is continually shifting on ocean beaches. Windblown and storm-driven sand form ridges of sand called dunes. The dunes are above the normal high tide levels, but plants still must be tolerant to salt spray. In natural dune systems, several parallel dune ridges are present. The nearest dunes to the ocean are called primary dunes. Conditions on the primary dunes are the most dynamic. Plants here must tolerate frequently shifting sands. The Dunegrass Community described below is most well-developed on the primary dune. American Beachgrass is often the dominant plant on the primary dune, particularly the foredune (portion of dune facing the ocean). This species is healthiest when sand is shifting and accreting (Collins & Anderson 1994).

Common Name	Scientific Name	Common Name	Scientific Name
American Beachgrass	<i>Ammophila breviligulata</i>	Sea Rocket	<i>Cakile edentula</i>
Sandbur	<i>Cenchrus tribuloides</i>	Seaside Spurge	<i>Euphorbia polygonifolia</i>
Long-spined Sandbur	<i>Cenchrus longispinus</i>	Sandgrass	<i>Triplasis purpurea</i>
Saltwort	<i>Salsola kali</i>	Sea-beach Panic Grass	<i>Panicum amarum</i>
Seaside Goldenrod	<i>Solidago sempervirens</i>	Sedge	<i>Carex kobomugi</i>
Cocklebur	<i>Xanthium strumarium</i>	Beach Pea	<i>Lathyrus japonicus</i>
Dusty Miller	<i>Artemisia stelleriana</i>	Slender Seapurslane	<i>Sesuvium maritimum</i>

Secondary and tertiary dunes ideally are present landward of the primary dune. Here sands are more stable. Plants are also more protected from salt spray. American beachgrass loses its vigor on the secondary and tertiary dunes; Beach Heather often dominates. The most common plants found in the Beach Heather Community are listed below.

Common Name	Scientific Name	Common Name	Scientific Name
Shrubs and Vines		Shrubs and Vines	
Virginia Creeper	<i>Parthenocissus quinquefolia</i>	Poison Ivy	<i>Toxicodendron radicans</i>
Herbs		Herbs	
Beach Heather	<i>Hudsonia tomentosa</i>	Sea-beach Three-awn	<i>Aristida tuberculosa</i>
American Beachgrass	<i>Ammophila breviligulata</i>	Sea Rocket	<i>Cakile edentula</i>
Sandbur	<i>Cenchrus tribuloides</i>	Seaside Spurge	<i>Euphorbia polygonifolia</i>
Long-spined Sandbur	<i>Cenchrus longispinus</i>	Sandgrass	<i>Triplasis purpurea</i>
Saltwort	<i>Salsola kali</i>	Sea-beach Panic Grass	<i>Panicum amarum</i>
Seaside Goldenrod	<i>Solidago sempervirens</i>	Japanese Sand Sedge	<i>Carex kobomugi</i>
Cocklebur	<i>Xanthium strumarium</i>	Beach Pea	<i>Lathyrus japonicus</i>
Dusty Miller	<i>Artemisia stelleriana</i>	Slender Seapurslane	<i>Sesuvium maritimum</i>
Little Bluestem	<i>Schyzachyrium scoparium</i>	Cocklebur	<i>Xanthium strumarium</i>
Prickly Pear	<i>Opuntia humifusa</i>	Beach Pinweed	<i>Lechea maritime</i>
Trailing Wild Bean	<i>Strophostyles helvola</i>	Others	
Lichens and Mosses		Lichens and Mosses	
Thorn Lichen	<i>Cladonia uncialis</i>	Coastal Reindeer Lichen	<i>Cladina submitis</i>
Others			

Farther from the ocean, where the land receives less salt spray and soils are less xeric, woody plants can take hold. Tree species may even be present, though they will be stunted to the degree that salt spray reaches them. Tree heights rarely exceed 15 feet (Collins & Anderson 1994). Plants of the Shrub Thicket Community are listed in the table below.

Table 9: Plants of the Shrub Thicket Community (after Collins and Anderson 1994, pp. 218)

Common Name	Scientific Name	Common Name	Scientific Name
Trees		Trees	
Red Cedar	<i>Juniperus virginiana</i>	Black Cherry	<i>Prunus serotina</i>
American Holly	<i>Ilex opaca</i>		
Shrubs and Vines		Shrubs and Vines	
Scrub Oak	<i>Quercus ilicifolia</i>	Bayberry	<i>Myrica pensylvanica</i>
Beach Plum	<i>Prunus maritima</i>	Shadbush	<i>Amelanchier canadensis</i>
Highbush Blueberry	<i>Vaccinium corybosum</i>	Winger Sumac	<i>Rhus copallina</i>
Virginia Creeper	<i>Parthenocissus quinquefolia</i>	Poison Ivy	<i>Toxicodendron radicans</i>
Herbs		Herbs	
Common Greenbriar	<i>Smilax rotundifolia</i>	Sea-beach Three-awn	<i>Aristida tuberculosa</i>
American Beachgrass	<i>Ammophila breviliqulata</i>	Sandgrass	<i>Triplasis purpurea</i>
Sandbur	<i>Cenchrus tribuloides</i>	Seaside Spurge	<i>Euphorbia polygonifolia</i>
Long-spined Sandbur	<i>Cenchrus longispinus</i>	Sandgrass	<i>Triplasis purpurea</i>
Dusty Miller	<i>Artemesia stelleriana</i>	Little Bluestem	<i>Schyzachyrium scoparium</i>
Prickly Pear	<i>Opuntia humifusa</i>	Beach Pinweed	<i>Lechea maritima</i>

Dune Woodlands develop in the swales between the secondary and tertiary dunes. These communities occur where soil moisture is more available than in other types of dune plant communities. Little salt spray reaches these plants allowing for more robust growth and the appearance of less salt-tolerant species.

Table 10: Plants of the Dune Woodland Community (after Collins and Anderson 1994, pp. 220)

Common Name	Scientific Name	Common Name	Scientific Name
Trees		Trees	
Red Cedar	<i>Juniperus virginiana</i>	Black Cherry	<i>Prunus serotina</i>
American Holly	<i>Ilex opaca</i>	Red Maple	<i>Acer rubrum</i>
Hackberry	<i>Celtis occidentalis</i>	Sassafras	<i>Sassafras albidum</i>
Pitch Pine	<i>Pinus rigida</i>		
Shrubs and Vines		Shrubs and Vines	
Scrub Oak	<i>Quercus ilicifolia</i>	Bayberry	<i>Myrica pensylvanica</i>
Beach Plum	<i>Prunus maritima</i>	Shadbush	<i>Amelanchier canadensis</i>
Highbush Blueberry	<i>Caccinium corybosum</i>	Winger Sumac	<i>Rhus copallina</i>
Virginia Creeper	<i>Parthenocissus quinquefolia</i>	Poison Ivy	<i>Toxicodendron radicans</i>
Others			
Herbs		Herbs	
Switchgrass	<i>Panicum virgatum</i>	Sea-beach Three-awn	<i>Aristida tuberculosa</i>
Little Bluestem	<i>Schyzachyrium scoparium</i>	Others	

The upland coastal plant communities of Sea Isle City represent important habitat for threatened and endangered shorebirds. Portions of these habitats are included within two NJDEP Natural Heritage Program Priority Sites: Townsends Inlet and Corson Inlet South and Whale Beach (see the Natural Heritage Priority Sites Map in Appendix I).

Coastal and estuarine wetlands differ from inland wetlands in that they are subject to periodic tidal influences. Variations in the salinity of these waters determine the composition of tidally-influenced plant communities. The dominant wetland community types include the High Marsh, Low Marsh and Brackish Tidal Marsh. Wide areas of coastal marshes can be viewed while crossing the bridge over County Highway 625 and Sea Isle Boulevard.

The frequency of tidal inundation distinguishes the High Marsh from the Low Marsh Community. The Low Marsh Community is flooded twice daily by tides. The High Marsh is generally inundated only during spring high tides, which occur twice monthly or during coastal storms. Water evaporates from the Marsh and salts are left behind. Therefore, soils tend to be saltier in this community. The High Marsh is fringed by a drier area that floods even less frequently. Woody plants begin to colonize this zone. The plants from the latter zone are included in the list of plants commonly found in the High Marsh Community (Collins & Anderson 1994).

Table 11: Plants of the High Marsh Community (after Collins and Anderson 1994, pp. 206)			
Common Name	Scientific Name	Common Name	Scientific Name
Shrubs and Vines		Shrubs and Vines	
Marsh Elder	<i>Quercus ilicifolia</i>	Bayberry	<i>Myrica pensylvanica</i>
Groundsel Bush	<i>Baccharis halimifolia</i>		
Herbs		Herbs	
Salt-meadow grass	<i>Spartina patens</i>	Spike Grass	<i>Distichlis spicata</i>
Big Cordgrass	<i>Spartina cyanosuroides</i>	Black Grass	<i>Juncus gerardi</i>
Perennial Salt Marsh Aster	<i>Aster tenuifolius</i>	Sea Lavender	<i>Limonium carolinianum</i>
Salt Mash Bulrush	<i>Scirpus robustus</i>	Seaside Goldenrod	<i>Solidago sempervirens</i>
Beaked spike-rush	<i>Eleocharis rostellata</i>	Salt Marsh Cockspur Grass	<i>Echinochloa walteri</i>
Orache	<i>Atriplex patula</i>	Seaside Gerardia	<i>Agalinus maritima</i>
Salt Marsh Sand Spurrey	<i>Spergularia maritime</i>	Sea-pink	<i>Sabatia stellaris</i>
Slender Glasswort	<i>Salicornia europaea</i>	Woody Glasswort	<i>Salicornia virginica</i>
Switchgrass	<i>Panicum virgatum</i>	Rose Mallow	<i>Hibiscus moscheutos</i>
Seaside Mallow	<i>Kosteletzkya virginica</i>	Others	

The Low Marsh Community is flooded by tides twice a daily. Because of the frequent flushing, salts do not accumulate in soils to the degree that they do in the High Marsh. The common plants of the Low Marsh are listed in Table 12 below.

Table 12: Plants of the Low Marsh Community (after Collins and Anderson 1994, pp. 204)			
Common Name	Scientific Name	Common Name	Scientific Name
Herbs		Herbs	
Salt-marsh Cordgrass	<i>Spartina alterniflora</i>	Spike Grass	<i>Distichlis spicata</i>
Salt-meadow grass	<i>Spartina patens</i>	Black Grass	<i>Juncus gerardi</i>
Big Cordgrass	<i>Spartina cyanosuroides</i>	Sea Lavender	<i>Limonium carolinianum</i>
Perennial Salt Marsh Aster	<i>Aster tenuifolius</i>	Seaside Mallow	<i>Kosteletzkya virginica</i>
Slender Glasswort	<i>Salicornia europaea</i>	Woody Glasswort	<i>Salicornia virginica</i>
Orache	<i>Atriplex patula</i>	Salt Marsh Sand Spurrey	<i>Spergularia maritima</i>
Salt-marsh Fleabane	<i>Pluchea odorata</i>	Switchgrass	<i>Panicum virgatum</i>
Few others			

As one moves farther up tidal rivers and estuaries, freshwater meets and mixes with salt water from the ocean. Plant communities are subject to varying salinities, depending on distance upstream, seasonal changes in stream discharge rate, droughts and storms. Plant communities will intergrade from saltmarsh to freshwater marsh communities. Plants of Brackish Tidal Marsh Communities characterized by intermediate salinities or mesohaline conditions are listed in the table below.

Table 13: Plants of the Brackish Tidal Marsh Community (after Collins and Anderson 1994, pp. 208, Breden 1989, p. 170)

Common Name	Scientific Name	Common Name	Scientific Name
Shrubs		Shrubs	
Marsh Elder	<i>Quercus ilicifolia</i>	Indigo Bush	<i>Amorpha fruticosa</i>
Groundsel Bush	<i>Baccharis halimifolia</i>	Few others	
Herbs		Herbs	
Common Reed	<i>Phragmites australis</i>	Narrow-leaved cattail	<i>Typha angustifolia</i>
Rose Mallow	<i>Hibiscus moscheutos</i>	Water Hemp	<i>Amaranthus cannabinus</i>
Salt Marsh Cordgrass	<i>Spartina alterniflora</i>	Big Cordgrass	<i>Spartina cynosuroides</i>
Annual Salt Marsh aster	<i>Aster subulatus</i>	Salt Marsh Bulrush	<i>Scirpus robustus</i>
Three-square	<i>Scirpus pungens</i>	Olney's three-square	<i>Scirpus americanus</i>
Eastern Grasswort	<i>Lilaeopsis chinensis</i>	Salt Marsh Bulrush	<i>Scirpus cylindricus</i>
Herbwilliam	<i>Ptilimnium capillaceum</i>	Salt-marsh Fleabane	<i>Pluchea odorata</i>
Others			

Upstream of the furthest reach of salty ocean waters, tidal influence extends into strictly freshwater areas. Here plants no longer need to be salt-tolerant, but they must endure daily inundations and fluctuating water levels. The plant community that develops under these conditions is called a Freshwater Tidal Wetland Community.

Table 14: Plants of the Freshwater Tidal Marsh Community (after Collins and Anderson 1994, pp. 150, Breden 1989, p. 170)

Common Name	Scientific Name	Common Name	Scientific Name
Shrubs		Shrubs	
Buttonbush	<i>Cephalanthus occidentalis</i>	Indigo Bush	<i>Amorpha fruticosa</i>
Silky Dogwood	<i>Cornus amomum</i>	Swamp Rose	<i>Rosa palustris</i>
Few others			
Herbs		Herbs	
Wild Rice	<i>Zizania aquatica</i>	Narrow-leaved cattail	<i>Typha angustifolia</i>
Broad-leaved cattail	<i>Typha latifolia</i>	Halber-leaved	
Tearthumb	<i>Polygonum arifolium</i>	Nodding Beggar-ticks	<i>Bidens cernua</i>
Common Reed	<i>Phragmites australis</i>	Arrow-leaved Tearthumb	<i>Polygonum sagittatum</i>
Blue Flag	<i>Iris versicolor</i>	Water Hemp	<i>Amaranthus cannabinus</i>
Rose Mallow	<i>Hibiscus moscheutos</i>	Great Ragweed	<i>Ambrosia trifida</i>
Bur-marigold	<i>Bidens laevis</i>	Sneezeweed	<i>Helenium autumnale</i>
Jewelweed	<i>Impatiens capensis</i>	Arrow arum	<i>Peltandra virginica</i>
Pickernelweed	<i>Pontederia cordata</i>	Spatardock	<i>Nuphar advena</i>
Rice Cutgrass	<i>Leersia oryzoides</i>	Broad-leaved Arrowhead	<i>Sagittaria latifolia</i>
Woolgrass	<i>Scirpus cyperinus</i>	Sweet Flag	<i>Acorus calamus</i>
Others		Dotted Smartweed	<i>Polygonum punctatum</i>

The NJDEP Natural Heritage Program has recognized the importance of tidally influenced wetland communities found in Sea Isle City are valuable in their own right and as habitat for threatened and endangered plant and animal species. Many acres of tidal wetlands are included within Natural Heritage Priority Sites within the municipal boundaries.

Submerged aquatic vegetation (SAV) Communities, which occur in fresh, brackish or saline estuarine waters, are important plant communities, since they provide habitat for numerous aquatic creatures. Construction, dredging and other activities are limited or prohibited in SAV Beds under the NJDEP's Rules on Coastal Zone Management. The table below lists the dominant plant species in these communities. Plant species will vary with salinity.

Common Name	Scientific Name	Common Name	Scientific Name
Eel grass	<i>Zostera Marina</i>	Widgeon Grass	<i>Ruppia maritime</i>
Slender Pondweed	<i>Potamogeton pusillus</i>	Redhead grass	<i>Potamogeton perfoliatus</i>
Water Celery	<i>Vallisneria Americana</i>	Naiad	<i>Najas flexilis</i>
Horned Pondweed	<i>Zannichellia palustris</i>		

4.1.2 Inland Plant Communities

Sea Isle City is a highly developed barrier island subject to the influence of tides, coastal winds and salt spray; therefore, extensive inland plant communities such as Mixed Oak forests are not present within the municipality. The NJDEP iMap and NJDEP Landscape Project (Version 2.0) map, a small polygon of forest is located along the northern coast of Ludlams Bay. According to the resource, this is considered to be a coastal forest.

4.1.3 Rare Vegetation Communities and Species

The State's Natural Heritage Program maintains a database of rare plant communities and rare plant species. According to this database, three types of rare plant communities occur in Sea Isle City. These are:

- Avalon-Stone Harbor Marsh
- Corson Inlet South and Whale Beach
- Townsends Inlet

The NJDEP's Natural Heritage Program's database lists two species that are likely to occur in Sea Isle City. These species are listed in the table below. The one species labeled as endangered is a species native to New Jersey, whose survival in the State or nation is in jeopardy (NJDEP, NHP 2006). The remaining specie, Saltmarsh alkaline grass, is rare but not officially designated as threatened or endangered.

Common Name	Scientific Name	Status
Saltmarsh Alkali Grass	<i>Puccinrllia fasciculata</i>	n/a
Sea-Beach Evening Primrose	<i>Oenothera humifusa</i>	E

According to the Natural Heritage Program response letter, Sea-Beach Evening Primrose (*Oenothera humifusa*) was last observed July 20, 1992 and Saltmarsh Alkali Grass (*Puccinellia fasciculata*) was last observed June 25, 1958. Sea-beach Amaranth (*Amaranthus pumilis*) is a federally threatened plant species. The plant occurs on sandy ocean beaches in the sparsely vegetated zone between the high tide line and the toe of the primary dune. While not

documented for the City in the Natural Heritage Program database, transitory populations of the species could occur on the beaches of Sea Isle City (NJDEP Office of Natural Lands Management Accessed 2006).

4.2 Zoological Resources

As with plant resources, Sea Isle City can support a great diversity of wildlife, including many threatened and endangered species, particularly those that find suitable habitat unique to a barrier island ecosystem. Many species are present at the northerly limits of their range. Since Sea Isle City primarily encompasses coastal habitats including ocean beaches and dunes and tidal wetlands, specialized coastal species, as well as common and widespread species have the potential to be present.

4.2.1 Aquatic Animals

The surface waters of Sea Isle City are almost exclusively salty ocean waters to brackish rivers and creeks, with the exception of some humanmade freshwater features. The vertebrate aquatic biota, or animals with backbones, are the fishes. Anadromous fish, such as American Eel, Herring or Shad migrate upstream and breed in the freshwater portions of rivers discharging to saltwater bays and the ocean. These species can be expected to occur in Ludlams Thorofare, Townsends Channel, Ingrams Thorofare and Whale Creek.

The bays, estuaries and marine waters of New Jersey can be home to 28 marine mammals and 336 marine finfish at some point during the year. Ken Able, of Rutgers University has compiled extensive lists of marine fish which can be found in New Jersey waters. The historical status of each species in terms of abundance and season of occurrence is also indicated (NJDEP, DFW 2005). The adults of these species will occur in the waters of the Atlantic Ocean. Other life stages may occur in the back bays and estuaries landward of Sea Isle City.

