

CAROLINA BEACH

Town Council Workshop
Meeting

Tuesday, June 23, 2020 – 9:00 AM

Council Chambers, 1121 N. Lake Park Boulevard, Carolina Beach, NC



AGENDA

CALL TO ORDER

DISCUSSION ITEMS

- [1.](#) Hurricane Preparedness Update
- [2.](#) Overview of the 2020 LUP Plan Update
- [3.](#) Hurricane Building Damage Review
- [4.](#) Review Proposed Marketing Budget for FY20/21
- [5.](#) Efficiency Study Contract

NON-AGENDA ITEMS

CLOSED SESSION

- [6.](#) Closed Session to Discuss an Attorney/Client Matter

ADJOURNMENT



AGENDA ITEM COVERSHEET

PREPARED BY: Chief Alan Griffin

DEPARTMENT: Fire

MEETING: Town Council – 06/23/2020

SUBJECT: Hurricane Preparedness Update

BACKGROUND:

Chief Griffin will give an update on measures Town staff has taken to prepare for the 2020 hurricane season.

ACTION REQUESTED:

No action requested.



AGENDA ITEM COVERSHEET

PREPARED BY: Jeremy Hardison, Planning & Development Director **DEPARTMENT:** Planning & Development

MEETING: Town Council – 23 June 2020

SUBJECT: Overview of the 2020 LUP Plan Update

BACKGROUND:

A land use plan is a collection of policies and maps that serves as a community's blueprint for growth. These plans are a fundamental element of coastal management in North Carolina. The Coastal Area Management Act requires each of the 20 coastal counties to have a local land use plan in accordance with guidelines established by the Coastal Resources Commission (CRC). The CRC's guidelines provide a common format for each plan and a set of issues that must be considered during the planning process; however, the policies included in the plan are those of the Town, not of the CRC. By law, the role of the CRC is limited to determining whether plans have been properly prepared.

The land use plan includes local policies that address growth issues such as, interconnectedness between land uses, transportation, utilities, recreation, economic development, desired types of economic development, natural resource protection and the reduction of storm hazards. Once a land use plan is certified by the CRC, the Division of Coastal Management uses the plan in making CAMA permit decisions and federal consistency determinations. Proposed projects and activities must be consistent with the policies of a local land use plan, or DCM cannot permit a project to go forward. A CAMA permit is required for ocean and sound front development. At the local level, land use plans provide guidance for both individual projects and a broad range of policy issues, such as the development of regulatory ordinances and public investment programs.

Land use planning provides one of the best opportunities for public involvement. The current CAMA Land Use Plan was adopted in 2007. The update focused on reevaluating community conditions and sentiment. With extensive public outreach and participation, the plan is a blueprint for Carolina Beach to achieve the community's collective vision. Council appointed a Land use Plan Committee and the first kick off meeting was in November 2018. Staff along with our consultant, Stewart started the process with several public engagement activities that consisted of stakeholder interviews, public survey's, monthly steering committee meetings, dedicated website to the plan, social media and outreach, public open houses, several public comment sessions.

In January of this year the Town Council and Planning & Zoning Commission held a joint meeting to review the plan and heard public comments. The Planning & Zoning Commission discussed the plan and held public comment in February, March and June. At the June meeting they forward the plan with several changes from the LUP committee recommendation that are depicted in the attached power point. The plan is scheduled for public comment and adoption at the July Town Council meeting. The plan recommendation from the LUP committee and the Planning & Zoning Commission can be found on the project website for review.

<https://www.carolinabeachcamaupdate.com/resources>

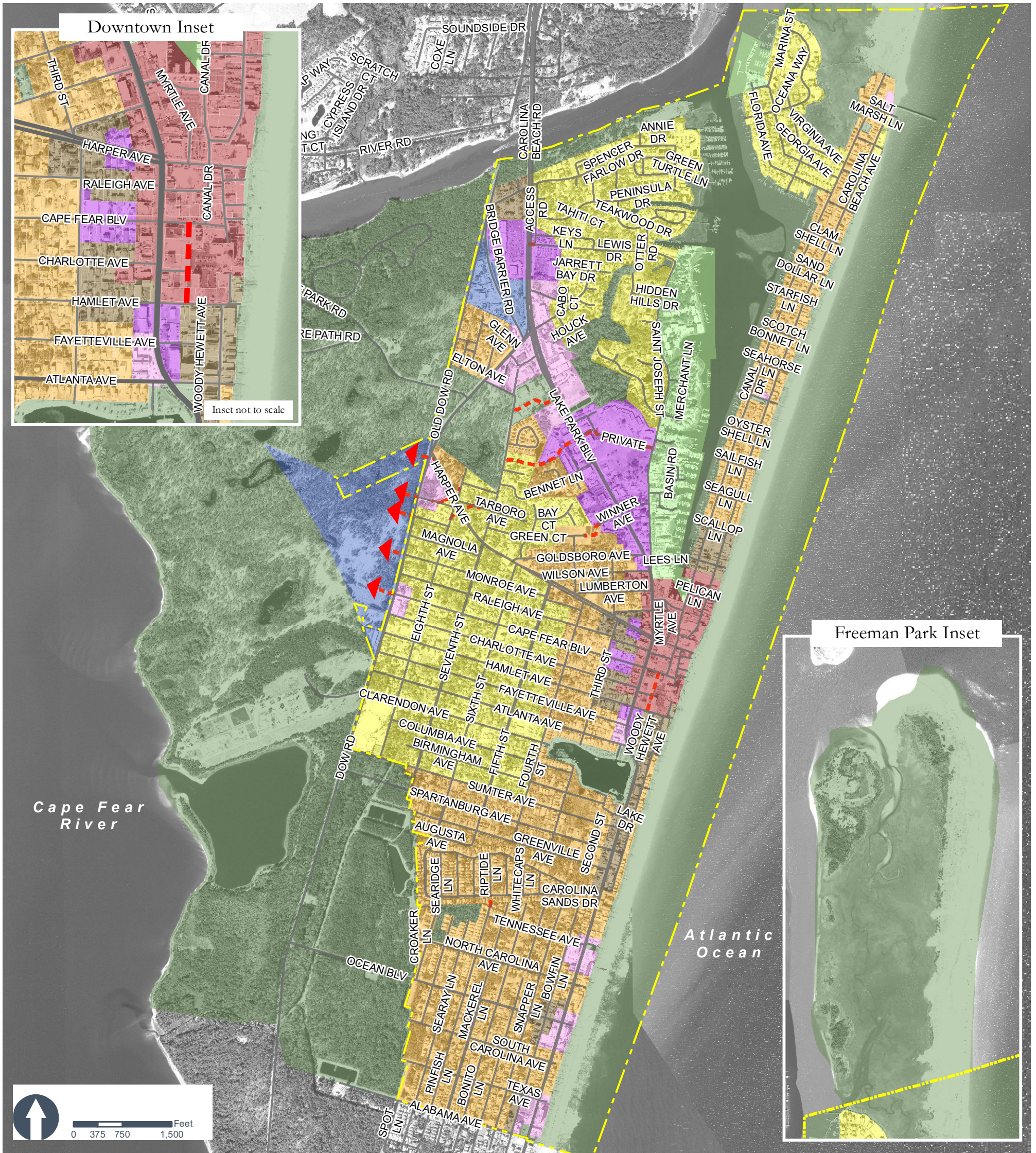
Once the plan has been adopted by the Town the plan shall be delivered to the NC Division of Coastal Management 45 days prior to the Coastal Resource Commission for certification. The plan will be heard tentatively at the November 18-19 CRC meeting in Emerald Isle.

ACTION REQUESTED:

For informational purpose only

RECOMMENDED MOTION:

None



Carolina Beach CAMA Land Use Plan

Future Land Use Map - DRAFT



DISCLAIMER: This map was created using the best available data, and is provided without warranty of any representation of accuracy or completeness. The information herein does not necessarily represent a legal survey. This data is dynamic and in a constant state of maintenance.



CAMA LAND USE PLAN



Draft: June 18, 2020 10:58 AM

ACKNOWLEDGMENTS

Many people helped to facilitate the update of the Town' of Carolina Beach Coastal Area Management Act (CAMA) Land Use Plan Update. In addition to the stakeholders and residents who provided their input, the following people were integral to the process.

Mayor and Commissioners

- » Joe Benson, Mayor
- » Tom Bridges, Mayor Pro Tem
- » LeAnn Pierce
- » JoDan Garza
- » Steve Shuttleworth

Planning and Zoning Commission

- » Keith Bloemendaal, Chair
- » Deb LeCompte, Vice chair
- » Mike Hoffer
- » Jerry Kennedy
- » Wayne Rouse
- » John Ittu
- » Melanie Boswell

Steering Committee

- » Adam Priest
- » David Schifter
- » Debra LeCompte

- » Dennis Barbour
- » Ethan Crouch
- » Jay Healy
- » Jeff Hogan
- » Karen Graybush
- » Steven Klem
- » Todd Piper
- » Wayne Rouse
- » LeAnn Pierce
- » JoDan Garza

Staff

- » Ed Parvin, Assistant Town Manager
- » Jeremy Hardison, Planning Director
- » Miles Murphy, Planner

And the residents, business owners, and visitors who participated and contributed their time and perspectives.

This plan facilitated and written by:



STEWART

Adopted: (Placeholder until adoption)

DRAFT

Last Modified: June 18, 2020 10:58 AM

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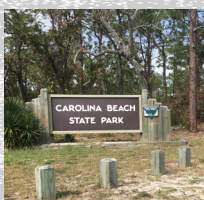
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Below is a copy of the resolution passed by the Town of Carolina Beach Town Council formally adopting this land use plan.

(This area held blank until an adoption resolution is passed by Town Council.)

PART 7

Introduction to Carolina Beach

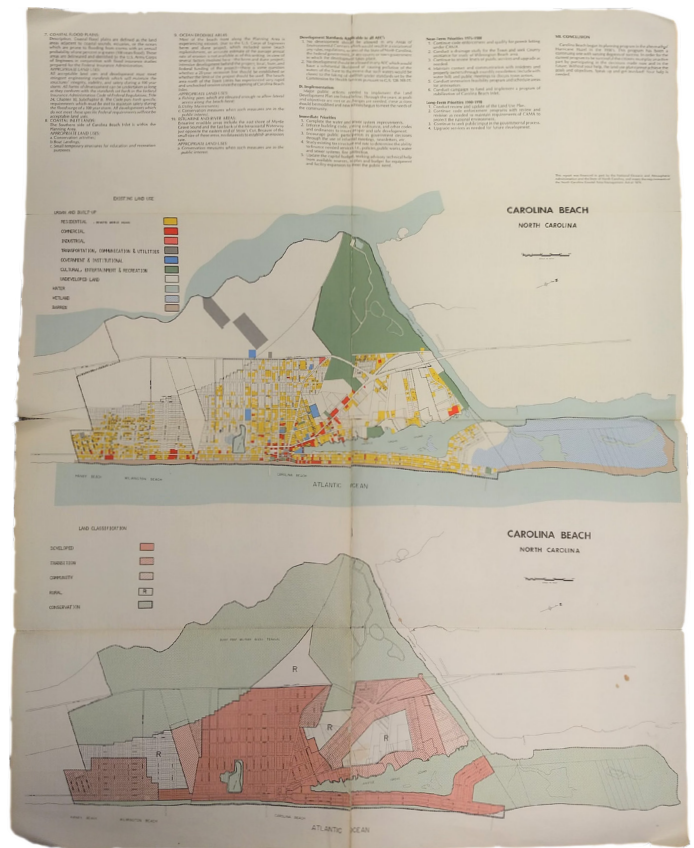




Introduction

In the 1920's Carolina Beach was subdivided by developers and for the most part, those actions set the tone for existing development patterns ever since. The Town's 1979 Land Use Plan, which was required by the passing of the 1974 Coastal Area Management Act (CAMA) by the State, shows a town with opportunity remaining for expansion onto undeveloped property. Since that time, much of Carolina Beach has been built out and redevelopment is becoming the rule rather than the exception. Looking to the future, the town embarked on a planning process to update their land use plan.

In the fall of 2018, the Town of Carolina Beach engaged the planning firm Stewart to facilitate the update to the Town's CAMA Land Use Plan. A CAMA land use plan is required by the State for the communities in North Carolina's 20 coastal counties, and helps guide land use and development



The town's 1979 Future Land Use Plan. Source: Town of Carolina Beach



Part 1: Introduction to Carolina Beach

decisions, as well as the issuance of CAMA permits.

There are several reasons to create a Land Use Plan (LUP). A LUP is an opportunity to take a look at the "big picture" and to clearly capture and communicate the community's vision for the future. A LUP establishes a road map and policies to guide development including public and private investment of resources. It also communicates a cohesive community direction and provides a framework for making land use and infrastructure investment decisions.

The LUP looks at the interconnectedness between land uses, transportation, utilities, recreation, economic development, and other factors that form the town's physical and policy environment. This LUP is an opportunity for the residents and business owners of Carolina Beach to tell their story and help continue the distinct vision and unique identity of the community.

A LUP typically has a planning horizon of 20-30 years, but it's important to review and update the plan in the interim to keep pace with changes in the Town and to ensure the vision still resonates with current residents. Land use plans are usually reevaluated and updated every 5-10 years, but this varies by community.

The plan development process included extensive public outreach and comment. Throughout the nearly year-long planning process, information was gathered and analyzed and the findings were vetted by a Steering Committee appointed by the Town Council. The Steering Committee was composed of elected and appointed officials, representatives of various committees and boards, Town staff, residents, and business owners. Ultimately, the final plan was presented again to the public during an

Coastal Area Management Act (CAMA)

The following is a summary of information from the NC Division of Environmental Quality (NCDEQ).

The Coastal Area Management Act (CAMA) requires each of the 20 coastal counties to have a local Land Use Plan (LUP) in accordance with guidelines established by the NC Coastal Resources Commission (CRC). The CRC's guidelines provide a common format and a set of issues that must be considered during the planning process.

The LUP may include policies specific to the locality addressing growth management, protection of productive resources (i.e., farmland, forest resources, fisheries) and natural resources, economic development, and reduction of storm hazards.

The Division of Coastal Management (DCM) which serves as staff to the CRC, uses the Plans to review proposed projects and activities to ensure consistency with rules and policies and to make federally consistent determinations.

At the local level, the CAMA LUP provides guidance for both review and approval of individual projects, public investments or resources, and development of regulatory ordinances, and broader policy issues. Public involvement in the planning process affords residents and business owners the opportunity to help shape their coastal community by providing policies, recommendations, and support for a resilient future.

open house workshop and a month-long public review and comment period, before adoption by the Town.

Study Area

The CAMA Land Use Plan covers the entire area under the Town's planning jurisdiction, including the Town's corporate limits and the Extra-Territorial Jurisdiction (ETJ). This area stretches from the Atlantic Ocean on the east to the Cape Fear River on the west, and from the inlet and Snow's Cut on the north to Alabama Avenue and the Town of Kure Beach on the south. The western portion of Carolina Beach's jurisdiction are primarily covered by Carolina Beach State Park and the Military Ocean Terminal at Sunny Point (MOTSU), both of which are lands managed by the State and federal governments, respectively.

Public Participation

Public participation is a key component of a CAMA LUP update and the community was involved throughout the process. The LUP update began with a community tour and stakeholder interviews with key focus groups and representatives of various perspectives and community groups. Their thoughts, ideas, and perspectives influenced future information gathering efforts. The Steering Committee reviewed and evaluated all of the information and data assembled for the update. Among other things, their guidance shaped the public online survey, goals and vision, future land use, policy recommendations, and every other aspect of the LUP. Two large public open house workshops were held - one in the beginning to assess the community's goals, vision, preferences, and perspectives, and one



Public open house.

toward the end to make sure what emerged from the plan conformed to the community's expectations and aspirations.

Plan Assessments

The following plans were reviewed to identify and incorporate relevant information into the Land Use Plan update.

- » **2007 CAMA Land Use Plan**
- » **Parks and Recreation Master Plan (2017)**
- » **Water Use and Harbor Management Plan (2008)**
- » **Bicycle Multi-Use Transportation Plan (2011)**
- » **Draft MOTSU JLUS Recommendations (Nov. 2018)**
- » **Pedestrian Master Plan (2018)**
- » **Central Business District Master Development Plan (2008)**
- » **Traffic Study Recommendations – N. Lake Park Boulevard Corridor Study (2018)**
- » **Capital Improvement Plan (2018)**
- » **Information on Proposed / Potential Development / Redevelopment Projects**
- » **Zoning and Subdivision Ordinances, and Official Zoning Map**
- » **2009 Future Land Use Map, Flood Zones Map, and files and resources**

See the appendix for more information on plan assessments.

PART 2

Community Concerns & Aspirations





Significant Existing and Emerging Conditions

Through stakeholder interviews with focus groups as well as Steering Committee issue identification, and resident involvement at the public open house workshop, the following themes were identified. More information can be found in the Appendix.

Stormwater and Flooding

In general, there are concerns about stormwater and flooding. Hurricane Florence exacerbated problems that already existed. In particular, the following issues came up frequently:

» **Carolina Beach Lake**

- Recent dredging project to mitigate localized flooding.
- Additional pumps have also been installed.

» **Canal Drive – floods during high tides, stormwater drains fail**

- A committee has been formed to generate ideas.
- Current working plan is increase seawall height and install pumps.

» **Flooding of neighboring homes when previously vacant lots develop**

- Some vacant lots have served to mitigate stormwater flooding, but when they develop, the water they absorbed is forced onto neighboring properties.

» **NCDOT stormwater pipes**

- The stormwater pipes on some streets have proven to be undersized as impervious surfaces and rainfall patterns have increased through the years.
- Retrofitting and fixing these issues are difficult and require coordination.

Traffic Congestion and Parking

Parking is perceived as lacking, particularly



Part 2: Community Concerns & Aspirations

in downtown and during the summer / tourist season. Traffic congestion, especially along Lake Park Blvd in the summer, is an impediment to daily life.

Family-Friendly Community

The family-friendly character and vibe of the town is cherished by residents. Lower structure heights are viewed as a contributing factor. The school is a community-prized resource but is limited in space and has some difficulty with regular operations, especially parking.

Inlet, Marina, and Waterfront

These areas are critical to driving the local economy. Access is plentiful. Public and private marinas provide recreational tourism and help support the local maritime culture and industry. Maintenance costs at the inlet are also high and include regular beach nourishment.

Redevelopment

Redevelopment has become the norm rather than the exception. A lot of concern revolves around how to allow redevelopment, especially if it results in more intense development. A tension exists between maintaining the charm and character of the town's current configuration, while also

allowing redevelopment. Increased building heights (especially in or near the downtown area) may conflict with the character of existing areas.

Downtown and Boardwalk

The downtown area and boardwalk are the recreational and social hub of the town, providing a family-friendly experience that has come to define the town for visitors. This unique experience requires protection through zoning that restricts the area from being developed as residential condos or hotels. The appearance of this area was also identified as an opportunity for improvement.

Highway & Appearance

There is a desire for upgraded appearance requirements for the most visible part of town - Lake Park Blvd - including enhanced development and landscaping standards. Reducing driveways to improve safety and increasing pedestrian connectivity is desired. Across the town, burying electric lines and tree preservation are also concerns.

Pedestrian & Cyclist Connectivity

Carolina Beach is engaged in increasing connectivity and upgrading pedestrian and

Significant Themes



cyclist facilities throughout town. Many groups expressed a desire for even more of these projects. Although not needed everywhere, residents welcome enhanced pedestrian and multi-use facilities along major corridors and between key destinations.

Parks and Recreation

Abundant access to recreation is valued and helps define the family-friendly character of the town, and include state, public, and private recreational opportunities. Expansion of recreational opportunities is welcome, including passive use of the MOTSU buffer area.

Housing Affordability

There is a lack of affordable housing and it seems that the most profitable development project is residential in nature. Second homes or vacation rental properties are in high demand. Standalone residential apartment or condos will displace nonresidential uses if left unchecked, which changes the character and balance of land uses. The many short-term rentals are also a concern.

Healthy Year-round Economy

Although tourism is recognized as a strong economic driver, the residents are proud to have the daily-life services on the island

that nearly eliminate reliance on mainland facilities. A desire exists to strengthen the non-tourism economy as a way to diversify the local tax base and maintain livability year round.

Sea Level Rise and Erosion

Sea levels have been rising and will continue to do so. Erosion from the inlet and along the north end requires regular and costly beach nourishment. Much of the town is within areas that are potentially vulnerable to storm surge from hurricanes.

Environment

The natural environment is the key to the quality of life in Carolina Beach. Tree preservation and water quality are important. Access to environmental amenities and preservation of natural resources, including wetlands and dunes, is essential.

Growth Outpacing Infrastructure

Aging infrastructure and maintenance costs are recognized as a potential threat to the town's viability. The Town's capital improvement plan continually prioritizes repairs and investments. New facilities (especially sidewalks and the greenway) have been welcomed, but some residents voiced concern about the accrued costs of maintenance.



Community Vision and Goals

The vision and goals started with the Steering Committee's evaluation of the previous land use plan's efforts and were reviewed and revised by the broader community at the public open house workshop on February 6, 2019 in Town Hall.

Community Vision Statement

Establishing a clear vision statement for your community helps organize people around future actions and provides a touchstone when evaluating decisions and priorities.

Carolina Beach is recognized for balancing its past and unique coastal attributes and challenges with integrity and enterprise. We will remain an attractive and safe family-oriented community, with a healthy ecosystem, quality recreational opportunities and a vibrant business environment that will connect families, residents, and visitors now and into the future.



Community Goals

Goals are specific actions that are tied to the overall vision statement, and provide direction for the community on how to achieve its vision.

Character & Appearance

Goal 1: Enhance functionality and appearance of major thoroughfares and gateways.

Goal 2: Retain the traditional character and density of single family neighborhoods.

Goal 3: Promote and beautify the town center as a focal point, including increasing connections to the surrounding community.

Goal 4: Continue to reduce overall nonconformities in the town, but also respect existing uses and entitlements, and the rebuilding of structures.

Natural Resources

Goal 5: Preserve natural beauty through the protection of unique habitats, water quality, wetlands, and mature trees.

Goal 6: Protect barrier dunes, beaches, floodplains, and coastal features, recognizing their natural storm protections.

Goal 7: Reduce and mitigate the negative effects of stormwater and flooding.

Economy

Goal 8: Sustain a healthy and vibrant locally-oriented economy that respects tourism.

Goal 9: Enhance and promote family-oriented businesses and services.

Connectivity & Mobility

Goal 10: Enhance mobility for pedestrians, bicyclists, and non-traditional vehicles.

Goal 11: Reduce traffic and parking congestion and ensure adequate access for emergency services.

Recreation & Access

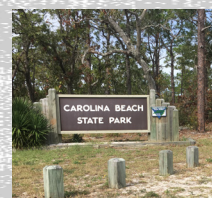
Goal 12: Balance the use and accessibility of Myrtle Grove Sound, especially among commercial, sport-fishing, recreational, and transient boaters.

Goal 13: Maintain and increase the accessibility of public trust waters and public recreational facilities and assets, especially the beach, waterfront, parks, and downtown.



PART 3

Existing & Emerging Conditions





Population, Housing, & Economy

Population

Carolina Beach has grown steadily over the past 50 years.

Population Estimates and Projections

The US Census reports the town's population as 4,701 and 5,706 in 2000 and 2010, respectively.

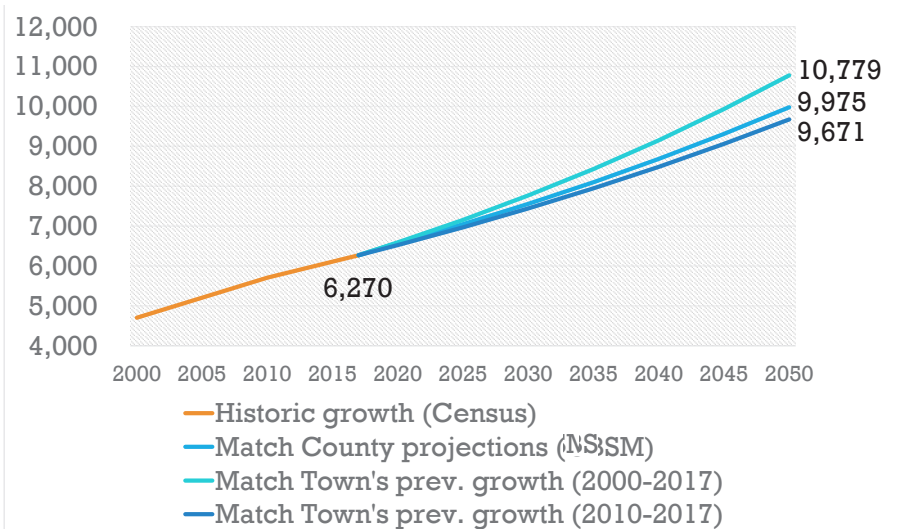
The year-round (permanent) population was reported to be 6,270 in 2017 (2017 American Community Survey, 5-year estimates). By 2050, the town may add approximately 4,000 year-round residents if growth continues to match the county rate projected by the

NC Office of State Budget and Management projections.

Seasonal (visitor, vacation, and part-time resident) population was estimated based on two methods: water usage rates and overnight lodging room and occupancy data.

Population Estimate and Projections.

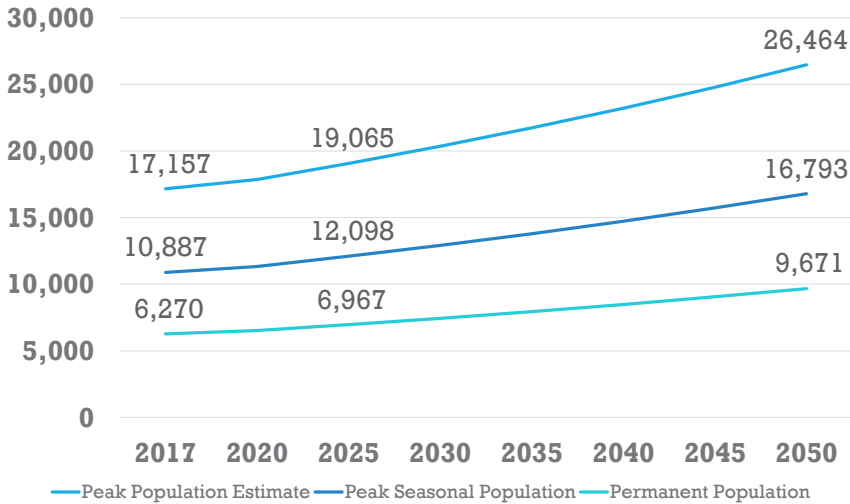
(Base data from US Census and NC Office of State Budget and Management (OSBM))



Part 3: Existing & Emerging Conditions

Peak Seasonal Population Estimates and Projections, using water usage rates and overnight lodging occupancy.

(Data from US Census, NC OSBM, and the Town)



Using the average of the two methods, the peak seasonal population is projected to be as much as 74% higher than the permanent population. That figure does not account for day-trippers to the island. This method projects a peak seasonal population of 10,887

as a baseline, to which a 1.36% annual growth rate is applied (to match the most recent growth rate from 2010-2017) to determine peak seasonal population projections for the planning period. This yields a peak seasonal population estimate of 16,793 in 2050. More information on these calculations can be found in the Appendix.

Demographic Characteristics

The age distribution in Carolina Beach is predominantly individuals aged 45-64 (32%), followed by 20-44 (29%), 0-19 (22%), and 17% aged 65 and older. The largest change in any cohort has occurred with those aged 65 and older, with 141.3% increase in this age group between 2010 and 2016. The Median Age is 44.2 (2010 Census, 2016 ACS 5-year Estimates)

Definitions for Understanding Population Projections

Peak Population

Permanent plus seasonal population. This is an approximation of the planning area's population on a "typical" peak day during the high season.

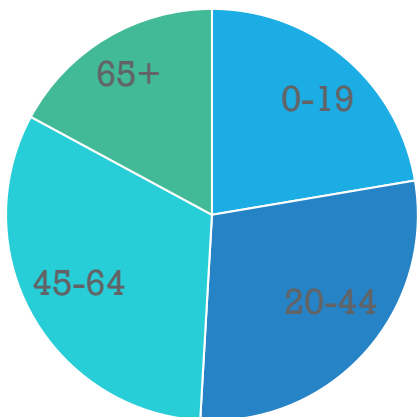
Peak Seasonal Population

Persons who are temporary residents in the planning area, such as tourists and vacationers, but who normally reside in another location; does not include day-trippers.

Permanent Population

Persons who usually reside in the planning area, year-round.

Age distribution (2016) and % Change by Age Group (2010-2016)
 (Data from US Census and 2016 ACS 5-year estimates)



+31.9% for ages 0 to 19
-9.4% for ages 20 to 44
-4.4% for ages 45 to 64
+141.3% for ages 65+

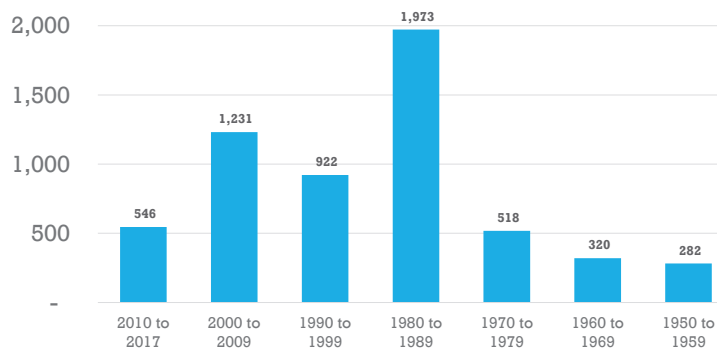
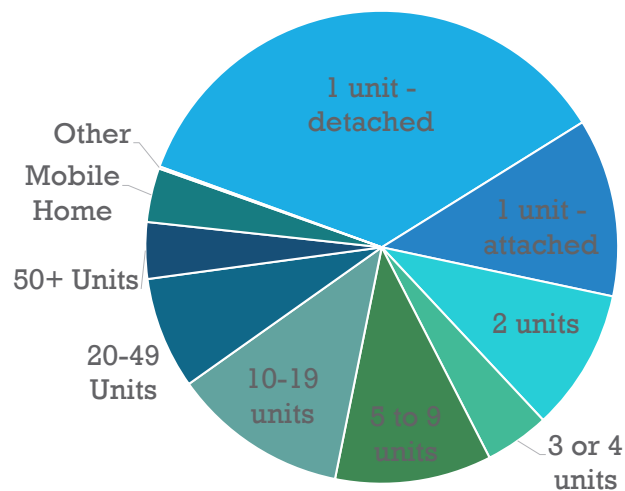
The Median Household Income increased 62% from an average of \$37,662 in 2000 to \$61,171 in 2016. Family poverty rate was reported as 13.5% in 2016 (2000 Census, 2010 Census, 2016 ACS 5-year Estimates).

Home ownership rates have seen a decline in the past two decades. Rates of home ownership went from 65.7% in the year 2000 to 54.7% in 2016 while rental rates have increased by 45.3% over the same time period (2000 Census, 2016 ACS 5-year Estimates). Nearly 40% of occupied rental units in Carolina Beach are paying more than 35% of household income on rent (2016 ACS 5-year Estimates).

Housing

The median home value of owner occupied units in Carolina Beach is \$320,200 - 66% higher than the state's median (2016 ACS

Housing by Type (2016) and Distribution of Housing Units by Year Built 1950 to the present
 (Data from US Census, ACS, and the Town)



5-year Estimates). Of the 5,492 dwellings 34.2% of the housing units are located in dwellings of 5 or more units. Single-unit detached structures make up 35.6% of the housing stock. Mobile homes make up 3.7% of the housing units. The majority of homes were built between 1980 and 1989 (33.0%) followed by 20.6% between 2000 to 2009 (2016 ACS 5-Year Estimates). From 2010 to 2017, 546 units were constructed. (Town of Carolina Beach Planning Dept, 2018). With few vacant parcels remaining, the town is at a time where redevelopment is the rule rather than the exception.

Part 3: Existing & Emerging Conditions

Vacant housing makes up 54.2% of the housing units within the Town. The 2,979 vacant units include occupancy status of persons who have a typical residence elsewhere. While vacant units increased from 1,790 to 2,939 between the 2000 and 2010 Decennial Census, the 2016 ACS Estimate shows only a slight increase to 2,979 units.