Common Name	Scientific Name	Status	Common Name	Scientific Name	Status
Atlantic Hagfish	<i>Myxine glutinosa</i>	R	Clearnose Skate	<i>Raja eglanteria</i>	A
Sea Lamprey	<i>Petromyzon marinus</i>	C	Little Skate	<i>Raja erinacea</i>	A
Sand Tiger	<i>Odontaspis taurus</i>	A	Rosette Skate	<i>Raja garmani</i>	C
Bigeye Thresher Shark	<i>Alopias superciliosus</i>	O	Barndoor Skate	<i>Raja laevis</i>	C
Thresher Shark	<i>Alopias vulpinus</i>	R	Winter Skate	<i>Raja ocellata</i>	A
Basking Shark	<i>Cetorhinus maximus</i>	R	Thorny Skate	<i>Raja radiata</i>	O
White Shark	<i>Carcharodon carcharias</i>	R	Southern Stingray	<i>Dasyatis americana</i>	R
Shortfin Mako	<i>Isurus oxyrinchus</i>	R	Roughtail Stingray	<i>Dasyatis centroura</i>	C
Porbeagle	<i>Lamna nasus</i>	R	Atlantic Stingray	<i>Dasyatis sabina</i>	R
False Cat Shark	<i>Pseudotriakis microdon</i>	R	Bluntnose Stingray	<i>Dasyatis say</i>	O
Chain Dogfish	<i>Scylliorhinus retifer</i>	A	Spiny Butterfly Ray	<i>Gymnura altavela</i>	R
Silky Shark	<i>Carcharhinus falciformis</i>	R	Smooth Butterfly Ray	<i>Gymnura micrura</i>	
Bull Shark	<i>Carcharhinus leucas</i>	R	Spotted Eagle Ray	<i>Aetobatus narinari</i>	R
Blacktip Shark	<i>Carcharhinus limbatus</i>	R	Bullnose Ray	<i>Myliobatis freminvillei</i>	O
Dusky Shark	<i>Carcharhinus obscurus</i>	CS	Cownose Ray	<i>Rhinoptera bonasus</i>	OS
Sandbar Shark	<i>Carcharhinus plumbeus</i>	AS	Manta	<i>Manta birostris</i>	R
Tiger Shark	<i>Galeocerdo cuvier</i>	R	Devil Ray	<i>Mobula mobular</i>	R
Smooth Dogfish	<i>Mustelus canis</i>	A	Bonnethead	<i>Sphyrna tiburo</i>	R
Lemon Shark	<i>Negaprion brevirostris</i>	R	Smooth Hammerhead	<i>Sphyrna zygaena</i>	R
Blue Shark	<i>Prionace glauca</i>	C	Spiny Dogfish	<i>Squalus acanthias</i>	ASF
Atlantic Sharpnose Shark	<i>Rhizoprionodon terraenovae</i>	R	Atlantic Angel Shark	<i>Squatina dumeril</i>	CSF
Scalloped Hammerhead	<i>Sphyrna lewini</i>	R	Smalltooth Sawfish	<i>Pristis pectinata</i>	R
Shortnose Sturgeon	<i>Acipenser brevirostrum</i>	C	Atlantic Torpedo	<i>Torpedo nobiliana</i>	R
Atlantic Sturgeon	<i>Acipenser oxyrinchus</i>	R	Gafftopsail Catfish	<i>Bagre marinus</i>	R
Ladyfish	<i>Elops saurus</i>	R	Rainbow Smelt	<i>Osmerus mordax</i>	T
Tarpon	<i>Megalops atlanticus</i>	R	Rainbow Trout	<i>Oncorhynchus mykiss</i>	R
Bonefish	<i>Albula vulpes</i>	R	Atlantic Salmon	<i>Salmo salar</i>	R

Table 17: New Jersey Saltwater Fishes (continued)					
Common Name	Scientific Name	Status	Common Name	Scientific Name	Status
American Eel	<i>Anguila rostrata</i>	A	Brown Trout	<i>Salmo trutta</i>	R
Green Moray	<i>Gymnothorax funebris</i>	R	Longtooth Anglemouth	<i>Gonostoma elongatum</i>	R
Spotted Moray	<i>Gymnothorax moringa</i>	R	Mullers Pearlsides	<i>Maurolucus muelleri</i>	R
Speckled Worm Eel	<i>Myrophis punctatus</i>	R	Oceanic Lightfish	<i>Vinciguerria nimbaria</i>	R
Margined Snake Eel	<i>Ophichthus cruentifer</i>	O	Shortnose Greeneye	<i>Chlorophthalmus agassizi</i>	C
Palespotted Eel	<i>Ophichthus ocellatus</i>	R	Inshore Lizardfish	<i>Synodus foetens</i>	O
Conger Eel	<i>Conger oceanicus</i>	C	Snakefish	<i>Trachinocephalus myops</i>	R
Blueback Herring	<i>Alosa aestivalis</i>	A	White Barracudina	<i>Notolepis rissoi</i>	R
Hickory Shad	<i>Alosa mediocris</i>	C	Duckbill Barracudina	<i>Paralepis atlantica</i>	R
Alewife	<i>Alosa pseudoharengus</i>	A	Sharpchin Barracudina	<i>Paralepis coregonoides</i>	R
American Shad	<i>Alosa sapidissima</i>	T	Glacier Lanternfish	<i>Bentosema glaciale</i>	R
Atlantic Menhaden	<i>Brevoortia tyrannus</i>	A	Smallfin Lanternfish	<i>Bentosema suborbitale</i>	R
Atlantic Herring	<i>Clupea harengus</i>	CW	Horned Lanternfish	<i>Ceratoscopelus maderensis</i>	C
Gizzard Shad	<i>Dorosoma cepedianum</i>	O	Warming's Lanternfish	<i>Ceratoscopelus warmingi</i>	R
Round Herring	<i>Etrumeus teres</i>	O	Longfin Lanternfish	<i>Diogenichthys atlanticus</i>	R
Scaled Sardine	<i>Harengula jaguana</i>	R	Benoit's Lanternfish	<i>Hygophum benoiti</i>	R
Atlantic Thread Herring	<i>Opisthonema oglinum</i>	O	Slender Lanternfish	<i>Hygophum reinhardti</i>	R
Spanish Sardine	<i>Sardinella aurita</i>	O	Winged Lanternfish	<i>Lampanyctus alatus</i>	R
Striped Anchovy	<i>Anchoa hepsetus</i>	C	Largescale Lanternfish	<i>Symbolophorus veranyi</i>	R
Bay Anchovy	<i>Anchoa mitchilli</i>	A	Antenna Codlet	<i>Bregmaceros atlanticus</i>	R
Silver Anchovy	<i>Engraulis eurystole</i>	O	Cusk	<i>Brosme brosme</i>	R
Fourbeard Rockling	<i>Enchelyopus cimbrius</i>	R?	Gag	<i>Mycteroperca microlepis</i>	R
Atlantic Cod	<i>Gadus morhua</i>	CWS	Glasseye snapper	<i>Priacanthus cruentatus</i>	R
Haddock	<i>Melanogrammus aeglefinus</i>	OWS	Blackline Tilefish	<i>Caulolatilus cyanops</i>	R
Offshore Hake	<i>Merluccius albidus</i>	C	Tilefish	<i>Lopholatilus chamaeleonticeps</i>	A
Silver Hake	<i>Merluccius bilinearis</i>	A	Bluefish	<i>Pomatomus saltatrix</i>	A
Atlantic Tomcod	<i>Microgadus tomcod</i>	C	Cobia	<i>Rachycentron canadum</i>	R
Pollock	<i>Pollachius virens</i>	C	Sharksucker	<i>Echeneis naucrates</i>	R
Red Hake	<i>Urophycis chuss</i>	A	Whitefin Sharksucker	<i>Echeneis neucratoides</i>	R
Carolina Hake	<i>Urophycis earlii</i>	R	Marlinsucker	<i>Remora osteochir</i>	R
Spotted Hake	<i>Urophycis regia</i>	C	Remora	<i>Remora remora</i>	R
White Hake	<i>Urophycis tenuis</i>	O	White Suckerfish	<i>Remorina albescens</i>	R
Fawn Cusk-eel	<i>Lepophidium profundorum</i>	A	African Pompano	<i>Alectis ciliaris</i>	R
Striped Cusk-eel	<i>Ophidion marginatum</i>	C	Yellow Jack	<i>Caranx bartholomaei</i>	R
Crested Cusk-eel	<i>Ophidion welschi</i>	R	Blue Runner	<i>Caranx crysos</i>	OSF
Oyster Toadfish	<i>Opsanus tau</i>	A	Crevalle Jack	<i>Caranx hippos</i>	CSF
Goosefish	<i>Lophius americanus</i>	C	Horse-eye Jack	<i>Caranx latus</i>	R
Striated Frogfish	<i>Antennarius striatus</i>	R	Bar Jack	<i>Caranx ruber</i>	O
Sargassumfish	<i>Histrio histrio</i>	R	Atlantic Bumper	<i>Chloroscombrus chrysurus</i>	R
Redeye Gaper	<i>Chaunax stigmaeus</i>	R	Round Scad	<i>Decapterus punctatus</i>	R
Clearwing Flyingfish	<i>Cypselurus comatus</i>	R	Pilotfish	<i>Naucrates ductor</i>	R
Bandwing Flyingfish	<i>Cypselurus exciliens</i>	R	Leatherjack	<i>Oligoplites saurus</i>	O
Spotfin Flyingfish	<i>Cypselurus furcatus</i>	R	Bigeye Scad	<i>Selar crumenophthalmus</i>	R
Atlantic Flyingfish	<i>Cypselurus melanurus</i>	R	Atlantic Moonfish	<i>Selene setapinnis</i>	OS
Flying Halfbeak	<i>Euleptorhampus velox</i>	R	Lookdown	<i>Selene vomer</i>	OS
Ballyhoo	<i>Hemiramphus brasiliensis</i>	R	Greater Amberjack	<i>Seriola dumerili</i>	R
Silverstripe Halfbeak	<i>Hyporhamphus unifasciatus</i>	O	Almaco Jack	<i>Seriola rivoliana</i>	R
Flat Needlefish	<i>Ablennes hians</i>	R	Banded Rudderfish	<i>Seriola zonata</i>	OS
Atlantic Needlefish	<i>Strongylura marina</i>	CS	Florida Pompano	<i>Trachinotus carolinus</i>	CS
Agujon	<i>Tylosurus acus</i>	R	Permit	<i>Trachinotus falcatus</i>	CS
Atlantic Saury	<i>Scomberesox saurus</i>	R	Palometa	<i>Trachinotus goodei</i>	CS
Sheepshead Minnow	<i>Cyprinodon variegatus</i>	A	Rough Scad	<i>Trachurus lathami</i>	R
Marsh Killifish	<i>Fundulus confluentus</i>	A	Cottonmouth Jack	<i>Uraspis secunda</i>	R
Banded Killifish	<i>Fundulus diaphanous</i>	A	Dolphin	<i>Coryphaena hippurus</i>	CS
Mummichog	<i>Fundulus heteroclitus</i>	A	Atlantic Pomfret	<i>Brama brama</i>	R
Spotfin Killifish	<i>Fundulus luciae</i>	C	Schoolmaster	<i>Lutjanus apodus</i>	R

Common Name	Scientific Name	Status	Common Name	Scientific Name	Status
Striped Killifish	<i>Fundulus majalis</i>	A	Red Snapper	<i>Lutjanus campechanus</i>	R
Rainwater Killifish	<i>Lucania parva</i>	C	Cubera Snapper	<i>Lutjanus cyanopterus</i>	R
Eastern Mosquitofish	<i>Gambusia holbrocki</i>	C	Gray Snapper	<i>Lutjanus griseus</i>	OS
Rough Silverside	<i>Membras martinica</i>	C	Yellowtail Snapper	<i>Ocyurus chrysurus</i>	R
Inland Silverside	<i>Menidia beryllina</i>	A	Vermillion Snapper	<i>Rhomboplites aurorubens</i>	R
Atlantic Silverside	<i>Menidia menidia</i>	A	Tripletail	<i>Lobotes surinamensis</i>	
Deep Water Squirrelfish	<i>Holocentrus bullisi</i>	R	Irish Pompano	<i>Diapterus auratus</i>	R
Dusky Squirrelfish	<i>Holocentrus vexillarius</i>	R	Spotfin Mojarra	<i>Eucinostomus argenteus</i>	R
Buckler Dory	<i>Zenopsis cochifera</i>	C	Silver Jenny	<i>Eucinostomus gula</i>	R
Fourspine Stickleback	<i>Apeltes quadracus</i>	C	Tidewater Mojarra	<i>Eucinostomus harengulus</i>	R
Threespine Stickleback	<i>Gasterosteus aculeatus</i>	C	Flagfin Mojarra	<i>Eucinostomus melanopterus</i>	R
Ninespine Stickleback	<i>Pungitius pungitius</i>	R	Pigfish	<i>Orthopristis chrysoptera</i>	R
Bluespotted Cornetfish	<i>Fistularia tabacaria</i>	R	Sheepshead	<i>Archosargus probatocephalus</i>	R
Longspine Snipefish	<i>Macrorhamphosus scolopax</i>	R	Sea Bream	<i>Archosargus rhomboidalis</i>	R
Lined Seahorse	<i>Hippocampus erectus</i>	CSF	Spottail Pinfish	<i>Diplodus holbrooki</i>	R
Opossum Pipefish	<i>Microphis brachyuros</i>	R	Pinfish	<i>Lagodon rhomboides</i>	R
Northern Pipefish	<i>Syngnathus fuscus</i>	A	Scup	<i>Stenotomus chrysops</i>	A
Chain Pipefish	<i>Syngnathus louisianae</i>	R	Silver Perch	<i>Bairdiella chrysoura</i>	C
Sargassum Pipefish	<i>Syngnathus pelagicus</i>	R	Spotted Seatrout	<i>Cynoscion nebulosus</i>	R
Flying Gurnard	<i>Dactylopterus volitans</i>	R	Weakfish	<i>Cynoscion regalis</i>	A
Blackbelly Rosefish	<i>Helicolenus dactylopterus</i>	A	Banded Drum	<i>Larimus fasciatus</i>	R
Spinycheek Scorpionfish	<i>Neomerinthe hemingwayi</i>	R	Spot	<i>Leiostomus xanthurus</i>	C-A
Highfin Scorpionfish	<i>Pontinus rathbuni</i>	R	Southern Kingfish	<i>Menticirrhus americanus</i>	O
Barbfish	<i>Scorpaena brasiliensis</i>	R	Horned Whiff	<i>Citharichthys cornutus</i>	R
Mushroom Scorpionfish	<i>Scorpaena inermis</i>	R	Angelfin Whiff	<i>Citharichthys gymnorhinus</i>	R
Smoothcheek Scorpionfish	<i>Scorpaena isthmensis</i>	R	Bay Whiff	<i>Citharichthys spilopterus</i>	R
Spotted Scorpionfish	<i>Scorpaena plumieri</i>	R	Smallmouth Flounder	<i>Etropus microstomus</i>	C
Acadian Redfish	<i>Sebastes fasciatus</i>	O	Gulf Flounder	<i>Paralichthys albigutta</i>	R
Armored Searobin	<i>Peristedion miniatum</i>	C	Summer Flounder	<i>Paralichthys dentatus</i>	A
Northern Searobin	<i>Prionotus carolinus</i>	A	Fourspot Flounder	<i>Paralichthys oblongus</i>	C
Striped Searobin	<i>Prionotus evolans</i>	A	Windowpane	<i>Scophthalmus aquosus</i>	C
Sea Raven	<i>Hemitripterus americanus</i>	C	Dusky Flounder	<i>Syacium papillosum</i>	R
Grubby	<i>Myoxocephalus aeneus</i>	C	Witch Flounder	<i>Glyptocephalus cynoglossus</i>	C
Longhorn Sculpin	<i>Myoxocephalus octodecemspinosus</i>	C	American Plaice	<i>Hippoglossoides platessoides</i>	R
Shorthorn Sculpin	<i>Myoxocephalus scorpius</i>	R	Atlantic Halibut	<i>Hippoglossus hippoglossus</i>	R
Alligatorfish	<i>Aspidophoroides monopterygius</i>	R	Winter Flounder	<i>Pleuronectes americanus</i>	A
Lumpfish	<i>Cyclopterus lumpus</i>	R	Yellowtail Flounder	<i>Pleuronectes ferrugineus</i>	C
Atlantic Seasnail	<i>Liparis atlanticus</i>	R	Hogchoker	<i>Trinectes maculatus</i>	C
Inquiline Seasnail	<i>Liparis inquilinus</i>	C	Blackcheek Tonguefish	<i>Symphurus plagiusa</i>	R
White Perch	<i>Morone americana</i>	A	Orange Filefish	<i>Aluterus schoepfi</i>	R
Striped Bass	<i>Morone saxatilis</i>	A	Gray Triggerfish	<i>Balistes capriscus</i>	R
Wreckfish	<i>Polyprion americanus</i>	R	Queen Triggerfish	<i>Balistes vetula</i>	R
Swallowtail Bass	<i>Anthias woodsi</i>	O	Ocean Triggerfish	<i>Canthidermis sufflamen</i>	O
Black Sea Bass	<i>Centropristis striata</i>	A	Fringed Filefish	<i>Monacanthus ciliatus</i>	R
Red Grouper	<i>Epinephelus morio</i>	R	Planehead Filefish	<i>Monacanthus hispidus</i>	R
Warsaw Grouper	<i>Epinephelus nigritus</i>	R	Scrawled Cowfish	<i>Lactophrys quadricornis</i>	R
Snowy Grouper	<i>Epinephelus niveatus</i>	R	Trunkfish	<i>Lactophrys trigonus</i>	R
Black Grouper	<i>Mycteroperca bonaci</i>	R	Smooth Trunkfish	<i>Lactophrys triqueter</i>	R
Northern Kingfish	<i>Menticirrhus saxatilis</i>	C	Web Burrfish	<i>Chilomycterus antillarum</i>	R
Atlantic Croaker	<i>Micropogonias undulatus</i>	C	Spotted Burrfish	<i>Chilomycterus atinga</i>	R
Black Drum	<i>Pogonias cromis</i>	C	Striped Burrfish	<i>Chilomycterus schoepfi</i>	O
Red Drum	<i>Sciaenops ocellatus</i>	O	Porcupinefish	<i>Diodon hystrix</i>	R

Common Name	Scientific Name	Status	Common Name	Scientific Name	Status
Red Goatfish	<i>Mullus auratus</i>	R	Smooth Puffer	<i>Lagocephalus laevigatus</i>	OS
Spotted Goatfish	<i>Pseudupeneus maculatus</i>	R	Northern Puffer	<i>Sphoeroides maculatus</i>	CS
Bermuda Chub	<i>Kyphosus sectatrix</i>	R	Checkered Puffer	<i>Sphoeroides testudineus</i>	R
Atlantic Spadefish	<i>Chaetodipterus faber</i>	R	Ocean Sunfish	<i>Mola mola</i>	O
Foureye Butterflyfish	<i>Chaetodon capistratus</i>	R	Wahoo	<i>Acanthocybium solandri</i>	R
Spotfin Butterflyfish	<i>Chaetodon ocellatus</i>	F	Frigate Mackerel	<i>Auxis thazard</i>	R
Banded Butterflyfish	<i>Chaetodon striatus</i>	R	Little Tunny	<i>Euthynnus alletteratus</i>	CS
Gray Angelfish	<i>Pomacanthus arcuatus</i>	R	Skipjack Tuna	<i>Katsuwonus pelamis</i>	R
Sergeant Major	<i>Abudefduf saxatilis</i>	R	Blue Marlin	<i>Makaira nigricans</i>	R
Striped Mullet	<i>Mugil cephalus</i>	A	White Marlin	<i>Tetrapterus albidus</i>	C
White Mullet	<i>Mugil curema</i>	A	Black Ruff	<i>Centrolophus niger</i>	R
Great Barracuda	<i>Sphyraena barracuda</i>	R	Black Fathead	<i>Cubiceps baxteri</i>	R
Northern Sennet	<i>Sphyraena borealis</i>	C	Barrelfish	<i>Hyperoglyphe perciformis</i>	R
Atlantic Threadfin	<i>Polydactylus octonemus</i>	R	Harvestfish	<i>Peprilus alepudotus</i>	O
Tautog	<i>Tautoga onitis</i>	A	Butterfish	<i>Peprilus triacanthus</i>	A
Cunner	<i>Tautoglabrus adspersus</i>	C	Freckled Driftfish	<i>Psenes cyanophrys</i>	R
Emerald Parrotfish	<i>Nicholsina usta</i>	R	Bluefin Driftfish	<i>Psenes pellucidus</i>	R
Ocean Pout	<i>Macrozoarces americanus</i>	C	Bigeye Squaretail	<i>Tetragonurus atlanticus</i>	R
Snakeblenny	<i>Lumpenus lumpretaeiformis</i>	R	Twospot Flounder or Spottail Flounder	<i>Bothus robinsi</i>	R
Arctic Shanny	<i>Stichaeus punctatus</i>	R	Gulf Stream Flounder	<i>Citharichthys arctifrons</i>	A
Radiated Shanny	<i>Ulvaria subbifurcata</i>	R	Blue Tang	<i>Acanthurus coeruleus</i>	R
Rock Gunnel	<i>Pholis gunnelus</i>	R	Oilfish	<i>Ruvettus pretiosus</i>	R
Atlantic Wolffish	<i>Anarhichas lupus</i>	R	Atlantic Cutlassfish	<i>Trichiurus lepturus</i>	R
Northern Stargazer	<i>Astroscopus guttatus</i>	O	Atlantic Bonito	<i>Sarda sarda</i>	O
Striped Blenny	<i>Chasmodes bosquianus</i>	O	Chub Mackerel	<i>Scomber japonicus</i>	R
Crested Blenny	<i>Hypsoblennius germinatus</i>	R	Atlantic Mackerel	<i>Scomber scombrus</i>	A
Feather Blenny	<i>Hypsoblennius hentz</i>	O	King Mackerel	<i>Scomberomorus cavalla</i>	O
Seaweed Blenny	<i>Parablennius marmoreus</i>	R	Spanish Mackerel	<i>Scomberomorus maculatus</i>	O
American Sand Lance	<i>Ammodytes americanus</i>	A	Cero	<i>Scomberomorus regalis</i>	O
Northern Sand Lance	<i>Ammodytes dubius</i>	A	Albacore	<i>Thunnus alalunga</i>	C
Fat Sleeper	<i>Dormitator maculatus</i>	R	Yellowfin Tuna	<i>Thunnus albacares</i>	C
Darter Goby	<i>Gobionellus boleosoma</i>	R	Bigeye Tuna	<i>Thunnus obesus</i>	O
Highfin Goby	<i>Gobionellus oceanicus</i>	R	Bluefin Tuna	<i>Thunnus thynnus</i>	CS
Naked Goby	<i>Gobiosoma bosc</i>	A	Swordfish	<i>Xiphias gladius</i>	CS
Seaboard Goby	<i>Gobiosoma ginsburgi</i>	O	Sailfish	<i>Istiophorus platypterus</i>	R
Ocean Surgeon	<i>Acanthurus bahianus</i>	R			

A – Abundant AS - Abundant in summer ASF - Abundant in spring and fall F – Frequent R - Rare
 T – Threatened C – Common C-A - Common-abundant CS - Common in summer
 CSF - Common in summer and fall CW - Common in winter CWS - Common in winter and spring O – Occasional
 OS - Occasional in summer OSF - Occasional in summer and fall
 OWS - Occasional in winter and spring

4.2.2 Terrestrial Animals

Several habitat types likely to occur in Sea Isle City were discussed in the Botanical Resources section. Coastal habitats include beaches and dunes and salt marsh complexes. Dozens of species of native mammals are known to reside in southern New Jersey. Four of the bats in the table below are only present during migration (USFWS, SNE-NYB Coastal Program 1997). Because Sea Isle City lies on a barrier island separated from the mainland of southern New Jersey, many of the species listed below are likely absent from Sea Isle City. This is also due to the lack of the necessary habitats for some of these species, such as extensive forest, woodland or grassland habitats.

Common Name	Scientific Name	Status	Common Name	Scientific Name	Status
Opossum	<i>Didelphis marsupialis</i>	S	Eastern Cottontail	<i>Sylvilagus floridanus</i>	S
Masked Shrew	<i>Sorex cinereus</i>	S	Eastern Chipmunk	<i>Tamias striatus</i>	S
Short-tailed Shrew	<i>Blarina brevicauda</i>	S	Woodchuck	<i>Marmota monax</i>	S
Least Shrew	<i>Cryotis parva</i>	U	Gray Squirrel	<i>Sciurus carolinensis</i>	S
Eastern Mole	<i>Scalopus aquaticus</i>	S	Red Squirrel	<i>Tamiasciurus hudsonicus</i>	S
Star-nosed Mole	<i>Condylura cristata</i>	U	Southern Flying Squirrel	<i>Glaucomys volans</i>	U
Little Brown Bat	<i>Myotis lucifugus</i>	S	Beaver	<i>Castor canadensis</i>	INC
Keen Myotis	<i>Myotis septentrionalis</i>	U	Marsh Rice Rat	<i>Oryzomys palustris</i>	S
Silver-haired Bat	<i>Lasionycteris noctivagans</i>	U	White-footed Mouse	<i>Peromyscus leucopus</i>	S
Eastern Pipistrel	<i>Pipistrellus subflavus</i>	U	Red-backed Vole	<i>Clethrionomys gapperi</i>	S
Big Brown Bat	<i>Eptesicus fuscus</i>	S	Meadow Vole	<i>Microtus pennsylvanicus</i>	S
Red Bat	<i>Lasiurus borealis</i>	S	Pine Vole	<i>Microtus pinetorum</i>	S
Hoary Bat	<i>Lasiurus cinereus</i>	U	Muskrat	<i>Ondatra zibethicus</i>	S
Meadow Jumping Mouse	<i>Zapus hudsonius</i>	U	Southern Bog Lemming	<i>Synaptomys cooperi</i>	U
Red Fox	<i>Vulpes vulpes</i>	S	House Mouse	<i>Mus musculus</i>	I
Black Bear	<i>Ursus americanus</i>	INC	Gray Fox	<i>Urocyon cinereoargenteus</i>	S
Long-tailed Weasel	<i>Mustela frenata</i>	S	Raccoon	<i>Procyon lotor</i>	S
Mink	<i>Mustela vison</i>	S	Striped Skunk	<i>Mephitis mephitis</i>	S
River Otter	<i>Lutra canadensis</i>	S	White-tailed Deer	<i>Odocoileus virginianus</i>	D

St – Status E - Endangered D - Decreasing INC - Increasing S - Stable U – Undetermined I - Introduced P - Peripheral

The diversity of terrestrial fauna in Sea Isle City is exemplified by the birds. Cape May County, New Jersey is renowned for its bird diversity. The County is a peninsula encompassing many habitat types. It is strategically located along East Coast migratory bird flyways. Famous ornithologists, such as Alexander Wilson, George Ord and William and Spencer Baird have worked in Cape May County. John James Audubon painted in the saltmarshes of the Great Egg Harbor Estuary (USGS 2006). The list of bird species below includes birds found in Cape May County, the waters of Delaware Bay, and offshore to a distance of 50 miles (USGS 2006).

Common Name	Common Name	Common Name	Common Name	Common Name
Red-throated Loon	Common Loon	Pied-billed Grebe	Horned Grebe	Common Barn Owl
Cory's Shearwater	Greater Shearwater	Sooty Shearwater	Audubon's Shearwater	Eastern Screech Owl
Wilson's Storm Petrel	American White Pelican	Brown Pelican	Northern Gannet	Short-eared Owl
Great Cormorant	Double-crested Cormorant	American Bittern	Least Bittern	Great Horned Owl
Glossy Ibis	White Ibis	Wood Duck	Brant	Snowy Owl
Green-winged Teal	American Black Duck	Northern Pintail	Blue-winged Teal	Barred Owl
Northern Shoveler	Gadwall	Eurasian Widgeon	American Widgeon	Long-eared Owl
Canvasback	Redhead	Ring-necked Duck	Greater Scaup	Northern Saw-whet Owl
Lesser Scaup	Common Eider	King Eider	Harlequin Duck	Common Nighthawk
Oldsquaw	Black Scoter	Surf Scoter	White-winged Scoter	Chuck-Will's-Widow
Common Goldeneye	Bufflehead	Hooded Merganser	Common Merganser	Whip-poor-will
Red-breasted Merganser	Ruddy Duck	Osprey	Swallow-tailed Kite	Horned Lark
Mississippi Kite	Bald Eagle	Ring-necked Pheasant	Ruffed Grouse	Purple Martin
Great Blue Heron	Snow Goose	Wild Turkey	Black Rail	Tree Swallow
Great Egret	Canada Goose	Clapper Rail	King Rail	Bank Swallow
Snowy Egret	Mallard	Virginia Rail	Sora	Brown Creeper
Little Blue Heron	Black Vulture	Purple Gallinule	Common Morhen	Carolina Chickadee
Tricolored Heron	Turkey Vulture	American Coot	Sandhill Crane	Eastern Bluebird
Cattle Egret	Northern Harrier	Greater Yellowlegs	Willet	Veery

Green Heron	Sharp-shinned Hawk	Lesser Yellowlegs	Spotted Sandpiper	Gray Catbird
Black-crowned Night Heron	Cooper's Hawk	Solitary Sandpiper	Upland Sandpiper	Ruby-throated Hummingbird
Yellow-crowned Night Heron	Northern Goshawk	Northern Bobwhite	Whimbrel	Red-headed Woodpecker
Tundra Swan	Red-shouldered Hawk	Marbled Godwit	Hudsonian Godwit	Red-bellied Woodpecker
Mute Swan	Broad-winged hawk	Ruddy Turnstone	Red Knot	Hairy Woodpecker
Black-bellied Plover	Swainson's Hawk	Sanderling	Semipalmated Sandpiper	Rock Dove
American Golden-plover	Red-tailed Hawk	Western Sandpiper	Least Sandpiper	White-winged Dove
Semipalmated plover	Rough-legged Hawk	White-rumped Sandpiper	Pectoral Sandpiper	Mourning Dove
Piping Plover	American Kestrel	Baird's Sandpiper	Purple sandpiper	Eastern Wood Pewee
Killdeer	Merlin	Dunlin	Stilt Sandpiper	Acadian Flycatcher
American Oystercatcher	Peregrine Falcon	Buff-breasted Sandpiper	Ruff	Willow Flycatcher
Black-necked Stilt	Golden Eagle	Short-billed Dowitcher	Long-billed Dowitcher	Eastern Phoebe
American Avocet	Common Snipe	American Woodcock	Wilson's Phalarope	Western Kingbird
Red-necked Phalarope	Red Phalarope	Pomarine Jaeger	Parasitic Jaeger	Eastern Kingbird
Gull-billed Tern	Caspian Tern	Sandwich Tern	Royal Tern	No. Rough-winged Swallow
Roseate Tern	Arctic Tern	Common Tern	Forster's Tern	Cliff Swallow
Least Tern	Black Tern	Black Skimmer	Dovekie	Golden-crowned Kinglet
Razorbill	Belted Kingfisher	Least Flycatcher	Chimney Swift	Ruby-crowned Kinglet
Laughing Gull	American Crow	Great Crested Flycatcher	Yellow-bellied Sapsucker	Blue-gray Gnatcatcher
Little Gull	Fish Crow	Scissor-tailed Flycatcher	Downy Woodpecker	Swainson's Thrush
Common Black-headed Gull	Blue Jay	Barn Swallow	Northern Flicker	Gray-cheeked Thrush
Bonaparte's Gull	White-breasted Nuthatch	Carolina Wren	Black-billed Cuckoo	Eastern Meadowlark
Ring-billed Gull	Tufted Titmouse	Winter Wren	Yellow-billed Cuckoo	Brewer's Blackbird
Herring Gull	Red-breasted Nuthatch	Sedge Wren	Olive-sided Flycatcher	Orchard Oriole
Iceland Gull	Bicknell's Thrush	Marsh Wren	Yellow-bellied Flycatcher	Baltimore Oriole
Lesser Black-backed Gull	American Robin	House Wren	Alder Flycatcher	Brown-headed Cowbird
Glaucous Gull	Brown Thrasher	Wood Thrush	Cedar Waxwing	Red Crossbill
Great Black-backed Gull	Loggerhead Shrike	American Pipit	White-eyed Vireo	Rusty Blackbird
Northern Mockingbird	Yellow Warbler	Hermit Thrush	Blue-headed Vireo	Common Grackle
Northern Shrike	Chestnut-sided Warbler	European Starling	Yellow-throated Vireo	Evening Grosbeak
Blue-winged Warbler	Magnolia Warbler	Yellow-throated Warbler	Warbling Vireo	American Goldfinch
Golden-winged Warbler	Cape May Warbler	Pine Warbler	Philadelphia Vireo	Purple Finch
Tennessee Warbler	Black-throated Blue Warbler	Prairie Warbler	Red-eyed Vireo	House Finch
Orange-crowned Warbler	Black-throated Green Warbler	Black-and-white Warbler	Palm Warbler	Lapland Longspur
Northern Parula	Blackburnian Warbler	Louisiana Waterthrush	Bay-breasted Warbler	Yellow-headed Blackbird
Nashville Warbler	Cerulean Warbler	Kentucky Warbler	American Redstart	White-throated Sparrow
Yellow-rumped Warbler	Ovenbird	Wilson's Warbler	Connecticut Warbler	Snow Bunting
Blackpoll Warbler	Northern Waterthrush	Scarlet Tanager	Mourning Warbler	Bobolink
Worm-eating Warbler	Hooded Warbler	Indigo Bunting	Canada Warbler	Red-winged Blackbird
Prothonotary Warbler	Summer Tanager	Chipping Sparrow	Northern Cardinal	Boat-tailed Grackle
Common Yellowthroat	Blue Grosbeak	Yellow-throated Warbler	Dickcissel	
Yellow-breasted Chat	Rose-breasted Grosbeak	Saltmarsh Sharp-tailed Sparrow	Pine Warbler	Wilson's Warbler
Dickcissel	American Tree Sparrow	Nelson's Sharp-tailed Sparrow	Prairie Warbler	Connecticut Warbler
Eastern Towhee	Louisiana Waterthrush	Fox Sparrow	Black-and-white Warbler	Red-eyed Vireo
Chipping Sparrow	Scarlet Tanager	Song Sparrow	Kentucky Warbler	Palm Warbler
Clay-colored Sparrow	Indigo Bunting	Grasshopper Sparrow	Mourning Warbler	Bay-breasted Warbler
Savannah Sparrow	Lark Sparrow	Lincoln's Sparrow	Canada Warbler	American Redstart
Field Sparrow	Seaside Sparrow	Vesper Sparrow	Northern Cardinal	Swamp Sparrow
House Sparrow	White-crowned Sparrow	Dark-eyed Junco	Pine Siskin	Common Redpoll

Southern New Jersey is home to numerous herptile species (reptiles and amphibians). As is the case for plants and other terrestrial animals, one of the reasons for this diversity is that many species are at the limits of their ranges, particularly southern Coastal Plain species. Coastal Plain Intermittent Ponds provide important breeding habitat for amphibians (USFWS, SNE-NYB Coastal Program 1997). However, because Sea Isle City is located on a barrier

island restricted by saltwater and brackish water, many of the species listed below are likely to be absent from the municipality.

Table 20: Cape May County Reptiles (NJDEP, DFW 2001 NJDEP, DFW 2005)

Common Name	Scientific Name	Status	Common Name	Scientific Name	Status
Common Snapping Turtle	<i>Chelydra serpentina</i>	S	Common Musk Turtle	<i>Sternotherus odoratus</i>	S
Eastern Mud Turtle	<i>Kinosternon s. subrubrum</i>	U	Spotted Turtle	<i>Clemmys guttata</i>	SC
Bog Turtle	<i>Clemmys muhlenbergii</i>	E	Eastern Box Turtle	<i>Terrapene c. carolina</i>	SC
Red-eared Slider	<i>Malaclemys t. terrapin</i>	U	Eastern Painted Turtle	<i>Chrysemys p. picta</i>	U
Redbelly Turtle	<i>Pseudemys rubriventris</i>	U	Northern Brown (DeKay's) Snake	<i>Storeria d. dekayi</i>	S
Northern Water Snake	<i>Nerodia s. sipedon</i>	S	Eastern Garter Snake	<i>Thamnophis s. sirtalis</i>	S
Northern Redbelly Snake	<i>Storeria o. occipitamaculata</i>	S	Eastern Smooth Earth Snake	<i>Virginia v. valeriae</i>	U
Eastern Ribbon Snake	<i>Thamnophis sauritis sauritis</i>	S	Northern Ringneck Snake	<i>Diadophis punctatus edwardsi</i>	S
Eastern Hognose Snake	<i>Heterodon platyrhinos</i>	D	Southern Ringneck Snake	<i>Diadophis p. punctatus</i>	S
Eastern Worm Snake	<i>Carphophis a. amoenus</i>	U	Northern Black Racer	<i>Coluber constrictor constrictor</i>	U
Rough Green Snake	<i>Ophedrys vernalis</i>	S	Black Rat Snake	<i>Elaphe o. obsoleta</i>	U
Eastern King Snake	<i>Lampropeltis g. getula</i>		Northern Pine Snake	<i>Pituophis m. melanoleucus</i>	T
Scarlet King Snake	<i>Lampropeltis triangulum elapsoides</i>	SC	Coastal plain Milk Snake intergrade	<i>Lampropeltis t. triangulum X L. t. elapsoides elapsoides</i>	SC
Five-lined Skink	<i>Eumeces fasciatus</i>	U	Northern Fence Lizard	<i>Sceloporus undulatus hyacinthus</i>	S

St – Status E - Endangered D - Decreasing INC - Increasing S - Stable U – Undetermined I - Introduced P - Peripheral

Few amphibians are expected to occur in Sea Isle City. The amphibians below occur in Cape May County and could be present on the island if habitat is present.