Rental Housing

The number of vacant housing (for seasonal, recreational, or occasional use) has doubled since 2000, and is currently 45% of housing units in the town.

Source: ACS 2016, Census data 2010.

Employment by Industry (Residents of Carolina Beach)	#	%
Educational services, and health care and social assistance	626	21.1%
Retail Trade	373	12.6%
Arts, entertainment, and recreation, and accommodation and food services	341	11.5%
Professional, scientific, and management, and administrative and waste management services	302	10.2%
Construction	263	8.9%
Other services, except public administration	205	6.9%
Public administration	191	6.5%
Finance and insurance, and real estate and rental and leasing	182	6.1%
Manufacturing	176	5.9%
Transportation and warehousing, and utilities	145	4.9%
Wholesale Trade	76	2.6%
Information	57	1.9%
Agriculture, forestry, fishing and hunting, and mining	24	0.8%

2016 ACS 5-Year Estimates

Local Economy

The majority of residents living in Carolina Beach are employed in Educational Services, Health Care and Social Assistance (21%), followed by Retail Trade (12%). Since 2000, the Information, Finance, and Transportation, Warehousing, and Utilities sectors have seen the highest percentage increases in employment while individuals employed in the Construction sector have experienced a reduction of approximately half (2010 Census, 2016 ACS 5-Year Estimates).

Employment data taken from Esri's CensusOnTheMap, reports 2,811 individuals primarily employed within the Town. The economic activity sectors within Carolina Beach are categorized below.

Employment by Industry (Within Carolina Beach)	#	%
Health Care and Social Assistance	387	16.5%
Retail Trade	317	13.5%
Accommodation and Food Services	311	13.3%
Educational Services	209	8.9%
Professional, Scientific, and Technical	161	6.9%
Construction	143	6.1%
Public Administration	140	6.0%
Administration & Support, Waste Management and Remediation	124	5.3%
Manufacturing	89	3.8%
Wholesale Trade	81	3.5%
Finance and Insurance	73	3.1%
Real Estate and Rental and Leasing	62	2.6%
Information	61	2.6%
Other Services (excluding Public Administration)	58	2.5%
Transportation and Warehousing	44	1.9%
Arts, Entertainment, and Recreation	37	1.6%
Management of Companies and Enterprises	26	1.1%
Utilities	20	0.9%

2015 CensusOnTheMap

Commuting

The mean travel time to work for residents of Carolina beach is 28.2 minutes. The majority commute by driving alone. The majority of those employed in Carolina Beach commute into the Town while a smaller number are both employed and living within the Town. Approximately 8% of people in the town work from home (2017 ACS 5-yr est.). Conversely, of those living in Carolina Beach that are employed, over 90% commute outside of the Town to their place of employment.

Commute to Work	#	%
Car, truck or van, drove alone	2,108	76%
Car, truck or van, carpoled	212	8%
Walked	128	5%
Worked at home	111	4%
Other means	66	2%
Public transportation	53	2%
Ferryboat	53	2%
Bicycled	53	2%

2016 ACS 5-Year Estimates



Bicycling and walking are popular means of traveling to destinations in and around Carolina Beach for commuting, errands, and recreation.

Part 3: Existing & Emerging Conditions

Natural Systems

The quality of life of residents and visitors of Carolina Beach is inextricably linked to the area's natural systems and one of the primary purposes of a CAMA Land Use Plan is to establish an integrated program capable of rational and coordinated management of coastal resources. Identification and recognition of Areas of Environmental Concern (AECs) is critical to the plan.

Areas of Environmental Concern

AECs are areas of natural importance designated by the NC Coastal Resources Commission (CRC). The State Guidelines for Areas of Environmental Concern (15A NCAC 7H) require that local land use plans give special attention to the protection of appropriate AECs because of their environmental, social, economic, and aesthetic value. Four categories of AECs have been established:

- » **Estuarine and Ocean System:** This system is the coast's broad network of brackish sounds, marshes, and surrounding shores. CAMA permits are required for development in the four subcomponents of this system:
 - **Coastal Wetlands.** These areas are considered to be unsuitable for all development activities and other land uses that alter their natural functions. They are defined as any salt marsh or other marsh subject to regular or occasional flooding by tides, including wind tides and contains one or more of the following plant species: Cord Grass, Black Needlerush, Glasswort, Salt Grass, Sea Lavender, Bulrush, Saw Grass, Cat-tail, Salt Meadow Grass, or Salt Reed Grass.

- **Estuarine Waters.** These areas provide important habitat for a diverse range of shellfish, birds, and other forms of marine wildlife. They are the dominant component of the entire estuarine and ocean system. They provide nursery areas and habitat for a variety of marine and benthic species. Conservation of estuarine waters is usually the highest priority use for these areas. Development activities which are water dependent and require water access and cannot function elsewhere (e.g. simple access structures, structures to prevent erosion, boat docks, marinas, wharves and mooring piling) may be allowed within this AEC.
- **Public Trust Areas.** Public trust areas include coastal waters and the submerged tidal lands below the mean



Coastal wetland. (Source: Andrea Correll)



Shorelines, managed areas, and habitat.

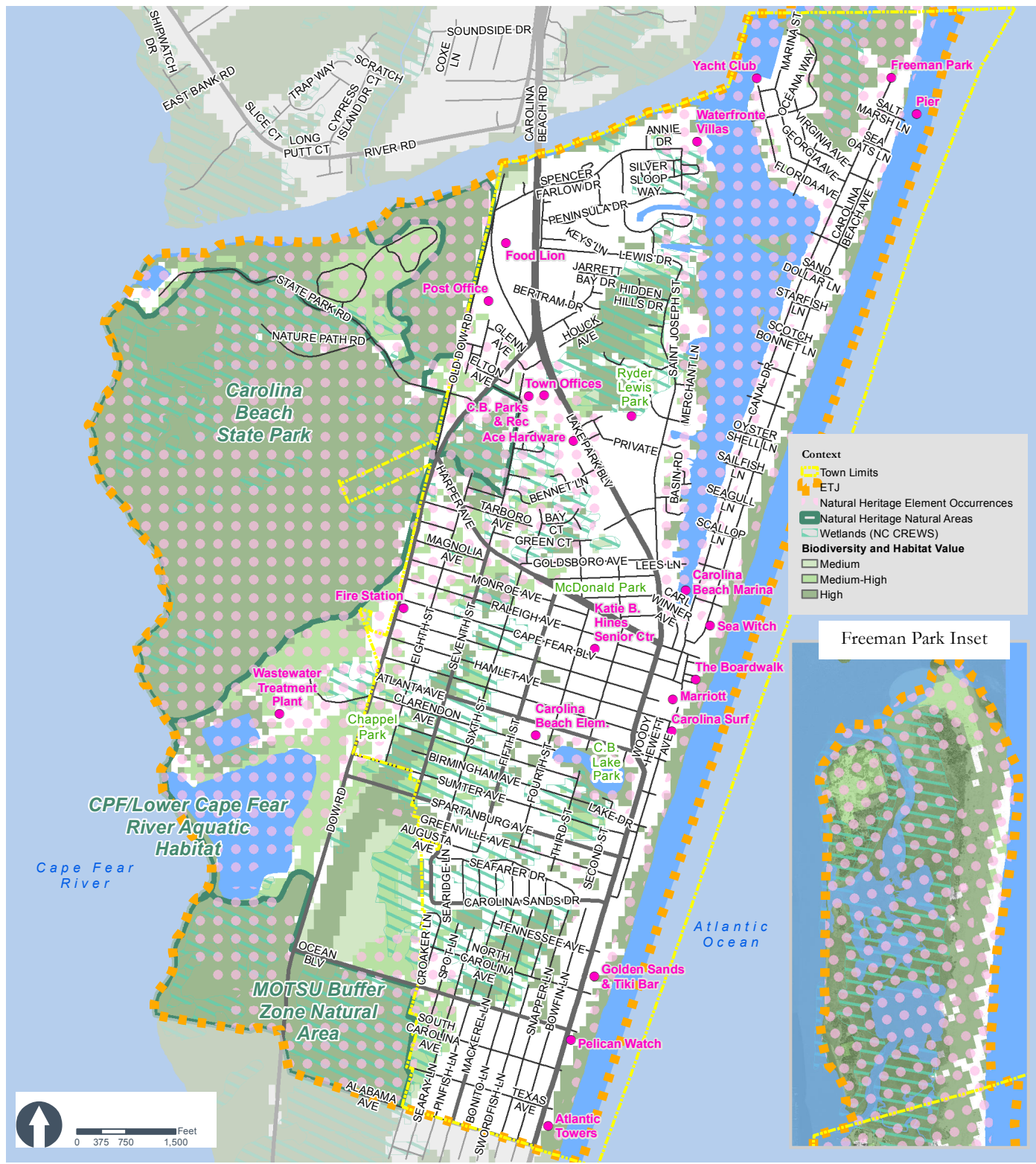
Part 3: Existing & Emerging Conditions

high water line (MHWL). The water and submerged tidal lands are held in trust for the public to use through such activities as fishing, swimming, and boating. The Town of Carolina Beach public trust waters include all estuarine waters and their tributaries, Snow's Cut, the Cape Fear River, and the Atlantic Ocean. The state's policy is to ensure that the public is able to maintain access to these waters. All development, structures, and land uses that interfere with the public's right to the access and use of these waters is inconsistent with state policy. Structures and activities in public trust areas must not be detrimental to the public trust rights and the biological and physical functions of the estuary. Projects which would directly or indirectly block or impair existing navigation channels, increase shoreline erosion, deposit spoils below normal high water, cause adverse water circulation patterns, violate water quality standards, or cause degradation of shellfish waters are considered incompatible with the management policies of public trust areas.

- **Coastal Shorelines.** The estuarine shoreline is the non-ocean shoreline, extending from the normal high water level or normal water level along the estuarine waters, estuaries, sounds, bays, fresh and brackish waters and public areas (15NCAC 7H.0209). Coastal Shorelines include all lands within 75 feet of the normal high water level of estuarine waters. This definition also includes lands within 30 feet of the normal high water level of public trust waters located inland of the dividing line between coastal fishing waters and inland fishing waters. Generally, development in this area must not cause significant damage to any estuarine resources, must not interfere

with public access to navigable waters or public resources, have limited hard (impervious) surfaces, should preserve natural barriers to erosion, and must take steps to prevent pollution of the estuary by sedimentation and runoff.

- » **Ocean Hazard Areas:** Oceanfront beaches and dunes protect buildings and the environment behind them by absorbing the force of wind and waves. Carolina Beach is situated on a barrier island between the ocean and the mainland. Barrier islands are often subject to significant shoreline changes, high hazard flooding, and are vulnerable to erosion and flooding. The Ocean Hazard areas at Carolina Beach includes the following:
 - Ocean Erodible AEC
 - Inlet Hazard AEC
 - Unvegetated Beach AEC
- » **Public Water Supplies:** Protection of fresh (i.e. - drinking) water is vital to human health and economy. Protection of public water supply areas prevents damage to fresh water supplies which are vulnerable to sea-level rise and salt water intrusion. The town's public wells are being actively managed to preserve their capacity, and current consideration is being given to expanding public water supply through desalination.
- » **Natural and Cultural Resources:** These are specific sites designated to receive protection because they contain environmental or cultural resources that are important to the entire state. The CRC formally designates these resources through a nomination process.



Biodiversity and natural heritage.

Part 3: Existing & Emerging Conditions

Environmentally Fragile Areas

Wetlands

A number of wetlands and specifically managed coastal wetlands rated as "Beneficial," "Substantial," "Exceptional," and "Unrated" are located throughout the planning jurisdiction including:

- » **Pocosin**
- » **Depressional Swamp Forest**
- » **Pine Flat**
- » **Managed Pineland**
- » **Freshwater Marsh**
- » **Salt/Brackish Marsh**

Wetlands cover a large portion of the Planning Jurisdiction, including many developed areas. Many wetlands have been cut over, cleared or disturbed in other ways by human impacts. A number of these wetlands have potential for restoration or increased protection.

There are four broad classifications of Estuarine Shoreline within Carolina Beach, where the water meets the land. Marsh and Sediment Banks are found along the Atlantic Ocean, Cape Fear River and through the majority of Snow's Cut. Modified, and Miscellaneous areas include those where bank stabilization has occurred particularly south of Freeman Park, on the south bank of Snow's Cut, and various sites within the Carolina Beach Yacht Basin.

Prime Wildlife Habitat and Natural Resources

The planning jurisdiction of Carolina Beach is flanked by substantial natural resource areas. The buffer zone for the Military

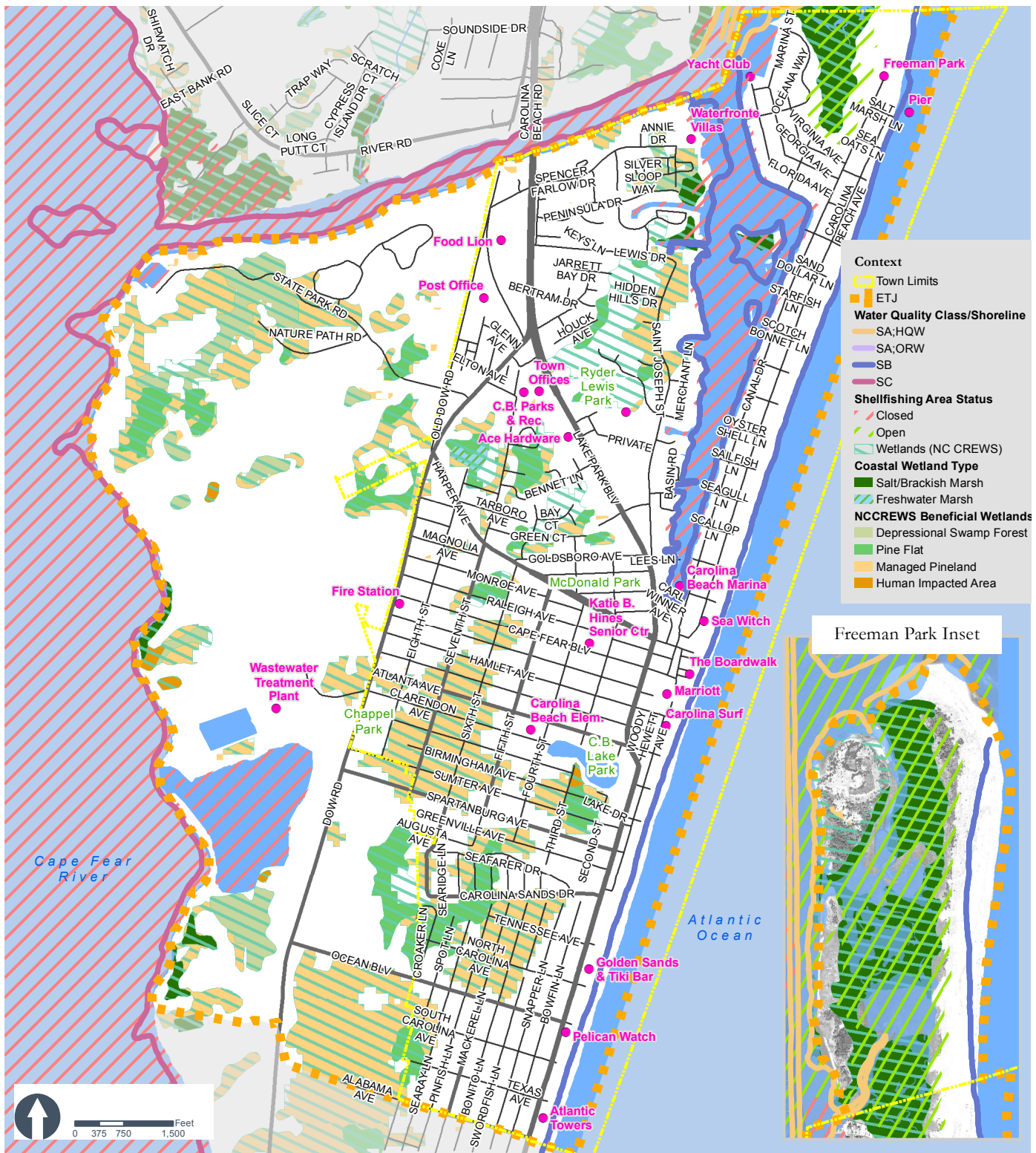
Ocean Terminal at Sunny Point (MOTSU) and Carolina Beach State Park comprise roughly 765 acres. Although the prime forest areas are located in state and federally owned land falling within the Town's planning jurisdiction, the Town of Carolina Beach has zoned these areas as Conservation to preserve and protect their character.

Areas of high biodiversity and quality habitat for flora and fauna are generally found at the water and land interface and in undisturbed natural areas. A large portion of the planning jurisdiction of Carolina Beach contains areas of medium biodiversity or higher, including all coastal marshes and wetlands.

Carolina Beach State Park and the MOTSU contain an area of Exceptional class rating for Natural Heritage Natural Areas. This is an area of special biodiversity significance due to the presence of rare species, unique natural communities, important animal assemblages or other ecological features. These areas are comprised of mainly maritime forests, which are "forests that have developed under the influence of salt spray and that are found on barrier islands or immediately adjacent to estuarine waters". The State Park also has a number of unique wetlands.

Seventy-two Natural Heritage Element Occurrences or "elements of natural diversity" are found within the Carolina Beach planning jurisdiction, in many cases contributing to the excellence rating for the area's Natural Heritage Natural Areas, including:

- » **24 Plants,**
- » **20 Natural Communities,**
- » **1 Animal Assemblage, and**
- » **17 Animals**



Wetlands and environmentally sensitive areas.

Part 3: Existing & Emerging Conditions

Endangered Species

Kemp's Ridley sea turtle, Leatherback sea turtle, Red-cockaded woodpecker, and West Indian manatee are all listed as vertebrate species in danger of extinction. The American alligator, Piping plover, Loggerhead sea turtle and Green sea turtle are listed as threatened species meaning they are at risk of becoming endangered within the foreseeable future throughout all or a significant portion of habitat range.

The following vascular plants are listed as endangered: Cooley's meadowrue, Golden sedge, and Rough-leaved loosestrife. The Seabeach amaranth is a threatened species.

A number of additional species within New Hanover County are considered at risk including: Carolina gopher frog, Southern hognose snake, Magnificent rams-horn, Rare skipper, Carolina bishopweed, Raven's seedbox, and the Venus fly trap which is native only to this particular area of the United States and is found within Carolina Beach State Park.

Primary Nursery Areas

Primary fishing nursery areas are located north of Carolina Beach along Masonboro-Myrtle Grove Sound Area (west side) but these areas are not located within the Carolina Beach planning jurisdiction.

Shellfishing Areas

Within the planning jurisdiction of Carolina Beach, all waters are classified as closed to shellfishing except the north end marsh system in the ETJ. There are a number of closed shellfish growing areas in the Myrtle Grove Sound area.



Kemp's Ridley sea turtle, an endangered species



Seabeach Amaranth, a threatened species

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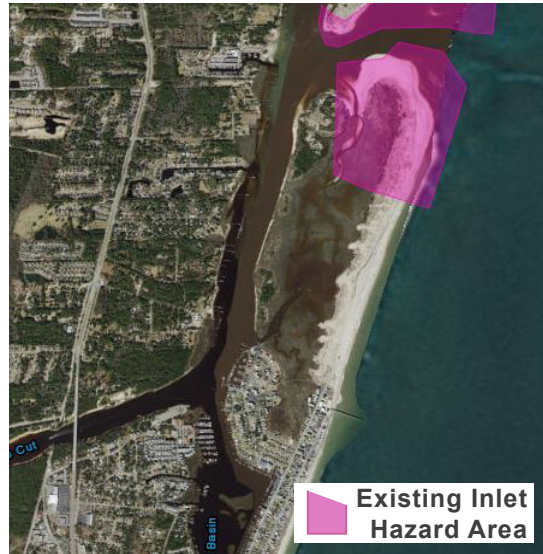
Part 3: Existing & Emerging Conditions

Soils, Erosion, and Water Quality

Soil type, erodible areas, and water quality are all factors that contribute to the potential for and limitations to certain types of land uses and activity within Carolina Beach. The primary soil type(s) are sand variants. Like many barrier islands, this area is generally poorly aggregated, well-drained, well-aerated, and highly erodible.

Carolina Beach Inlet was opened by private interests in 1952 and has been used for a borrow source for the US Army Corps of Engineers beach renourishment projects. During the past 50 years the inner and outer segments of the main channel have shifted toward Masonboro Island as much as 475 feet. After opening of the inlet, adjacent oceanfront shorelines along Carolina Beach and Masonboro Island began to erode at rapid rates ultimately leading to a significant landward offset of Carolina Beach. Higher rates of erosion occur on the northern oceanfront side of the island. Between the rock embankment northward along Freeman Park to Carolina Beach Inlet calculated erosion rates exceed 5 feet per year. Areas south of Freeman Park to approximately Starfish Lane experience lower calculated rates of erosion. The chronic erosion is related to the inlet. Oceanfront areas south of Starfish Lane, including the Boardwalk area, have calculated average accretion rates of approximately 2.5 feet per year.

The existing Inlet Hazard Area is currently delineated on both sides of Carolina Beach Inlet. Inlets have been documented to increase nearby erosion or accretion rates. A state-proposed 2019 change could expand the recommended boundary of the Inlet Hazard Area southward to



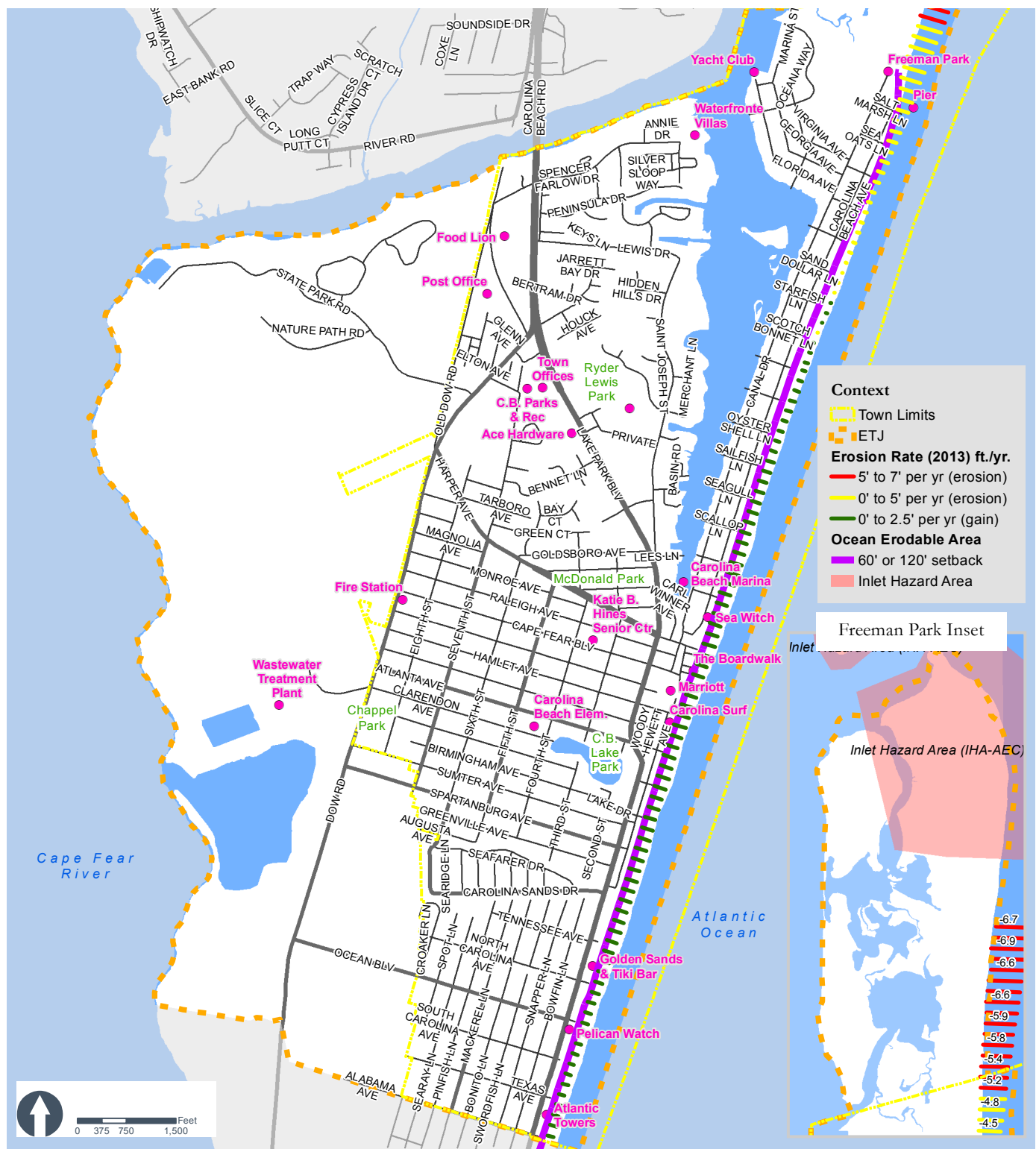
Existing Inlet Hazard Area.
 Source: Coastal Resources Commission online mapping tool, 08/01/2018.

approximately Salt Marsh Lane due to expanded recognition of the inlet's influence.

Carolina Beach is in the Cape Fear and White Oak River Basin and contains three surface water classifications. All surface waters in North Carolina are assigned a primary classification by the NC Division of Water Quality (DWQ). The tidal/salt water classifications in the Carolina Beach planning jurisdiction are SC and SB, and there are Outstanding Resource Waters in the Masonboro Island system north of the inlet.

Carolina Beach Estuarine Waters		
Symbol	Description	Location
SA; HQW	Tidal Salt Waters (Commercial Shellfishing; High Quality Waters)	Intracoastal areas between Carolina Beach Inlet and Snow's Cut
SB	Tidal Salt Waters (Primary Recreation)	Oceanfront areas & Carolina Beach Yacht Basin
SC	Tidal Salt Waters (Secondary Recreation - minimal skin contact)	Cape Fear Riverfront areas and Snow's Cut from Carolina Beach Yacht Basin to the Cape Fear River

NC Division of Water Resources (DWR)



Erosion vulnerability

Part 3: Existing & Emerging Conditions

Wastewater and sewer service is available to all of Carolina Beach; there is no need for septic systems. For more information about soils, see the Appendix.

Hazards, Storm Surge, and Flooding

Portions of Carolina Beach are at risk from flooding from major storm events and hurricanes. Over half of the assessed property tax value of Carolina Beach occurs on land within the footprint of the 100-year floodplain. The majority of Carolina Beach is affected by storm surge from a Category 3 Hurricane as indicated by the Sea Lake and Overland Surge from Hurricanes (SLOSH) Model. For a Category 5 hurricane, the modeling indicates that the only area not inundated by storm surge would be a strip of inland parcels along Dow Rd between the Post Office and the Fire Station.

Other areas of stormwater flooding concern include Canal Drive and Florida Street. Concerns about frequent flooding during storm events on Town roads have prompted further investigation and planning.

Vulnerability

A large portion of the inhabited parts of Carolina Beach (i.e. - not state- or federally-owned lands, or Freeman Park) are in regulatory floodplains. Nearly 51% of the assessed value (i.e. property tax) of the town is within the footprint of the 100-year floodplain. This means that a greater than 100-year storm event could potentially damage every structure in that floodplain. The adverse impact to the property values in the town, and subsequently the town's ability to raise funds used to provide services, could be substantial. The age of structures can

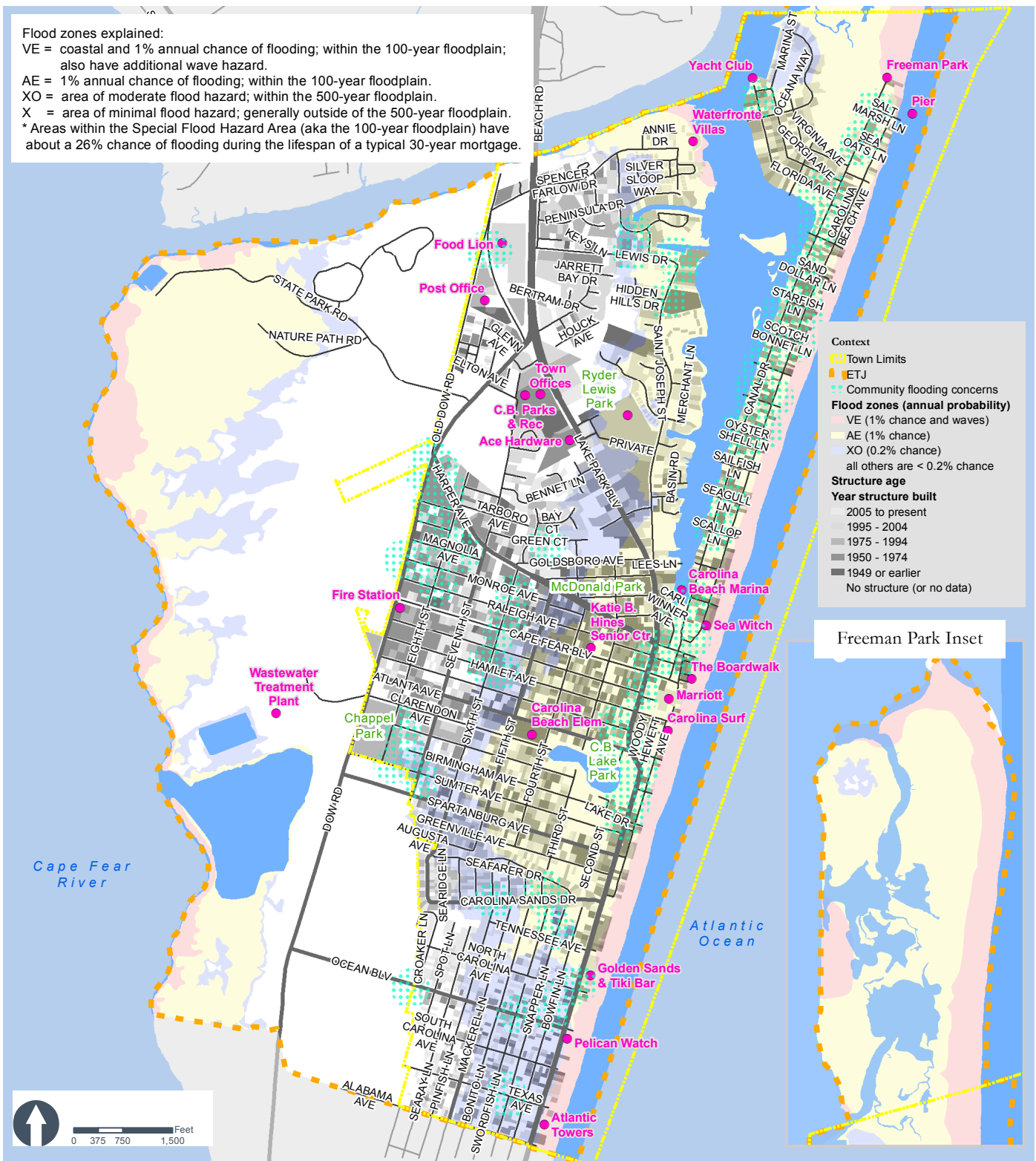
also be a factor in determining vulnerability to storms and weather.

Sea levels are rising faster in North Carolina than other places on the east coast, and are currently projected to rise by a *minimum* of 1 foot by 2060 and a *minimum* 1.74 feet by 2100. Although 2060 is outside the time horizon of this land use plan, these time frames are within the lifespan of any building that is certified for occupancy today, and consideration of potential impacts is prudent.

Currently, the town requires flood-proofing of vulnerable building floors and/or elevation of structures, in accordance with the flood hazard prevention standards of the state. The town also participates in the Community Rating System, which results in greater protection and lower flood insurance rates town-wide. Hazard mitigation strategies are also identified in the most current hazard mitigation planning document (currently the Southeastern NC Regional Hazard Mitigation Plan (2016)).



*The town's Hazard Mitigation Plan.
Source: NC Division of Emergency Management
(at <https://em911.nhcgov.com>)*



Flood zones, community flooding concerns, and primary structure age.