Table 21: Cape May County Amphibians (NJDEP, DFW 2001 NJDEP, DFW 2005)

Common Name	Scientific Name	Status	Common Name	Scientific Name	Status
Marbled Salamander	<i>Ambystoma opacum</i>	SC	Eastern Tiger Salamander	<i>Ambystoma t. tigrinum</i>	E
Red-spotted Newt	<i>Notophthalmus v. viridescens</i>	D	Four-toed Salamander	<i>Hemidactylium scutatum</i>	D
Red-backed Salamander	<i>Plethodon c. cinereus</i>	S	Eastern Mud Salamander	<i>Pseudotriton m. montanus</i>	T
Northern Red Salamander	<i>Pseudotriton r. ruber</i>	D	Fowler's Toad	<i>Bufo woodhousii fowleri</i>	SC
Eastern Spadefoot Toad	<i>Scaphiopus h. holbrookii</i>	D	Northern Cricket Frog	<i>Acris c. crepitans</i>	U
Northern Gray Treefrog	<i>Hyla versicolor</i>	S	Northern Spring Peeper	<i>Hyla c. crucifer</i>	S
New Jersey Chorus Frog	<i>Pseudacris triseriata kalmi</i>	S	Bullfrog	<i>Rana catesbeiana</i>	S
Carpenter Frog	<i>Rana virgatipes</i>	SC	Green Frog	<i>Rana clamitans melanota</i>	S
Wood Frog	<i>Rana sylvatica</i>	S	Southern Leopard Frog	<i>Rana spenocephala</i>	S
Pickerel Frog	<i>Rana palustris</i>	S			

St – Status E - Endangered D - Decreasing INC - Increasing S - Stable U – Undetermined I - Introduced P - Peripheral

The incredible diversity observed in bird species in Cape May County also holds true for butterflies. Wright and Sutton (1999) have compiled the list below based on review of private and museum collections and the entomology literature.

Table 22: Butterflies of Cape May County, New Jersey (Wright & Sutton 1999)

Common Name	Common Name	Common Name	Common name
Pipevine Swallowtail	Banded Hairstreak	Aphrodite Fritillary	Appalachian Brown
Zebra Swallowtail	Striped Hairstreak	Regal Fritillary	Georgia Satyr
Black Swallowtail	Southern (No.) Hairstreak	Silver-Bordered Fritillary	Little Wood Satyr

E. Tiger Swallowtail	Brown Elfin	Meadow Fritillary	Common Wood Nymph
Spicebush Swallowtail	Frosted Elfin	Pearl Crescent	Monarch
Palamedes Swallowtail	Henry's Elfin	Baltimore	Silver-Spotted Skipper
Checkered White	Eastern Pine Elfin	Question Mark	Long-Tailed Skipper
Cabbage White	'Olive' Juniper Hairstreak	Eastern Comma	Hoary Edge
Falcate Orangetip	Hessel's Hairstreak	Gray Comma	Southern Cloudywing
Clouded Sulphur	White M Hairstreak	Compton Tortoiseshell	Northern Cloudywing
Orange Sulphur	Gray Hairstreak	Mourning Cloak	Hayhurst's Scallopwing
Cloudless Sulphur	Red-Banded Hairstreak	American Lady	Sleepy Duskywing
Little Yellow	Eastern Tailed Blue	Painted Lady	Juvenal's Duskywing
Sleepy Orange	'Northern' Spring Azure	Red Admiral	Horace's Duskywing
Harvester	Coastal Holly Azure	Common Buckeye	Zarucco Duskywing
American Copper	Summer Azure	Red-Spotted Purple	Wild Indigo Duskywing
Bronze Copper	American Snout	Viceroy	Common Checkered Skipper
Bog Copper	Gulf Fritillary	Hackberry Emperor	Common Sootywing
Great Purple Hairstreak	Variiegated Fritillary	Tawny Emperor	Swarthy Skipper
Coral Hairstreak	Great Spangled Fritillary	Eyed Brown	Clouded Skipper
Least Skipper	European Skipper	Fiery Skipper	Leonard's Skipper
Cobweb Skipper	Peck's Skipper	Tawny-Edged Skipper	Crossline Skipper
Whirlabout	Northern Broken Dash	Little Glassywing	Sachem
Delaware Skipper	Rare Skipper	Mulberry Wing	Zabulon Skipper
Aaron's Skipper	Broad-Winged Skipper	Dion Skipper	Black Dash
Two-Spotted Skipper	Dun Skipper	Dusted Skipper	Common Roadside Skipper
Eufala Skipper	Brazilian Skipper	Salt Marsh Skipper	Ocola Skipper
Giant Swallowtail	Southern Dogface	Orange-Barred Sulphur	Edward's Hairstreak
Hoary Elfin	Golden-Banded Skipper	Confused Cloudywing	Dotted Skipper
Indian Skipper	Arogos Skipper	Hobomok Skipper	

4.3 Rare Species and Species of Special Concern

A search of State and Federal maps and databases to determine if records exist for occurrences of threatened and endangered wildlife species, rare plants or natural communities, or critical wildlife habitat on or in the immediate vicinity of the project site identified numerous areas of critical habitat and the presence of rare, threatened and endangered species within Sea Isle City. Specifically, a search of the New Jersey Department of Environmental Protection Natural Heritage Program (NHP) Database was performed and the New Jersey Landscape Mapping Project was reviewed. Several threatened and endangered animals and habitat associated with them are known to occur within Sea Isle City. Foraging habitat for Black Skimmer, Least Tern, Black-crowned Night Heron, Yellow-crowned Night Heron and tern species and colonial waterbirds are present in the NHP database. Nesting habitat for Black-crowned Night Heron and colonial waterbirds are also present in the NHP database, as well as a coastal heron rookery. Rare vertebrates are listed below. No rare, threatened or endangered invertebrates were identified within the City limits by the NHP.

Common Name	Scientific Name	Status	Common Name	Scientific Name	Status
Black-Crowned Night-Heron	<i>Nycticorax nycticorax</i>	T/S	Northern Diamondback Terrapin	<i>Malaclemys terrapin terrapin</i>	SC
Forster's Tern	<i>Sterna forsteri</i>	INC/S	Osprey	<i>Pandion haliaetus</i>	T/T
Least Tern	<i>Sterna antillarum</i>	E	Peregrine Falcon	<i>Falco peregrinus</i>	E
Piping Plover	<i>Charadrius melodus</i>	E (LT)			

E – Endangered T – Threatened S – Stable SC – Special Concern INC
E/T, T/T, T/S – Dual Status, letter before the slash is status of breeding population, letter after the slash is for the migratory population
(LT) – Federal Status, formally listed as threatened

4.4 Critical Habitats and Special Ecological Communities

4.4.1 Federal Habitat Complexes

The US Fish and Wildlife Service has identified regionally significant habitats and species populations in the New York Bight Watershed. The USFWS recognizes the importance of delineating the larger habitat complexes that link local habitat patches and species populations, forming regional ecological assemblages. This landscape level perspective is critical to establishing uniform and effective management practices to replace site-by-site, uncoordinated practices that do not take into account real ecological complexity. For instance, species may utilize different habitat types at different life stages. Interbreeding between populations of a species promotes genetic health. Habitat patches that lose species can be recolonized from populations in other patches, if connectivity is preserved. In identifying these habitat complexes, the USFWS was particularly interested in locations of naturally occurring populations of federally and state-listed endangered and threatened species and candidates for listing, and those areas that contain significant concentrations of, or are otherwise important to critical life-history stages of, other indigenous species. The following use categories were prioritized: breeding, nesting, or spawning sites;

- migration pathways and stopover areas, including areas of open space in urban areas;
- roosting sites;
- nursery areas;
- staging areas;
- dispersal corridors;
- core concentration areas;
- overwintering areas;
- major feeding or foraging areas (USFWS, SNE-NYB Coastal Program 1997).

Sea Isle City is located within the Cape May Peninsula Habitat Complex identified by the USFWS. The Cape May Peninsula habitat complex includes the entire Cape May Peninsula, encompassing marine, estuarine, wetland and upland habitats, but not developed barrier island and inland sites. Within Sea Isle City, the habitat complex includes the barrier beaches and backbarrier lagoon system. Significant habitat for migratory landbirds, raptors, migratory shorebirds, colonial nesting waterbirds, and regionally rare wetland and upland communities and plants is present. Also included are the nearshore waters of the New York Bight known to be important for marine mammals (USFWS, SNE-NYB Coastal Program 1997).

4.4.2 State of New Jersey Critical Habitat Mapping

The New Jersey Department of Environmental Protection's (NJDEP) Division of Fish and Wildlife has developed maps identifying critical areas for threatened and endangered species based on land-use classifications and species location. This effort was coordinated through a study known as the Landscape Project. The project focuses on large areas throughout the State that are ecologically similar in regard to plant and animal communities referred to as Landscape Regions. Cape May County is situated within three Landscape Regions, the Atlantic Coast, Delaware Bay and the Pinelands Landscape Regions. Sea Isle City is located within the Atlantic Coast Region, identified as one of the most productive coastal habitats in the United States. The low-lying marsh and beaches of the barrier island communities support some of the state's most important colonies of nesting birds.

The Landscape Project delineates the State into five habitat classes: forest, grassland, forested wetland, emergent wetland and beaches. These classes are based on information extracted from the NJDEP's Land Use/Land Cover data. Habitat patches within these areas are classified by a ranking system based on the status of the species present in each. The prioritized ranking system is as follows:

- Rank 5 is assigned to areas containing one or more occurrences of at least one wildlife species listed on as endangered or threatened on the Federal list of endangered and threatened species.

- Rank 4 is assigned to areas containing one or more occurrences of at least one State endangered species.
- Rank 3 is assigned to areas containing one or more occurrences of at least one State threatened species.
- Rank 2 is assigned to areas containing one or more occurrences of at least one non-listed State priority species.
- Rank 1 is assigned to areas that meet habitat-specific suitability requirements such as minimum size criteria for endangered, threatened or priority wildlife species, but do not intersect with any confirmed occurrences of such species.

As shown on the Threatened and Endangered Species Map, the largest portion of Sea Isle City's critical habitat is identified as the emergent wetland classification, most of which is recognized as containing one or more State endangered species (Rank 4). In addition to the emergent wetland classification, there are also beaches containing federal threatened or endangered species and a small patch of forest containing State threatened species.

Rank 5 habitat mapped in Sea Isle City is associated with the occurrence of Piping Plover, a Federally threatened and State endangered species. Rank 4 habitat consists of Black-crowned Night Heron foraging and nesting habitat, Yellow-crowned Night Heron foraging habitat, Black Skimmer foraging area, Least Tern foraging area and habitat for Osprey and Peregrine Falcon. All of these species are State Endangered or Threatened. Also mapped for the Landscape Project are Foraging and Nesting Habitat for Colonial Waterbirds and for Tern species other than Least Tern. These species are not threatened or endangered. Large areas within Sea Isle City are mapped as habitat for threatened and endangered species. Some of this habitat occurs on publicly-owned land. Where it occurs on private land, special measures may be needed to preserve valuable wildlife habitat, while allowing necessary economic development and redevelopment in the City.

4.4.3 NJ Natural Heritage Program Priority Sites

The NJDEP's Natural Heritage Program identifies sites within the state of New Jersey that exhibit exceptional natural diversity or comprise prime habitat for threatened and endangered plant species and ecological communities. These sites are called Natural Heritage Priority Sites. The Natural Heritage Program has mapped several of these ecological communities within Sea Isle City (see the Natural Priority Sites Map in appendix I). The sites are named and described below.

Avalon-Stone Harbor Marsh Macrosite

Located behind a series of Atlantic coastal barrier islands, the Avalon-Stone Harbor Marsh Macrosite is dominated by tidal salt marshes interspersed with shallow backbays. A fringe of forested wetlands and mesic uplands are present on the western side, outside of the boundary of Sea Isle City. The site includes shore bird nesting areas and the surrounding salt marsh complex, as well as patches of forest on the mainland edge, which provide a place for migrating birds on the Atlantic flyway to rest and feed. The Garden State Parkway forms the westerly boundary, except where tidal creeks and forested areas extend to the west of the highway (NJDEP, NHP 2001a).

A concentration of state threatened bird species are documented from the salt marsh complex. The site is considered to have moderate biodiversity significance (USFWS, SNE-NYB Coastal Program 1997). Forested fringe areas may be important to migrating neotropical passerines (NJDEP, NHP 2001a).

Corson Inlet South and Whale Beach

The site consists of coastal barrier beach and dune habitat, which are documented habitat of significant bird species. Excellent populations of Piping Plover, Least Tern (USFWS, SNE-NYB Coastal Program 1997), and other State Endangered birds are present (NJDEP, NHP 2001b). The site is considered to have high biodiversity significance (USFWS, SNE-NYB Coastal Program 1997).

Townsend's Inlet

The site consists of coastal barrier beach and dune habitat and emergent tidal marsh. The site has a moderate to high biodiversity rank, as it contains a good population of Piping Plover, a federally threatened and State endangered bird species, and two additional State endangered bird species, Black Skimmer and Least Tern (NJDEP, NHP 2001c).

5.0 CULTURAL RESOURCE INVENTORY

5.1 Prehistoric Context

From approximately 25,000 to 10,000 years ago New Jersey was under glacial conditions. For thousands of years Native Americans pursued large game like mastodons, mammoths, and caribou, traversing rough terrain and making their way across most of the continent. By about 12,500 years ago the earliest known archaeological evidence shows Native Americans were living in what is now New Jersey. Until about 7,000 years ago New Jersey was an environment dominated by evergreens and sub-arctic conditions. The first Native Americans of New Jersey left no recorded evidence of their daily lives and activities. We are able to tell from archaeological evidence that they used technologies and established social systems similar to the Lenape tribes of the colonial contact period. Even in these harsh New Jersey environments the first Americans were able to survive by hunting and gathering alone. This was by no means an easy task. For example to obtain raw materials for stone tools it was sometimes necessary to travel or trade over hundreds of miles.

Within a few thousand years the largest of the game animals in North America were extinct and the native people of Lenapehoking had to rely on mid-sized game like white-tailed deer, black bear, and elk as well as smaller animals including turkeys, mammals, and fish. With the extinction of large game animals, New Jersey also began to experience warmer conditions and changing landscape of vegetation. Around 7,000 years ago deciduous trees replaced sub-arctic evergreens providing rich nut resources available for foraging. The period from about 10,000-3,000 years Before Present (B.P.), termed the Archaic Period, is marked by periods of technological innovation. For example about 5,000 years ago the Native American of New Jersey began using fishing nets, weir traps, and atlatl spear throwers (predecessors of the bow and arrow). More division of labor was seen as women conducted tasks like milling nuts and seeds and storing food in preparation for lean times.

Between 2,000 and 3,000 years ago New Jersey's Native American first learned to make vessels that could be used for cooking. The first were carved out of soft stones like sandstone and soapstone. More recently, pottery was manufactured from available clays. It was fired at low temperatures creating vessels that could be placed in direct contact with a fire. About 1,000 years ago the Lenape began planting their first gardens. They grew traditional crop staples such as the "three sisters" of beans, corn, and squash. By 700 years ago the contact period began when Native Americans interacted with the colonists of North America. During this time Native American life took the distinct form we have come to recognize in books, with large cooking vessels, dugout canoes, agricultural fields, and the bow and arrow replacing the atlatl. It is during this time that the only written records of Native American life were created. These are for the most part from the perspective of European colonists, providing a limited view into the daily life of Lenape culture. It is only through continued archaeological research that our understanding of Native American culture can be further developed.

In Sea Isle City, most prehistoric occupation would have been seasonal exploitation of marine resources found near the coastline. As a result many traces of prehistoric occupation would have been located near the coastline or on the beach itself. These areas are highly susceptible to erosion and the present coastline has been altered since prehistoric times. It is possible that evidence of prehistoric life is now submerged under the water or covered by sediment. As a result Sea Isle City has no registered prehistoric sites. The current discovery of prehistoric cultural resources has been limited to the tidal wetlands surrounding much of Sea Isle City. Evidence of Native American culture has been documented in the marshlands around Ludlams Bay. Further effort is needed to identify any existing

prehistoric cultural remains within Sea Isle City. This consists primarily of fieldwork and ground survey to identify any existing but undocumented prehistoric sites.

5.2 Historic Context

Sea Isle City is a barrier island, separated from the mainland of New Jersey by salt marshes. It is currently bordered by the Atlantic Ocean to the east, Ludlams Bay and Dennis Township to the west, of Strathmere (Upper Township) and Ocean City to the north, and the City of Avalon to the south. Because of its location on a barrier island, Sea Isle City has experienced some of the worst storms that have occurred along the New Jersey coast. Over the years the weather and the changing economy have both had significant influence in shaping the character of the City. Storms have destroyed many historic building and altered the beaches throughout the years. The economy has also played a large role in the development of the city, with the largest number of vacation homes and residences being constructed during periods of prosperity. Sea Isle City is dependent on the tourist season, like many other New Jersey beach communities. As such the residents of the City have come to accept impermanence and continual change as ever-present aspects of Sea Isle City life (Arms-Bdzak & Sullebarger 1993).

The island that would eventually encompass Sea Isle City were first explored by Cornelius Jacobse in 1621. Jacobse was a member of the Dutch West Indian Company and was concerned with finding areas that could be of economic value to the company. The first European settlers most likely arrived in the 1680's with the official boundaries of Cape May County being named by an act of the Assembly in 1692 (Arms-Bdzak & Sullebarger 1993).

In 1692 the entire island was purchased by Joseph Ludlam of Yorkshire, England. Ludlam is a familiar name to the current residents of Sea Isle City as it is used to name the bay and tidal thorofare bordering the island to the west and the island itself is sometimes called Ludlams Beach. In the 18th century, Joseph Ludlam used the island to graze cattle and sheep. During these times the island was also used by whalers, duck hunters, and picnickers and as an important staging area for maritime lifesaving operations. In the 1840's the first lifesaving stations were constructed in Sea Isle City and many other areas along the New Jersey coast. In Sea Isle City, they were located at Ludlams Beach and Townsends Inlet. In 1849, the Coast Guard Life Saving Station located at 8101 block and Landis Avenue was officially authorized by the Coast Guard. This structure is one of Sea Isle City's only remaining lifesaving stations built during this period of New Jersey history. It was rebuilt in the late 19th century and was inactive after 1936. It retains many of its original design elements and is not listed with the State or National Register. The Townsends Inlet station was rebuilt in 1886, repaired and modernized in 1921, and improved with WPA funds in 1938. This structure needs further evaluation to determine its eligibility for the State or National Register (Arms-Bdzak & Sullebarger 1993).