Part 3: Existing & Emerging Conditions

The North End community along Canal Drive has been experiencing high (king) tide flooding along portions of Canal Drive. A committee has been identified to recommend mitigation actions or improvements.

Currently the town coordinates with the state and federal governments for beach nourishment to replenish sand washed away through typical coastal processes as well as the occasional, more intense storms and hurricanes. Nourishment occurs approximately every three years and requires millions of dollars. The town intends to continue the beach nourishment program as needed.

Reducing erosion through armoring with hard structures (sea walls or rocks) helps preserve assets in the near term, but also

may further enhance localized erosion of the beach and natural features that residents and visitors value, possibly even reducing public access opportunities. This is particularly of concern closer to the inlet and Freeman Park, where erosion is higher. The town will continue funding and implementing storm damage prevention projects, which remains a community priority.

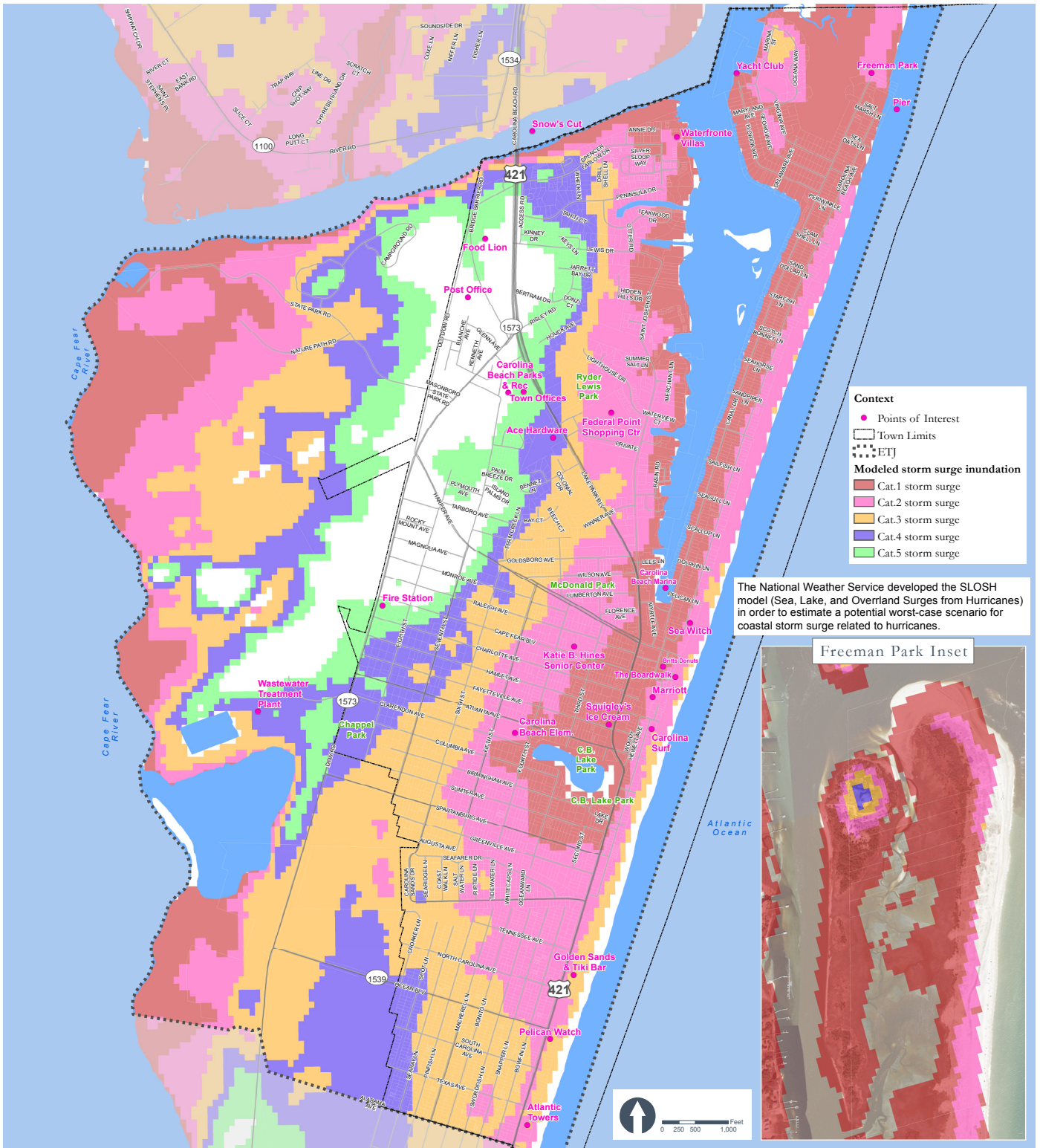
Sea - Level Rise Projections

Unless mitigating actions are taken, NOAA projects that sea level rise will cause chronic inundation of some properties, with major impacts possibly occurring as early as 2060. Though 2060 is beyond the horizon of this plan, it is relevant to long-range decision-making.

Intermediate Scenario: Seas are 1.87 feet higher by 2060 (1' rise shown)

High Scenario: Seas are 3.67 feet higher by 2060 (4' rise shown)

Source: NOAA Sea Level Rise Viewer (<https://coast.noaa.gov/digitalcoast/tools/slr>)



Modeled storm surge inundation (Source: National Weather Service SLOSH model).

Part 3: Existing & Emerging Conditions

Community Facilities

The town provides drinking water, wastewater, and stormwater management.

Public & Private Water Supply & Wastewater Systems

Wellhead Protection Areas and Drinking Water

There are no water supply watersheds located within the Carolina Beach jurisdiction. Carolina Beach maintains 13 public wells that supply drinking water for the Town from the Castle Hayne and Pee Dee aquifers. The town is also investigating the possibility of expanding and protecting public drinking water sources by adding public wells in the MOTSU buffer area, or the addition of a reverse osmosis water treatment facility.

Stormwater Systems

Stormwater is managed through standard drains that empty to the sound and Heniker's ditch. Pumps have recently been installed to the newly-dredged Carolina Beach Lake Park that serve to regulate flooding from storms. The town is undertaking measures to regulate sunny day flooding on Canal Drive, which is a very low road subject to regular king tide flooding. A committee has studied the issue and is recommending elevated bulkheads (sea walls) and one-way drain pipes and pumps. Canal Drive is partially built on fill created during the dredging of the sound.

Wastewater Treatment

The town's wastewater treatment plant is in the buffer area, and plans are in place for expansion of the WWTP in the MOTSU buffer area.

Parks and Open Space

Parks

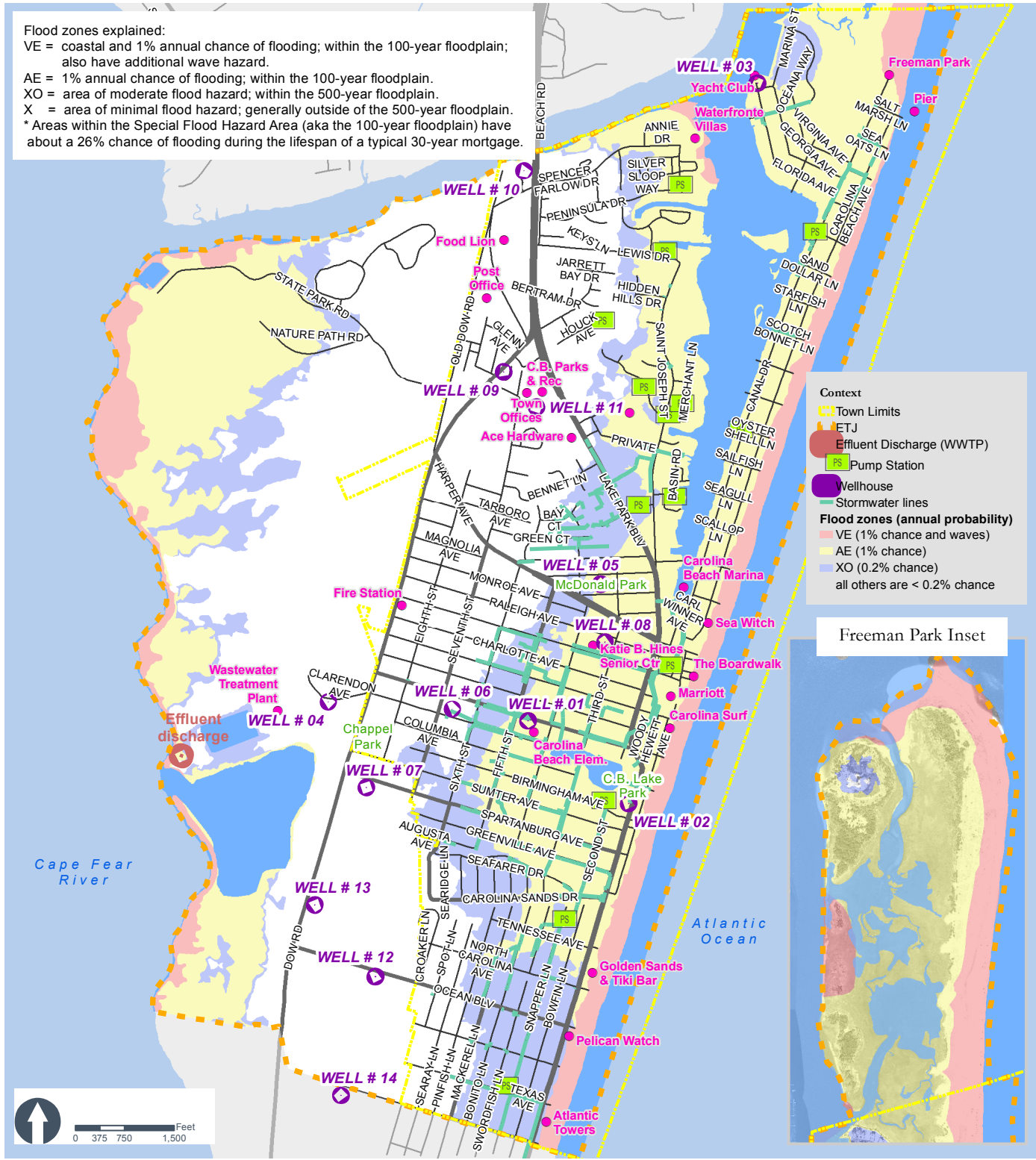
The residents of Carolina Beach treasure their parks system, and outdoor recreation is abundant. A new park is underway (Ryder Lewis), which will have trails and historic interpretive resources.

New Hanover County Open Space, in coordination with local governments, manages areas along Snow's Cut, a portion of Freeman Park, and areas in the southwest area of Carolina Beach off Dow Rd for multiple uses, including recreation.

Freeman Park, located at the northern end of Carolina Beach, is a popular destination.



Mike Chappell Park playground



Public utilities and flooding vulnerability

Part 3: Existing & Emerging Conditions

Enforcement of proper use of the property has been a recent priority for the Town. The site is privately owned, and identified as high quality conservation and wildlife habitat, including shellfish. Active public management of this land as a conservation and recreation resource is a priority.

Beaches and waterways

The town provides many public access points to the ocean and waterways, including the sound. The State Park provides good access to the Cape Fear River. These are well-utilized and prized assets in the community.

Greenways and Trails

The town's recent construction of the Island Greenway has been well received, and all intentions point toward continuing to expand greenway and trail infrastructure. A general desire exists to have Kure Beach extend the greenway to Fort Fisher, the aquarium, and the ferry. Extension of pedestrian infrastructure across the bridge over Snow's Cut is also big desire, and will likely involve coordination with NCDOT.



The recently constructed Island Greenway is a hit with residents and visitors

Other areas

Military Ocean Terminal Sunny Point (MOTSU)

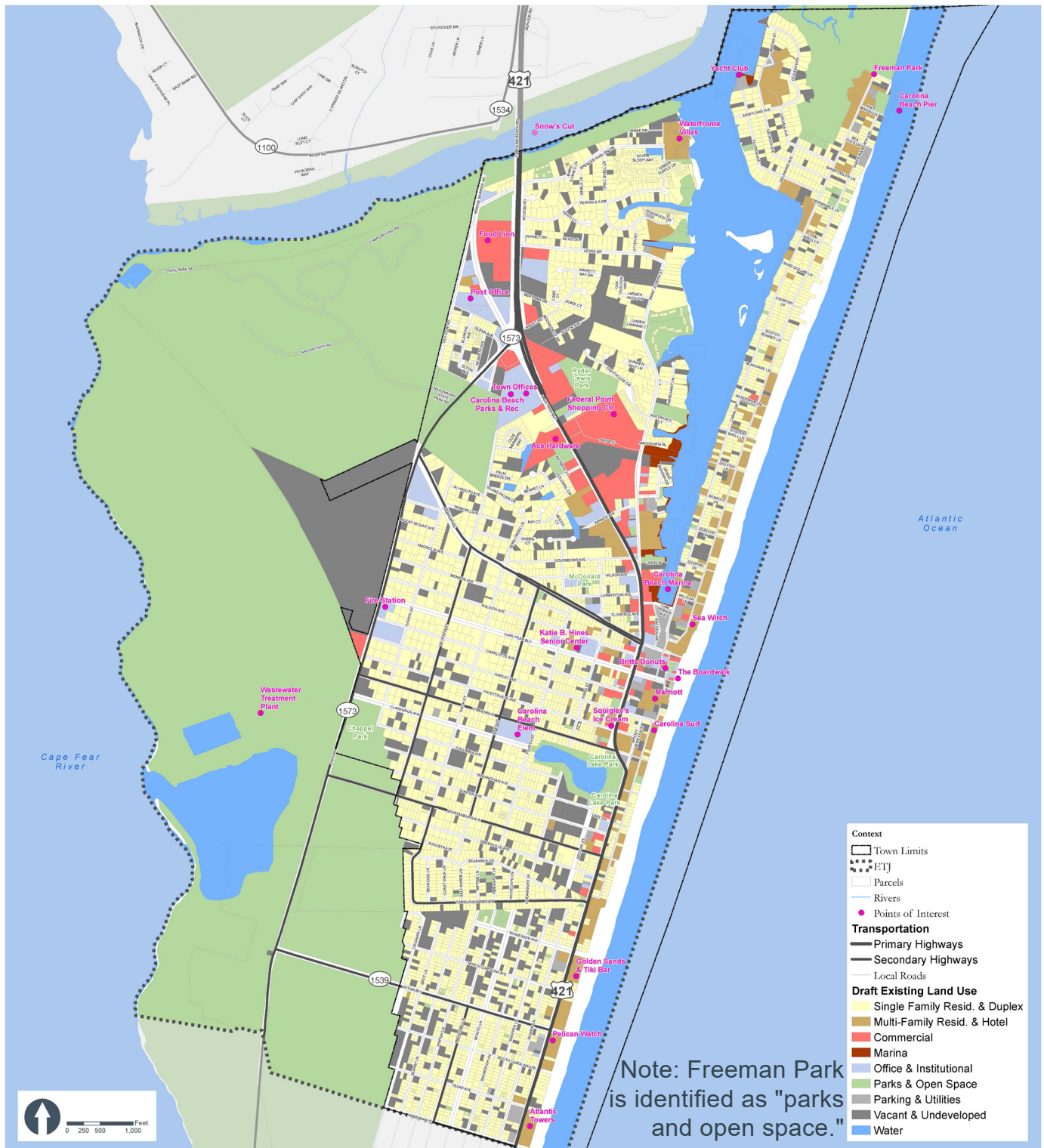
The largest military terminal in the world is located just outside of the ETJ. Because it is the Army's primary east coast deep-water port and one of a handful of Department of Defense terminals equipped to handle containerized ammunition, it serves as a transfer point between rail, trucks, and ships for the import and export of weapons, ammunition, explosives, and military equipment for United States Army.

There are 689 acres of land in the ETJ that are regulated by the existing MOTSU Buffer/Blast Zone. The MOTSU Joint Land Use Study (JLUS) is currently being conducted to protect the continued operation of its military facilities while also accommodating the growth in population and tourism in the area. Outcomes could include allowing new uses in the buffer area on the island such as public utilities expansion and recreation.



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Part 3: Existing & Emerging Conditions



Existing Land Use

Existing Land Use & Development

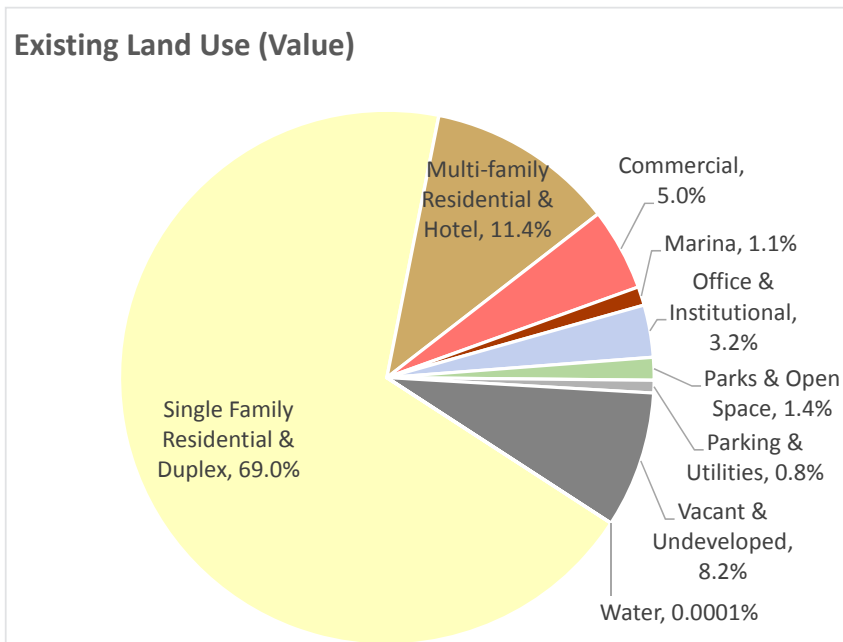
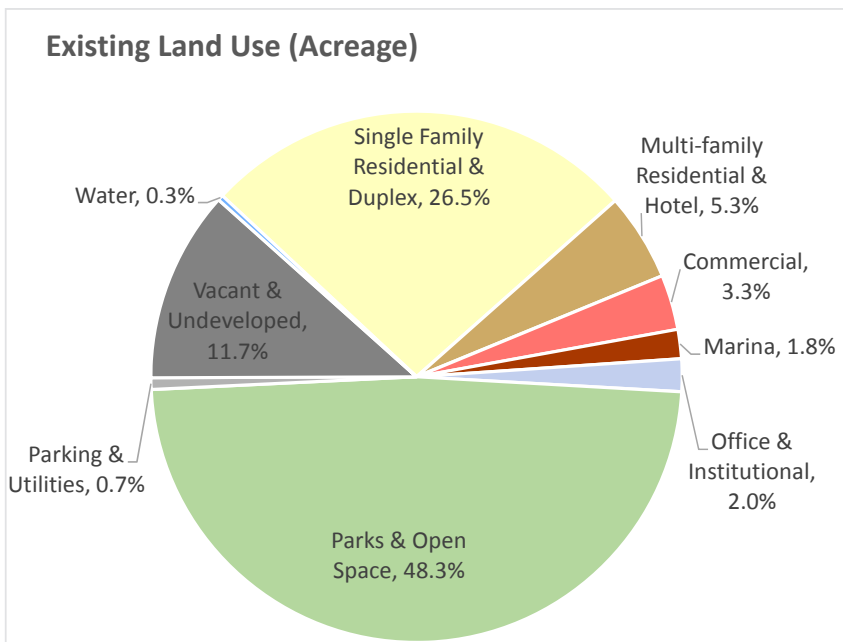
Overall, Carolina Beach is primarily composed of residential neighborhoods organized around the commercial corridor of Lake Park Blvd, and open spaces such as the state park, sound, and beach. The central business district contains a mix of all land use categories with several of the town's iconic restaurants, hotels, and the new boardwalk. The majority of land area for Commercial and Office & Institutional uses is clustered on North Lake Park Blvd. Multi-family Residential and Hotels are primarily located along the oceanfront or within the first two blocks from the ocean.

Existing Land Use Patterns

Nearly half of all land within Carolina Beach's jurisdiction functions as Parks & Open Space (48.3%), primarily due to the state and federal lands. Single Family Residential and Duplexes constitute 26.5% of the total land area. Of the remaining area, nearly half is vacant or undeveloped while the other half is split between Multi-family Residential and Hotel; Commercial; Office & Institutional; and Marinas.

Existing Land Value

Single Family Residential and Duplexes account for nearly 70% of the Town's



assessed value (which is a proxy for tax base). Considering the low ratio of year around residents to housing stock, this information further highlights the impact rental and vacation housing has on the community's character and economy.

Part 3: Existing & Emerging Conditions

Historic, Cultural, & Scenic Areas

The Town and community have roots back to the 19th century. A number of archaeological and historic sites are found within Carolina Beach due to its rich history. Many buildings date back to pre-World War II. Notable historic sites include the Boardwalk and 17 historic points of interest. These include various buildings that have been plaqued through the Federal Point Historic Preservation Society, North Pier and Center Pier. The Joy Lee Apartment Building and Annex is included in the National Register of Historic Places. Sugarloaf Civil War Earthworks is being developed as a historic site within Carolina Beach State Park. There are no historic districts located within the town's jurisdiction.



Carolina Beach State Park entrance.

Transportation Systems

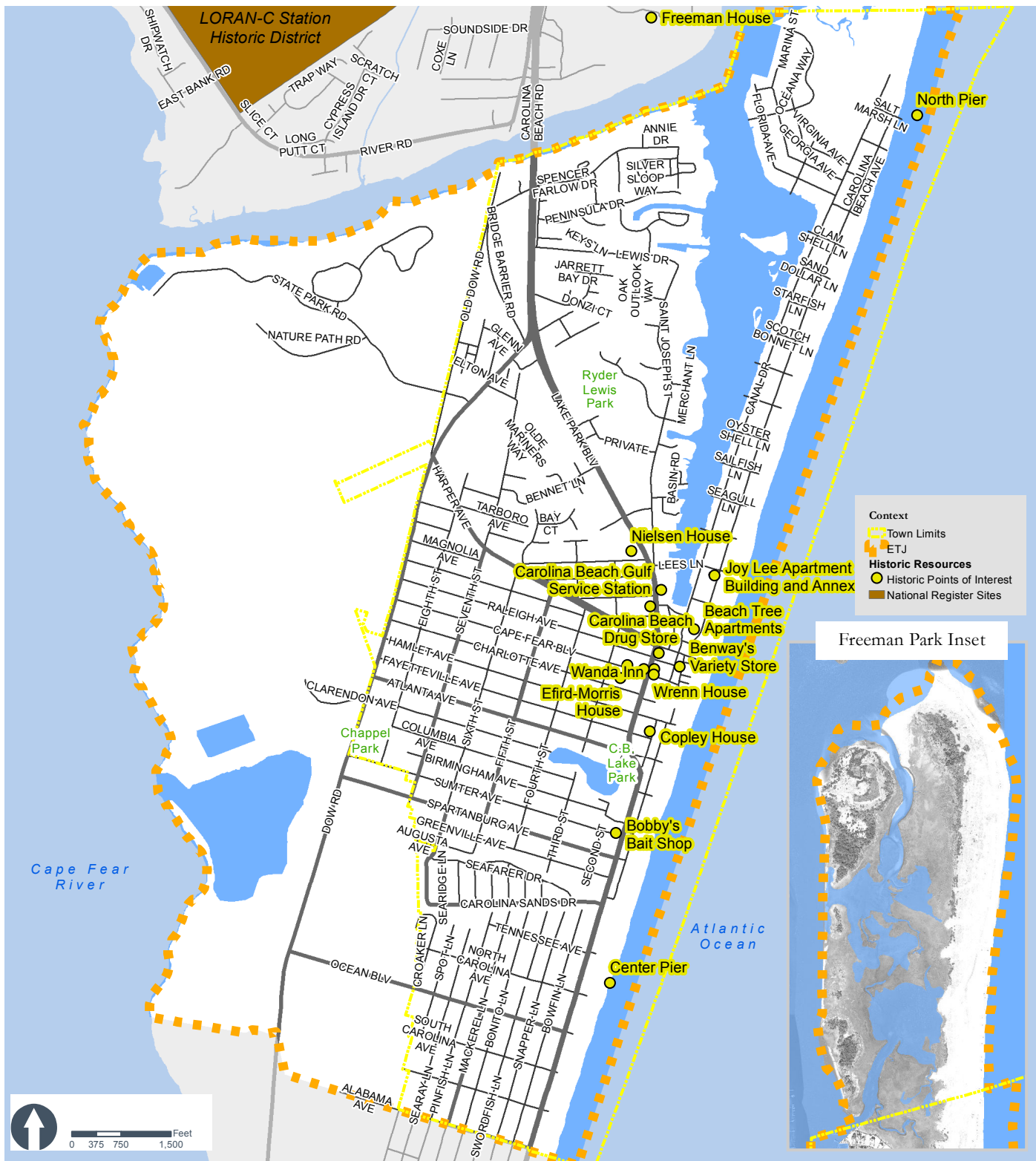
Carolina Beach has made a commitment to creating a more balanced and multi-modal transportation system for its citizens and visitors. Dow Road and Lake Park Boulevard serve as primary transportation facilities, and the town continues to make progress in the planning, design and construction of numerous projects to increase the safety and visibility of these modes while accommodating motorized traffic on Town maintained roads and negotiating improvements on NCDOT roadways to the extent possible.

Recent improvements

- » Implemented two right-turn lanes on Carl Winner Avenue outbound to US 421 northbound with expanded storage bays.
- » Completed 1.2 mile Island Greenway from Mike Chappell Park to Alabama Ave.
- » Completed a multi-use-path along Cape Fear Blvd from 3rd St to Dow Rd.
- » Completed over a mile of new sidewalks in the central residential areas as part of

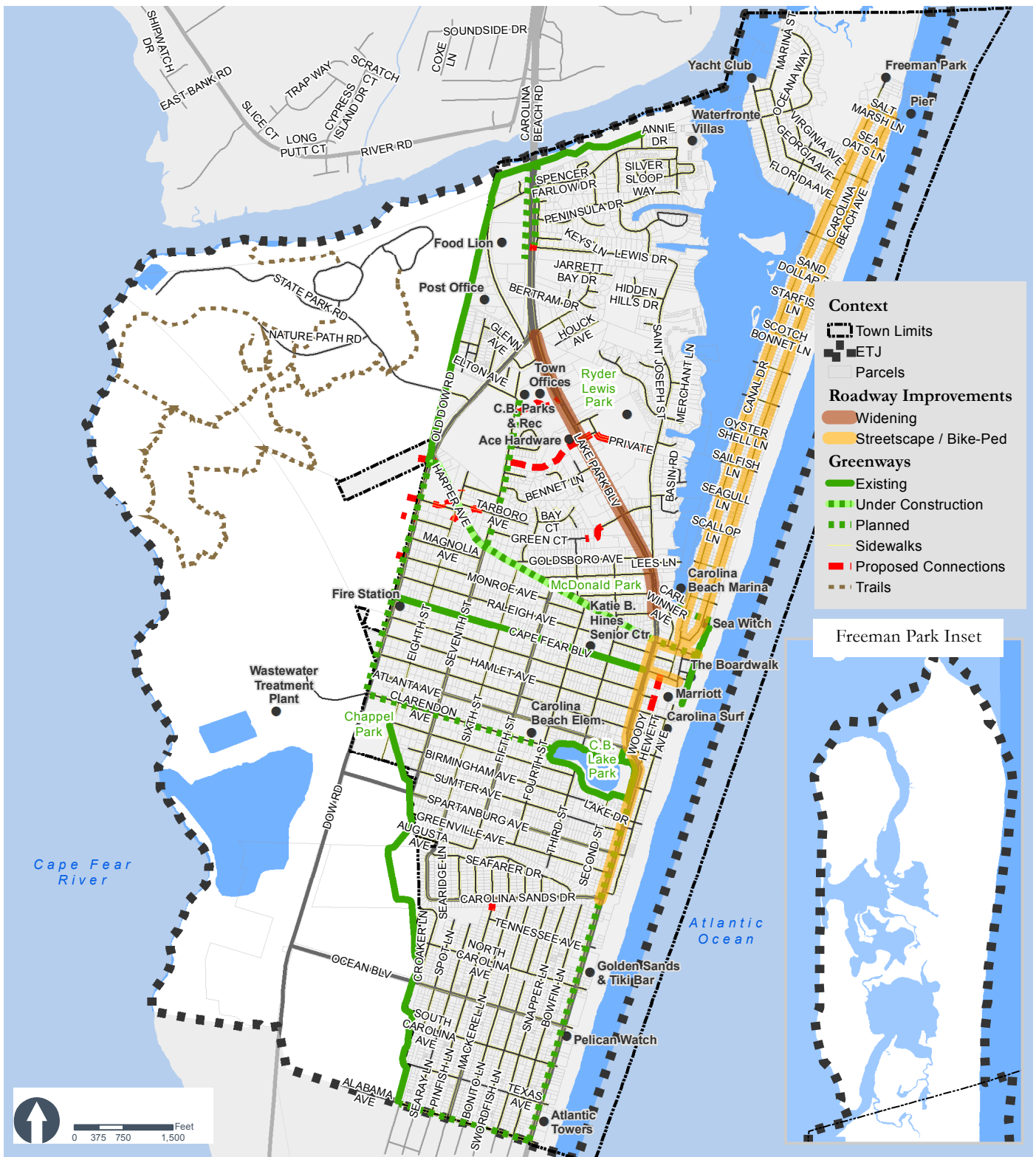


Inside Carolina Beach State Park.



Cultural and Historic Resources.

Part 3: Existing & Emerging Conditions



Transportation Systems

the Phased Infrastructure Improvement Project.

- » Carolina Beach Avenue North and Canal Drive have both been established as two way traffic streets to promote improved traffic flow.
- » Pedestrian activated rapid flashing beacons have been installed at the following high visibility crosswalks: Hamlet Avenue/Lake Park, Atlanta/Lake Park, Carolina Sands/Lake Park, Tennessee/Lake Park, Ocean/Lake Park, Alabama/Lake Park, Dow Road/Harper, Sumter Avenue/Island Greenway, Spartanburg Avenue/Island Greenway
- » All sidewalks have been replaced in the area of the Phase 1A and Phase B Infrastructure projects.

Planned Improvements

A number of multi-modal facility improvements are underway in Carolina Beach. A number of these projects are recommended within the existing bicycle and pedestrian plans (see Appendix) along with additional improvements:

- » **N. Lake Park Boulevard Corridor:** the Town is considering 5-lane and one-way couplet options to increase connectivity and mobility for all travel modes while improving congestion
- » **Harper Ave Streetscape Project:** Sidewalk, multi-use path, median, two-stage mid-block crossing improvements, and angle parking between Dow Rd and US 421/South Lake Park Road. The project is in design phase and construction is anticipated in late 2019/early 2020.
- » **Pedestrian Crossing Improvements:** Pedestrian activated flashing beacons have been installed at Hamlet Avenue and North Lake Park Boulevard.

Staff is also actively coordinating with NCDOT to implement improvements that will increase safety and mobility for pedestrians, bicyclists and golf cart drivers on major thoroughfares within the Town on NCDOT maintained roadways:

- » **Lake Park Boulevard and Winner Avenue:** Crosswalk and Sidewalk Improvements
- » **Lake Park Blvd & Hamlet Ave:** Crossing and Safety Improvements
- » **Lake Park Blvd and Atlanta Ave:** Crossing and Safety Improvements
- » **South Lake Park Boulevard:** Multi-use Path
- » **Dow Rd and Harper Ave:** Crossing and Safety Improvements
- » **Lake Park Blvd and Cape Fear Blvd:** Traffic Calming, Crossing and Safety Improvements



Newly installed Rectangular Rapid Flashing Beacons (RRFBs) were installed to improve pedestrian and bicycle safety and driver yielding compliance on Island Greenway crossings (Photo credit: VisitNC)

PART 4

Future Land Use





Although the Land Suitability Analysis that was performed (see appendix) did help guide the creation of the **Future Land Use Map (FLUM)**, it was not the only guiding force. Community input and preferences, previous infrastructure investments and commitments, environmental constraints, and other factors influence the designation of the Future Land Use character areas that will shape the town's future. Environmental factors and projected future conditions also contributed to the arrangement of the proposed character areas.

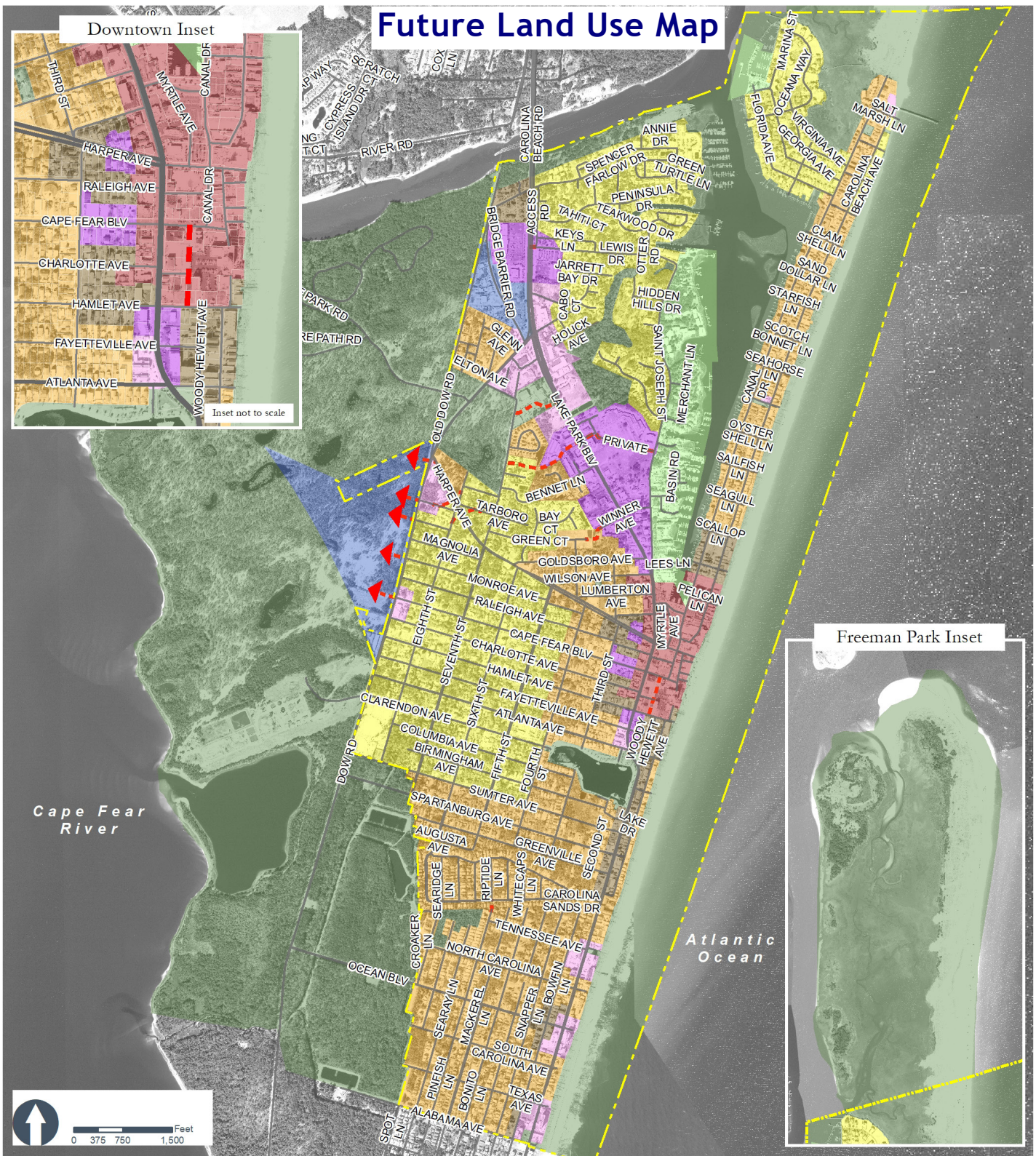
The FLUM represents the community's vision for the future and will be one of the factors that guides future rezoning or permit issuance decisions by local decision makers. A FLUM is also valuable for communicating public investment priorities to the private sector development community. Higher intensity character areas in the FLUM can be expected to have sufficient public infrastructure and service investments to support the activity levels shown, while other areas

may experience less growth or infrastructure support.

The FLUM does not rezone properties, prevent rebuilding, take property, or create a nonconformity. It is the explicit desire of the community that the FLUM not prevent the possibility of constructing a single family home or rebuilding a structure, and the FLUM should not be construed to do such. As the FLUM guides the community's slow transition toward its desired future, it is not intended to unduly burden property owners that seek to develop within the regulations of their current zoning district. The FLUM shows the desired, general arrangement of land uses at a point 15-30 years into the future, although a full realization of that vision may not even occur by that point. As town leaders and staff weigh each incremental land use decision, the specifics of the proposals will factor heavily. Its possible that a request is denied, even if it is consistent with the FLUM, simply because the timing is too soon.



Future Land Use Map and Character Areas



The Town of Carolina Beach Future Land Use Map.

Future Land Use Character Area Descriptions



Low Density Residential

Primarily large-lot, single family detached residential such as many of the town's established neighborhoods. Lots are larger than in other areas; usually ~9,000 sq ft and larger. Generally characterized by low traffic, local streets and pedestrian-scale structures. Smaller lots on occasion. Note: Existing, by-right, entitled, higher intensity uses will continue to be supported in LDR areas, including allowances for rebuilding structures.



Medium Density Residential

Mostly medium-sized lots (min. 5,000 sq ft) with primarily single family detached residences. Smaller-scale, attached residences (two-family homes and townhomes) allowed occasionally if contextually compatible. Some small-scale commercial, restaurants, or offices are encouraged at select locations with good access. Low- to medium-traffic streets with pedestrian facilities.



High Density Residential / Light Commercial

Primarily attached, multi-story residential units (up to four stories) located within walking distance of activity centers and/or the waterfront. Structures are condominiums and apartments, and are often used as vacation and rental units. Streets move automobiles and pedestrians efficiently. Limited commercial may also be acceptable at select locations if the surrounding context is appropriate. Some single family structures may also persist.



Future Land Use Map and Character Areas



Downtown Business Area

This is the boardwalk commercial area and central recreation district of town. 3-4 story buildings maintain a pedestrian-scaled environment with active ground floor uses; residential and other uses permitted above. Highly walkable with limited on-street parking.



Mixed Use Commercial

Higher density area with a mix of uses, within the district and individual buildings. Residential uses allowed only on upper stories; ground floor encouraged to be active. 4-5 story structures possible, unless adjacent to low or medium density residential. Attractive street facades.



Low Intensity Commercial

Smaller-scale, lower intensity commercial uses that complement the neighborhood or a distinct node of activity. Structures (3 stories max.) have active ground floor uses. Streets serve pedestrians and automobiles; includes on-street parking wherever possible.



Marina Commercial/Industrial Mixed Use

Water-based commercial, service, and light industrial uses, and sometimes water-related businesses (such as restaurants). These businesses rely on water access, so structures are purpose-built and traditional maritime activities are common.





Office, Industrial, & Employment

Mix of office, commercial, light industrial, and employment-generating uses. Typical uses include higher intensity offices, workspaces, indoor manufacturing/fabrication, microbrewery, and freight/transport. 3-4 story purpose-built structures. Streets accommodate truck traffic and balance the needs of pedestrians and automobiles.



Recreation, Civic, & Conservation

Areas not likely to be developed due to location, risk of flooding, environmental resources, or recreational importance. Prevents development in unsuitable areas. Potential uses include boating and related infrastructure (boat houses, docks, lifts, etc.), recreational and commercial water access, parks, beachfront, trails, parking, etc.



Proposed Connections

These proposed connections serve to link areas of town that have limited pedestrian, bicycle, golf cart, or vehicular connectivity in areas without established right-of-way. Most often, these are simply sidewalks. Exact alignments have not yet been determined, and the intent on this map is only to show a general connection desired between two areas.

PART 5

Land Use Plan Management Topics





CAMA Management Topics and Recommendations

A CAMA-compliant land use plan must address the Coastal Resources Commission's (CRC) management topics to ensure that plans support the goals of the CRC. Each CAMA-required management topic includes a Management Goal and a Planning Objective.

Public Access

- » **Management Goal:** Maximize public access to the beaches and the public trust waters of the coastal region.
- » **Planning Objectives:** The plan shall include policies that address access needs and opportunities, with strategies to develop public access and provisions for all segments of the community, including persons with disabilities. Oceanfront communities shall establish access policies for beach areas targeted for nourishment.

PA-1 Maintain marina operations

The marina provides recreational, commercial, and tourist access to the water.

Action steps (anticipated timeline)

- **PA-1.1** Continue the program (ongoing)



The commercial fleet at dock.



Part 5: Land Use Plan Management Topics

PA-2 Piers

Carolina Beach used to have three ocean piers, which were significant public access amenities. These were mentioned by stakeholders as regional recreational resources. Any of the public CAMA access points operated by the town could suffice, provided that adequate access and parking are provided. Further study is necessary to gauge public interest, potential environmental impacts, and potential costs.

Action steps (anticipated timeline)

- **PA-2.1** Provide political support for rebuilding pier(s) in one or more locations, to facilitate action by nongovernmental actors (ongoing)

PA-3 Acquire high vulnerability properties to enhance access

The town should continue to seek opportunities to enhance access to public trust waters by acquiring repeated flooding/erosion, high vulnerability, and/or high hazard

properties from willing sellers and turning them into an opportunity for low-investment access points.

Action steps (anticipated timeline)

- **PA-3.1** Remain open to opportunities to increase public access through the acquisition of high vulnerability properties (ongoing)

PA-4 Public moorings

Continue to support public mooring buoys, mooring opportunities, and the transient boating community.

Action steps (anticipated timeline)

- **PA-4.1** Continue the program (ongoing)

PA-5 Maintain and improve public trust water access points

The town currently maintains many beach access points and a public marina in the yacht basin, and the state park provides



The pier on the North End.



Just outside of the mouth of Myrtle Grove Sound.

access to the Cape Fear River. The town should continue to maintain and improve existing access points, provided that they enhance the natural environment and do not increase the probability for erosion or vulnerability to stormwater or flooding. Increasing the number of access points to the yacht basin and Myrtle Grove Sound should continue. In addition, increasing access opportunities for people with disabilities or mobility impairment, including ADA accessible paths and facilities, should continue to be a priority.

Action steps (anticipated timeline)

- **PA-5.1** Assess facilities, opportunities, and condition of public access points, and potential upgrades (Ongoing; recommend semi-annual basis)
- **PA-5.2** Budget for improvements (annually)

PA-6 Signage and Wayfinding

Provide a uniform and educational signage

system identifying public trust water access points, safety risks, and hazardous areas. Ensure that signage is compatible with the scenic quality of the area.

Action steps (anticipated timeline)

- **PA-6.1** Develop an enhanced wayfinding signage system that catalogs public trust water access points and other coastal features, including high hazard areas (2021-2022)

Land Use Compatibility

- » **Management Goal:** Ensure that development and use of resources or preservation of land balance protection of natural resources and fragile areas with economic development, and avoids risks to public health, safety, and welfare.
- » **Planning Objectives:** The plan shall include policies that characterize future land use development patterns and establish mitigation criteria and concepts to minimize conflicts.



North end beach access with signage.



Neighborhood CAMA access to Snow's Cut.

Part 5: Land Use Plan Management Topics

LU-1 Implement the Future Land Use Map and character areas

The Future Land Use Map (FLUM) represents the community's vision for guiding rezoning and land use decisions. It is also important to regularly review and update zoning districts and development regulations to help realize that community vision. In all cases, public involvement and restraint are advisable in rezoning (especially upzoning) any properties prior to any actual proposed development plan or other land use action. Community- or district-wide or leapfrog rezonings are inadvisable. If any lot does not meet the standards of the FLUM, such lot should still be developable or rebuildable as a single commercial or residential unit per the allowable regulations of the current zoning district and by-right uses, and in accordance with other Town adopted ordinances.

Action steps (anticipated timeline)

- **LU-1.1** Review the Future Land Use Map when deciding rezoning decisions (ongoing)
- **LU-1.2** Review existing zoning districts, dimensional standards regulations, and land development regulations for the potential to implement character area recommendations (nonresidential, mixed use, and residential character areas - update when opportunity presents, at some point in fiscal years 2021-2030)

LU-2 Canal Drive flooding improvements

Continue investigation for solutions to flooding on Canal Drive. Consider long-term viability and impacts to the Myrtle Grove Sound, yacht basin, and habitat. Ensure that any solutions contribute positively to, or at least have no net reduction in, water quality.

Action steps (anticipated timeline)

- **LU-2.1** Assess the problem(s) and potential solutions, working with the established Canal Drive Flooding Committee (2020)
- **LU-2.2** Determine a preferred solution, assess adjacent property owners for any requested improvements that are beyond standard maintenance and replacement costs typically incurred and covered by the Town, and implement (TBD; est. 2021-2030)



The lake was recently dredged and upfitted with larger pumps to better manage stormwater.

LU-3 Maximize Carolina Beach Lake as a stormwater management feature

Carolina Beach Lake was recently dredged to increase its stormwater storage capacity. Pumps were also installed to mitigate local flooding. The lake and associated drainages, including Henniker's Ditch, must continue to be maintained. In the future, steps should also be taken to better predict what challenges future sea level rise may bring to the area and the impact that might have on stormwater management activities. In the short term, development in flood prone areas in and around the lake should be discouraged or prohibited.

Action steps (anticipated timeline)

- **LU-3.1** Explore the Town purchasing lots in flood prone areas around the lake or discouraging development in that area (2020-2021)
- **LU-3.2** Continue maintenance of Henniker's Ditch and the lake (ongoing)

LU-4 Maintain Freeman Park operations

Continue to operate and maintain Freeman Park as a recreational resource that preserves environmental assets and character. This environmental resource is of high value and vulnerable to erosion. Protection of the dunes is key. The Park's highest value is as conservation land with public water access. Continue to enforce regulations prohibiting



Freeman Park is a regional recreational amenity and a state environmental resource.

activities that irreparably damage the natural state of the land.

Action steps (anticipated timeline)

- **LU-4.1** Continue Freeman Park operations (ongoing)
- **LU-4.2** Explore the possibility of beach nourishment projects on Freeman Park (2023)

Infrastructure Carrying Capacity

- » **Management Goal:** Ensure that public infrastructure systems are sized, located, and managed so the quality and productivity of AECs and other fragile areas are protected or restored.
- » **Planning Objectives:** The plan shall include policies that establish service criteria and ensure improvements minimize impacts to AECs and other fragile areas.

Part 5: Land Use Plan Management Topics

IC-1 Expand public water wells and wastewater treatment facilities

The expansion of public water wells and the wastewater treatment plant are currently being considered for location on the MOTSU buffer area. Expansion in this area is preferred, as it minimizes impact on existing neighborhoods. Desalination facilities may also be an important future component of the town's water provision infrastructure.

Action steps (anticipated timeline)

- **IC-1.1** Continue to expand public water and wastewater infrastructure to accommodate desired level for future growth and redevelopment (ongoing)
- **IC-1.2** Continue coordination with MOTSU regarding expansions desired in the buffer area (ongoing)
- **IC-1.3** Continue to require connection to the public water and wastewater system for all development, and continue disallowing septic systems or private wastewater treatment systems (ongoing)

IC-2 Public parking

Seek opportunities to preserve and expand public parking, and include multi-modal connectivity, and low impact design strategies when constructing new parking facilities. Allow shared parking solutions, especially those that balance time of use. Require innovative

parking lot design that results in net zero runoff and water quality impacts. Continue to actively manage the public parking resource, and remain open to parking decks, if appropriately and centrally located.

Action steps (anticipated timeline)

- **IC-2.1** Continue to actively manage the public parking resource (ongoing)
- **IC-2.2** Develop enhanced guidelines for stormwater design and management of parking areas (2020-2023)
- **IC-2.3** Quantify the desire of private businesses to pay for the acquisition of property and construction of public parking (2021-2022)
- **IC-2.4** If support exists, partner with private property owners for



The town manages parking for automobiles and golf carts.

acquisition and construction of public parking areas, based on proximity and likelihood of use by customers, residents, and employees; if necessary and desirable, develop a proportional fundraising method to pay for public parking improvements (TBD)

- **IC-2.5** Expand opportunities for golf cart parking (2025)

Natural Hazard Areas

- » **Management Goal:** Conserve and maintain the barrier dune system, beaches, flood plains, and other coastal features for their natural storm protection functions and their natural resources giving recognition to public health, safety, and welfare issues.
- » **Planning Objectives:** The plan shall include policies that establish mitigation and adaptation concepts and criteria for development and redevelopment, including public facilities, and that minimize threats to life, property, and natural resources resulting from erosion, high winds, storm surge, flooding, or other natural hazards.

NH-1 Balance the protection of private property with public use of public trust lands (beach, waterfront, etc.)

The beach along Freeman Park and the rock embankment on the North End will continue to face inlet-related erosion as well as natural, weather-related erosion. The rock vetment was installed decades ago and protects properties and assets immediately behind it. The pedestrian connection along the beach was entirely missing at the beginning of the land use plan update process, and was only restored after the beach nourishment project of February 2019. In some jurisdictions along the coast, properties that are in high hazard erosion areas have been asked to share in the local costs of erosion protection measures.

Action steps (anticipated timeline)

- **NH-1.1** Continue to use public funds for the costs of maintaining the rock vetment (ongoing)



The rock vetment/embankment on the North End protects the properties behind it. These images compare the severe erosion caused by Hurricane Florence in 2018 and the beach following the nourishment project of 2019.

Part 5: Land Use Plan Management Topics

NH-2 Continue beach nourishment

Continue to provide beach nourishment to combat erosion in front of developed properties along the ocean. Evaluation of the costs and benefits should be performed periodically to ensure that this costly procedure continues to have a net gain for the community and not just the properties located in high hazard areas along the oceanfront. Public beach access to nourished areas should continue to be required and provided.

Action steps (anticipated timeline)

- **NH-2.1** Continue to plan for beach nourishment in the absence of federal aid, to ensure the program can continue if needed (ongoing)
- **NH-2.2** Implement dune restoration program with sand fencing and grass planting where appropriate (2022)



Carolina Beach's February 2019 beach nourishment project on 2.7 miles of beach cost \$7.8 million.

NH-3 Maintain Carolina Beach inlet

The inlet is a major local economic driver, and must be maintained regularly to ensure navigable passage. The town should continue to maintain the inlet for recreational and commercial operations.

Action steps (anticipated timeline)

- **NH-3.1** Continue maintenance of Carolina Beach inlet and access from Myrtle Grove Sound and the yacht basin (ongoing)

NH-4 Maintain Snow's Cut

Snow's Cut is an important connection and must be maintained in a navigable state.

Action steps (anticipated timeline)

- **NH-4.1** Continue to partner to maintain Snow's Cut as a navigable waterway (ongoing)



Snow's Cut is a major economic, transportation, and recreational natural resource.

NH-5 Increase resiliency to flooding

As seas continue to rise, floodplains will expand and flooding events will be more frequent. Increase the community's resiliency to stormwater flooding through enhanced development standards, such as reducing the maximum amount of fill allowed, requiring additional freeboard elevation, and investing in proactive stormwater infrastructure upgrades.

Nonresidential structure elevation

Recent FEMA flood maps for the area indicate reduced risk of flooding for some properties in the town. There is growing concern that preparing for the federally-mandated minimum flood event may not provide enough protection or security for a community that is extremely vulnerable to flooding, king tides, storm surge, and storms. The town should encourage, incentivize, or require the floodproofing or elevation of nonresidential structures above and beyond the minimum base floor elevation required by FEMA and adopted in the town's flood hazard prevention ordinance.

Residential structure elevation

In addition to the proper siting of structures, there are also benefits to requiring additional freeboard elevation for residential structures. Any base floor elevation requirement must be balanced by careful consideration of maximum height restrictions and the need for structures to have adequate habitable space; additional accommodations for higher buildings may be necessary.



An elevated home.

Infrastructure elevation

Roads and other infrastructure (lift stations, potable water wells, emergency operations facilities, wastewater infrastructure, etc.) should be identified for additional elevation and armoring so that they can resume post-storm operations as quickly as possible after an event. Not all facilities are proposed for this treatment, but a careful evaluation based on operational and community priority should be conducted.

Action steps (anticipated timeline)

- **NH-5.1** Explore the potential for ordinance update(s) that encourage, incentivize, or require the floodproofing or elevation of nonresidential or residential structures above and beyond the minimum base floor elevation that is required by FEMA (2020-2022)
- **NH-5.2** Explore potential ordinance updates for higher regulation and scrutiny of fill as it relates to stormwater and flooding resiliency (2020-2022)

Part 5: Land Use Plan Management Topics

- **NH-5.3** Assess and prioritize other infrastructure (roads, lift stations, wells, EOCs and public safety facilities, etc.) for upfits that will make them more resilient to future storm and flooding events (2021-2023); budget for upfits accordingly (beginning 2022 and ongoing)
- **NH-5.4** Continue to seek and implement improvements in development standards which will result in more resilient structures and lower insurance premiums for property owners (ongoing)
- **NH-5.5** Through the Community Rating System, continue to implement the Hazard Mitigation Plan and maintain best practices for emergency evacuations (ongoing)

Resilient regulation

New York City has developed guidelines for the elevation of structures based on their useful lifespan. While Carolina Beach is certainly not New York City, some lessons and concepts are transferable. The Town could evaluate development standards using NOAA's sea level rise projections (<https://coast.noaa.gov/digitalcoast/tools/slr>) and codify similar standards into the town's development regulations.

Climate change projections (time period covered)	Examples of building, infrastructure, landscape, and components grouped by typical useful life
2020s (through to 2039)	<p><i>Temporary or rapidly replaced components and finishings</i></p> <ul style="list-style-type: none"> • Interim and deployable flood protection measures • Asphalt pavement, pavers, and other ROW finishings • Green infrastructure • Street furniture • Temporary building structures • Storage facilities • Developing technology components (e.g., telecommunications equipment, batteries, solar photovoltaics, fuel cells)
2050s (2040-2069)	<p><i>Facility improvements, and components on a regular replacement cycle</i></p> <ul style="list-style-type: none"> • Electrical, HVAC, and mechanical components • Most building retrofits (substantial improvements) • Concrete paving • Infrastructural mechanical components (e.g., compressors, lifts, pumps) • Outdoor recreational facilities • At-site energy equipment (e.g., fuel tanks, conduit, emergency generators) • Stormwater detention systems
2080s (2070-2099)	<p><i>Long-lived buildings and infrastructure</i></p> <ul style="list-style-type: none"> • Most buildings (e.g., public, office, residential) • Piers, wharfs, and bulkheads • Plazas • Retaining walls • Culverts • On-site energy generation/co-generation plants
2100+	<p><i>Assets that cannot be relocated</i></p> <ul style="list-style-type: none"> • Major infrastructure (e.g., tunnels, bridges, wastewater treatment plants) • Monumental buildings • Road reconstruction • Subgrade sewer infrastructure (e.g., sewers, catch basins, outfalls)

Taken from the NYC Mayor's Office of Recovery and Resiliency, Climate Resiliency Design Guidelines - Version 3.0 (March 2019).

- **NH-5.6** Continue to educate the public and property owners on ways they can reduce their vulnerability to weather-related hazards (ongoing)

NH-6 Reduce vulnerability by selectively siting uses

Do not allow vulnerable populations (assisted living facilities, dialysis centers, etc.) or sensitive community infrastructure, structures, or populations, (i.e. - hospitals, EMS/Fire/Police stations, etc.) to be located in high hazard areas. This may include high flood risk areas, areas vulnerable to storm surge, areas with access by roads that are subject to flooding, and areas that are not easily evacuated or do not have utility redundancy. Sewage pump stations should be elevated high above the regulatory floodplain and armored against inundation. Review the land development regulations to restrict vulnerable or essential uses in high hazard areas.

Action steps (anticipated timeline)

- **NH-6.1** Inventory assets, evaluate options, and take action and amend ordinances accordingly (2022-2025)

NH-7 Utilize living shorelines

Wherever practical, utilize living shorelines instead of hard-armoring (rip-rap, bulkheads, etc.) to combat erosion or other natural hazards.



Although no building code regulations can completely protect against rising seas and increasingly damaging storms, significant elevation of new structures will help reduce vulnerability to stormwater flooding.

Action steps (anticipated timeline)

- **NH-7.1** Consider living shorelines as a first resort in any future erosion mitigation projects (ongoing)

Water Quality

- » **Management Goal:** Maintain, protect, and where possible enhance water quality in all coastal wetlands, rivers, streams, and estuaries.
- » **Planning Objectives:** The plan shall include policies that establish strategies and practices to prevent or control nonpoint source pollution and maintain or improve water quality.

WQ-1 Enhance yacht basin and Myrtle Grove Sound water quality

Wetlands in the yacht basin and Myrtle Grove Sound will also be impacted by sea

Part 5: Land Use Plan Management Topics

level rise, and soft erosion deterrent measures should be used when possible, especially where bulkheads do not already exist. Enhancement of habitat in these areas may also have the double-benefit of improving water quality in the sound.

Action steps (anticipated timeline)

- **WQ-1.1** Inventory bulkheads that can be removed and restored to marsh land and encourage, incentivize, or implement (2021-2024)
- **WQ-1.2** Identify areas projected to be chronically inundated by sea level rise and remove obstacles to wetland migration, if practicable; prohibit intensification, and/or explore the possibility of amortization of uses in these areas; recommend using the same time horizon as the proposed Coastal High Hazard Zoning Overlay (2021-2025); reevaluate periodically (every 5 years); amend ordinances as necessary (ongoing)

WQ-2 Preserve water quality in and behind Freeman Park

Freeman Park offers the highest quality waters and shellfishing areas in the study area. These resources should be preserved and protected, so that they can continue to contribute to the quality of life for residents, visitors, and wildlife.

Action steps (anticipated timeline)

- **WQ-2.1** Prohibit activities that degrade water quality in and around Freeman Park (ongoing)

WQ-3 Control litter

Continue (and enhance) outreach and

enforcement with respect to litter and proper beach etiquette.

Action steps (anticipated timeline)

- **WQ-3.1** Continue and enhance the anti-littering public awareness campaign (ongoing)
- **WQ-3.2** Establish town-sponsored and organized beach cleanup events (ongoing)

WQ-4 Reduce nonpoint source water pollution

Evaluate and identify nonpoint source water pollution activities and minimize or regulate them, in order to improve water quality.

Action steps (anticipated timeline)

- **LC-4.1** Evaluate contributions of nonpoint source water pollution and prioritize solutions based on potential gain; amend and/or enforce ordinances as necessary; monitor and track progress, and reevaluate effectiveness periodically (2021-ongoing)

Capturing stormwater on site

Some North Carolina towns have heightened stormwater regulations in their land development ordinances to include restrictions on bringing fill to lots and/or requiring a certain amount of stormwater to be captured on site (i.e. - the first 1.5 inches of the 24-hour, 10-year storm event). This helps prevent some lots from shunting stormwater to their neighbors. Examples include Wrightsville Beach, Atlantic Beach, Oak Island, Surf City, etc.

WQ-5 Stormwater runoff

Continue efforts to mitigate the negative impacts of stormwater runoff and flooding.

Action steps (anticipated timeline)

- **WQ-5.1** Review and potentially increase the standards for stormwater (quality and quantity) mitigation of new and existing development (2022-2025)
- **WQ-5.2** Study and implement best practices in capital project construction and facility maintenance to reduce adverse stormwater quantity and quality impacts (ongoing)
- **WQ-5.3** Continue to manage (and expand where possible) public stormwater infrastructure (ongoing)
- **WQ-5.4** Use the watershed plan (currently being updated with NCCF, CFCOG, et. al.) to recommend small- to large-scale stormwater best management practices and infrastructure improvements (2020)
- **WQ-5.5** Encourage and utilize low impact development strategies for stormwater management (ongoing)



Stormwater features can also be public or private recreational amenities.



Stormwater retrofits can give temporary reprieve from sea level rise for many years.

Other Areas of Local Concern

A CAMA land use plan also affords the opportunity for a government to address local areas of concern, which may be programmatic, regulatory, geographic, or otherwise. These issues were identified during the land use plan development process and are included herein. Not all of them contain specific action items, but that should not be perceived as any less a call to action. These recommendations are not required to have associated timelines for completion or implementation, although in some cases these are provided.

Action steps (anticipated timeline)

- **LC-1.1** Research and update ordinances to achieve the goal of restricting chain stores (2022-2024)

LC-2 Enhance the function of Lake Park Boulevard

During the public input sessions, the community expressed concern about the appearance, function, and perception for visitors and residents traveling on Lake Park Boulevard. This is the entrance into town and should make a good impression. The town (and NCDOT) are also currently evaluating options for enhancing operations and function of the corridor. Some recommendations may be implemented sooner than others, depending on factors such as when properties redevelop or town funding of improvements in the right-of-way. The following improvements, requirements, and design recommendations are proposed:

"Keep the quirky!"

-Stakeholder

LC-1 Support for local businesses.

Prioritize locally-owned and originated stores, and minimize chain stores (especially national or international chains). A focus on local businesses maintains the unique character and charm of the town, while also invigorating the local economy. Look for opportunities to promote locally-originated or small chain businesses. Evaluate the Table of Uses to determine which Conditional Uses could instead be allowed by-right.



Continuing work on redesigning and upgrading Lake Park Blvd should also focus on pedestrian, bicycle, and golf cart accommodations.

Action steps

- **LC-2.1** Improve traffic function and reduce congestion by:
 - **LC-2.1.a** Limiting turning movements and left-over turns.
 - **LC-2.1.b** Eliminating redundant driveways by requiring and upgrading cross access between parcels and eliminating redundant driveway cuts for parcels, businesses, or parking areas with multiple driveways.
 - **LC-2.1.c** Relocating major entrances to secondary and side roads.
- **LC-2.2** Enhance pedestrian facilities.
 - **LC-2.2.a** Install upgraded pedestrian facilities, including sidewalks of at least 6' width, but preferably 8' width.
 - **LC-2.2.b** Explore the potential for bicycle lanes.
 - **LC-2.2.c** Install pedestrian-scale lighting along the sidewalk.
 - **LC-2.2.d** Install pedestrian crosswalks and signals at major intersections.
 - **LC-2.2.e** Add pedestrian-supportive infrastructure: covered bus stops, trash cans, benches, etc.



Local businesses contribute to the unique character of the town.

highly visible from the right-of-way. Review and consider revisions to code enforcement policies, especially for dilapidated structures and sites, as these can have a disproportionate impact on surrounding properties and activities.

"We need a way to safely accommodate golf carts."

-Resident

LC-3 Building and landscaping aesthetics

Review existing requirements for building aesthetics, including potentially stronger requirements for portions of a site that are

LC-4 Pedestrian, bicycle, and non-automobile transportation

Increasing mobility and safety for non-motorized transportation modes along roadways and at street crossings is important. Bike/ped connections are desired between destinations within town, and to the neighboring community of Kure Beach

Part 5: Land Use Plan Management Topics

and across Snow's Cut to the mainland. The following recommendations build on recommendations from previous bicycle and pedestrian planning efforts. These other plan(s) should also be implemented as designed, and these recommendations may also serve to bolster these efforts.

Action steps

- **LC-4.1** Increase safe non-motorized connectivity to activity centers in general, and to downtown specifically.
- **LC-4.2** Non-automobile transportation:
 - **LC-4.2.a** Golf carts should be considered when designing and implementing community upgrades, including parking facilities for golf carts.
 - **LC-4.2.b** Establish bicycle lanes on Lake Park Blvd from Charlotte Ave to the Carolina Sands entrance, and beyond.
 - **LC-4.2.c** Add bicycle lanes, expanded sidewalks on Lake Park Blvd between Harper Ave

and Charlotte Ave. Relocate parking to the adjacent blocks on Harper Ave and Cape Fear Ave.

"The greenways - we love them!"