The actual development of Ludlams Island began with its purchase by Charles Kline Landis in 1880. Landis had a significant impact on the development of New Jersey as an agricultural center by planning the town of Vineland, New Jersey in 1861. Charles Landis was a real estate entrepreneur and important town builder in the history of southern New Jersey. Landis' Sea Isle City project was to accomplish different economic objectives than the agricultural center he planned for Vineland. Landis drew inspiration for Sea Isle City during a trip to Venice, Italy. He was excited by the idea of bringing a resort-like community similar to those he had seen along the Mediterranean to America. In keeping with the Mediterranean theme, Landis planned canals, imported classical statuary, and named the streets of Sea Isle City after Roman gods (Minerva, Neptune) and Greek mythology (Ariadne, Paris). Landis also had business interest in railroads, a great advantage, since railway service would encourage people to travel to the resort. Sea Isle City is not the only community to have been modeled after Venice, but it may be the first of its kind in America. The communities of Venice, Florida and Venice, California are both later examples of similar business ventures. Unlike Sea Isle City, these communities were initially failures while Landis' Sea Isle City was economically a success. It took on the artsy feel that Landis had hoped for. Now most of the classical statuary has disappeared and streets have lost their Roman or Greek names in favor of numbered streets. The economic attraction of Sea Isle City continues today due to careful planning and shrewd business skills of Charles Kline Landis (Arms-Bdzak & Sullebarger 1993).

While the construction of streets and housing was still ongoing, Landis placed several advertisements in Philadelphia newspapers to attract residents for his new community. He also placed many ads in German newspapers thus many of the original residents in Sea Isle City were of German descent. Landis also was a stubborn lobbyist for the incorporation of Sea Isle City as a Borough of Cape May County. Officially established in 1882, Landis was successful in securing funds for schools, street lamps, and fresh water for the City of Sea Isle City. Also in 1882, Landis was able to complete a railroad linking Ludlams Island with the mainland by way of the Ocean City Railroad. In 1886, the railroad became the West Jersey and Seashore Railroad which allowed better accessibility to Philadelphians. Also in 1886, the Delaware Bridge opened, further facilitating travel from Pennsylvania to the New Jersey shore. This helped Landis realize his dream of creating an accessible and profitable resort community for many to enjoy. He also built a railroad along the current Pleasure Avenue to transport residents along the beachfront (Arms-Bdzak & Sullebarger 1993).

During the first twenty years of Sea Isle City's history approximately thirty hotels were built for vacationers to the island. Most were built to the north of what is present day John F. Kennedy Boulevard. Most examples of these hotels have perished with one surviving example being the Colonnade Hotel located at 4600 Landis Avenue. The established transportation system was significant in bringing a large number of visitors to the island contributing to a period of economic prosperity (Arms-Bdzak & Sullebarger 1993).

This period of prosperity and development continued through the 1920s with efforts by the City Commissioners to market Sea Isle City as a resort community through advertising to ensure a steady stream of tourists to the city. This burgeoning resort community, like many other American cities, experienced a severe depression in the 1930's. These economic hard times brought their share of bank closings and property foreclosures to the city. Ending this period of depression was a severe hurricane in 1944. This wiped out the boardwalk for the second time as well as many historic buildings. Of Sea Isle City's remaining historical buildings, most date from the period of 1880 to 1944. These comprise the majority of resources recommended as possibly eligible for listing with State or National Register. In order for these properties to have been recommended as eligible for listing, their state of preservation needed to be very good or better (Arms-Bdzak & Sullebarger 1993). The properties are listed in the table below.

Inventory #	House #	Street	Name	Style	Date
0509-001	17	34th	Unnamed	Queen Anne	1886-90
0509-037	30	42nd	Unnamed	Second Empire	1886-90
0509-081	351	44th	Unnamed	Neoclassical	1910
0509-088	132	44th	St. Joesph's Convent	Italianate	1883
0509-131	20	46th	Unnamed	Shingle/Queen Anne	1900
0509-133	28	46th	Centennial House	Queen Anne	1876
0509-153	18	47th	Sisters of the Holy Redeemer	Dutch Colonial Revival	1910
0509-158	19	48th	Sisters of the Holy Child Jesus	Dutch Colonial Revival	1900
0509-166	26	48th	Pittsburg Sister of Mercy	Folk Victorian	c.1880-84;1926-34
0509-238	223	85th	Unnamed	Dutch Colonial Revival	1920
0509-246		85th	Trinity Lutheran Chapel	Gothic Revival	1923
0509-282		88th	Pier 88 Marina	Vernacular/Side-Gabled	1900
0509-322	4507	Central Ave.	Unnamed	Shingle/Craftsman	1921
0509-346	4301	Landis Ave.	First Savings and Loan Ass. Of Sea Isle City	Colonial Revival/Beaux Arts	1925
0509-358	Block 8101	Landis Ave.	Coast Guard Life Saving Station #34	Vernacular/Queen Anne	1872

0509-376	4416	Landis Ave.	City Hall	Colonial Revival	1906
0509-379	4600	Landis Ave.	The Colonade Inn	Queen Anne/Second Empire	1886-90
0509-424		Venicean Road	Yacht Club of Sea Isle City	Moderne	1934
Potentially Eligible District Boundary Description					
0509-DB	Residential District including portions of 48th and 49th Streets, and Landis Ave. between 47th and 49th Street				

These sites are also mapped on the Historic Properties Map in Appendix I. The historic buildings were found to be in very good or better condition based on a 1993 survey by Sullebarger Associates. Before being listed with the State or National Registers Office, they must be re-evaluated to assess their current condition of preservation. When viewed collectively, the state of preservation of an individual structure was less important than the ability of the collection of resources (structures) to impart a strong sense of place. The collection of surviving buildings from this period of Sea Isle City's development are important cultural resources demonstrating the important place Sea Isle City has had in the rich history of New Jersey.

5.3 Open Space / Public Land

Open space, for the purpose of this inventory, is defined as undeveloped land which is permanently deed restricted. The presence of open space confers social, economic and ecological benefits to municipalities that preserve and protect it. Much of the tourist industry in coastal municipalities is based on the presence of public open space containing beaches and dunes and fishable waters. Extensive wetlands attract birds and birdwatchers and provide habitat for the juveniles of many commercial and sport fish species. Open space on barrier islands can mitigate the impacts of coastal floods and storms on the built environment and remove pollutants from stormwater from paved areas before it enters waterbodies (Kane, RP).

Most of the publicly-owned land in Sea Isle City is environmentally constrained land. Based upon the Recreation and Open Space Inventory (ROSI), revised January 2003, publicly-owned wetlands occupy 292.15 acres of land in Sea Isle City. The ROSI characterizes an additional 111.57 acres as Beach, Dune, Upland and Promenade Lands. The total acreage of undeveloped land in Sea Isle City is 403.72 acres. Partially Developed Lands owned by the municipality and set aside for recreation and conservation purposes occupy 26.99 acres. The City's parks and open space are mapped on the Parks and Open Space map, found in Appendix I.

There are no preserved farms within the municipal boundary of Sea Isle City.

The Green Acres Program funded the protection of the Cospar property, which comprised 39,140 square feet within the municipality. The project includes Block 40.01 Lots 5, 6, 7.01, 12, 13, 14.02 (0.90 acres of land) (Green Acres Program 2002).

Opportunities for recreation are provided by the following public spaces in Sea Isle City.

- Municipal Beaches located at 33rd, 42nd, 48th, 52nd, 63rd, 74th Avenues. Beach tags are required.
- Municipal Boat Launch is located at Joseph A. Larosa Way. The ramp has a seasonal fee.
- Municipal Bay Park is situated at 42nd Street and offers a boat ramp.
- Municipal Bay Pier is located at 59th Street (0.13 acre)
- Townsends Inlet Waterfront Park occupies land south of 94th Street and Landis Avenue (4.54 acres).
- Located at 85th Street and the Beach is the 85th Street Playground (0.18 acre)

- Marina Park can be found under the bridge at 42nd Street and the Bay.
- Veteran's Park and JFK Boulevard Bay Park are located on the south side of JFK Blvd between Landis and Central Avenues and offer basketball courts and a playground (0.82 acres).
- In addition to a playground, tennis courts and skateboard park are present at Dealy Field, located at 59th to 63rd & Central Avenue (14.55 acres).
- Sea Isle City Library can be found at 127 JFK Boulevard.
- The Promenade is a paved by-way paralleling the beach from 29th to 57th Street and offers opportunities for biking and in-line skating.

Cape May County has established a trust fund to preserve open space and agricultural lands. The trust is funded by a County-wide property tax of 1 cent per 100 dollars of assessed valuation and currently generates approximately 1.3 million dollars a year. Since its inception, the program has preserved approximately 3,000 acres of open space and farmland in the County (Cape May Planning Commission. 2006).

5.4 Aesthetic Resources

Both the natural and constructed environment are components of the aesthetic resources available in Sea Isle City. Perhaps most striking is the setting of Sea Isle City - as part of a barrier island off the coast of New Jersey Coastal Plain which offers visitors beautiful beaches. The intracoastal waterway contains marshes and bays and many protected lands with special habitats and great natural diversity. Surrounding Sea Isle City are Ludlams Bay, Townsends Inlet, Corson Inlet South, Whale Beach and Avalon-Stone Harbor Marsh Macrosites. The Natural Heritage Priority Sites are discussed previously in greater detail . Protected lands such as Waterfowl Wildlife Management Area (owned by Fish, Game and Wildlife) and multiple parcels within the Cape May Wetlands complex lie adjacent to Sea Isle City. These nearby special places provide environments to be shared by residents and visitors alike. As a vacation destination, Sea Isle City offers families a safe haven with comfortable lodging which is surrounded by diverse natural space.

Scenic resources are present on many scales. Open vistas that encompass the ocean, beaches and dunes, extensive saltmarsh and bay views present an individual with an unstructured opportunity for peace and relaxation. The natural plant and animal populations, coastal ecosystems, such as beaches and dunes and saltmarshes offer an opportunity to observe nature in proximity to human development. These resources provide a unique sense of place for the residents and visitors of Sea Isle City.

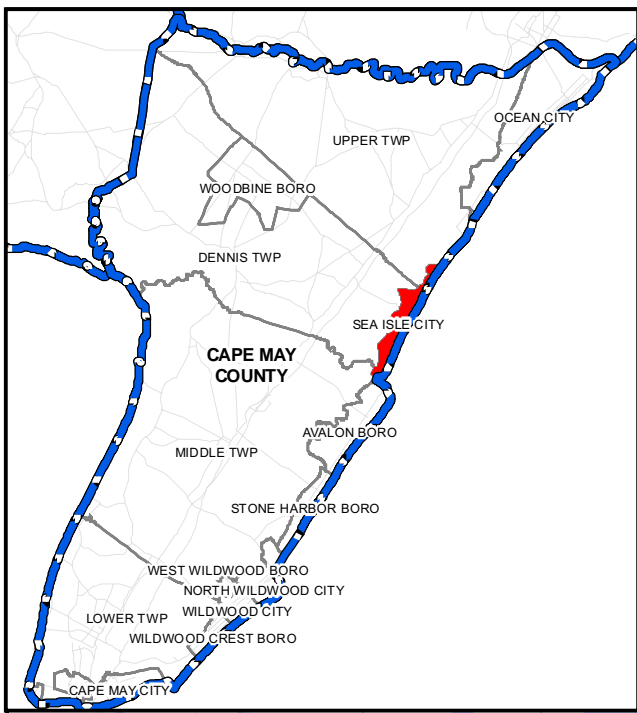
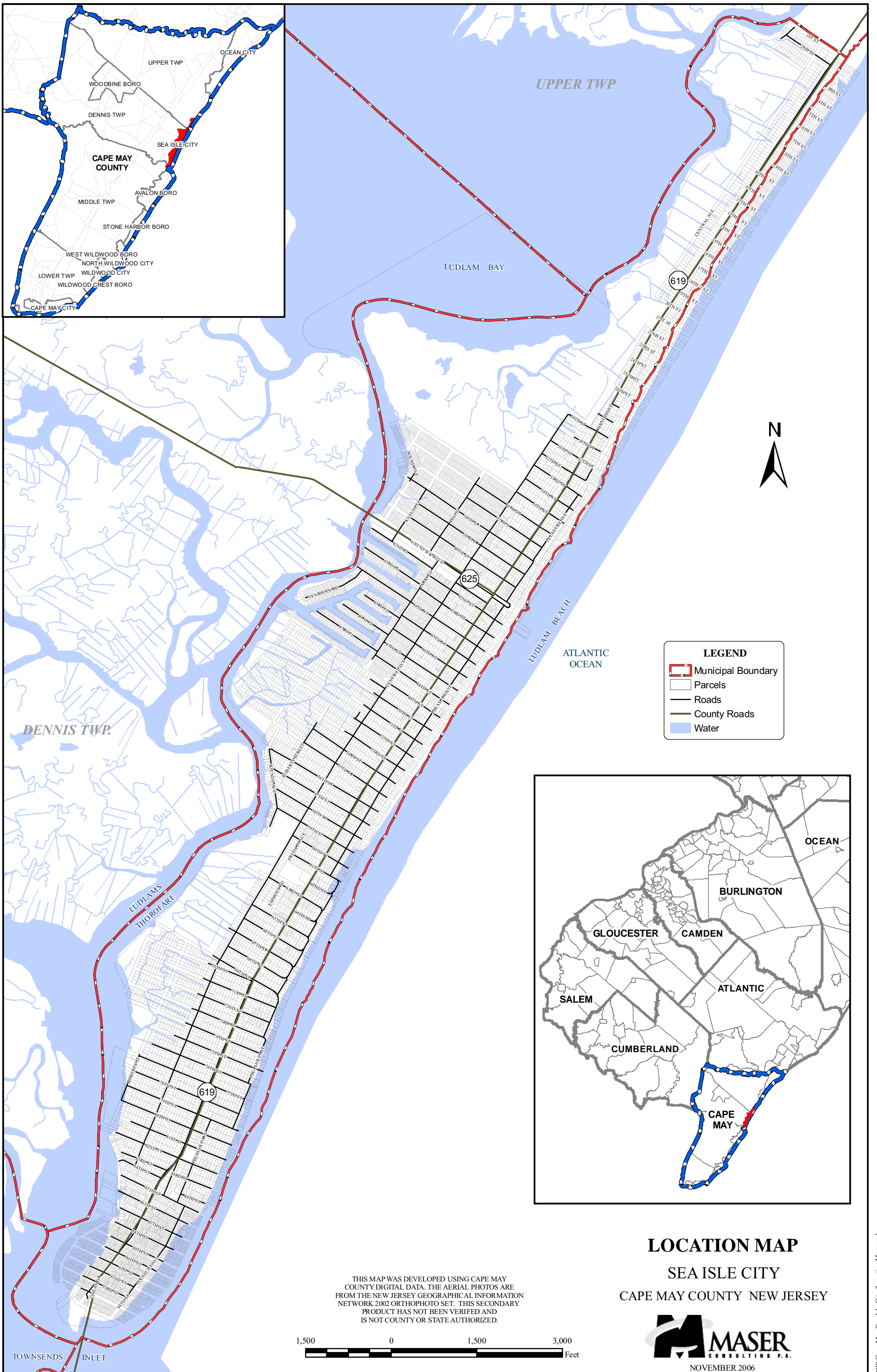
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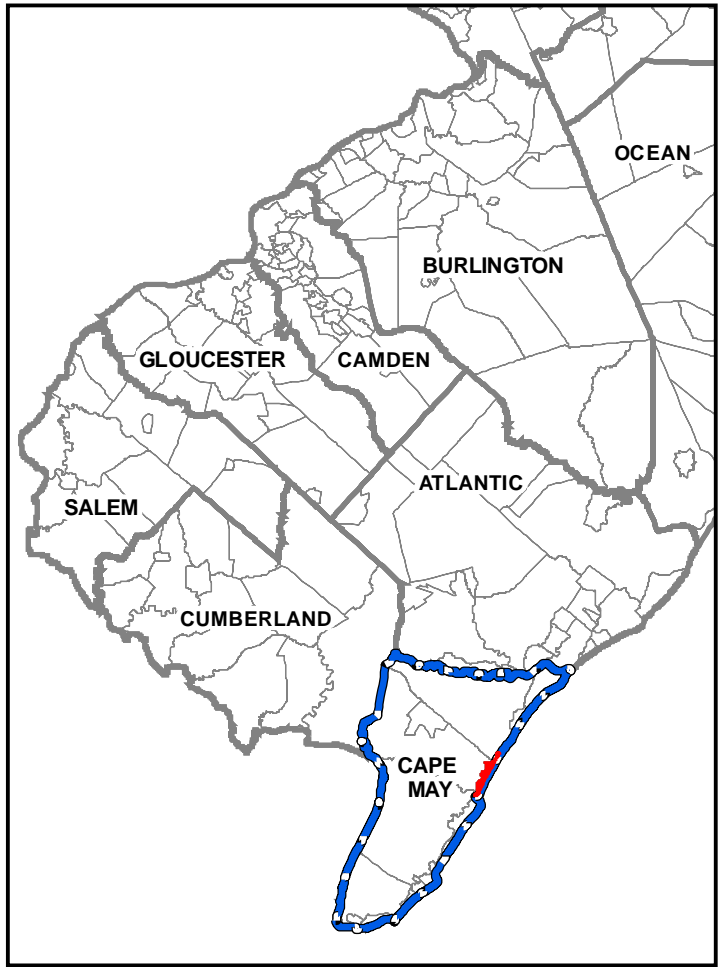
Watkins, D. 1998. Reappraisal: Shellfish Growing Area #SE-4 -Ludlam Bay & Townsends Sound (1993 – 1997).
NJDEP Bureau of Marine Water Monitoring, Trenton, NJ (<http://www.nj.gov/dep/bmw/Reports/SE4-98.pdf>)