-Resident

- **LC-4.3** Increase pedestrian mobility and connectivity.
 - **LC-4.3.a** Pedestrian crossing improvements.
 - **LC-4.3.a.1** A number of existing street crossings were identified as safety concerns, especially where thoroughfares intersect priority pedestrian corridors and multi-use paths. Pedestrian connections and safety should be enhanced, especially to destination centers, such as the new Publix and along St. Joseph Street. In order to prevent accidents and injuries design modifications and/or improvements should be studied at the following locations:
 - » Dow Rd, Harper Ave, and the Carolina Beach Greenway
 - » Island Greenway at Ocean Blvd
 - » Across US 421 (Lake Park Blvd) at signalized intersections.
 - **LC-4.3.b** Introduce sidewalks, bicycle lanes and traffic calming devices on Carolina Beach Avenue North and Canal Drive.
 - **LC-4.3.c** Yielding Enforcement Campaign: Continue participating in the "Be a Looker" campaign to maintain motorist



Carolina Beach Island Greenway.

awareness of pedestrians.

- **LC-4.3.d** Increase pedestrian crossing safety.
 - **LC-4.3.d.1** Add and/or upgrade crosswalks at major pedestrian crossings
 - **LC-4.3.d.2** Investigate the potential for a pedestrian bridge or enhanced crossing at Winner Drive.
- **LC-4.3.e** Increase pedestrian connections.
 - **LC-4.3.e.1** Create a bicycle/pedestrian connection through the Carolina Sands neighborhood at Pinfish Lane and Riptide Lane, per the adopted Pedestrian Plan.
 - **LC-4.3.e.2** Relink Cape Fear Blvd and Canal Drive with Hamlet Ave and Woody Hewett Ave by reestablishing a bicycle/pedestrian connection near the Marriott.
- **LC-4.3.f** Increase safety and connections for children walking to the elementary school.
- **LC-4.3.g** Build on the success of the Island Greenway and keep making greenways (aka multi-use paths). Complete the connections along Clarendon Rd, Hamlet Ave, and Ocean Blvd with particular attention to providing safe intersection crossings. All crossings of Dow Rd and US-421/Lake Park Blvd should include marked crosswalks and additional safety countermeasures, such as a Rectangular

Rapid Flashing Beacon and pedestrian refuge islands where possible, to create a safe walking and bicycling environment for individuals of all ages and abilities.

"The elementary school is our most important place."

-Stakeholder

- **LC-4.3.h** Increase interjurisdictional connectivity
 - **LC-4.3.h.1** Access to and from the island from the north is limited for non-motorized modes. To the south, a ferry carries passengers between Federal Point and Southport. To provide non-motorized accessibility to the island, evaluate the feasibility of alternatives for bicycle and pedestrian connections from the ferry, through



The elementary school and town have been successful in recent coordination efforts.

Part 5: Land Use Plan Management Topics

Carolina Beach, and across Snow's Cut to the mainland, River Road, and the greater Wilmington trail network, including opportunities for a bridge accompanying US-421, options for a standalone bridge, and/or a sidepath.

- **LC-4.3.h.2** Explore opportunities to extend the greenway from Carolina Beach to Kure Beach, Fort Fisher, and the ferry.
- **LC-4.4** Continue to invest in major pedestrian corridors such as Harper Road. This locally-significant pedestrian corridor and improved pedestrian facilities will be installed in conjunction with the upcoming road improvement project.
- **LC-4.5** Bicycle infrastructure
 - **LC-4.5.a** Continue to invest in bicycle infrastructure, and require bicycle-supportive infrastructure standards in new development and upfits/renovations.

LC-5 Family-oriented character

Even though demographics have been shifting steadily over the past decades, the community still prides itself on being a family town and wants to preserve that character and value, for all types of families.

Action steps

- **LC-5.1** Support families that work from home or otherwise reinforce the family-oriented character of the town.
 - **LC-5.1.a** Continue to support Carolina Beach as a family-oriented town with year-round residents.

- **LC-5.1.b** Consider ways to increase the ability of residents to work from home, through a review of the allowances for home occupation business operations. Allow more people to work from home and reduce the need to commute off the island.

- **LC-5.2** Charm and character
 - **LC-5.2.a** Protect the operational capacity of the elementary school.
- **LC-5.3** Maintain the small-town and community atmosphere.

"Keep the families!"

-Stakeholder

"We're a three-legged stool: residents, businesses, and tourism - and you gotta balance them all."

-Resident

LC-6 Short-term rentals

Often short-term rentals are zoned residential and developed to residential standards, but these properties may actually function more like small-scale commercial hotels. This affects zoning, use and nuisance regulation, traffic, and building standards (including fire safety). Short-term rentals may be strong economic engines for tourism, but also have the potential to diminish the character of established neighborhoods, akin to the impact of a predominance of vacation rentals. To give certainty to homeowners, residents, investment property owners, rental managers, and vacationers,

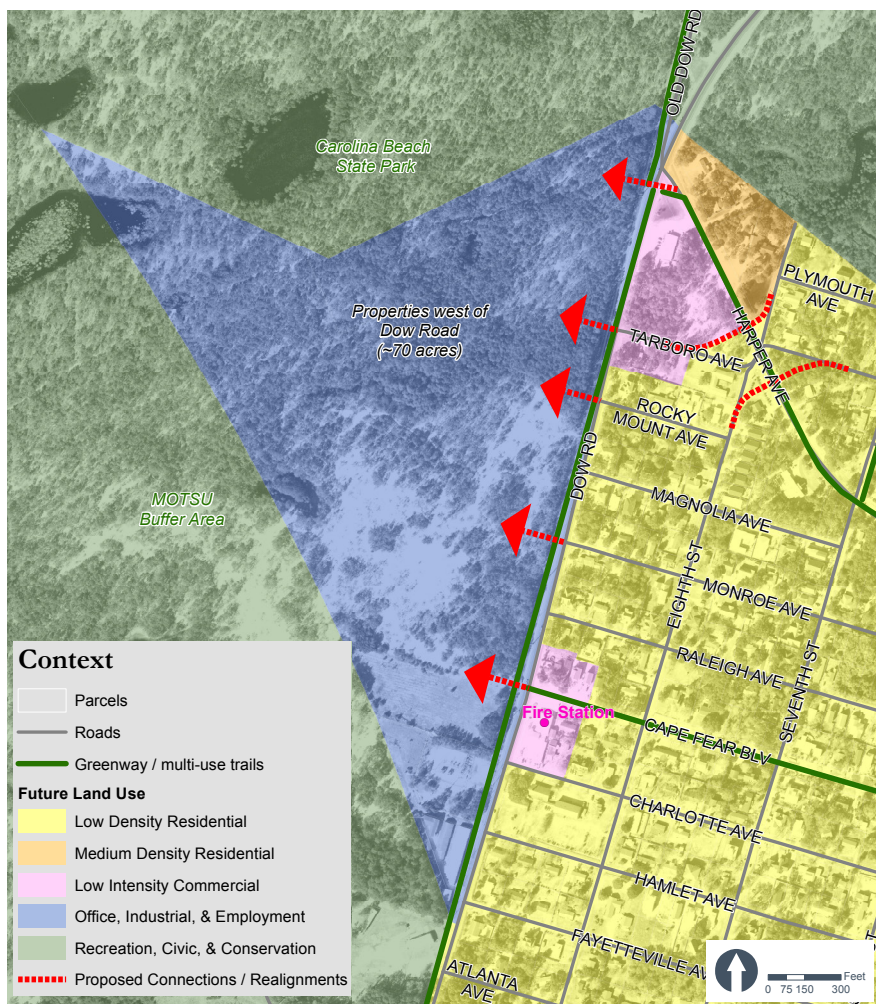
the Town should consider establishing clear geographic boundaries, policies, and guidelines for short-term rentals. Nearby jurisdictions such as Wilmington have recently adopted regulations and can be looked to for guidance.

LC-7 Minimize congestion on Dow Road

The last major piece of undeveloped property (~70 acres) in the town is west of Dow Road. This property is currently zoned as industrial and the Future Land Use Map designates it as Office, Industrial, & Employment. This is the property owner's preferred land use unless the property can be developed with a large, unified plan or campus such as a research institute, conservation area, major employer, or master-planned community. If the property does not develop in a large, master planned development or campus, it will be important to control access and driveways onto Dow Road in order to preserve the low traffic congestion and relatively high capacity of this local thoroughfare. As such, driveways onto Dow Road are prohibited, with all access occurring on secondary streets (which are shown as red dashed arrows on the Future Land Use Map). These access streets will align with the existing grid network, and will facilitate a connection with the existing community. Ideally, additional pedestrian connections would also be created at the remaining roadway extensions.

Action steps

- **LC-7.1** Preserve Dow Road as a local thoroughfare.
 - **LC-7.1.a** Prohibit and actively reduce driveways that open directly onto Dow Road.
 - **LC-7.1.b** Require parcels that front on Dow Road to have access via secondary streets.
 - **LC-7.1.c** Require cross access between or behind nonresidential properties.
 - **LC-7.1.d** Require extensions of public right-of-ways at logical intersections that compliment vehicular and pedestrian connectivity.



The ~70 acre property west of Dow Road is undeveloped.

Part 5: Land Use Plan Management Topics

LC-8 Redevelopment

Encourage, support, and find a path forward for reuse or renovation of existing structures to allow local businesses to grow into underutilized buildings where a tear-down/rebuild is not the best possible outcome.



Exploring options to allow older structures to reinvent themselves within the limits of public safety and welfare can help preserve the quirky beach town character that defines Carolina Beach.

LC-9 Restrict Density

Only allow increased density and development (above existing standards) if it also maintains the quality of life and environment.

LC-10 Develop broadband infrastructure

Development of high-capacity broadband infrastructure is necessary for supporting the jobs of tomorrow. It will also allow those employees to live/work in Carolina Beach. To the extent possible, the Town should look for opportunities to partner or develop these facilities.

"The laid back community - [it's] quiet - different than anywhere else around."

-Steering Committee member

LC-11 Central Business District

Continue to support the central business district as a destination downtown with activities for families, residents, and visitors. Protecting the character of the district is important. Expanding opportunities for public activities, including events, should be pursued.

LC-12 Parks and recreation

Residents value the town's parks and recreational access and assets and support continued investment in these facilities. Some tension exists in the community about the expansion of facilities and associated maintenance obligations and liabilities, and some residents would prefer to maintain the current level of service while others support the continued expansion of facilities and services.



Residents value the town's recreational opportunities.



Mature trees are both a valuable community asset and a potential storm hazard, and the benefits and liabilities must be carefully weighed.



The waterfront and coastal ecology are the primary source of economy and quality of life.

LC-13 Preserve existing mature tree cover

Continue to implement and support efforts to preserve existing tree cover and use indigenous landscape materials in new development and redevelopment. Efforts should also continue to preserve and protect maritime forests due to their vulnerability to disturbance and development, and their regional importance.

LC-14 Preserve wetlands

Continue to protect wetlands and investigate and implement disincentives and possibly prohibitions to the filling of jurisdictional wetlands, including but not limited to "404" wetlands.

LC-15 Preserve the high quality beaches and natural areas

The beaches and natural areas are a primary draw for residents and visitors. Heavy industrial uses, such as mineral extraction (onshore or offshore) have the potential to disturb these areas and should continue to be prohibited and advocated against. Protection of dunes and beach ecology is also important.

LC-16 Reduce traffic congestion and increase safety

Continue to budget for and partner with NCDOT for traffic improvements that reduce congestion, particularly on Lake Park Boulevard and Ocean Boulevard. Consider lower speeds on Dow Road and traffic calming on other streets.

Part 5: Land Use Plan Management Topics

LC-17 Bury electric lines

Continue to bury electric lines, especially in coordination with other maintenance and capital improvement projects.

Action steps

- **LC-17.1** Continue to evaluate and implement electric line burial as part of other major maintenance and capital improvement projects (ongoing)

LC-18 The North End

One of the unique areas in Carolina Beach is the North End - the spit of land that connects downtown to entrance of Freeman Park. The North End is served primarily by Canal Drive and Carolina Beach Avenue North (CBAN), which handle fairly high traffic volumes due to the recreational draw of Freeman Park. These two roads, although designed to be local, neighborhood streets, handle much higher traffic volumes, in part due to the draw of Freeman Park. The existing land use pattern on the North End is primarily single family detached residential with some multifamily attached residential dispersed irregularly throughout.

The foundation of this narrow isthmus are old dunes, and the western side is built at least partially on spoils excavated during the dredging of the yacht basin. The low lying land surrounding Canal Drive and the "state" streets (Florida, Georgia, Virginia, and Delaware Avenues), is identified as particularly susceptible to sea level rise, storm surge, flooding, and king tides. The Florida Avenue / Canal Drive intersection regularly floods during king tides, and this area is particularly vulnerable to sea level rise. There is a local high spot between Marina Street and Oceana Way, which is above

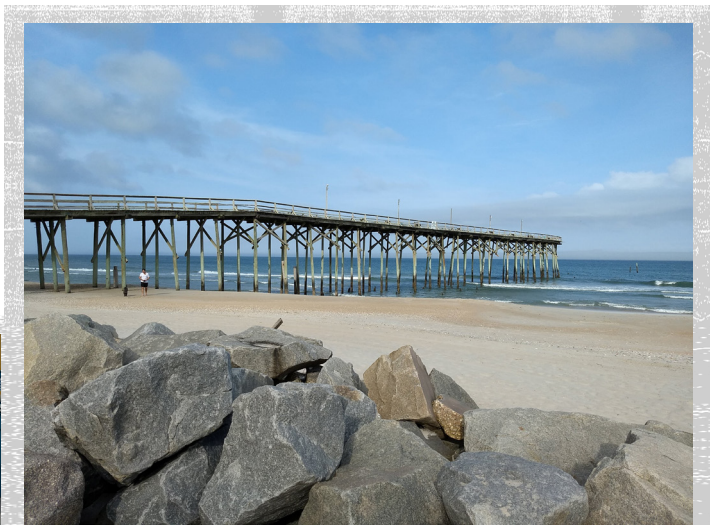
the Coastal A flood hazard zone. The rock embankment from Freeman Park to almost Periwinkle Lane was installed to protect private property and CBAN from the erosion that has previously claimed homes along that stretch.

Due to the unique natural vulnerabilities of the North End, this area of the town is identified in the future land use map by character areas that are equal to or less intense than the current land uses. The different future land use character areas were chosen in recognition of the slightly more vulnerable conditions around Canal Drive and the state streets compared to the slightly higher ground around CBAN. This future land use strategy (which does not downzone properties or take them for public use) allows existing uses to persist, but does not encourage future intensification in this vulnerable isthmus. Although seemingly counterintuitive to designate future land use in this way, it strikes a balance between respecting investment that has already occurred, but not allowing future population to invest in this more vulnerable area.



PART 6

Tools for Managing Development





Guide for Land Use Decision-Making

The Future Land Use Map and associated character area descriptions should be used by decision makers (in accordance with state requirements, such as NC G.S. §160A-383) when weighing rezoning and quasi-judicial permit requests. The land development regulations and ordinances of the town should also be reviewed and updated to better achieve the goals of this plan and the community.

Action Plan and Implementation Schedule

See Action steps and anticipated timeline under each CAMA-required Land Use Plan Management Topic (Part 5).

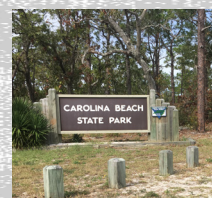
Development Program

The Town manages land use and zoning, subdivision, floodplain regulation, and development through a code of ordinances, which are available through the town's website.



APPENDIX A

Appendix





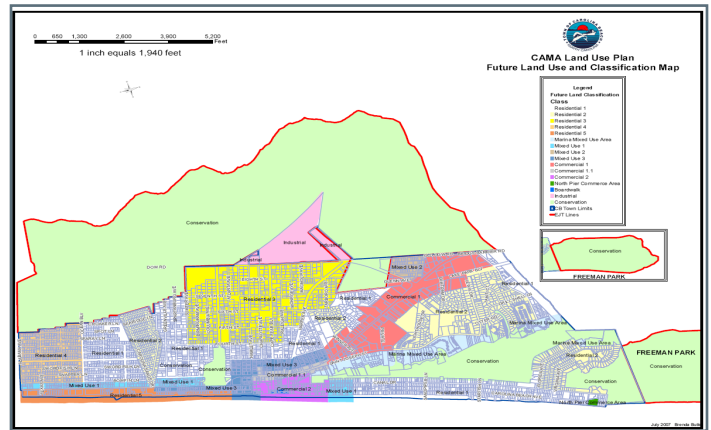
PLAN ASSESSMENTS

The following plans were reviewed for the identification and incorporation of relevant information into the Land Use Plan update. These plans and informational resources were identified through either the initial Request for Proposal, scope of work, or through interviews with stakeholders or town staff. Where a year or date of the document is not specified, the appropriate documents and resources were identified by staff as relevant to the update process.

2007 CAMA Land Use Plan

It has been over 10 years since the adoption of the previous CAMA Land Use Plan for the Town. Some previously identified issues will likely continue to be a concern, such as traffic congestion and stormwater management, while other issues may be less pressing today than they were a decade ago. As the town nears build-out,

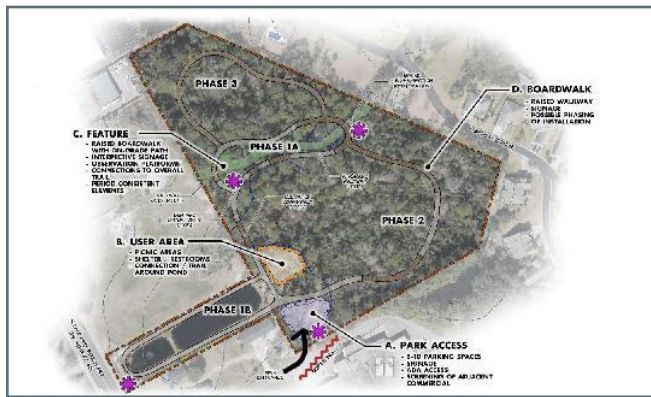
the types of development pressures and land use interactions change from those in the past. However, the natural resources and natural areas may have changed little over this time, especially since the constraints on the largest of these areas (the state park and the federal buffer zone) are imposed by outside government agencies. There are many current Future Land Use categories, and these tend to read more like zoning and development code than as future land use policy guidance. Some of



Part A: Appendix

the standards of the Future Land Use categories may warrant reconsideration, such as the overall limitation of lot coverage to 40%, regardless of context or category. As part of the current land use plan update process, the goals of the current plan will be reviewed with the public to determine to what extent they are still relevant.

Parks and Recreation Master Plan (2017)



This 5-year plan outlines existing and anticipated parks and recreation needs with a focus on land acquisition, facility development, program development, policy and procedure considerations, and staff development. Expansions to existing facilities and acquisition of new areas are proposed, while also recognizing that the town serves the recreational needs of areas outside of its jurisdiction, such as unincorporated parts of New Hanover County. For coastal communities, public access to public trust waterways is as important as providing more traditional parks and recreational facilities for residents. In terms of physical park priorities, the plan calls for an expansion of existing facilities (the Recreation Center, Mike Chappell Park, Carolina Beach Lake Park), the expansion of a non-motorized pedestrian and cycle network, enhancement

of public trust water access, and new parks in the northern and southern end of town.

Recent parks projects suggest that the town has faithfully pursued the recommendations of this planning document. Specific physical project recommendations of the plan include:

- » **Development of a bike/ped network that connects public, residential, and commercial areas**
- » **Development of a multi-purpose, comprehensive Recreation Center/ Fitness Center / Aquatics Center Facility**

Water Use and Harbor Management Plan (2008)



The recreational and working waterfront are major drivers in the town’s economy. The harbor is a working waterfront, tourist destination, and major component of the downtown experience as well. The harbor supports many public and private marinas.

Stormwater from surrounding areas continues to be discharged into the harbor. Pollutants from recreational boating activities, as well as stormwater and non-point



source pollution are the major environmental impacts to the basin. There are no fish or shellfish nursery areas within the harbor.

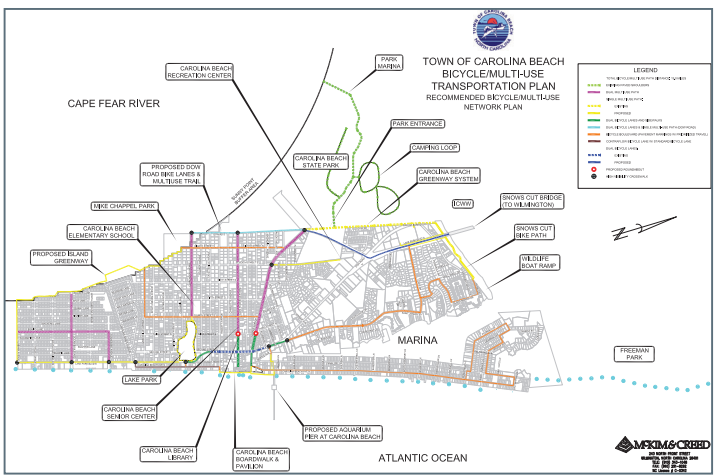
This plan recommends the following:

- » **Protect the harbor’s sensitive public trust resources from degradation**
- » **Increase public access to the harbor and its shoreline**
- » **Preserve traditional water dependent uses like marinas**
- » **Protect riparian rights of shoreline land owners**
- » **Minimize user conflict associated with uses of the harbor area**

Recommendations include a recognition of increased boater demand and associated demands on the mooring and marina facilities, maximizing the use of the municipal marina, development of additional boat launch facilities, and increasing public access to the harbor. Concurrently with these recommendations, there are needs to reduce user conflicts and minimize negative water quality and environmental impacts, especially related to stormwater management. Since the adoption of the plan, the Town has renovated the public marina and improved mooring conditions.

Bicycle Multi-Use Transportation Plan (2011)

The stated purpose of this plan is to connect the town’s various destinations by bicycle and multi-use paths. The plans’ goals also recognize the desire for improving safety, usage, recognition, and mileage of this non-auto network. Proposed projects are laid out by priority and time horizon, and include physical construction projects as well as educational and programmatic programs.



The plan proposes a total of 19 miles of bicycle multi-use paths, which is fairly ambitious for a town of this size. However, past and current multi-use path construction projects suggest that the town will likely achieve this goal. The overall goal to link destinations through a cohesive pedestrian and bicycle network can be integrated with land use planning to reinforce community cohesion while also strengthening sense of place. Some of the key recommendations in this plan were the expansion of the greenway network and to improve safety on existing bike routes. A total of 48 projects were identified in the plan. The following corridor projects identified in the plan have been completed:

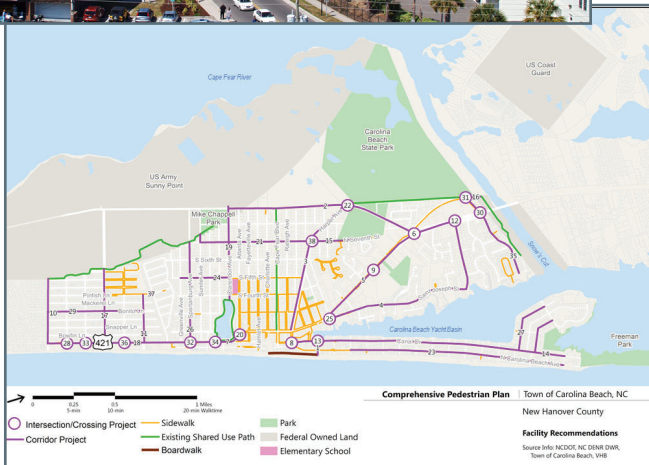
- » **Cape Fear Blvd Multi-Use Path:** A 10’ wide multi-use path serving bicyclists and pedestrians was recently constructed from N 3rd Street to Dow Rd along Cape Fear Boulevard.
- » **Island Greenway Extension:** A 1.2 mile section of the Island Greenway was completed in 2019. The multi-use path now serves bicyclists and pedestrians between Mike Chappell Park to the intersection of Alabama Ave and Spot Lane.

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Pedestrian Master Plan (2018)

The vision of this master plan is to create an appealing, walkable environment. Primary plan goals include:

- » **Promote a culture of walking and active living.**
- » **Enhance access to local businesses, neighborhoods, parks, and the beach by foot.**
- » **Emphasize the safety of pedestrians while accommodating motorized traffic in an efficient manner.**
- » **Create an aesthetically attractive environment that will appeal to residents and visitors.**



Proposed projects are ranked and coordinated with existing facilities and destinations. The primary and secondary corridors identified provide for a well-connected

pedestrian environment. In addition to suggested facility improvements, recommendations are also provided for programs and policies to enhance the pedestrian experience. The town is currently in the process of establishing enhanced pedestrian facilities along major pedestrian corridors, and has been particularly successful at incorporating these efforts into other public infrastructure upgrade projects.

This plan identified priority corridors and itemized 38 recommended intersection and corridor improvement projects. Four of the projects were selected as pilot projects:

- » Multi-use path on Alabama Avenue between the Island Greenway to Lake Park Boulevard
- » Sidewalk on Canal Drive from Carolina Beach Avenue to Salt Marsh Ln
- » Intersection improvements at Lake Park Boulevard and Atlanta Ave
- » Intersection improvements to improve multi-use trail crossing at Dow Rd and Harper Avenue

Central Business District (CBD) Master Development Plan (2008)

The fundamental purpose of this plan is “to provide a clear and exciting vision for the CBD that stimulates revitalization and provides guidance and direction to the Town as it endeavors to pursue its future.” Although already a decade old, the goals of the plan for the CBD are largely still relevant, including creating a mix of uses, supporting economic development, creating a unique built environment, protecting natural resources, and facilitating multi-modal circulation. Many of the recommendations and goals



Draft MOTSU JLUS Recommendations (Nov. 2018)

The Military Ocean Terminal at Sunny Point (MOTSU) is undergoing an update to its land use plan, which includes consideration and coordination with surrounding jurisdictions in order to ensure future operational capacity is not compromised. The following draft recommendations affect Carolina Beach, although this list is not exhaustive:

- » **Include MOTSU more closely in land use plan updates and development review that might impact their operations.**
- » **More clearly regulate and communicate approved and appropriate uses within the buffer zone.**
- » **Allow potential expansion of compatible, low impact uses (including recreational uses) within the buffer zone.**
- » **Negotiate longer term leases for uses within the buffer zone, to allow better long-term planning by local jurisdictions.**
- » **Work with local governments to resolve and prevent any storm drainage issues within the buffer zone.**
- » **Work with local governments to develop contingency plans for relocation of vital municipal services uses, in the event that MOTSU is required to reclaim full use of the buffer zone.**

of this plan have been or continue to be implemented, such as reinforcing the tourism industry and marina, creating a mix of uses and recreational destinations, and enhancing pedestrian facilities and tourism-supportive facilities such as lodging and parking. Preventing a preponderance of residential and lodging uses, such as hotels or condos, is important to preserving the commercial character of the area. Of the two conceptual future alternatives presented for the CBD area, it appears that the Town Square Concept is the alternative that is evolving. The plan also calls for increased building height allowances and stepped vertical setback requirements. Community concerns about the condition and future of the CBD continue today and will likely be part of the conversation during the land use plan update process.

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Traffic Study Recommendations - N. Lake Park Boulevard Corridor Study (2018)

A study of the main entrance corridor to Carolina Beach was conducted in order “to explore [potential improvements to] peak and off-peak hour congestion, enhance mobility through improved connectivity, and create an enhanced equilibrium for all travel modes along the corridor.” The 1.1-mile long section of roadway is owned by NCDOT, carries significant traffic volumes, and has a high crash rate. It is also the primary route for cars to get on and off the island. Most signalized intersections are already failing (level of service lower than “C”). Two alternatives for the corridor were proposed: 1) a five-lane section and 2) a “couplet” that splits a portion of the road corridor into two one-way roads, cutting through the proposed Harris Teeter and Publix sites.

Thoroughfare Plan

The Towns of Carolina Beach and Kure Beach originally adopted a thoroughfare plan in 1973 which was updated most recently in 1992. As of the 2000 Census, the expansion of the Wilmington Urbanized Area resulted in Carolina Beach’s inclusion as part of the Wilmington Urban Area Metropolitan Transportation Planning Organization (MPO). As part of the membership, the Town will be included in the MPO’s Thoroughfare Plan update.

North Carolina 2018-2027 State Transportation Improvement Plan (STIP)

There are currently no projects within

Carolina Beach jurisdiction programmed in the current STIP. Within the draft 2020-2029 STIP, a multi-use path along Dow Rd from Clarendon Ave to Lake Park Blvd is planned to improve multi-modal access and safety.

Wilmington MPO Comprehensive Transportation Plan (2016)

Several multi-use paths, on-road bicycle facilities and sidewalks are recommended throughout Carolina Beach and are documented in the most recent Comprehensive Transportation Plan (CTP)

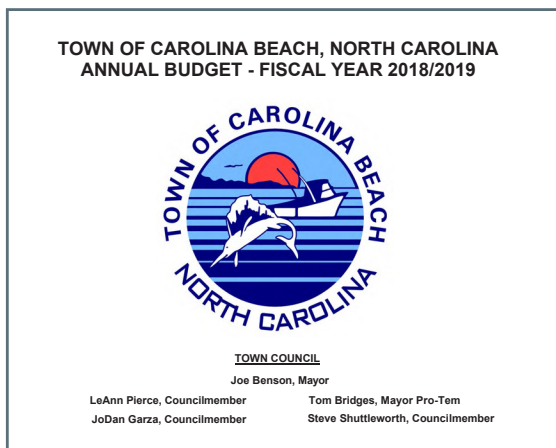
North End Traffic and Circulation Study

In Spring 2004, the Town adopted the study and selected a set of improvements from the recommended traffic scenario alternatives. The traffic improvements include (current status indicated in parentheses):

- » Implementing two right-turn lanes on Carl Winner Avenue outbound to US 421 northbound with expanded storage bays. (Implemented)
- » Establishing Carolina Beach Avenue North to Sandpiper as a one-way traffic pattern and introducing sidewalks, bicycle lanes and traffic calming devices on Carolina Beach Avenue North and Canal Drive. (Not fully Implemented, incremental improvements have been made)
- » Adding a landscaped median, bicycle lanes, expanded sidewalks on US 421 between Harper and Charlotte. Relocate parking to the adjacent blocks on Harper and Cape Fear. (Not implemented)
- » Establishing bicycle lanes on US 421 south from Charlotte to Carolina Sands. (Not implemented)

Capital Improvement Plan (2018)

The Capital Improvement Plan sets out the Town's major priority projects for the upcoming 10 years. These projects are above and beyond the regular operations and expenditures, although they may include major maintenance projects.



Major scheduled projects for the next 5 years include:

- » **Fiscal Year 2018/19:**
 - Park facilities
 - » Phase 1 of Ryder Lewis Park
 - » Playground at Carolina Beach Lake Park
 - Water distribution, particularly potable well improvements
 - Wastewater facilities, particularly a lift station upgrade
 - Stormwater management, particularly maintenance to Heniker Ditch
 - Various equipment and vehicle replacements
- » **Future years**
 - Potable water system projects:

- » New 3-million-gallon water tank
- » Major water line replacement projects
- » New Water Treatment Plan
- Wastewater system projects - major sewer (north end) and wastewater line repair and replacement projects
- Stormwater system projects - stormwater repairs (north end) and replacement projects
- Marina - southside and east-side improvement projects
- » **Other projects where a timeline for construction has not yet been identified:**
 - Canal Drive stormwater solution
 - Expansion of Police Department building
 - New lifeguard station
 - Swimming pool
 - Community center
 - Parking deck

Information on Proposed / Potential Development / Redevelopment Projects

At present, the largest and possibly most impactful redevelopment project is the Harris Teeter / Publix site on Lake Park Boulevard. This vacant shopping center has been demolished and redeveloped into a commercial shopping plaza. This redevelopment represents a fairly large investment, but has not happened yet, and a date-certain for commencement of construction is uncertain. The Town is also developing a park property in close proximity to this site. These two high profile projects are on the main community gateway, Lake Park Boulevard.

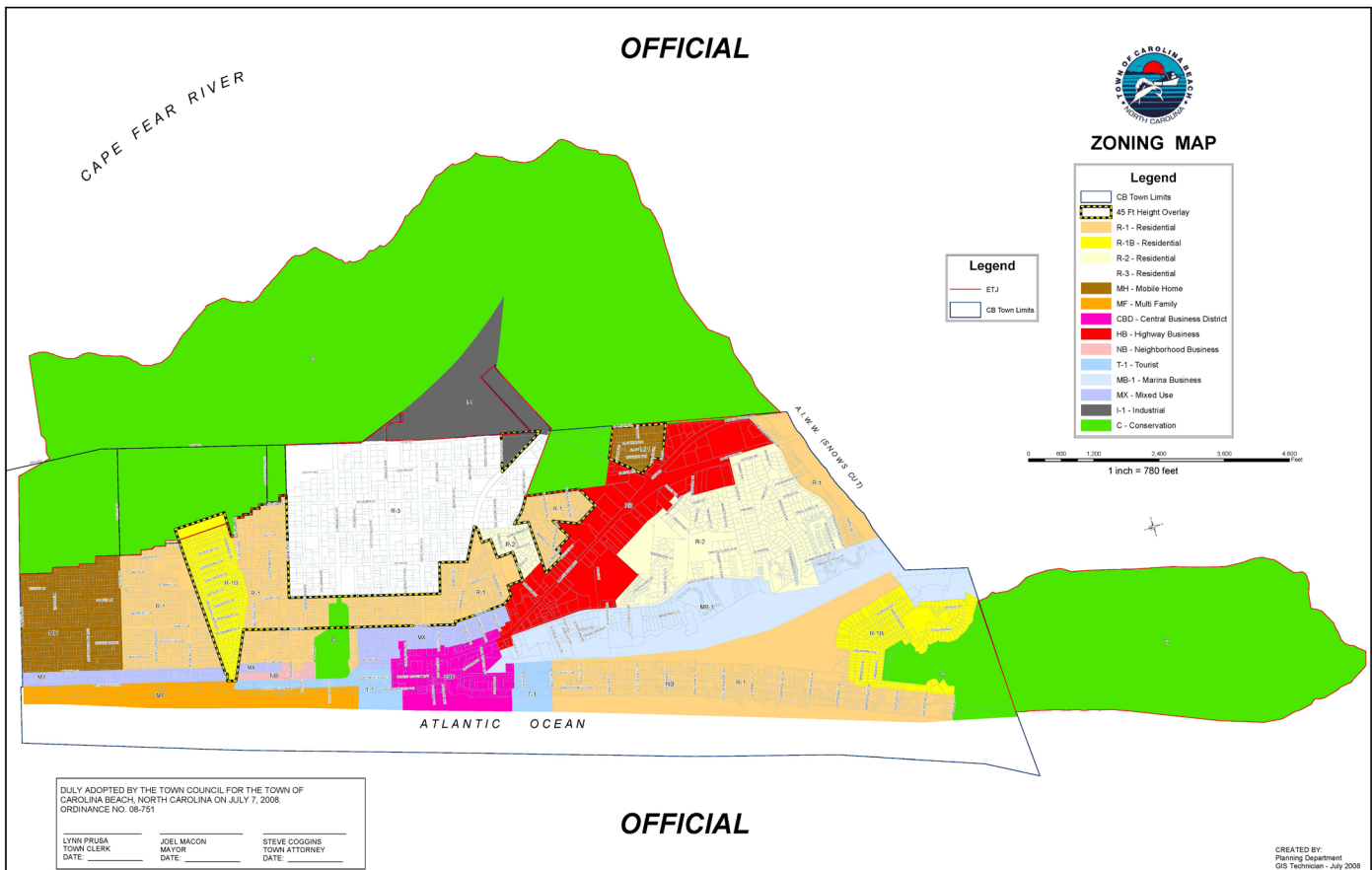
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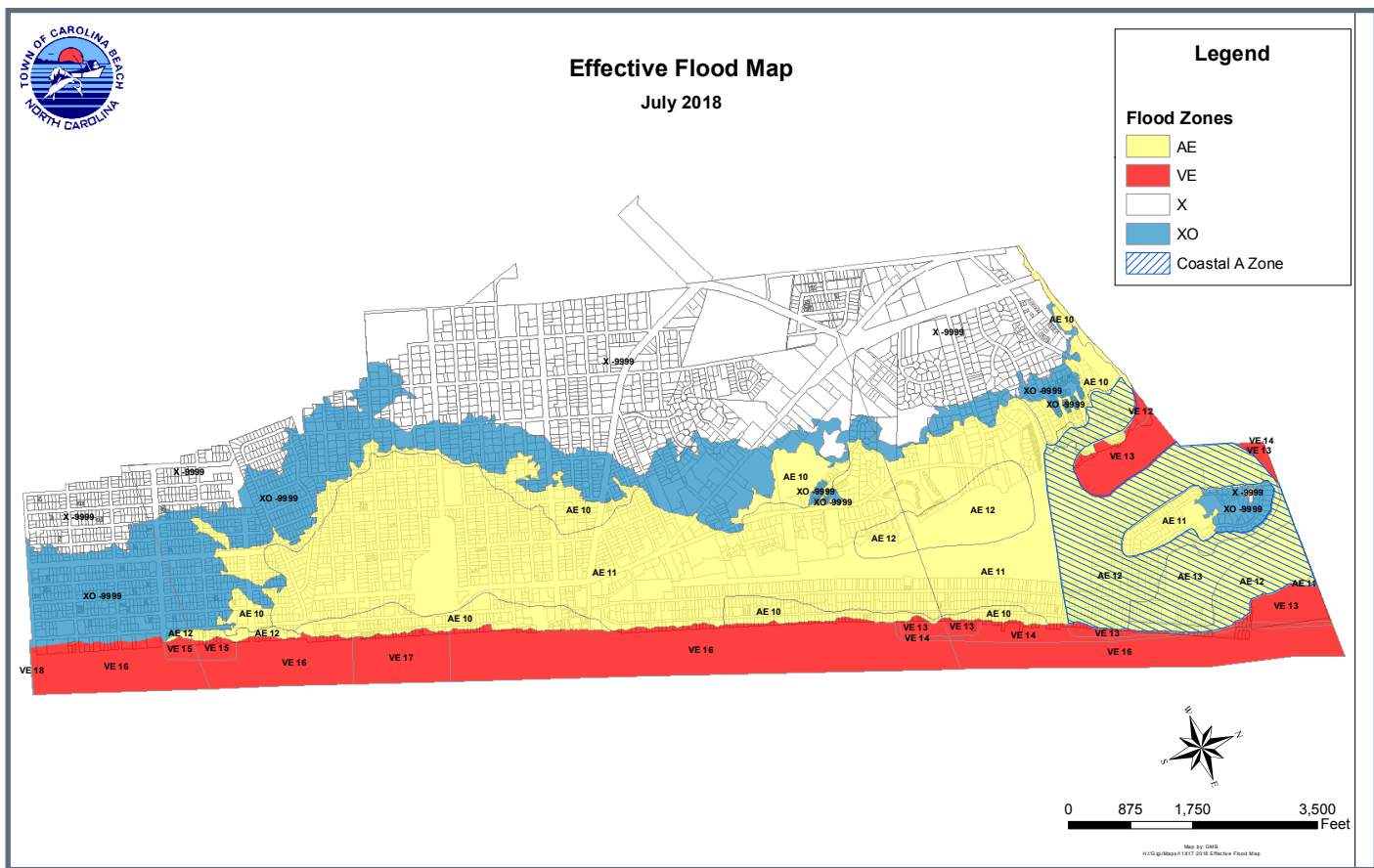
Zoning and Subdivision Ordinances, and Official Zoning Map

The Town's zoning and subdivision ordinances govern how land is used and developed. It is important to survey and evaluate the land use and regulatory landscape that currently exists in order to determine any potential deficiencies or other opportunities that might inform the land use plan development process. Ultimately, these regulations may be amended to better reflect the new Land Use Plan.

The Official Zoning Map does not allow a general mixing of uses, although in several places in town, there are a close relationship (both vertical and horizontal) between

dissimilar uses. Strip zoning along the major entrance corridor, Lake Park Boulevard, has created a large swath of commercial uses with multiple driveways directly on the highway. This has increased congestion on this corridor. Some incongruencies also exist between large districts zoned for multi-family, where single family and other uses have been allowed to intersperse in an unpredictable pattern.





Current Future Land Use Map, Flood Zones Map, and GIS files and resources

These existing resources were reviewed for their potential impact on and potential to be impacted by the land use plan update. The Future Land Use Map will likely be superseded by an updated map to accompany the updated land use plan. Flood zone maps will not change, although this information will inform the decisions made throughout the update process regarding risk and the appropriate location of certain land uses. Geographic Information Systems (GIS) files are geospatial data resources from the town, regional and state agencies, and other sources that are used throughout

the update process to document resources, analyze trends and patterns, communicate information, and gather feedback from the Steering Committee. The datasets and information necessary for a CAMA Land Use Plan have been gathered for this plan update.

Part A: Appendix

Development Character and Preference Survey

Meeting attendees at the first public open house workshop ranked various types of residential and commercial development.

Residential

In terms of residential development, the majority of respondents showed strong support for single-family detached homes and duplexes. Attendees also expressed moderate support for low-rise attached residential units with 2-3 stories, although there was little support for mid-rise attached units with 3-5 stories.

- » **Single-family detached homes, front-, side- or rear-driveways, small yards**



Likes: 34 Dislikes: 2 No Opinion: 0

(Plus, four attendees noted dislike for small yards)

- » **Duplexes (two-family homes), front- or rear-garages underneath, small yards**



Likes: 25 Dislikes: 9 No Opinion: 0

- » **Low-rise attached residential, 2- to 3-stories, pedestrian-scaled, private or shared parking**



Likes: 14 Dislikes: 20 No Opinion: 2

- » **Mid-rise attached residential, 3- to 5-stories, shared parking**



Likes: 3 Dislikes: 34 No Opinion: 0

Commercial

Attendees showed more balanced preference for various commercial development styles. Mixed use commercial centers and small-scale commercial development mixed into neighborhoods were most popular. Overall, meeting attendees expressed support for walkable commercial centers and aesthetically appealing development.

- » **Lifestyle center, outdoor seating, ample landscaping, auto-oriented destination**



Likes: 23 Dislikes: 13 No Opinion: 0

(Plus, four attendees noted dislike for auto-oriented)

- » **Mix of uses, walkable, outdoor activity, retail and restaurants below with residences or offices above**



Likes: 35 Dislikes: 2 No Opinion: 0

- » **Traditional commercial, convenience-driven, auto-oriented destination**



Likes: 8 Dislikes: 28 No Opinion: 0

- » **Neighborhood commercial and office, mixed in and around residential neighborhoods, small-scale, walkable**



Likes: 37 Dislikes: 4 No Opinion: 0

Stakeholder Interviews

The following major themes were identified in the stakeholder interviews. These interviews were held over a full day and involved in-depth conversations with stakeholders representing the following groups:

- » **Neighborhood leaders, citizen and advisory boards, and Homeowner association representatives**
- » **Developers, builders, realtors, and appraisers**
- » **Land planners, architects, engineers, surveyors, stormwater and environmental groups, and parks and open space advocates**
- » **Business groups, chamber of commerce, economic development and industrial business representatives**
- » **Town staff, state parks representative, federal (MOTSU), NCDOT, and Kure Beach leadership**

The following themes either came up frequently or are otherwise important to informing or developing the plan.

Stormwater and Flooding

In general, there are concerns about stormwater and flooding. Hurricane Florence exacerbated problems that already existed. In particular, the following areas came up frequently:

- » **Carolina Lake**
 - Dredging project is progressing, but slower than most would prefer. (Note: the dredging project has since been sped up and is nearing completion.)
 - Additional pumps have been installed.
- » **Canal Drive – floods during high tides, stormwater drains fail**

- Committee has been formed to generate ideas.
- Current working plan is increase sea wall height and install pumps.

Parking

Parking is perceived as lacking, particularly in downtown and particularly during the summer / tourist season. Some questions were raised about a previous plan for a public parking garage. The Town currently manages on-street parking in downtown through meters.

Elementary School

The school is a critical and prized community resource but is limited in space and has some difficulty with regular operations, especially parking. Current plans or desires for facility expansions are for enhancing or upgrading facilities, not to add capacity for additional students.

Inlet, Marina and Beach

These areas are critical to driving and diversifying the local economy. Maintenance costs are also high and include inlet maintenance and beach renourishment. Public and private marinas provide recreational tourism and help support the local maritime culture and industry.

Redevelopment

A lot of concern revolves around how to allow redevelopment, especially if it results in a more intense development pattern. A tension exists between maintaining the charm and character of the town, while also allowing redevelopment, especially with land costs as high as they are. New

development is rarely “affordable” for blue collar folks. Tension also exists between wanting to increase building height (which is often a way to make more housing affordable and bring residents to the downtown area) and keeping the lower height buildings that contribute to the charm, particularly at the boardwalk / downtown / central business district. Other select areas throughout town also present significant redevelopment opportunities.

Character & Improvement

Nearly every group prizes the family-friendly character and vibe of the town. Several groups expressed desire for upgraded appearance requirements for the most publicly visible parts of town – Lake Park Drive and the boardwalk / downtown area. Some desire exists for increasing quality through enhanced development standards.

Pedestrian & Cyclist Connectivity

The Town is engaged in increasing connectivity and upgrading pedestrian and cyclist facilities throughout town. Many groups expressed a desire for even more of these projects. There is some debate about needing sidewalks everywhere, especially along small, narrow, low traffic residential streets, but major corridors and connections are ripe for enhanced pedestrian and multi-use facilities. Some obstacles currently exist when considering extending the greenway through Kure Beach (to the ferry) and across the Snow Cut bridge (to the greater Wilmington area).

Recreation

Community recreation is important and helps define the family-friendly character of the town.

» **Public (local)**

- The Boardwalk and greenway system.
- Fitness center is a success.
- Mike Chappell Park, Carolina Lake, and other local parks.
- Music stages in boardwalk / downtown area.
- Some desire for a public community pool.

» **Public (state and federal)**

- Carolina Beach State Park, especially hiking trails.
- Compatibility of public recreation with Sunny Point is uncertain, at best.

» **Private**

- Carnival rides in the boardwalk / downtown area were never intended to be permanent, and are now being phased out by development.
- Mini-golf course.

» **Freeman Park**

- Future of this resource is uncertain, but it is a major community asset

Strengths, Weaknesses, Opportunities, and Threats (SWOT Analysis)

During the first Steering Committee meeting on 11/27/2018, members identified the community's Strengths, Weaknesses, Opportunities, and Threats (SWOT). This information furthers the conversation about land use and other issues facing the town that a land use plan can address.

A summary of the SWOT analysis is below:

Strengths:

- » Tourism, including shoulder seasons (5 votes)
- » Parks and rec (3 votes)
- » Unique character, family-friendly atmosphere, small community (3 votes)
- » Implementation, planning of infrastructure, and coordinated improvements (3 votes)
- » Location / lots of amenities and events (3 votes)
- » Diversity (2 votes)
- » Healthy development trend, economy (2 votes)
- » Bicycle / pedestrian connectivity and vision (2 votes)
- » Effective Town staff
- » High quality elementary school
- » First responders
- » Self-sufficiency (aka "no OTB")
- » High ratio of commercial uses (tax base)
- » Mix of land uses – commercial next to residential
- » Entrepreneurial spirit

Weaknesses:

- » Parking, esp. in tourist season (6 votes)
- » Flooding (4 votes)
- » Flooding / stormwater, esp. Canal St and Carolina Beach Lake (3 votes)
- » Traffic / congestion (2 votes)
- » Local, year-round employment opportunities (2 votes)
- » Stormwater issues, drainage (2 votes)
- » Land-locked / future ETJ expansions unlikely
- » Infrastructure
- » Need traffic lights and crosswalks
- » Central Drive
- » Texas Ave pump
- » Staffing for project management
- » Limited public space
- » Limited fund balance
- » Overly strict regulation of commercial development
- » Traffic safety / congestion and lack of cooperation from NCDOT
- » Affordable / workforce housing
- » Disjointed



Opportunities:

- » Parks and recreation (2 votes)
- » Expand walking / biking opportunities (2 votes)
- » Flooding / stormwater management (2 votes)
- » Historical preservation
- » Carolina Beach State Park
- » Carolina Beach Lake
- » Military Ocean Terminal Sunny Point (MOTSU) – expand uses on military buffer land
- » Parking
- » Affordable housing
- » Solar/wind power
- » Finding ways to connect community facilities
- » Expansion of resources
- » Family activities
- » Tourism
- » Some undeveloped land still exists

Threats:

- » Flooding (2 votes)
- » MOTSU (2 votes)
- » Parking (2 votes)
- » Development could outpace supporting infrastructure (2 votes)
- » Too much tourism / overcrowding (2 votes)
- » High density growth
- » Deferred infrastructure maintenance costs
- » Stormwater infrastructure improvements
- » Aging multi-family structures
- » Staff / Town Council turnover
- » Sea level rise
- » Erosion
- » Only one way on and off the island (Snow Cut Bridge)

Seasonal Population Calculation Methodology

Similar to many coastal communities, Carolina Beach’s population fluctuates throughout the year between high and low seasons. When planning for infrastructure, housing, commerce transportation and recreation it is important to consider the impacts of visitors and temporary residents. People who live inside the Town limits for much of the year and refer to Carolina Beach as their primary residence make up the Permanent Population. Seasonal population estimates are difficult to calculate and require making assumptions based on demographics, habits of visitors, and available data. While there is no standard method for calculating seasonal population for a given jurisdiction, we employ two differing methods to estimate the influx of visitors based on available data: water usage rates and overnight lodging room and occupancy data. The figure reported is the peak seasonal population based on the combination of overnight tourists that visit on a peak summer weekend day rather than a typical weekday. Day-travelers are not accounted for in these calculations and may be significant, especially for popular festivals and

events. Both methods yielded estimates in a similar range with the water usage method estimate falling between the high and low estimate for the peak season based on the overnight visitor method. An average of the two methods is used to calculate seasonal population projections. Population types are defined as:

- » **Peak Population**
 - Permanent plus seasonal population.
 - This is an approximation of the planning area’s population on a “typical” peak day during the high season.
- » **Permanent Population**
 - Persons who usually reside in the planning area.
- » **Peak Seasonal Population**
 - Persons who are temporarily residing in the planning area, such as tourists and vacationers, but who normally reside in another location. This estimate does not include day-trippers.

Water Usage

For this estimate, we utilize current well pumping data from 2017 and 2018 to determine and average water usage volumes for

Total Well Pumping Volume in Carolina Beach (i) by Month Measured in MGD (ii)												
	Jan	Feb	Mar	Apr	May	June	July	Aug	Sept	Oct	Nov	Dec
2017	25.5	23.0	23.5	--	32.8	36.0	42.0	36.8	29.0	28.3	24.5	24.0
2018	22.0	23.5	53.0	28.5	29.0	39.0	42.0	36.0	30.0	30.0	24.0	22.5
Avg	23.8	23.3	38.3	28.5	30.9	37.5	42.0	36.4	29.5	29.2	24.3	23.3

i) Combined data from 8 Wells, does not include Kure Beach pumping volume; data from April 2017 omitted due to missing data from 4 wells

ii) Millions of Gallons per Day

Estimated Seasonal Population Increase in Water Usage Measured Against Low Season Baseline

Low Season Average		Difference from Low Season									
Dec	Jan	Feb	Mar	Apr	May	June	July	Aug	Sept	Oct	Nov
23.4	14.8	5.1	7.5	14.1	18.6	13.0	6.1	5.7	0.8		

Estimated Seasonal Population Increase by Month

Water Usage per Resident (iii)

Mar	Apr	May	June	July	Aug	Sept	Oct	Nov		
0.003735		3,970	1,360	2,000	3,770	4,980	3,480	1,630	1,540	220

iii) Based on Low Season Average and Carolina Beach Population Estimate of 6,270 residents (American Community Survey 2017 population estimates)

Peak Seasonal Population Estimate

Method I – Water Usage

Low Season Baseline	Mar	Apr	May	June	July (iv)	Aug	Sept	Oct	Nov
6,270	10,240	7,630	8,270	10,040	11,250	9,750	7,900	7,810	6,490
Percent Above Baseline	63%	22%	32%	60%	79%	56%	26%	25%	4%

iv) July estimates are used the for peak seasonal population projection.

the peak period. Assuming that water usage volumes during the low season are based generally on the permanent population, we use this data to estimate the increase in population during the rest of the year.

Overnight Visitor Method

This method reviews data from four types of available lodging to determine the peak overnight visitor population in Carolina Beach. A low and high estimate was calculated for four following occupancy types

within Carolina Beach: short-term rentals, guests of year-round residents, room counts (including full-service, limited-service and bed and breakfasts), and campgrounds. For the peak season this yielded an additional seasonal population estimate of between 9,671 and 11,379 overnight visitors in the high season. A description of the assumptions and methods follows.

Part A: Appendix

Short-Term Rentals

Peak Seasonal Population Estimate

Method II – Overnight Visitors

	Low Estimate	High Estimate
Short-Term Rentals	5,301	6,925
Guests of Year-Round Residents	628	2,513
Rooms - Hotel/Motel/B&Bs	1,347	2,597
Campgrounds	594	1,145
Total	7,870	13,180

Average 10,525

Estimated Peak Seasonal Occupancy for Short-Term Rentals

# Bedrooms	Occupancy		Occupancy	
	Rate	Units	Low Est.	High Est.
Studio	90%	18	17	33
1 bedroom	9%	83	150	293
2 bedrooms	33%	320	1,438	1,985
3 bedrooms	41%	392	2,467	3,137
4 bedrooms	13%	120	972	1,177
5+ bedrooms	3%	26	257	301
Subtotal		960	5,300	6,923

Source: American Community Survey 2016 data on unit distribution in Carolina Beach

AirDNA data pulled from February 2019 indicates a peak month of July with a 90% occupancy, an average rental size of 2.8 bedrooms, with an average of 7.4 guests per rental, and an average occupancy of 2.6 persons per bedroom. Data on the overall

number of short-term rentals is difficult to ascertain. While the most current data from the 2010 U.S. Census indicates there are 2,126 vacant housing units for seasonal or recreational use, there are only 571 vacation rentals that have been verified with New Hanover County Tourism Development

Authority in 2018. For comparison, AirDNA indicate 369 active rentals, though this only accounts for listings active on Airbnb and not the whole short-term rental market. The following assumptions are made:

- » **Number of Short-Term Rentals is equal to the verified seasonal vacation rentals (571) plus 25% of the remaining vacant housing units (389) reported from the census data for a total of 960 short-term rentals.**
- » **The short-term rentals reflect the general housing stock within all of Carolina Beach (based on the number of bedrooms and unit distribution).**

- » **Peak occupancy rate for units is 90% for the peak month of July.**
- » **Occupancy ranges from 1-13 persons per housing unit are assigned based on the number of bedrooms. A low and high estimate of persons is used based on bedrooms for each type of housing unit.**

Guests of Year-Round Residents

Overnight guests of the permanent population also factor into the peak seasonal population. A low estimate of 0.25 guests per permanently occupied housing unit and a high estimate of one guest per unit is used to estimate peak seasonal guests.

Estimated Peak Seasonal Occupancy for Short-Term Rentals						
Number of Bedrooms	Occupancy Rate		Housing Unit Distribution (i)			Housing Units
	Low Occupancy Estimate	High Occupancy Estimate				
Studio	90%	2%	18	17	33	
1 bedroom		9%	83	150	293	
2 bedrooms		33%	320	1,438	1,985	
3 bedrooms		41%	392	2,467	3,137	
4 bedrooms		13%	120	972	1,177	
5 or more bedrooms			3%	26	257	301
			960	5,300	6,923	

i) American Community Survey 2016 data on unit distribution in Carolina Beach

Part A: Appendix

Nightly Lodging - Hotel/Motel/B&Bs

Nightly lodging makes up a portion of the overnight visitor options for Carolina Beach. Full-Service lodging makes up the majority of options, while some limited-service and bed and breakfasts also contribute to the number of rooms available. The lodging unit data from 23 verified businesses were obtained from the New Hanover County Tourism Development Authority. A high estimate assumes 90% of the inventory is available while a low estimate of 70% inventory availability is given due to properties being renovated or partially closed.

Campgrounds / RV Parks

Carolina Beach has two campgrounds and one RV Park which also contribute to the overnight population. Data was obtained from websites to determine the overall number of sites. A high estimate assumes 90% of the inventory is available while a low estimate of 70% inventory availability is used.

Peak Seasonal Population Projection

Using the average of the two methods, the peak population in Carolina Beach is estimated to be 10,887 people using the water usage estimates (Method I, 11,250) and the estimate of overnight visitors (Method II 7,870 - 13,180). This equates to a peak seasonal population that is as much as 74% higher than the permanent population, not taking into account day-trippers to the

Estimated Peak Seasonal Guests of Year-Round Residents

Persons per Unit (i)	2.29		
Permanently occupied housing units (ii)	2,513		
		Low Estimate	High Estimate
Guests of Year-Round Residents	0.25		1
	628		2,513

(i, ii) 2016 American Community Survey data on Permanently Occupied Housing Units

Estimated Peak Seasonal Nightly Lodging

	Units	Low Estimate	High Estimate
Full Service (2)	244	342	659
Limited Service (20)	711	995	1,920
Bed and Breakfast (1)	7	10	19
Total	962	1,347	2,597

Estimated Peak Seasonal Camping / RV Sites			
	Sites	Low est.	High est.
Carolina Bch State Park	91	63.7	81.9
Winner's RV Park	21	14.7	18.9
Freeman Park	100	70	90
Subtotal	212	594	1,145

sharing economy could also greatly impact this projection.

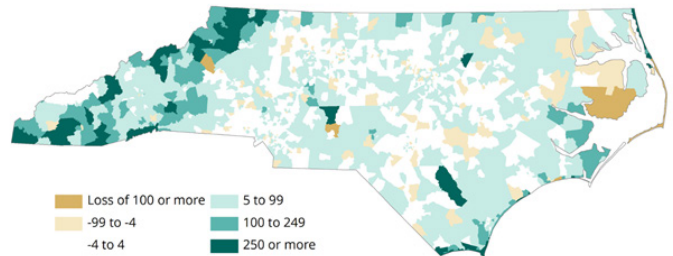
The second is based on occupancy of short-term rentals, guests of year round residents, rooms in full/limited service hotels, and campgrounds in the peak season.

island. Using the average of these methods, a peak seasonal population of 10,887 as a baseline, we apply a 1.36% growth rate to match the most recent growth rate from 2010-2017 to determine peak seasonal population projections for the planning period. This yields a peak seasonal population estimate of 16,793 in 2050.

This growth in this figure is dependent on factors that influence seasonal population including an increase in second or vacation homes. Historical data indicates there has been a trend in an increase in the number of seasonal housing units. Data from 2000 indicates that 30% of the city's housing units were being used for seasonal, recreational, or occasional use. By 2010 this proportion had increased to 38%. Between 2000 and 2010 the number of seasonal, recreational or occasional use housing units were experiencing an annual growth rate of 5.6%, much higher than the growth rate in housing units. This indicates a portion of the existing housing units have been converted to occasional use. Seasonal population increases would be highly dependent upon an increase in the number of housing units, hotel rooms or other accommodations that would be built or expanded during the planning period. An increase or decrease in the overall number of short-term rentals due to expansion or regulation of the residential

Seasonal Data from UNC Carolina Demography:

Vacation Home Change by NC Census Tract, 2000 to 2010



Data: 2000 and 2010 Census Summary File 1, 2000 Census tracts normalized to 2010 tract boundaries by Carolina Demography

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9 of 10 places with the most vacation homes are on the coast

North Carolina communities with largest number of vacation homes, 2010

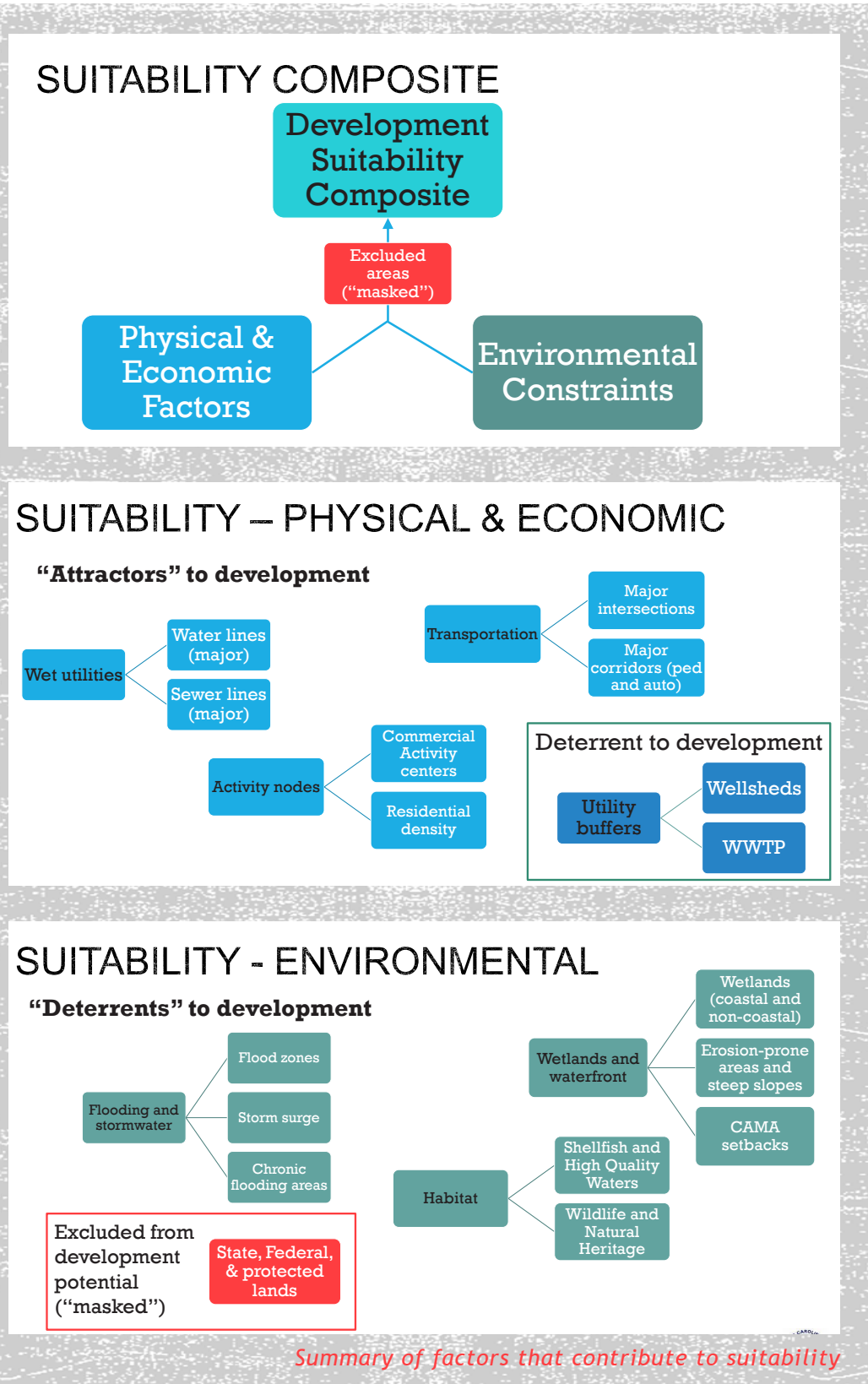
Rank	Name	Housing Units		Seasonal Share
		Total	Seasonal	
1	Oak Island town	8,686	4,709	54%
2	Atlantic Beach town	4,935	3,972	80%
3	Emerald Isle town	6,735	3,931	58%
4	Kill Devil Hills town	6,617	3,486	53%
5	Duck town	2,722	2,500	92%
6	Nags Head town	4,884	2,474	51%
7	Sunset Beach town	5,110	2,420	47%
8	Ocean Isle Beach town	3,206	2,407	75%
9	Carolina Beach town	5,626	2,126	38%
10	Beech Mountain town	2,287	2,049	90%

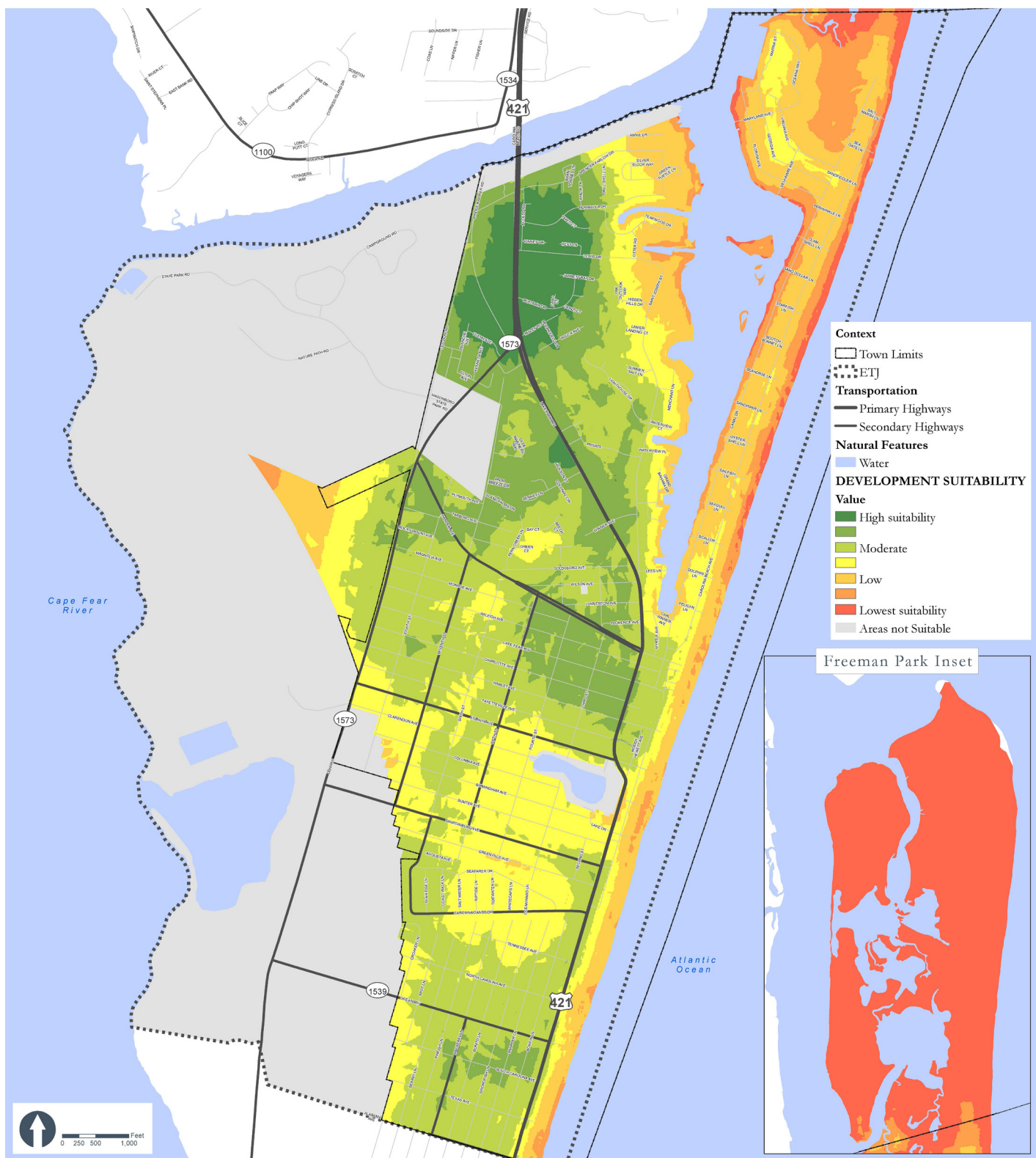
Data Source: 2010 Census

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Land Suitability Analysis

A suitability analysis quantifies the factors of land that contribute to its economic and physical suitability. These factors, both constraints and attractors, work together and against each other to help inform land use decisions. This type of analysis does not judge the willingness of owners to sell or develop property, but speaks more to the investments in and near land that make it suitable for development, as well as the environmental constraints that deter development or make it more costly to develop. Taken together, these physical, economic, and environmental factors create an overall suitability map. This information, along with many other data points and perspectives, contributed to the creation of the future land use map. A summary of factors is shown to the right, as well as the composite land use suitability map.