Appendix



LEGEND

- Municipal Boundary
- Parcels
- Roads
- County Roads
- Water

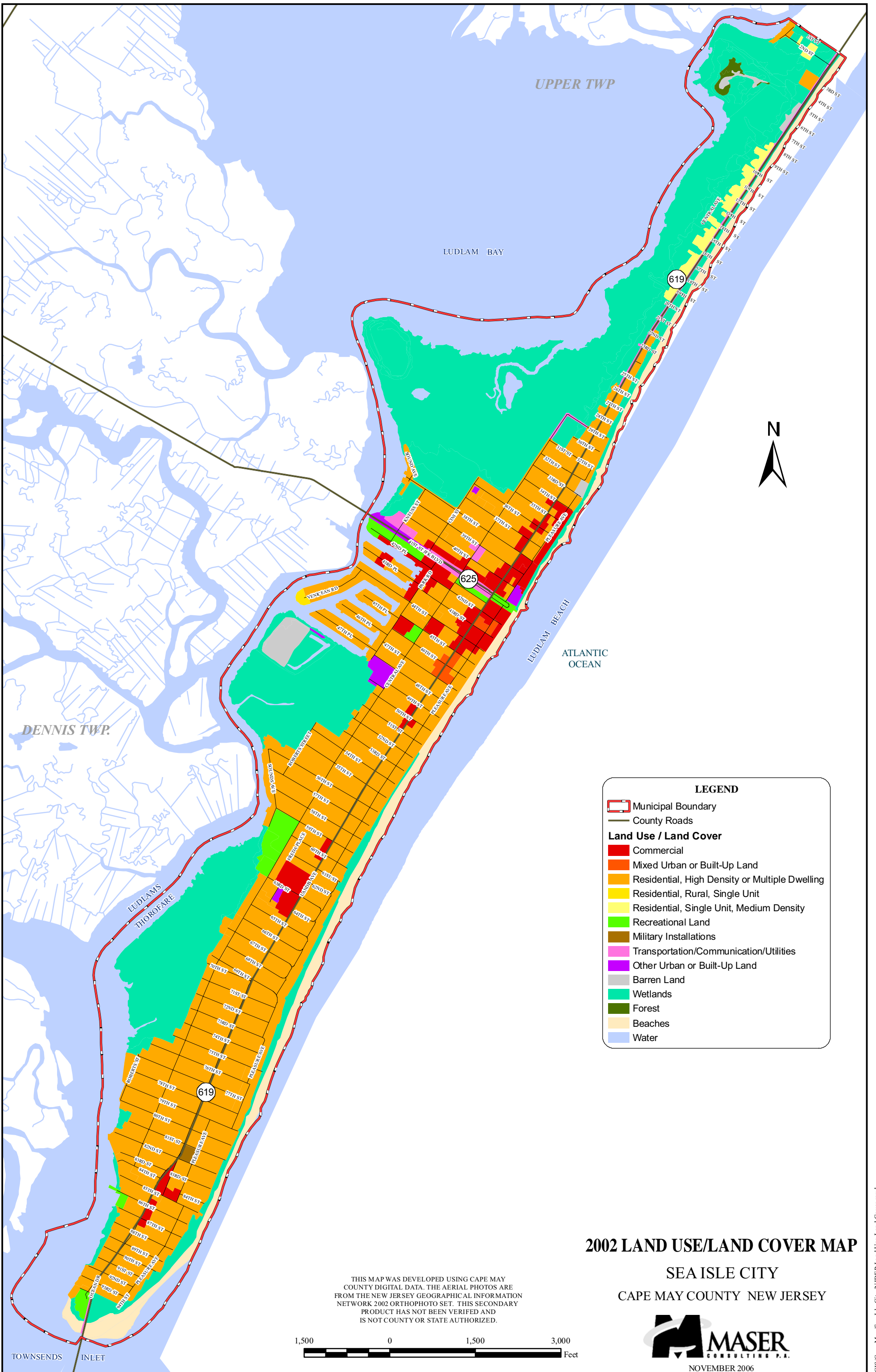


LOCATION MAP
SEA ISLE CITY
 CAPE MAY COUNTY NEW JERSEY

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NOVEMBER 2006



UPPER TWP

LUDLAM BAY



ATLANTIC OCEAN

DENNIS TWP.

LUDLAM'S THORFARE

LUDLAM BEACH

TOWNSENDS INLET

LEGEND

- Municipal Boundary
- County Roads
- Land Use / Land Cover**
- Commercial
- Mixed Urban or Built-Up Land
- Residential, High Density or Multiple Dwelling
- Residential, Rural, Single Unit
- Residential, Single Unit, Medium Density
- Recreational Land
- Military Installations
- Transportation/Communication/Utilities
- Other Urban or Built-Up Land
- Barren Land
- Wetlands
- Forest
- Beaches
- Water

2002 LAND USE/LAND COVER MAP

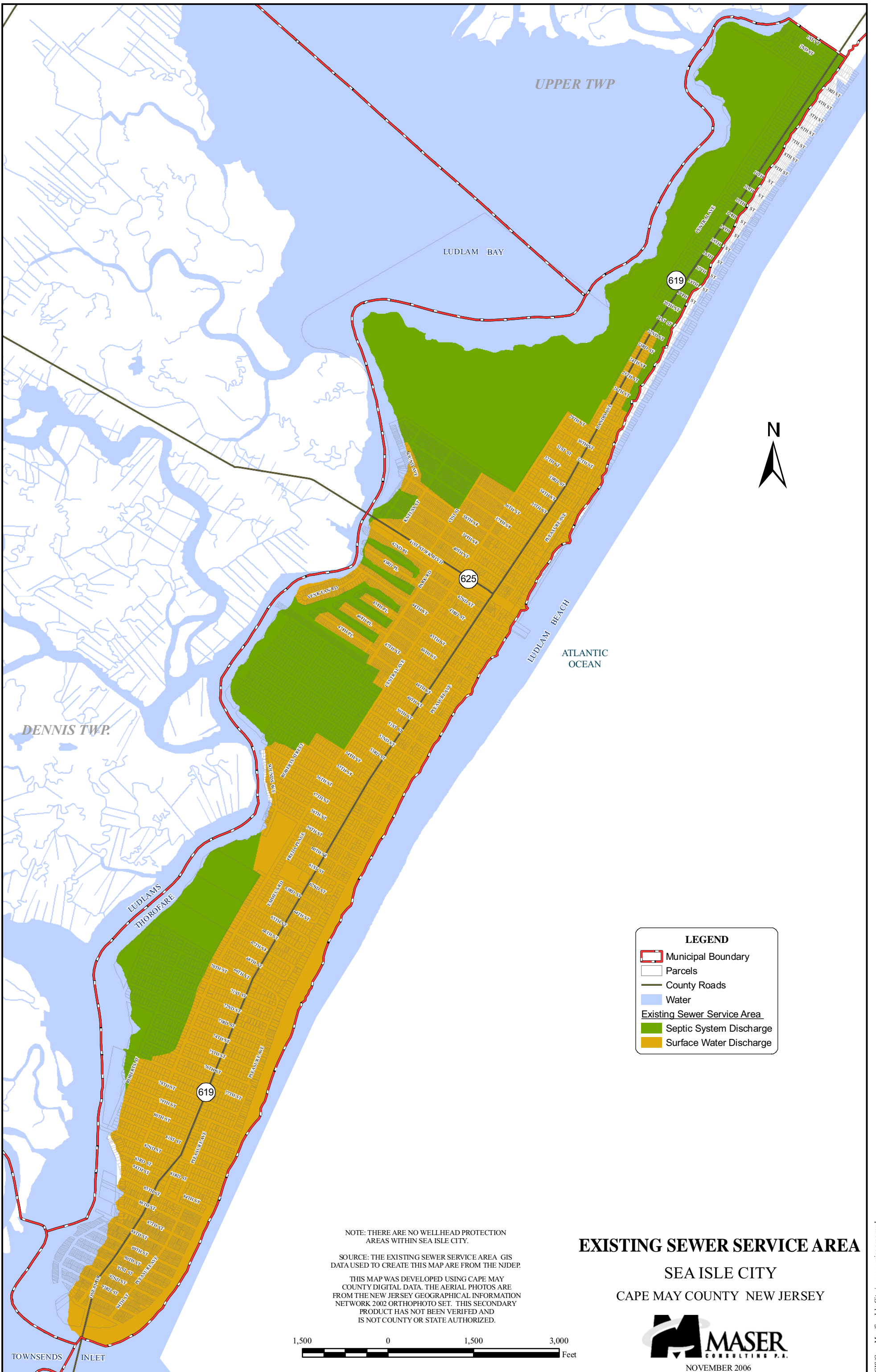
SEA ISLE CITY

CAPE MAY COUNTY NEW JERSEY

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NOVEMBER 2006



UPPER TWP

LUDLAM BAY

DENNIS TWP.

ATLANTIC OCEAN

LUDLAM'S THORFARE

LUDLAM BEACH

LEGEND

- Municipal Boundary
- Parcels
- County Roads
- Water
- Existing Sewer Service Area**
- Septic System Discharge
- Surface Water Discharge

NOTE: THERE ARE NO WELLHEAD PROTECTION AREAS WITHIN SEA ISLE CITY.

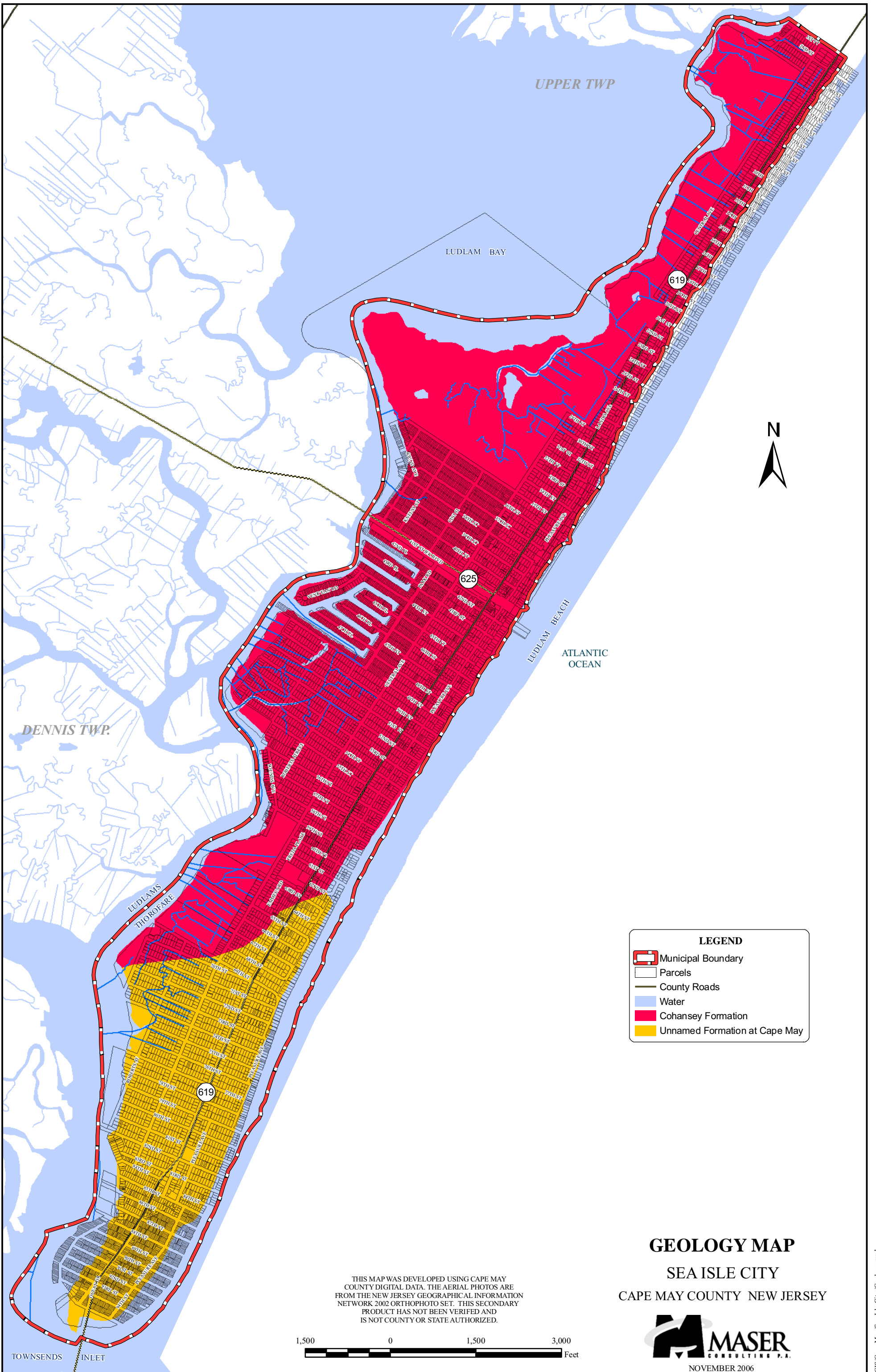
SOURCE: THE EXISTING SEWER SERVICE AREA GIS DATA USED TO CREATE THIS MAP ARE FROM THE NJDEP.

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EXISTING SEWER SERVICE AREA
SEA ISLE CITY
 CAPE MAY COUNTY NEW JERSEY



NOVEMBER 2006



UPPER TWP

LUDLAM BAY









ATLANTIC OCEAN

DENNIS TWP.

LUDLAM'S THORO-FARE

LUDLAM BEACH

LEGEND

-  Municipal Boundary
-  Parcels
-  County Roads
-  Water
-  Cohansey Formation
-  Unnamed Formation at Cape May

GEOLOGY MAP

SEA ISLE CITY

CAPE MAY COUNTY NEW JERSEY

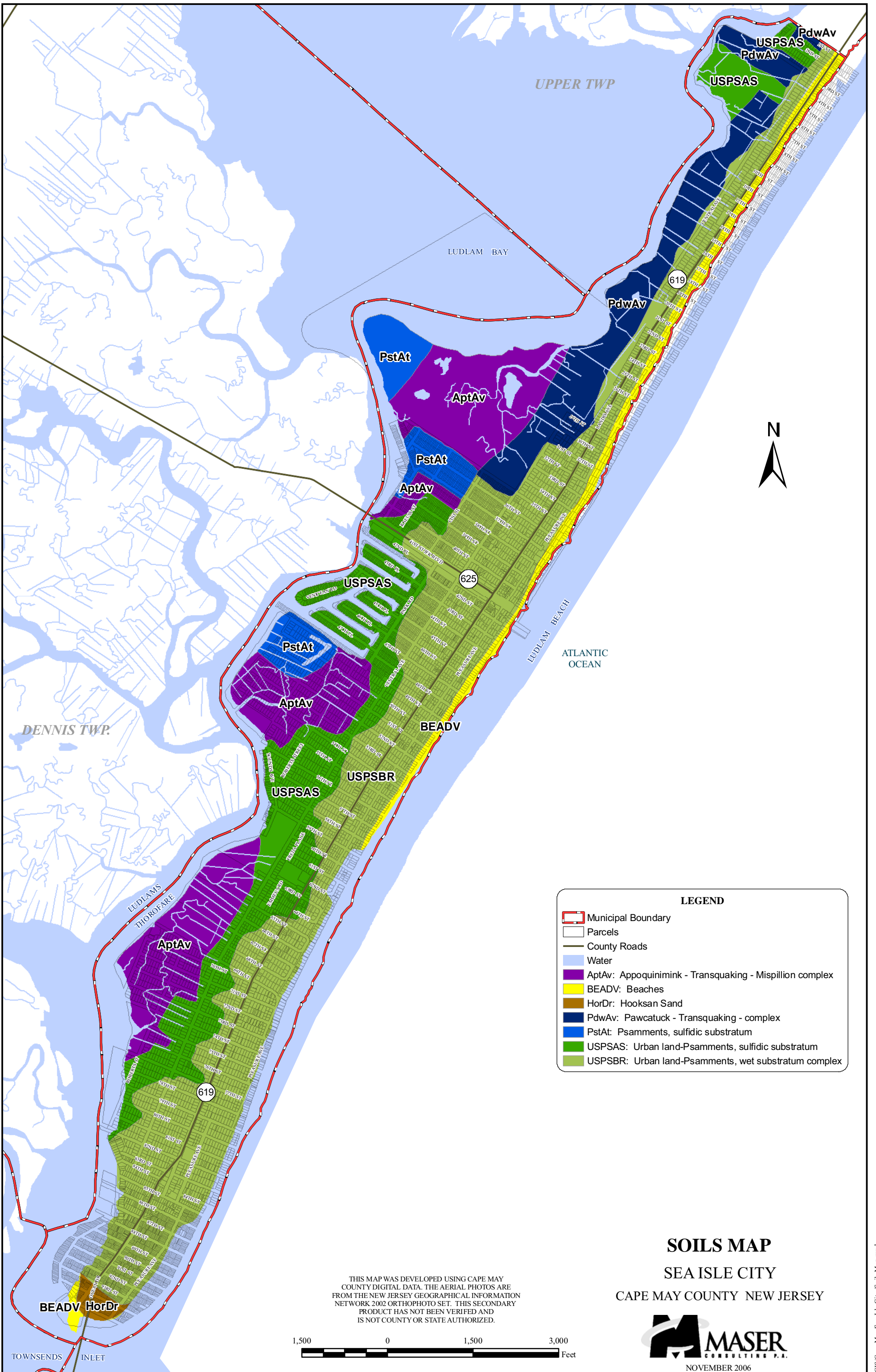


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TOWNSENDS INLET



UPPER TWP

LUDLAM BAY



DENNIS TWP.

ATLANTIC OCEAN

LUDLAM'S THOROFARE

BEADV HorDr

TOWNSENDS INLET

LEGEND

- Municipal Boundary
- Parcels
- County Roads
- Water
- AptAv: Appoquinimink - Transquaking - Mispillion complex
- BEADV: Beaches
- HorDr: Hooksan Sand
- PdwAv: Pawcatuck - Transquaking - complex
- PstAt: Psammets, sulfidic substratum
- USPSAS: Urban land-Psammets, sulfidic substratum
- USPSBR: Urban land-Psammets, wet substratum complex

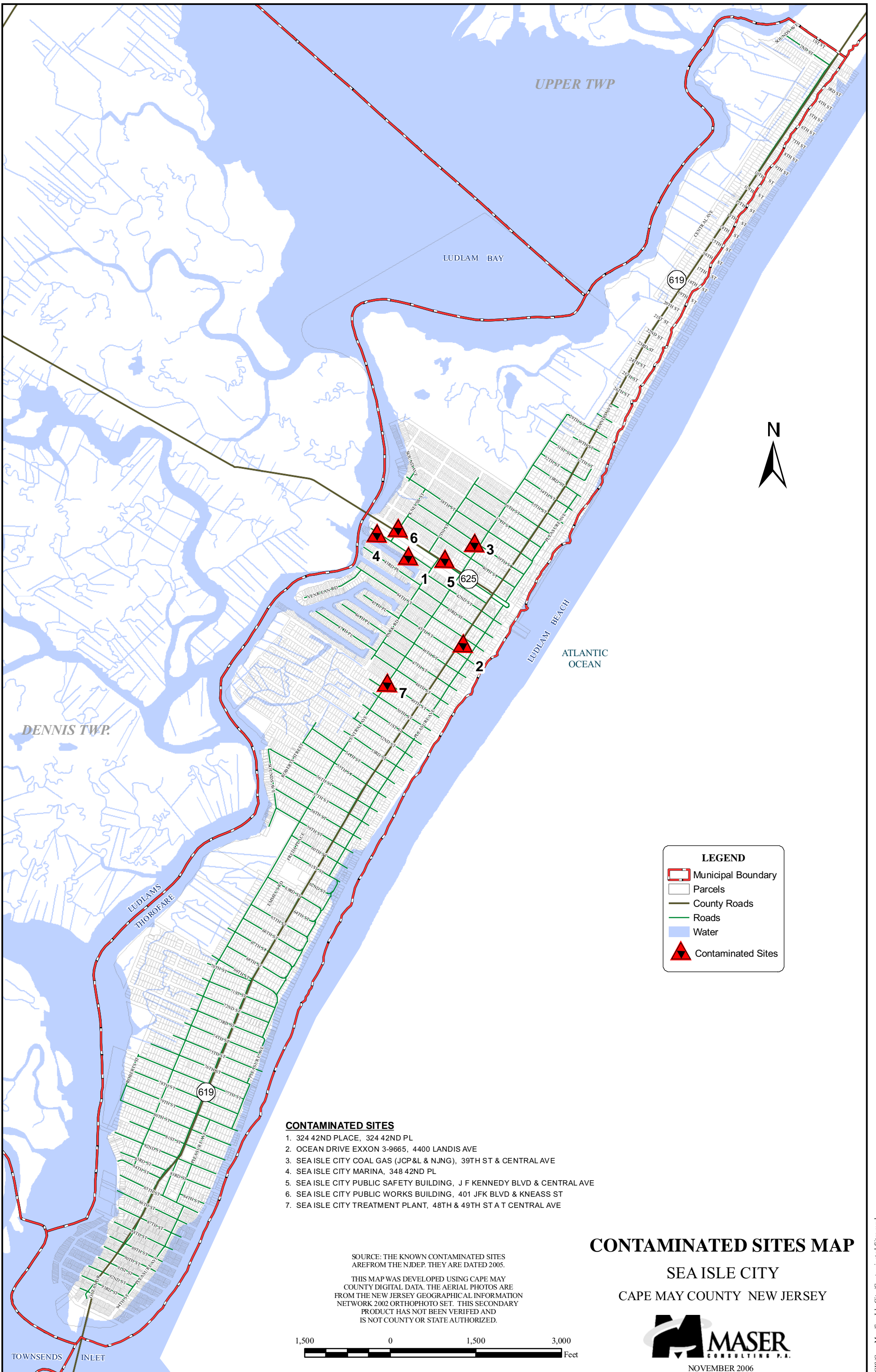
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SOILS MAP
SEA ISLE CITY
 CAPE MAY COUNTY NEW JERSEY



NOVEMBER 2006



UPPER TWP

LUDLAM BAY



DENNIS TWP.