Land Use Suitability composite map.

Part A: Appendix

Matrix for Land Use Plan Elements - 15A NCAC 7B .0702

Matrix for Land Use Plan Elements – 15A NCAC 7B .0702	
	Page Reference(s)
Organization of the Plan	
<ul style="list-style-type: none"> Matrix that shows the location of the required elements as set forth in this Rule 	97
Community Concerns and Aspirations	
<ul style="list-style-type: none"> Description of the dominant growth-related conditions that influence land use, development, water quality and other environmental concerns in the planning area 	12-13
Description of the land use and development topics most important to the future of the planning area, including:	
<ul style="list-style-type: none"> Public Access 	48-50
<ul style="list-style-type: none"> Land Use Compatibility 	50-52
<ul style="list-style-type: none"> Infrastructure Carrying Capacity 	52-54
<ul style="list-style-type: none"> Natural Hazard Areas 	54-58
<ul style="list-style-type: none"> Water Quality 	58-60
Community Vision	
<ul style="list-style-type: none"> Description of the general physical appearance and form that represents the local government's plan for the future. It shall include objectives to be achieved by the plan and identify changes that may be needed to achieve the planning vision. 	9-10, 43-46
Existing and Emerging Conditions	
Population, Housing and Economy	
Discussion of the following data and trends:	
<ul style="list-style-type: none"> Permanent population growth trends using data from the two most decennial Censuses 	12-13
<ul style="list-style-type: none"> Current permanent and seasonal population estimates 	12-13
<ul style="list-style-type: none"> Key population characteristics including age and income 	13-14
<ul style="list-style-type: none"> Thirty-year projections of permanent and seasonal population in five-year increments 	13
<ul style="list-style-type: none"> Estimate of current housing stock, including permanent and seasonal units, tenure, and types of units (single-family, multifamily, and manufactured) 	14-15
<ul style="list-style-type: none"> Description of employment by major sectors and community economic activity 	15
Natural Systems	
Description of natural features in the planning jurisdiction to include:	
<ul style="list-style-type: none"> Areas of Environmental Concern (AECs) as set forth in Subchapter 15A NCAC 07H 	17-20
<ul style="list-style-type: none"> Soil characteristics, including limitations for septic tanks, erodibility, and other factors related to development 	25-26

<ul style="list-style-type: none"> Environmental Management Commission (EMC) water quality classifications and related use support designations 	25-26
<ul style="list-style-type: none"> Division of Marine Fisheries (DMF) shellfish growing areas and water quality conditions 	23
<ul style="list-style-type: none"> Flood and other natural hazard areas 	27-30
<ul style="list-style-type: none"> Storm surge areas 	30
<ul style="list-style-type: none"> Non-coastal wetlands, including forested wetlands, shrub-scrub wetlands and freshwater marshes 	20-22
<ul style="list-style-type: none"> Water supply watersheds or wellhead protection areas 	31
<ul style="list-style-type: none"> Primary nursery areas 	23
<ul style="list-style-type: none"> Environmentally fragile areas, such as wetlands, natural heritage areas, areas containing endangered species, prime wildlife habitats, or maritime forests 	21-23
Natural Systems, contd.	Page Reference(s)
<ul style="list-style-type: none"> Additional natural features or conditions identified by the local government 	18-20, 33
Environmental Conditions	
Discussion of environmental conditions within the planning jurisdiction to include an assessment of the following conditions and features:	
<ul style="list-style-type: none"> Status and changes of surface water quality; including: <ul style="list-style-type: none"> Impaired streams from the most recent Division of Water Resources (DWR) Basin Planning Branch Reports Clean Water Act 303 (d) List Other comparable data 	
<ul style="list-style-type: none"> Current situation and trends on permanent and temporary closures of shellfishing waters as determined by the Report of Sanitary Survey by the Shellfish Sanitation and Recreational Water Quality Section of the DMF 	22-23
<ul style="list-style-type: none"> Areas experiencing chronic wastewater treatment malfunctions 	3, 53
<ul style="list-style-type: none"> Areas with water quality or public health problems related to non-point source pollution 	25-26
<ul style="list-style-type: none"> Areas subject to recurrent flooding, storm surges and high winds 	27-30
<ul style="list-style-type: none"> Areas experiencing significant shoreline erosion as evidenced by the presence of threatened structures or public facilities 	25-29
<ul style="list-style-type: none"> Environmentally fragile areas (as defined in Part (c)(2)(A)(ix) of this Rule) or areas where resources functions are impacted as a result of development 	21-22
<ul style="list-style-type: none"> Natural resource areas that are being impacted or lost as a result of incompatible development. These may include, but are not limited to the following: coastal wetlands, protected open space, and agricultural land. 	17-22
Existing Land Use and Development	
MAP of existing land use patterns	35
<ul style="list-style-type: none"> Description of the existing land use patterns 	36
<ul style="list-style-type: none"> Estimates of the land area allocated to each land use category 	36
<ul style="list-style-type: none"> Characteristics of each land use category 	36, 44-46
MAP of historic, cultural, and scenic areas designated by a state or federal agency or by the local government	38

Part A: Appendix

• Descriptions of the historic, cultural and scenic areas	37	
Community Facilities		
Evaluation of existing and planned capacity, location and adequacy of community facilities to include:		
MAP of existing and planned public and private water supply service areas	32	
• Description of existing public and private water supply systems to include:		
- Existing condition	31	
- Existing capacity	31	
- Documented overflows, bypasses or other problems that may degrade water quality or constitute a threat to public health as documented by the DWR	31	
- Future water supply needs based on population projections	31	
MAP of existing and planned public and private wastewater service areas	32	
• Description of existing public and private wastewater systems to include:		
- Existing condition	31	
- Existing capacity	31	
- Documented overflows, bypasses or other problems that may degrade water quality or constitute a threat to public health as documented by the DWR	31	
- Future wastewater system needs based on population projections	31	
MAP of existing and planned multimodal transportation systems and port and airport facilities	39	
• Description of any highway segments deemed by the NC Department of Transportation (NCDOT) as having unacceptable service as documented in the most recent NCDOT Transportation and/or Thoroughfare Plan	37-40	
Community Facilities, contd.		Page Reference(s)
• Description of highway facilities on the current thoroughfare plan or current transportation improvement plan	37-40	
• Description of the impact of existing transportation facilities on land use patterns	35-40	
• Description of the existing public stormwater management system	31	
• Identification of existing drainage problems and water quality issues related to point-source discharges of stormwater runoff	31-32	
	Policy Citation(s)	Page Reference(s)
Future Land Use		
Policies		
• Policies that exceed the use standards and permitting requirements found in Subchapter 7H, State Guidelines for Areas of Environmental Concern	LU 1.1 – LU 4.2, IC 1.2 – IC 2.5	51-52, 53-54
Policies that address the Coastal Resources Commission's (CRC's) management topics:		

Public Access Management Goal:		
<i>Maximize public access to the beaches and the public trust waters of the coastal region.</i>		
The planning objectives for public access are local government plan policies that:		
<ul style="list-style-type: none"> Address access needs and opportunities 	PA 1.1-6.1	49-50
<ul style="list-style-type: none"> Identify strategies to develop public access 	PA 1.1-6.1	49-50
<ul style="list-style-type: none"> Address provisions for all segments of the community, including persons with disabilities 	PA 1.1-6.1	49-50
<ul style="list-style-type: none"> For oceanfront communities, establish access policies for beach areas targeted for nourishment 	PA 3.1, 5.1	49-50
Land Use Compatibility Management Goal:		
<i>Ensure that development and use of resources or preservation of land balance protection of natural resources and fragile areas with economic development, and avoids risks to public health, safety, and welfare.</i>		
The planning objectives for land use compatibility are local government plan policies that:		
<ul style="list-style-type: none"> Characterize future land use and development patterns 	LU1.1 - 1.2	51
<ul style="list-style-type: none"> Establish mitigation criteria and concepts to minimize conflicts 	LU 2.2-4.2	51-52
Infrastructure Carrying Capacity Management Goal:		
<i>Ensure that public infrastructure systems are sized, located, and managed so the quality and productivity of AECs and other fragile areas are protected or restored.</i>		
The planning objectives for infrastructure carrying capacity are local government plan policies that:		
<ul style="list-style-type: none"> Establish service criteria 	IC 1.3, 2.1-2.4	53
<ul style="list-style-type: none"> Ensure improvements minimize impacts to AECs and other fragile areas 	IC 1.1-1.3, 2.2	53
Natural Hazard Areas Management Goal:		
<i>Conserve and maintain barrier dunes, beaches, floodplains, and other coastal features for their natural storm protection functions and their natural resources giving recognition to public health, safety, and welfare issues.</i>		
The planning objectives for natural hazard areas are local government plan policies that:		
<ul style="list-style-type: none"> Establish mitigation and adaptation concepts and criteria for development and redevelopment, including public facilities 	NH 1.1 – 7.1	54 - 58
<ul style="list-style-type: none"> Minimize threats to life, property and natural resources resulting from erosion, high winds, storm surge, flooding, or other natural hazards 	NH 1.1 – 7.1	54 - 58
Water Quality Management Goal:		
<i>Maintain, protect and where possible enhance water quality in all coastal wetlands, rivers, streams, and estuaries.</i>		
The planning objectives for water quality are local government plan policies that:		
<ul style="list-style-type: none"> Establish strategies and practices to prevent or control nonpoint source pollution 	WQ 1.1 – 5.5	59 - 60
<ul style="list-style-type: none"> Establish strategies and practices to maintain or improve water quality 	WQ 1.1 – 5.5	59 - 60
Future Land Use Map	Page Reference(s)	

Part A: Appendix

MAP of future land uses that depicts the policies for growth and development and the desired future patterns of land use and development with consideration given to natural system constraints and infrastructure	43
<ul style="list-style-type: none"> Descriptions of land uses and development associated with the future land use map designations 	44
Tools for Managing Development	
<ul style="list-style-type: none"> Description of the role of plan policies, including the future land use map, in local decisions regarding land use and development 	72
<ul style="list-style-type: none"> Description of the community’s development management program, including local ordinances, codes, and other plans and policies 	72
Action Plan and Implementation Schedule	
<ul style="list-style-type: none"> Description of actions that will be taken by the local government to implement policies that meet the CRC’s management topic goals and objectives, specifying fiscal year(s) in which each action is anticipated to start and finish 	48-70
<ul style="list-style-type: none"> Identification of specific steps the local government plans to take to implement the policies, including adoption and amendment of local ordinances, other plans, and special projects 	48-56, 58-63, 65, 66, 69

Saltmarsh
Carolina Beach N Ave





2020 Land Use Plan Update

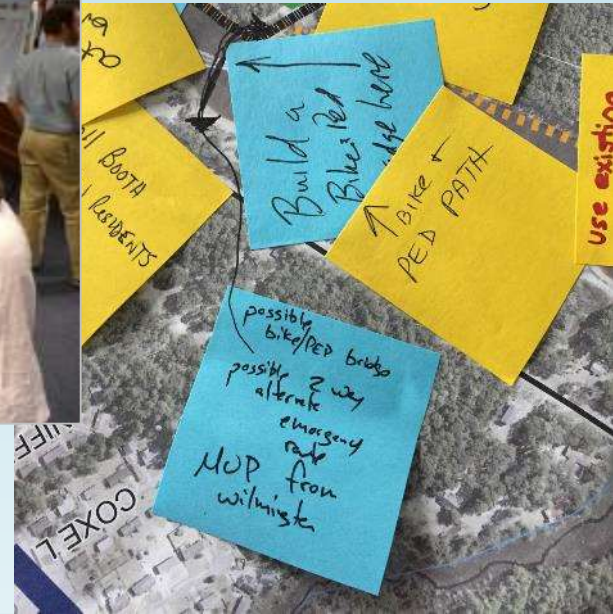
WEDNESDAY, JULY 26, 2016

Public Involvement

- Stakeholder Interviews
- Public Survey
- Steering Committee
- Website
- Social Media and Outreach
- Public Open House Workshops
- Several Public Comment Sessions



Item 2.



Steering Committee

- Dedicated, appointed volunteers having regular meetings since November 2018
- Various perspectives and backgrounds
- Have reviewed and guided all aspects of information gathering and plan development

Item 2.



STRENGTHS, WEAKNESSES, OPPORTUNITIES, & THREATS (SWOT ANALYSIS)

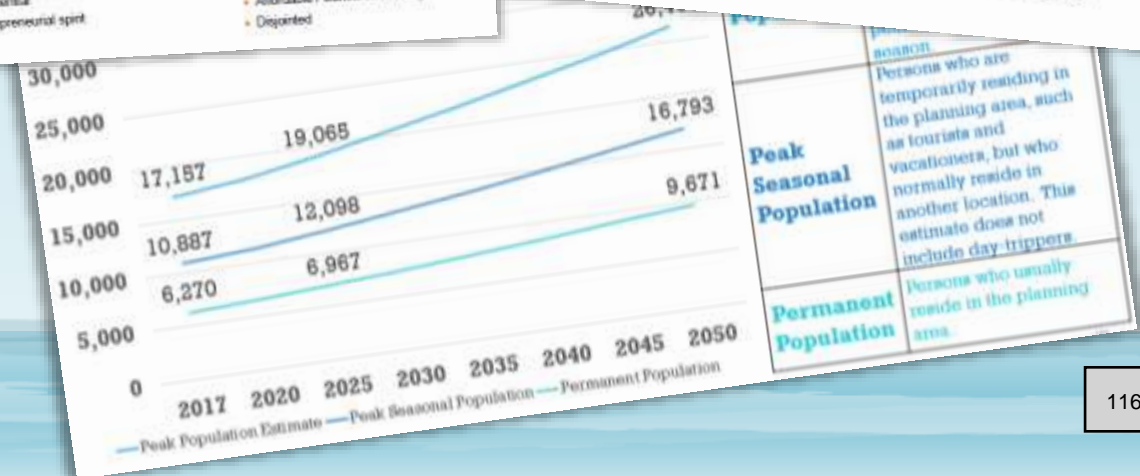
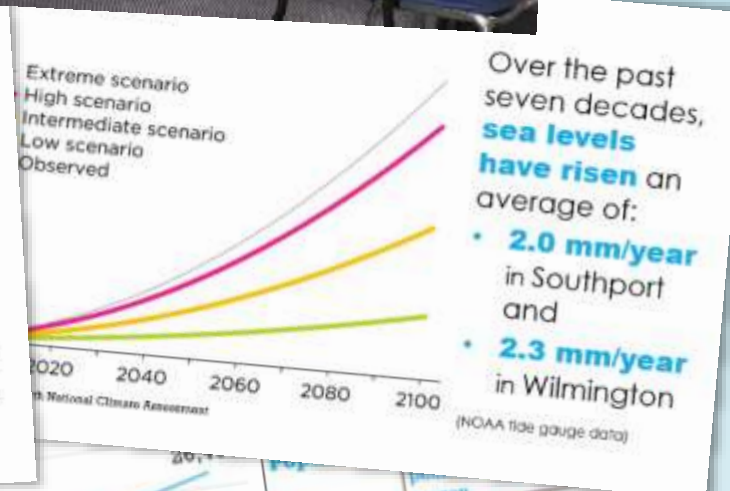
During the first steering committee meeting on 11/27/2018, members identified the core Strengths, Weaknesses, Opportunities, and Threats (SWOT). This information furthered conversation about land use and other issues facing the town that a land use plan can address. A summary of the SWOT analysis is below:

Strengths:

- Tourism, incl. shoulder seasons (5 votes)
- Parks and rec (3 votes)
- Unique character, family-friendly atmosphere, small community (3 votes)
- Implementation, planning of infrastructure, and coordinated improvements (3 votes)
- Location / lots of amenities and events (3 votes)
- Diversity (2 votes)
- Healthy development trend, economy (2 votes)
- Bicycle / pedestrian connectivity and vision (2 votes)
- Effective Town staff
- High quality elementary school
- First responders
- Self-sufficiency (aka "no OTB")
- High ratio of commercial uses (tax base)
- Mix of land uses – commercial next to residential
- Entrepreneurial spirit

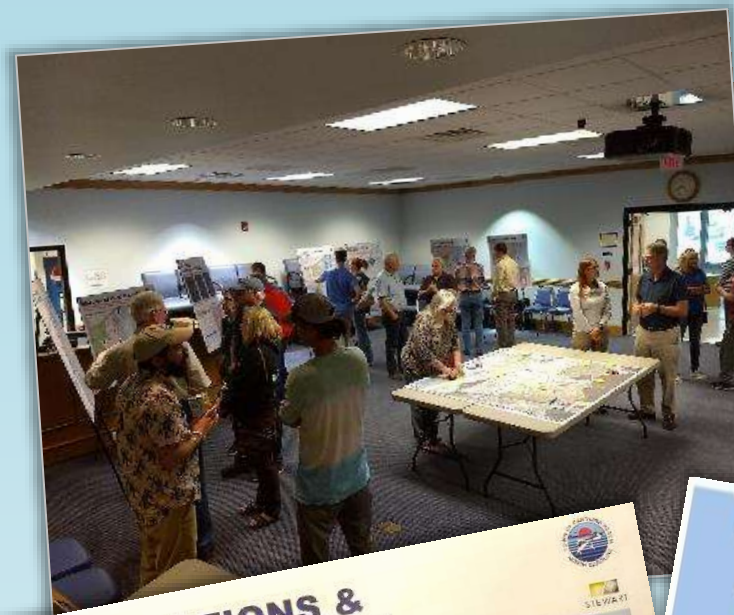
Weaknesses:

- Parking, esp. in tourist season (5 votes)
- Flooding (4 votes)
- Flooding / stormwater, esp. Canal St and Carolina Beach Lake (3 votes)
- Traffic / congestion (2 votes)
- Local, year-round employment opportunities (2 votes)
- Stormwater issues, drainage (2 votes)
- Land-locked / future ETJ expansions unlikely
- Infrastructure
 - Need traffic lights and crosswalks
 - Central Drive
 - Texas Ave pump
 - Staffing for project management
 - Limited public space
 - Limited fund balance
- Overly strict regulation of commercial development
- Traffic safety / congestion and lack of cooperation from NCDOT
- Affordable / workforce housing
- Dejoined

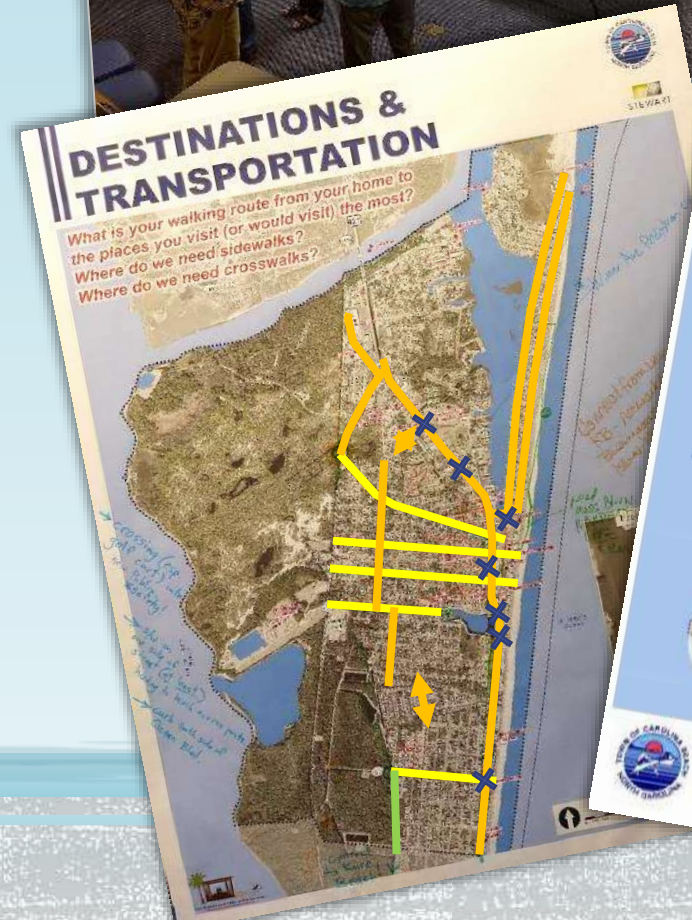


Two Public Open Houses

- Over 100 attendees
- Shared knowledge and values
- Valuable insights
- Concerns heard and addressed



Item 2.



2020 Meetings

- January – Joint Town Council & P&Z meeting to review the LUP
- February – Planning & Zoning herd Public Comment
- March – Incorporated changes based on the Feb. comments
- June – P&Z Recommended approval of the plan

Left to do

- July - Present the plan to Town Council for adoption
- November – Present to the Coastal Resource Commission for Certification



Change Canal Dr from Low to Medium Density





Change west side of Bonito Ln
form Low to Medium Density



Mirror Downtown Business Area Classification to CBD zoning



LUP Map



Zoning Map



Revised LUP Map

Mirror Low Density area with the R-3 zoning



Land Use Plan



Zoning Map

Remove the Gateway Corridor overlay district and the term in the LUP

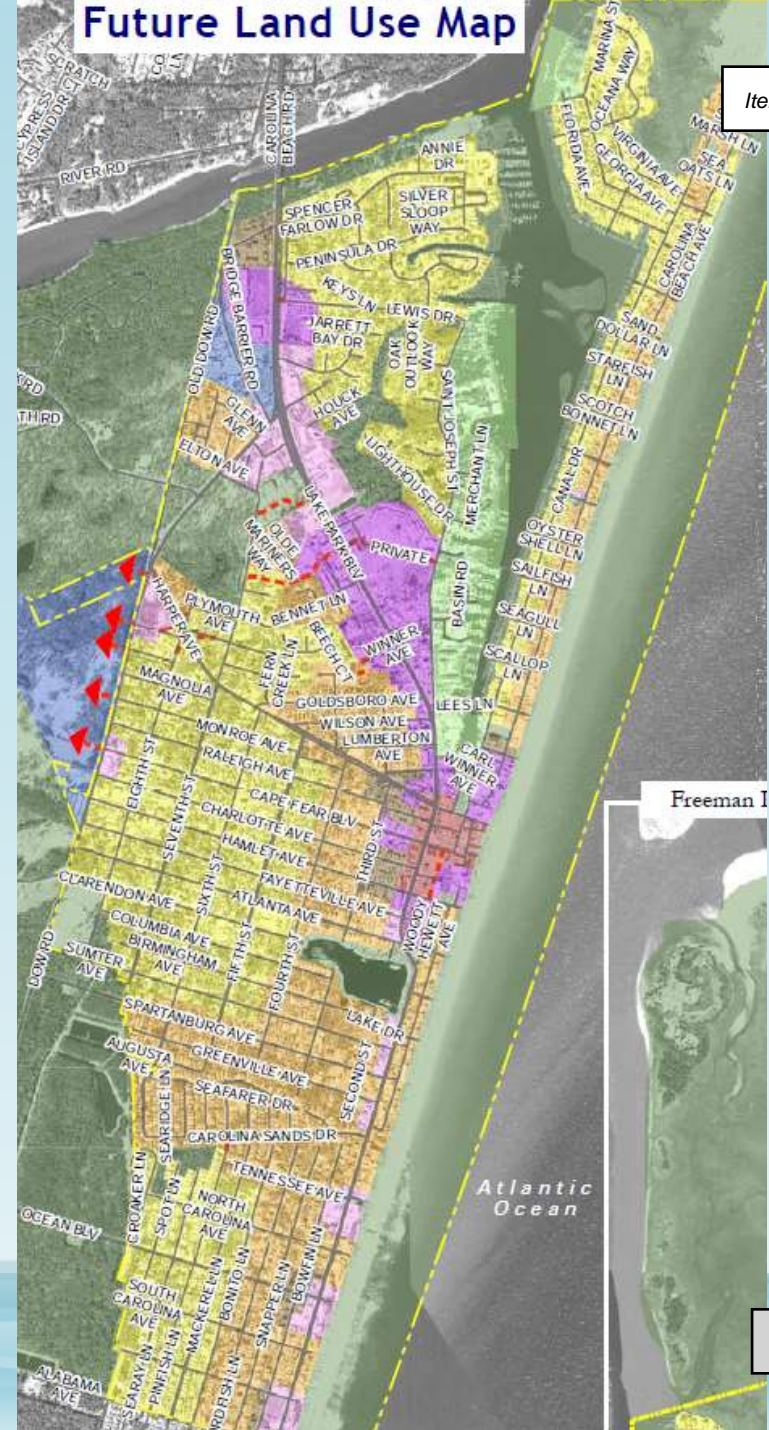


Amendment to LUP

Medium Density Residential

Mostly medium-sized lots (~5,000-9,000 sq ft) Minimum lot size 5,000 sq. ft.

Future Land Use Map



Item 2.

Freeman I

LUP Verbiage LU-3.1 Pg 52

- New Language

Explore the town purchasing lots in flood prone areas around the lake or discouraging development in that area, (2020-2021)

- Old language

Adjust the zoning code, possibly with an overlay district, to restrict development in flood prone areas around the lake (2020-2021)

Match the T-1 Zoning

Item 2.





High Density Residential / Light Commercial

Primarily attached, multi-story residential units (up to four stories) located within walking distance of activity centers and/or the waterfront. Structures are condominiums and apartments, and are often used as vacation and rental units. Streets move automobiles and pedestrians efficiently. Limited commercial may also be acceptable at select locations if the surrounding context is appropriate. Some single family structures may also persist.





AGENDA ITEM COVERSHEET

PREPARED BY: Jeremy Hardison, Planning & Development Director
Darrel Johnson, Building Inspector

DEPARTMENT: Planning & Development

MEETING: Town Council – 23 June 2020

SUBJECT: Hurricane Building Damage Review

BACKGROUND:

Town Council asked staff for an update on the status of hurricane damaged buildings. Over 1,000 units that consisted of single-family, multi-family and commercial were damaged during Hurricane Florence. Staff has worked with the property owners since then to either demolish the structure or repair it. There are only 6 remaining properties that staff is still working with owners on either repairing or demolishing them. Attached is a power point with an explanation of each property.

ACTION REQUESTED:

No action is being requested from staff

RECOMMENDED MOTION:

None



Existing buildings damaged during Hurricane Florence

JUNE 23, 2020

3 Carolina Beach Ave South



- This building is owned by the Town. It is in need of major repairs to include roofing, floors, ceilings, electrical, and mechanical.

3 Carolina Beach Ave South



- Side view with roof damage.

3 Carolina Beach Ave South

- Rear of Building showing the roof damage.



106 Carolina Beach Ave N and 7 Pavilion



- Buildings have been damaged and had temporary repairs done to the roof. Further evaluations will be required.

12 Pavilion



- Currently the owner has discussed selling the building or removing it. Cost of repairs was too extensive for the Owner at this time. He was going to evaluate his situation and get back up with the Town once he makes a decision on what he plans on doing. Our meeting was early in June.

101 Cape Fear Blvd



- Front of Building is currently open for business.

101 Cape Fear Blvd



- Currently the rear section and second floor is vacant and in need of major repairs.

101 Cape Fear Blvd



- The owner has the property up for sale.

101 Cape Fear Blvd

- Side view



109 Cape Fear Blvd.



- The Building is currently vacant and is proposed to be demolished. The Owners are still working with their Insurance Company to finalize their claims. Once completed they will be removing the building.

109 Cape Fear Blvd.



- Sign stating that the business has been closed due to Hurricane Florence.

109 Cape Fear Blvd.

- Look inside of the building.



308 Carolina Beach Ave North



- The Mermaid Manor has new ownership and plans to remove the Building. They have come to the TRC meeting and have been granted approval to construct a new Building as proposed. They are now working with their Designers on the plans for the new building and have plans to submit for Permits this fall with the intentions of constructing it during the off season.

Any questions you may have?

DARREL JOHNSON
BUILDING INSPECTOR



AGENDA ITEM COVERSHEET

PREPARED BY: Bruce Oakley, Town Manager

DEPARTMENT: Executive

MEETING: Town Council 06/23/2020

SUBJECT: Review Proposed Marketing Budget for FY20/21

BACKGROUND:

Attached is the proposed FY20/21 marketing budget presented by the Convention and Visitors Bureau.