ATLANTIC OCEAN

LUDLAM'S THOROFARE

LUDLAM BEACH

LEGEND

- Municipal Boundary
- Parcels
- County Roads
- Roads
- Water
- Contaminated Sites

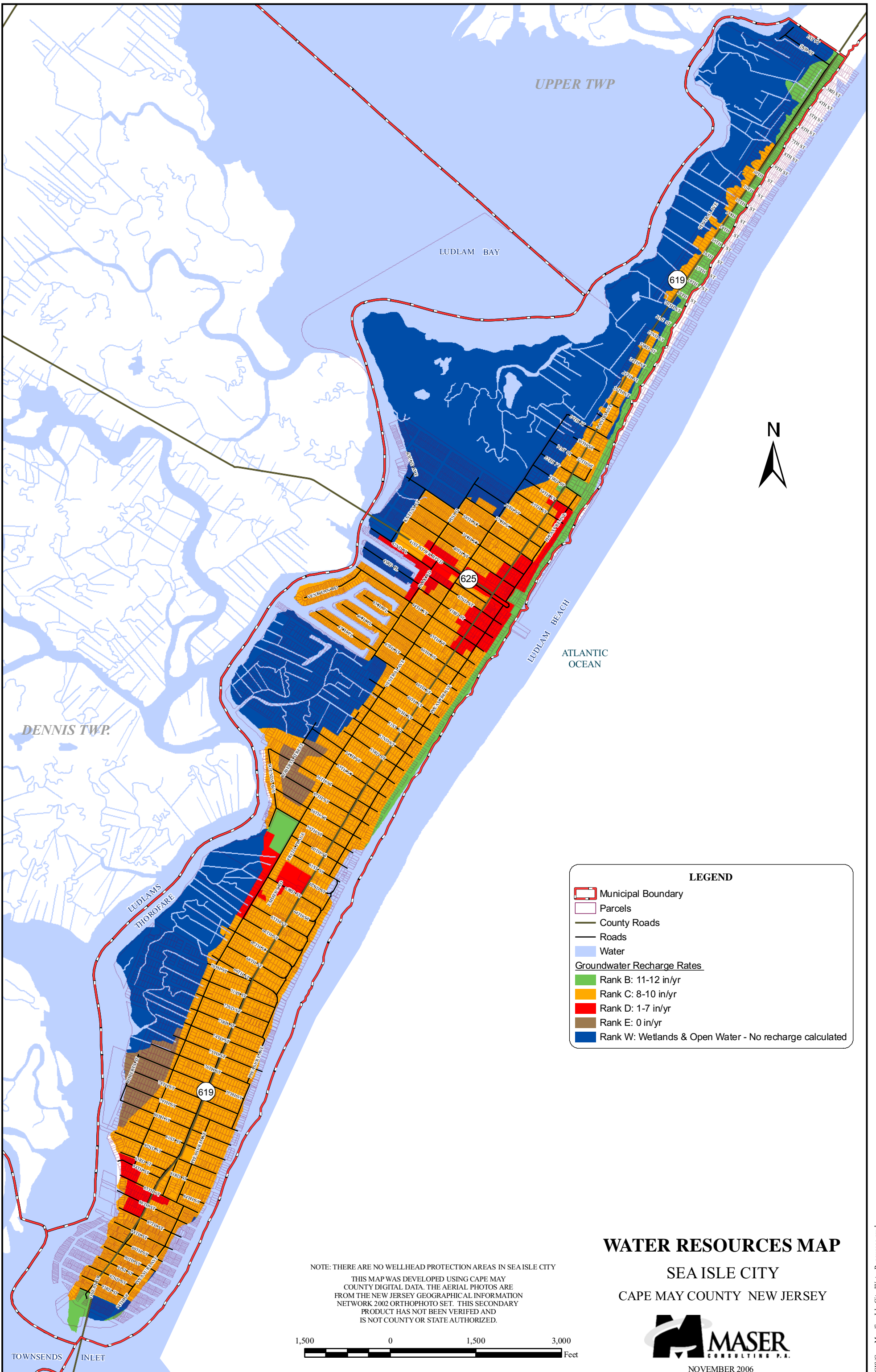
- CONTAMINATED SITES**
1. 324 42ND PLACE, 324 42ND PL
 2. OCEAN DRIVE EXXON 3-9665, 4400 LANDIS AVE
 3. SEA ISLE CITY COAL GAS (JCP&L & NJNG), 39TH ST & CENTRAL AVE
 4. SEA ISLE CITY MARINA, 348 42ND PL
 5. SEA ISLE CITY PUBLIC SAFETY BUILDING, J F KENNEDY BLVD & CENTRAL AVE
 6. SEA ISLE CITY PUBLIC WORKS BUILDING, 401 JFK BLVD & KNEASS ST
 7. SEA ISLE CITY TREATMENT PLANT, 48TH & 49TH ST AT CENTRAL AVE

SOURCE: THE KNOWN CONTAMINATED SITES ARE FROM THE NJDEP. THEY ARE DATED 2005.
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CONTAMINATED SITES MAP
 SEA ISLE CITY
 CAPE MAY COUNTY NEW JERSEY



NOVEMBER 2006



LEGEND

- Municipal Boundary
- Parcels
- County Roads
- Roads
- Water

Groundwater Recharge Rates

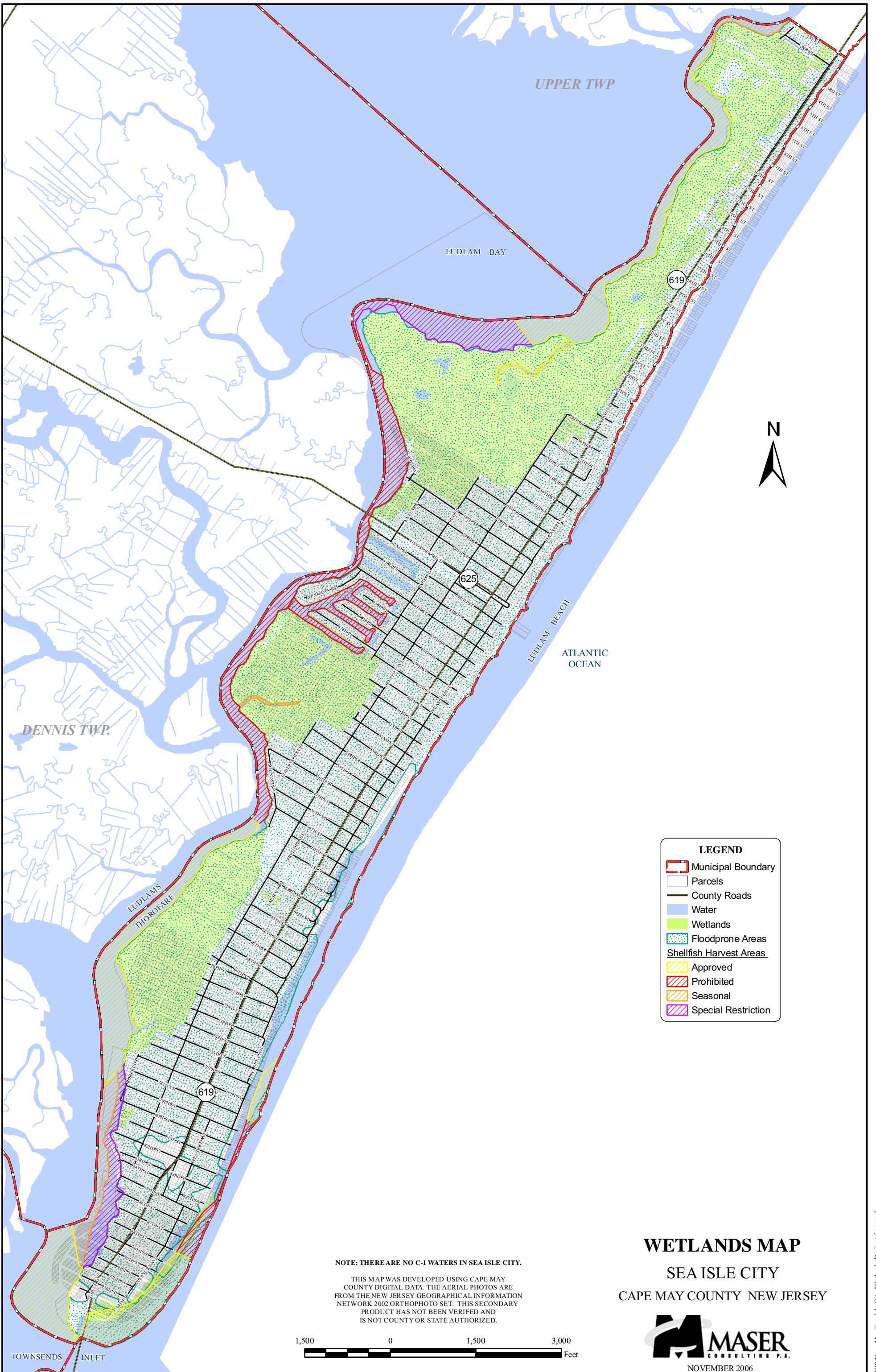
- Rank B: 11-12 in/yr
- Rank C: 8-10 in/yr
- Rank D: 1-7 in/yr
- Rank E: 0 in/yr
- Rank W: Wetlands & Open Water - No recharge calculated

NOTE: THERE ARE NO WELLHEAD PROTECTION AREAS IN SEA ISLE CITY
 THIS MAP WAS DEVELOPED USING CAPE MAY COUNTY DIGITAL DATA. THE AERIAL PHOTOS ARE FROM THE NEW JERSEY GEOGRAPHICAL INFORMATION NETWORK 2002 ORTHOPHOTO SET. THIS SECONDARY PRODUCT HAS NOT BEEN VERIFIED AND IS NOT COUNTY OR STATE AUTHORIZED.

WATER RESOURCES MAP
SEA ISLE CITY
 CAPE MAY COUNTY NEW JERSEY



NOVEMBER 2006



DENNIS TWP.

UPPER TWP

LUDLAM BAY

ATLANTIC OCEAN

LUDLAYS THOROFARE

TOWNSENDS INLET

LEGEND

- Municipal Boundary
- Parcels
- County Roads
- Water
- Wetlands
- Floodprone Areas
- Shellfish Harvest Areas**
- Approved
- Prohibited
- Seasonal
- Special Restriction

NOTE: THERE ARE NO C-1 WATERS IN SEA ISLE CITY.

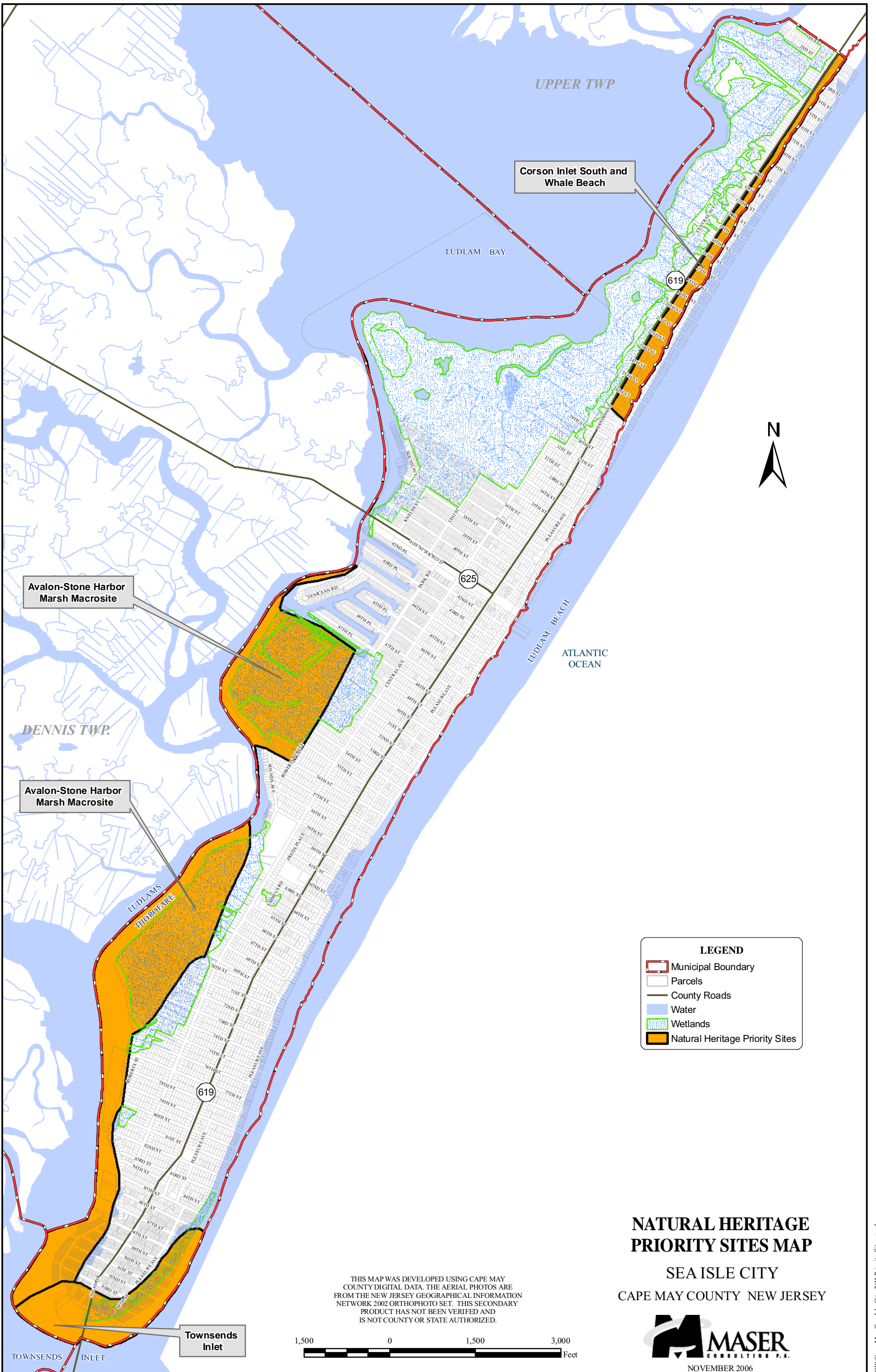
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WETLANDS MAP
SEA ISLE CITY
 CAPE MAY COUNTY NEW JERSEY



NOVEMBER 2006



Corson Inlet South and Whale Beach

Avalon-Stone Harbor Marsh Macrosite

Avalon-Stone Harbor Marsh Macrosite

Townsends Inlet

UPPER TWP

LUDLAM BAY

DENNIS TWP.

ATLANTIC OCEAN

LUDLAM'S THOROFARE

LEGEND

- Municipal Boundary
- Parcels
- County Roads
- Water
- Wetlands
- Natural Heritage Priority Sites



NATURAL HERITAGE PRIORITY SITES MAP

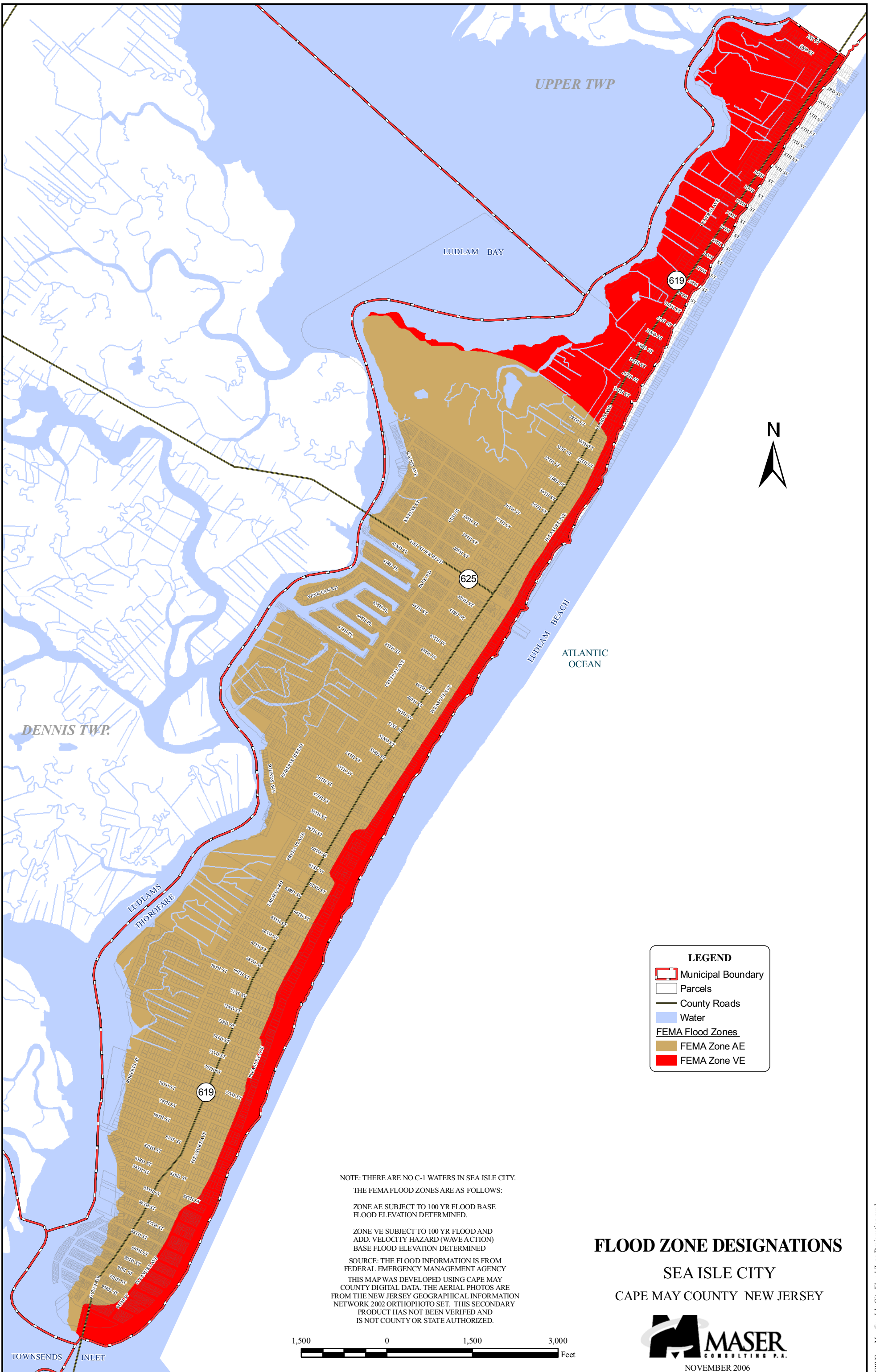
SEA ISLE CITY

CAPE MAY COUNTY NEW JERSEY

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NOVEMBER 2006



DENNIS TWP.

UPPER TWP

LUDLAM BAY

ATLANTIC OCEAN

LUDLAM'S THOROFARE

LUDLAM BEACH

TOWNSENDS INLET

LEGEND

- Municipal Boundary
- Parcels
- County Roads
- Water

FEMA Flood Zones

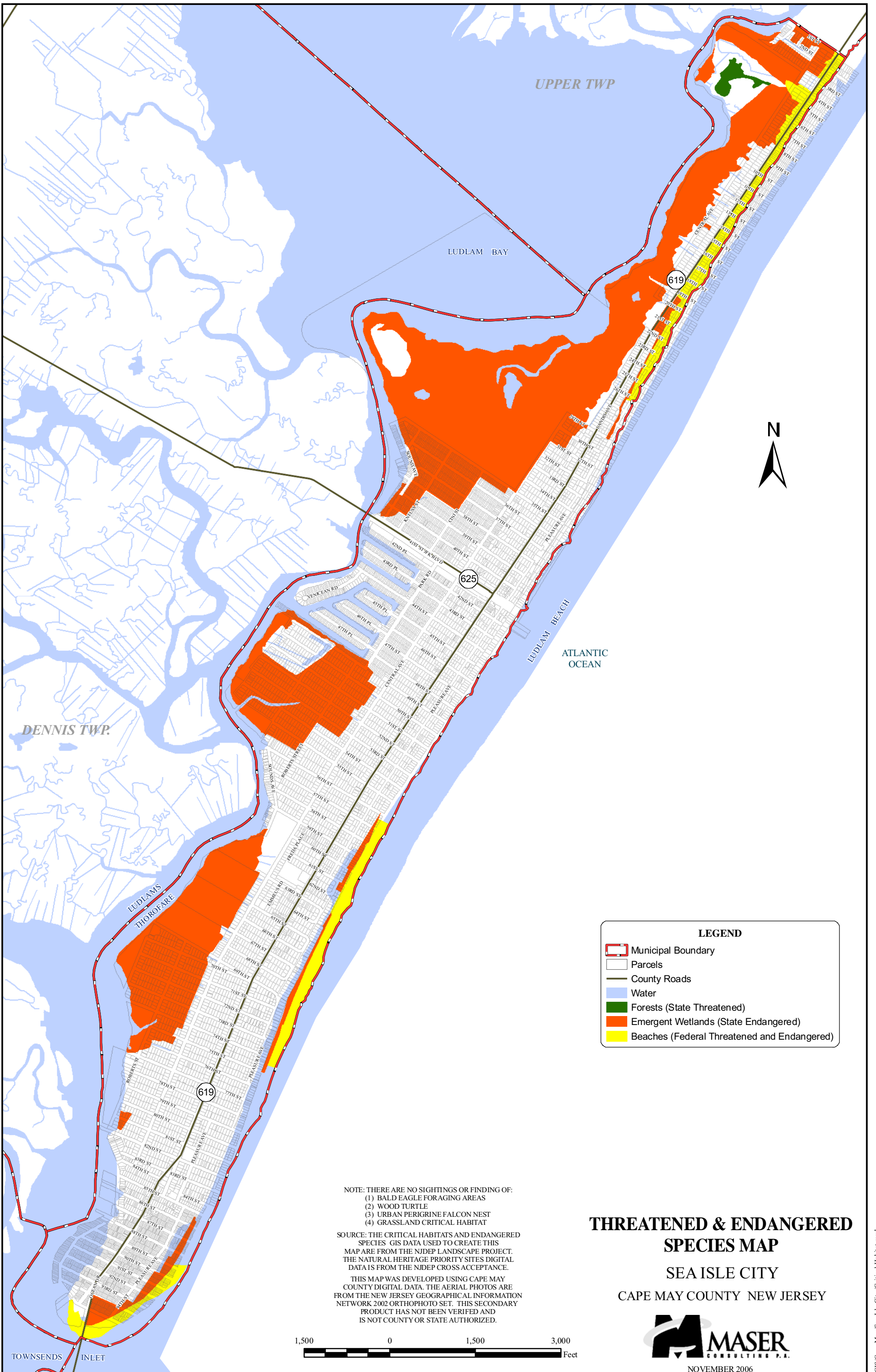
- FEMA Zone AE
- FEMA Zone VE

NOTE: THERE ARE NO C-1 WATERS IN SEA ISLE CITY.
 THE FEMA FLOOD ZONES ARE AS FOLLOWS:
 ZONE AE SUBJECT TO 100 YR FLOOD BASE FLOOD ELEVATION DETERMINED.
 ZONE VE SUBJECT TO 100 YR FLOOD AND ADD. VELOCITY HAZARD (WAVE ACTION) BASE FLOOD ELEVATION DETERMINED
 SOURCE: THE FLOOD INFORMATION IS FROM FEDERAL EMERGENCY MANAGEMENT AGENCY
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FLOOD ZONE DESIGNATIONS
 SEA ISLE CITY
 CAPE MAY COUNTY NEW JERSEY



NOVEMBER 2006



UPPER TWP

LUDLAM BAY



ATLANTIC OCEAN

DENNIS TWP.

LUDLAM'S THORFARE

LUDLAM BEACH

LEGEND

-  Municipal Boundary
-  Parcels
-  County Roads
-  Water
-  Forests (State Threatened)
-  Emergent Wetlands (State Endangered)
-  Beaches (Federal Threatened and Endangered)

NOTE: THERE ARE NO SIGHTINGS OR FINDING OF:
 (1) BALD EAGLE FORAGING AREAS
 (2) WOOD TURTLE
 (3) URBAN PERIGRINE FALCON NEST
 (4) GRASSLAND CRITICAL HABITAT

SOURCE: THE CRITICAL HABITATS AND ENDANGERED SPECIES GIS DATA USED TO CREATE THIS MAP ARE FROM THE NJDEP LANDSCAPE PROJECT. THE NATURAL HERITAGE PRIORITY SITES DIGITAL DATA IS FROM THE NJDEP CROSS ACCEPTANCE.

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THREATENED & ENDANGERED SPECIES MAP

SEA ISLE CITY

CAPE MAY COUNTY NEW JERSEY

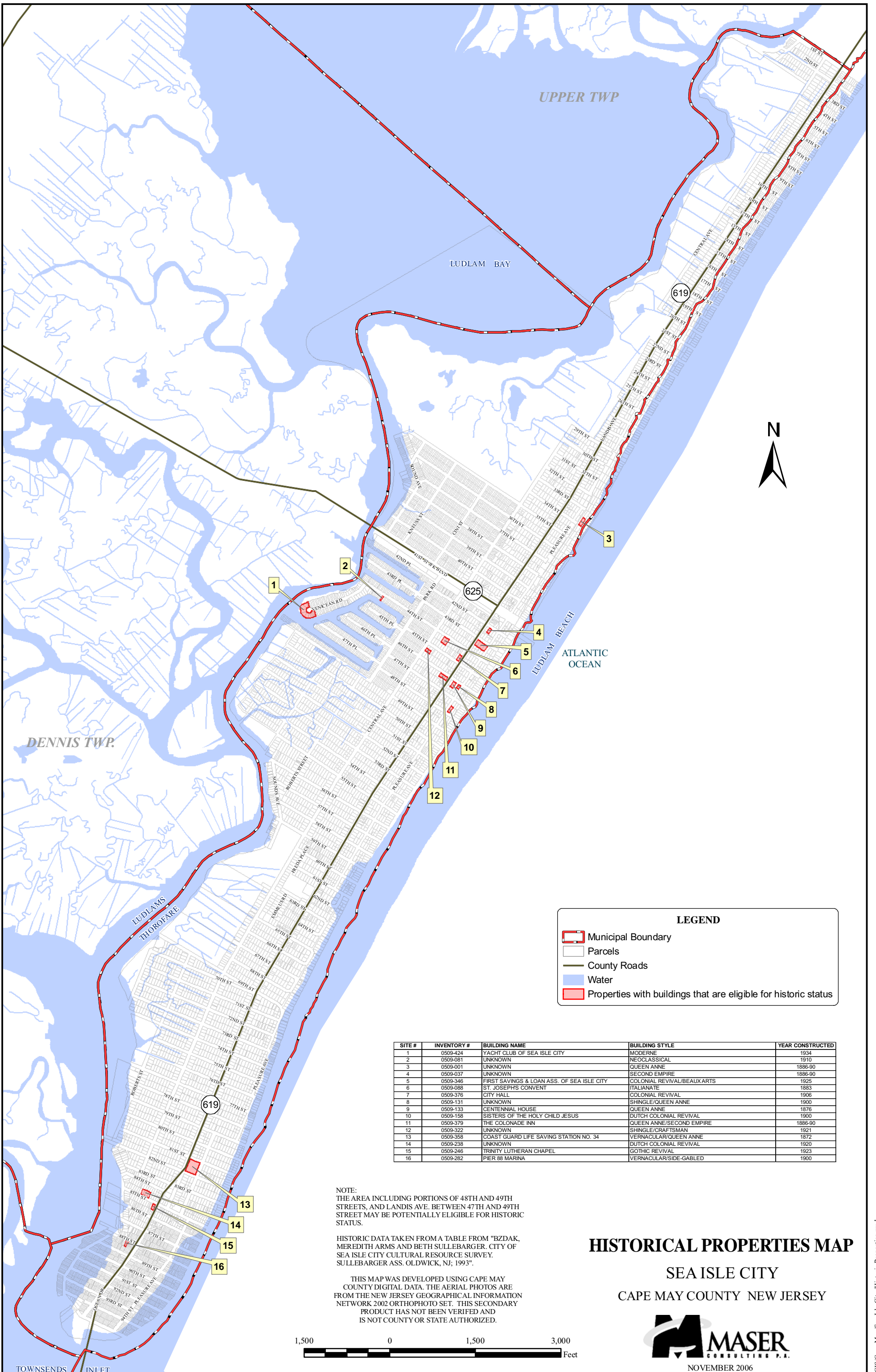


NOVEMBER 2006



TOWNSENDS INLET

GIS/Cape May/Sea Isle City/Critical Habitat.mxd



UPPER TWP

LUDLAM BAY



DENNIS TWP.

LUDLAM THOROFARE

ATLANTIC OCEAN

LEGEND

- Municipal Boundary
- Parcels
- County Roads
- Water
- Properties with buildings that are eligible for historic status

SITE #	INVENTORY #	BUILDING NAME	BUILDING STYLE	YEAR CONSTRUCTED
1	0509-424	YACHT CLUB OF SEA ISLE CITY	MODERNE	1934
2	0509-081	UNKNOWN	NEOCLASSICAL	1910
3	0509-001	UNKNOWN	QUEEN ANNE	1886-90
4	0509-037	UNKNOWN	SECOND EMPIRE	1886-90
5	0509-346	FIRST SAVINGS & LOAN ASS. OF SEA ISLE CITY	COLONIAL REVIVAL/BEAUXARTS	1925
6	0509-088	ST. JOSEPH'S CONVENT	ITALIANATE	1883
7	0509-376	CITY HALL	COLONIAL REVIVAL	1906
8	0509-131	UNKNOWN	SHINGLE/QUEEN ANNE	1900
9	0509-133	CENTENNIAL HOUSE	QUEEN ANNE	1876
10	0509-158	SISTERS OF THE HOLY CHILD JESUS	DUTCH COLONIAL REVIVAL	1900
11	0509-379	THE COLONADE INN	QUEEN ANNE/SECOND EMPIRE	1886-90
12	0509-322	UNKNOWN	SHINGLE/CRAFTSMAN	1921
13	0509-358	COAST GUARD LIFE SAVING STATION NO. 34	VERNAICULAR/QUEEN ANNE	1872
14	0509-238	UNKNOWN	DUTCH COLONIAL REVIVAL	1920
15	0509-246	TRINITY LUTHERAN CHAPEL	GOthic REVIVAL	1923
16	0509-282	PIER 88 MARINA	VERNAICULAR/SIDE-GABLED	1900

NOTE:
THE AREA INCLUDING PORTIONS OF 48TH AND 49TH STREETS, AND LANDIS AVE. BETWEEN 47TH AND 49TH STREET MAY BE POTENTIALLY ELIGIBLE FOR HISTORIC STATUS.

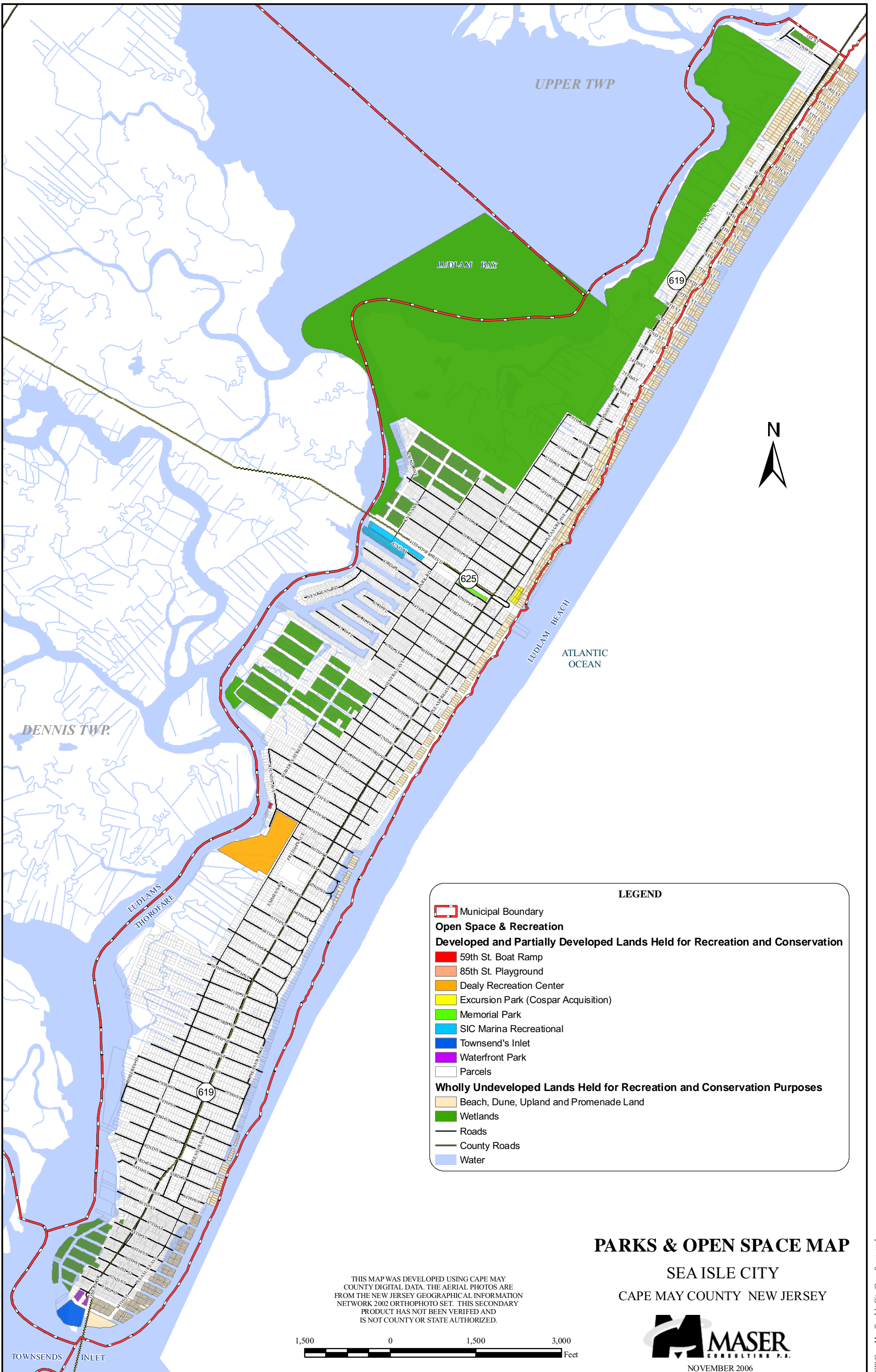
HISTORIC DATA TAKEN FROM A TABLE FROM "BZDAK, MEREDITH ARMS AND BETH SULLEBARGER. CITY OF SEA ISLE CITY CULTURAL RESOURCE SURVEY. SULLEBARGER ASS. OLDWICK, NJ, 1993".

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HISTORICAL PROPERTIES MAP
SEA ISLE CITY
CAPE MAY COUNTY NEW JERSEY



NOVEMBER 2006



DENNIS TWP.

UPPER TWP

LUDLAM BAY

ATLANTIC OCEAN

LUDLAM'S THOROFARE

TOWNSENDS INLET

LEGEND

- Municipal Boundary
- Open Space & Recreation**
- Developed and Partially Developed Lands Held for Recreation and Conservation**
- 59th St. Boat Ramp
- 85th St. Playground
- Dealy Recreation Center
- Excursion Park (Cospar Acquisition)
- Memorial Park
- SIC Marina Recreational
- Townsend's Inlet
- Waterfront Park
- Parcels
- Wholly Undeveloped Lands Held for Recreation and Conservation Purposes**
- Beach, Dune, Upland and Promenade Land
- Wetlands
- Roads
- County Roads
- Water

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PARKS & OPEN SPACE MAP
SEA ISLE CITY
 CAPE MAY COUNTY NEW JERSEY



NOVEMBER 2006