Total: \$408,325

Contingency 7.35%: \$32,394

FY Budget Total: \$440,719.00

ACTION REQUESTED:

Review and consider approving the FY202/21 marketing budget.

RECOMMENDED MOTION:

Motion to approve the FY20/21 marketing budget in the amount of \$40,719.00.

Carolina Beach Budget Allocations FY20-21 DRAFT

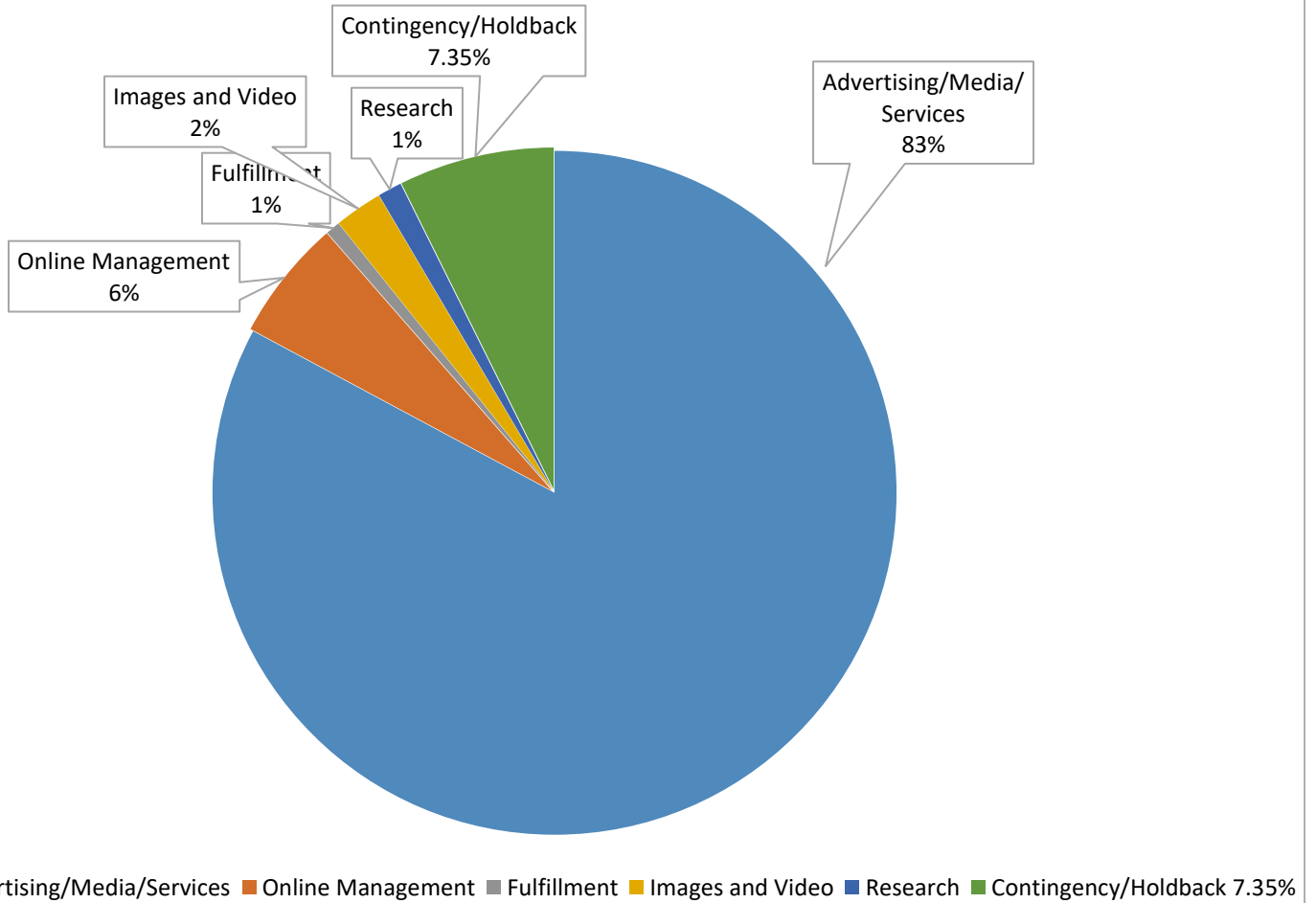
Item 4.

ADVERTISING/MEDIA/SERVICES		FY 20-21
Unified Media Campaign	Paid Search (Google)	\$34,089.00
	Programmatic (Sojern, Centro)	\$38,634.00
	OTT/Streaming TV (iHeartMedia, Hulu)	\$22,726.00
	Publisher Direct (Trip Advisor, VisitNC, eblasts, WRAL)	\$52,758.00
	Paid Social (FB/Instagram)	\$39,770.00
	Custom Content (Madden Media)	\$11,363.00
	Print (Spring: Southern Living, Garden & Gun, Visit NC Co-ops/Our State)	\$20,360.00
		\$219,700.00
Public Relations & Social Media	Public Relations and Content Development	\$35,700.00
	Press Trip (Reserve due to COVID)	N/A
	Social Media/Strategy/Content Calendar/Postings	\$41,600.00
	Social Media Content Amplification	\$39,200.00
	Influencer Marketing Campaigns	\$8,500.00
		\$125,000.00
Account Management	Agency Retainer/Project Management/Meetings	\$6,316.25
Strategic Planning	Agency Research/Analysis	\$3,260.00
Creative Development	Print/Digital	\$10,798.75
		\$20,375.00
ADVERTISING/MEDIA/SERVICES TOTAL		\$365,075.00
RESEARCH		
	Arrivalist	\$5,000.00
RESEARCH TOTAL		\$5,000.00
ONLINE MANAGEMENT		
Account Management	Account Management/CMS Licensing/Hosting	\$3,000.00
	Domain Renewals	\$260.00
Email Marketing	Especials Distribution (8)	\$5,235.00
	Especials Reengagement/Clean Up List	\$1,000.00
Search Marketing	SEO	\$8,000.00
Site Development	Maintenance/General Improvements	\$3,000.00
	Social Media Aggregator Licensing	\$2,000.00
	CMS Modules Licensing	\$2,755.00
ONLINE MANAGEMENT TOTAL		\$25,250.00
FULFILLMENT		
	Postage	\$3,000.00
	Handling/Service Fees	N/A
	Storage Fees	N/A
FULFILLMENT TOTAL		\$3,000.00
IMAGES & VIDEO		
	Videos	\$6,000.00
	Photography (Images, Usage Rights, Talent)	\$4,000.00
IMAGES & VIDEO TOTAL		\$10,000.00
Total		\$408,325.00
Contingency 7.35%		\$32,394.00
FY Budget Total		\$440,719.00

FY20-21 Budget Allocations

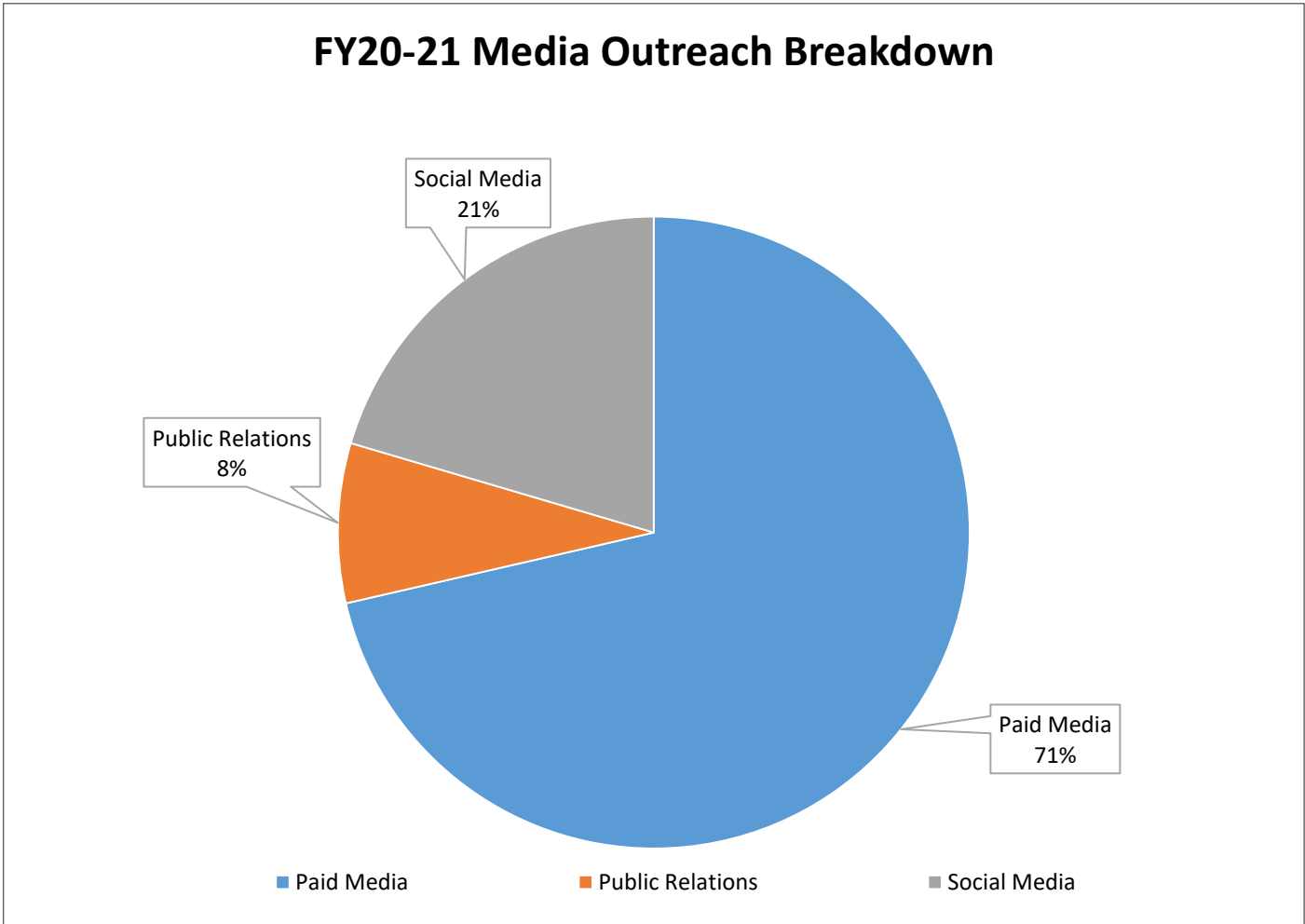
Advertising/Media/Services	\$365,075.00
Online Management	\$25,250.00
Fulfillment	\$3,000.00
Images and Video	\$10,000.00
Research	\$5,000.00
Contingency/Holdback 7.35%	\$32,394.00

FY20-21 Budget Allocations



**FY20-21 Media Outreach
Breakdown**

Paid Media	\$219,700.00
Public Relations	\$35,700.00
Social Media	\$89,300.00





AGENDA ITEM COVERSHEET

PREPARED BY: Bruce Oakley, Town Manager

DEPARTMENT: Executive

MEETING: Town Council Workshop 06/23/2020

SUBJECT: Efficiency Study Contract

BACKGROUND:

Town Manager Bruce Oakley will review the contract for the efficiency study.

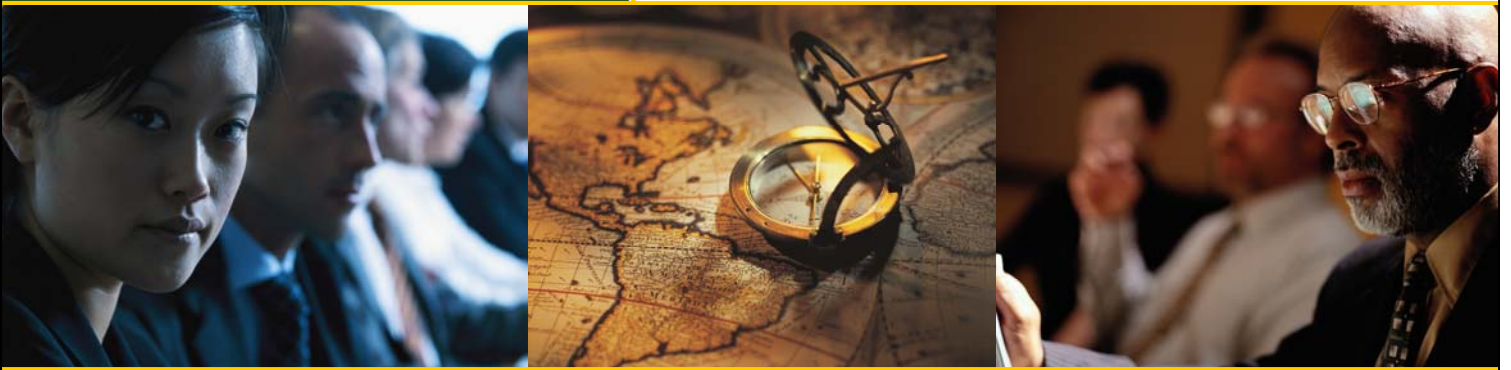
At the June 9, 2020 Council meeting, Council approved Mr. Oakley to move forward with negotiating an agreement with one of top three respondents.

ACTION REQUESTED:

No Action Requested

A Proposal to Conduct a Management, Organizational Structure and Efficiency Study for all Town Departments for the Town of Carolina Beach, NC

ORIGINAL



Evergreen Solutions, LLC

June 4, 2020

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Evergreen Solutions is well qualified to conduct a Management, Organizational Structure and Efficiency Study for all Town Departments within the Town of Carolina Beach due to our experience in providing similar services to other public sector organizations throughout the country, including North Carolina. In our response to the Request for Proposals (RFP), we have provided the following sections: 1) Statement of Qualifications and Level of Experience; 2) Detailed Description of the Firm's Overall Approach to the Project; 3) Assistance from Town Staff and Elected Officials; 4) Detailed Timeline; 5) Deliverables; 6) Proof of Insurance and Disclosure of any Litigation; 7) Staffing Continuity; and 8) Preliminary Cost Proposal. **We have kept our proposal to no more than 20 pages, including the cover letter and executive summary.**

1) Statement of Qualifications and Level of Experience

Evergreen Solutions, LLC is a national, multidisciplinary, public sector management consulting firm, which specializes in working with public sector organizations, including hundreds of local governments, across the nation. We provide a unique approach, rather than the "consulting as usual" approach, by partnering with our clients to find innovative, real world solutions to public management.

Evergreen Solutions was formed in 2004 provide a modern, practical alternative to the typical consulting options. The firm is made up of management and human resource professionals as well as strategic partners who came together to form an innovative alternative that places clients and their needs before any individual, model, or corporate goal.

Evergreen's philosophy is based on an understanding that there is not a "one size that fits all" solution to compensation management. Our approach is built on working collaboratively with all parties to make sound, implementation-focused recommendations.

Evergreen Solutions is a female-owned business, certified as a W/MBE in many states and municipalities across the country. Evergreen is certified as a HUB in the State of North Carolina.

Our main focus is on people, management, and technology. This focus allows our team to provide a broad variety of services, including, but not limited to: efficiency studies; staffing studies and workload analyses; HR department reviews; Ofication and compensation studies; performance evaluation and appraisal system design; recruitment, hiring, and retention studies; strategic and workforce planning; and labor pool availability.

Evergreen Solutions assists public sector professionals in exercising control over the inter-related elements that determine success or failure. We do that by applying a situation-responsive discipline that emphasizes: full visibility into the entire organization through research and discovery; a spirit of partnership with staff and leadership; sound recommendations based on best practices and proven methods; and a practical go-forward plan that leads to quantifiable results.

Collectively, the members of the Evergreen Solutions Team have: extensive experience conducting management, organizational structure, and efficiency studies for public sector organizations throughout the country, including many in the State of North Carolina; comprehensive experience in all components vital to the successful completion of this engagement; knowledge of relevant North Carolina statutes and regulations as well as federal regulations; objectivity and flexibility due to the fact that we have no vested interests; and specialized analytical tools that we bring to the project.

Clients nationwide have been successfully implementing recommendations from our team of professional consultants for decades. Evergreen has contracted with public sector, quasi-governmental, and non-profit organizations in 46 states throughout the country.

Exhibit 1 includes a sample list of local government clients that Evergreen has worked with, or is currently on contract to work with, in a variety of management and human resources consulting capacities, including management, organizational structure, and efficiency studies.



Exhibit 1: Sample List of Local Government Clients

Spokane County, WA	Carter County, TN	Transylvania County, NC	City of Daytona Beach, FL
City of Albany, OR	Blount County, TN	Union County, NC	City of Cape Coral, FL
City of Beaverton, OR	Mahoning County, TN	City of Chester, SC	City of Destin, FL
Columbia County, OR	City of Kalamazoo, MI	City of Columbia, SC	City of Doral, FL
City of Reno, NV	City of Pittsburgh, PA	City of Conway, SC	City of Fort Walton Beach, FL
City of Flagstaff, AZ	County of Allegheny, PA	City of Goose Creek, SC	City of Ft. Myers, FL
City of Page, AZ	County of Montgomery, PA	City of Lancaster, SC	City of Gainesville, FL
City of Prescott, AZ	Ulster County, NY	City of Mauldin, SC	City of Holmes Beach, FL
Town of Sahuarita, AZ	Town of Colchester, VT	Town of Cheraw, SC	City of Jacksonville Bch, FL
Pima County, AZ	City of Annapolis, MD	Town of Hilton Head Island, SC	City of Jacksonville, FL
City of Carlsbad, NM	City of Hagerstown, MD	Town of Moncks Corner, SC	City of Key West, FL
City of Hobbs, NM	City of Hyattsville, MD	Town of Mount Pleasant, SC	City of Lake City, FL
City of Santa Fe, NM	City of Westminster, MD	Berkeley County, SC	City of Largo, FL
Ouray County, CO	Alleghany County, MD	Charleston County, SC	City of Orlando, FL
City of Fountain, CO	Charles County, MD	Dorchester County, SC	City of Palm Beach Gardens, FL
City of Manitou Springs, CO	Washington County, MD	Spartanburg County, SC	City of Panama City Beach, FL
Ogden City Corporation, UT	Kent County Levy Court, DE	Beaufort County, SC	City of Panama City, FL
City of Amarillo, TX	City of Covington, VA	Marshall County, AL	City of Kissimmee, FL
City of Austin, TX	City of Fredericksburg, VA	Baldwin County, AL	City of Sarasota, FL
City of Buda, TX	City of Newport News, VA	Lee County, AL	City of Parkland, FL
City of Conroe, TX	City of Suffolk, VA	City of Foley, AL	City of Pensacola, FL
City of Duncanville, TX	City of Williamsburg, VA	City of Alpharetta, GA	City of Plant City, FL
City of Farmers Branch, TX	Alleghany County, VA	City of Brookhaven, GA	City of Plantation, FL
City of Fate, TX	Chesterfield County, VA	City of Chamblee, GA	City of Sunny Isles Beach, FL
City of Fredericksburg, TX	County of Culpeper, VA	City of Commerce, GA	City of Temple Terrace, FL
City of Lakeway, TX	County of Northampton, VA	City of Dahlonga, GA	City of Venice, FL
City of Lockhart, TX	County of York, VA	City of Dalton, GA	City of North Miami Beach, FL
City of Mont Belvieu, TX	Essex County, VA	City of Douglasville, GA	Alachua County, FL
City of Pflugerville, TX	Gloucester County, VA	City of Dublin, GA	Bay County, FL
City of Rowlett, TX	Isle of Wight County, VA	City of Duluth, GA	Brevard County, FL
City of Sachse, TX	James City County, VA	City of Dunwoody, GA	Charlotte County, FL
City of Seguin, TX	King George County, VA	City of Fayetteville, GA	Citrus County, FL
City of Sunset Valley, TX	Loudoun County, VA	City of Forest Park, GA	Flagler County, FL
City of Portland, TX	Louisa County, VA	City of Garden City, GA	Gadsden County, FL
City of Padre Island, TX	Montgomery County, VA	City of Kingsland, GA	Gulf County, FL
Town of Little Elm, TX	Prince George County, VA	City of Roswell, GA	Hernando County, FL
Brazoria County, TX	Prince William County, VA	City of Savannah, GA	Highlands County, FL
Denton County, TX	Shenandoah County, VA	City of Statesboro, GA	Leon County, FL
Fort Bend County, TX	Spotsylvania County, VA	City of Stockbridge, GA	Manatee County, FL
Hood County, TX	Surry County, VA	City of Tybee Island, GA	Martin County, FL
Kaufman County, TX	City of Goldsboro, NC	City of Woodstock, GA	Miami-Dade County, FL
City of Broken Arrow, OK	City of Raleigh, NC	Cherokee County, GA	Monroe County, FL
Sedgwick County, KS	Buncombe County, NC	Douglas County, GA	Osceola County, FL
City of Branson, MO	Davie County, NC	Forsyth County, GA	Palm Beach County, FL
City of Lee's Summit, MO	Duplin County, NC	Lumpkin County, GA	Pinellas County, FL
Clay County, MO	Franklin County, NC	Worth County, GA	Santa Rosa County, FL
Jackson County, MO	Gaston County, NC	City of Winter Park, FL	Sarasota County, FL
Jefferson County, MO	Guilford County, NC	City of St. Petersburg, FL	Seminole County, FL
St. Charles County, MO	Haywood County, NC	City of Alachua, FL	Sumter County, FL
City of Bloomington, IN	Lee County, NC	City of Coral Springs, FL	
City of Urbana, IL	New Hanover County, NC	City of Dania Beach, FL	



1.1 Select Relevant Experience

The following is a list of the projects that we have conducted for public sector clients that are similar in scope to those services being requested by the Town of Carolina Beach. We chose only those similar local government projects in the State of North Carolina due to the page limitation requirements. Evergreen has also performed similar studies for many school districts in the State of North Carolina as well as similar work in other states. **A sample final report from any of these studies is available upon request.**

Performance Audit and Financial Review – Davie County

Evergreen Solutions was retained by Davie County to conduct a comprehensive Performance Audit of Davie County Departments as well as a detailed Financial Review of Davie County Public Schools. The first part of the study, the performance audit, focused on the organizational, operational, and financial efficiency and effectiveness of Davie County operations from a departmental standpoint. The second segment of the study, the financial review of school operations, aimed at assisting Davie County Public Schools in continuing to succeed and improve in its primary mission, the education of all students. In the end, Evergreen presented findings and recommendations to key stakeholders on containing costs, improving management strategies, and improving the overall efficiency, effectiveness, and productivity of the county and the school district.

The initial phase of the study involved a careful analysis of county government operations in each department, including human resources, information technology, public safety, health, social services, solid waste and water, tax, and several other departments. Specifically, Evergreen reviewed past reports and existing data sources, conducted interviews, and established a channel for community input to begin the analysis. Next, Evergreen's team benchmarked Davie County operations to operations in peer districts using comparative data and statistical analysis. Pairing the outcome of this analysis with findings from on-site reviews and interviews, Evergreen determined areas where the county could make improvements to existing processes, plans, and procedures.

Performance Audit and Financial Review - Lee County

Lee County hired Evergreen Solutions to conduct a comprehensive Performance Audit of Lee County Departments as well as a detailed Financial Review of Lee County Public Schools (LCPS). The first section of the study, the financial review of school operations, aimed at assisting Lee County Public Schools in continuing to succeed and improve in its primary mission, the education of all students. The second part of the study, the performance audit, focused on the organizational, operational, and financial efficiency and effectiveness of Lee County operations from a departmental standpoint. In the end, Evergreen presented findings and recommendations to key stakeholders on containing costs, improving management strategies, and improving the overall efficiency, effectiveness, and productivity of the county and the school district.

Concurrent with the review of school district financial operations, Evergreen conducted phase two of the study; an analysis of county government operations in each department. Specifically, Evergreen reviewed past reports and existing data sources (policies, organizational charts, financial audits, job descriptions, salary schedules, employee handbook, etc.), conducted interviews, and established a channel for community input to begin the analysis. Next, Evergreen's team benchmarked Lee County operations to operations in peer districts using comparative data and statistical analysis. Pairing the outcome of this analysis with findings from on-site reviews and interviews, Evergreen determined areas where the county could make improvements to existing processes, plans, and procedures.

Organizational Structure Review - City of Raleigh

Evergreen Solutions is engaged with the City of Raleigh to review the organizational structure of the Transportation Planning service unit. For this review, Evergreen consultants will: review the overall organizational structure of the Transportation Planning service unit; meet with and gain an understanding of the team members in the service unit; determine if the current organizational structure best meets the needs of the service unit; and make recommendations on how to improve the organizational structure to enhance efficiency and effectiveness.



Efficiency and Effectiveness Study - Land-of-Sky Regional Council

Evergreen Solutions was hired by the Land-of-Sky Regional Council in North Carolina to conduct an Efficiency and Effectiveness Study. The foundation of Evergreen's approach to conducting this study centered on the simple premise of aligning needs with resources in an optimal manner. Strategic needs were the main driving force for the Council in examining its direction and alignment. Strategic needs included the expectations of citizens, the needs of the community, and the relative resources available to the Council. Therefore, in conducting the performance audit, Evergreen consultants: assessed the organizational effectiveness and operational performance levels of the Regional Council; assisted the Regional Council in continuing accomplishments through a steadfast commitment to efficient and effective support operations; identified, initiated, and institutionalized best practices, which could be identified from other government or private industry providers of similar service or functions, throughout the Regional Council; identified potential savings associated with implementing best practices; identified costs to implement recommendations; and developed an implementation plan to realize quickly the maximum benefits.

In the end, Evergreen developed findings, commendations, and recommendations for containing costs and improving management strategies that led to better and more efficient expenditures of funds.

Performance Audit of the Health Department - Yadkin County

The purpose of the Performance Audit was to conduct an objective and systemic examination of the Health Department using a structured and professionally adopted methodology to evaluate overall efficiency, effectiveness, and productivity. The foundation of Evergreen's approach methodology for this study was based on the simple premise of aligning needs with resources in an optimal manner; specifically, alignment of communication, resources, processes, and organizational objectives. Evergreen's conceptual model for completing such a study was designed with a top down approach. That is, higher level strategic needs such as citizen expectations, community needs, and relative resources are first assessed during the audit. Then, individual service models for specific functional areas are analyzed. Finally, operational components such as organization and management, resources management, and policies and procedures are assessed for inefficiencies. This top down approach is optimal for identifying areas in which the Health Department can become more efficient, effective, and productive.

In the end, Evergreen presented a final report of the findings, commendations, and recommendations to the Yadkin County Board of County Commissioners which will provide specific recommendations and implementation plans to optimize Yadkin Health Department's overall performance.



1.2 References

Efficiency and Effectiveness Study - Land-of-Sky Regional Council, NC

Contact Information: Justin Hembree, Former Executive Director, Land and Sky Regional Council, He is now the Executive Director of Mid-Carolina Council of Governments, (828) 772-7947 (cell)

Performance Audit of Nash-Rocky Mount Schools – Nash County Board of County Commissioners, NC

Contact Information: Zee Lamb, County Manager, Nash County Board of County Commissioners, 120 West Washington Street, Suite 3072, Nashville, North Carolina 27856, (252) 459-9800, zee.lamb@nashcountync.gov

1.3 Qualifications of Project Team

The Evergreen Team is able to fully comprehend the challenges and goals of the Town of Carolina Beach because of our vast understanding of public sector operations, best practices in resource allocation, and measuring processes and performance. The following includes the qualifications of our proposed project team and the department they will review for this efficiency study. Detailed resumes are available upon request.



Project Director (Town Clerk/Planning and Development) – Dr. Linda Recio. Dr. Recio is the President Emeritus of Evergreen Solutions, and has over 30 years of experience working in the public sector and as a consultant. She has directed efficiency reviews/performance audits for Evergreen in the States of North Carolina, South Carolina, Oklahoma, Florida, Massachusetts, Virginia, Washington, Pennsylvania, Ohio, Texas, California, and several other states. For example, In the State of North Carolina, she directed performance/efficiency audits for the following local governments: Burke County, NC; Beaufort County, NC; Wayne County, NC; Lee County, NC; Davie County, NC; Yadkin County, NC; and the North Carolina General Assembly. She has also directed numerous efficiency studies for school districts throughout the country, including many in the Stat of North Carolina.

Early in her career, after serving as a middle school teacher, she worked as a consultant with the Florida Department of Education. While at the Department of Education, Dr. Recio was instrumental in developing the comprehensive audit criteria and data collection instruments utilized for conducting performance audits/reviews in Florida's 67 school districts. Following the development of the audit criteria, she served as team leader for audits that involved examining and evaluating procedures, records, and programs to determine compliance with federal, state, and local rules and regulations; providing assistance to the district administration in correcting deficiencies; adjusting staffing patterns; and assisting school districts in operating efficiently and effectively. She conducted audits in Florida's 67 school districts, including audits of Florida's large school districts of Miami-Dade, Broward, Duval, and Palm Beach County.

Dr. Recio is also an experienced program administrator. With the Florida Department of Education, she administered several special statewide programs, including the Community and Business Involvement Program and the State Compensatory Education Program. Following a 14-year career with the Department of Education, she joined the Leon County School System as an Assistant Superintendent where she was responsible for the district's strategic plan, school board policies and administrative procedures, staff plan, interagency and legislative planning, grants administration, and program evaluation.

For 15 years Dr. Recio was in charge of efficiency and performance audits, strategic planning, and marketing as a Senior Partner with MGT of America, a national consulting firm, where she oversaw many studies with work similar in scope to that which is being asked by the Town of Carolina Beach.

Dr. Recio is the primary author of the Evergreen Solutions Procedures for Conducting Management and Performance Audits of Local Governments and School Districts, as well as Evergreen's Best Practices Manual.

Project Consultant (Human Resources) – Ms. Nancy Berkley. Ms. Berkley is the Vice-President of Evergreen Solutions who has over 30 years human resources experience demonstrating a thorough knowledge of multiple HR disciplines including, staffing reviews, workforce planning and retention, on-boarding, compensation and benefits, employee and labor relations, employee leave administration, voluntary and in-voluntary employee separations, performance management, employee surveys, organizational design and development, organization effectiveness, employee learning, training, and development, employee records administration and retention, and awards and recognition programs. She has consistently enhanced organizational capability by integrating HR with strategic business planning, development and assessment. She has provided individualized executive coaching and led HR team development and high performance teams. She has led corporate change initiatives and built talent-rich organizations by strengthening people and integrating processes and has directed human resources in high-volume, transactional service organizations and high-level, consulting organizations. She has excellent conflict resolution, negotiation, and influencing skills. **She has directed over 200 studies with Evergreen Solutions over the past seven and a half years, including many in the State of North Carolina.** Ms. Berkley possesses expertise in the following HR areas:

- Designing and implementing a shared service, centralized virtual staffing organization, increasing efficiency of staffing function for hiring managers.
- Conceptualizing and implementing complex workforce reduction plans—then redeployed ~50 percent of the affected employees.
- Analyzing and responding to employee relation trends—positively influenced work environments reducing employee complaints by ~90 percent.



- Consulting with senior leaders and successfully leading project teams to develop new policies, programs and tools—including total revision and communication of a company’s HR policies and practices to be in accordance with state and federal laws;
- Creating HR metrics reviews utilizing business goals and human resources information systems data—set improvement goals and developed action plans for unique business requirements.
- Representing companies in state and federal agency reviews, e.g. Office of Federal Contract Compliance Program (OFCCP) reviews—Equal Employment Opportunity Commission (EEOC) charges, workers compensation charges, and unemployment compensation claims.

Ms. Berkley has a Bachelor’s Degree in Psychology from Florida State University.

Project Consultant (Finance) – Ms. Betty Ressel, CPA. Ms. Ressel is a Managing Partner of Ressel and Associates, LLC, located in Austin Texas, who has served on the Evergreen Team for more than eight years. She is a Certified Public Accountant.

Ms. Ressel has served on the Evergreen team for the following projects: a Performance Audit and Financial Review for Lee County Government, NC (Asst. Project Director); a Performance Audit of Nash-Rocky Mount Schools for the Nash County Board of Commissioners, NC; a Performance Audit and Financial Review of Davie County Government, NC; a Performance Audit of the Land of Sky Regional Council, NC; a Performance Audit of the Health Department for Yadkin County, NC; a Feasibility Study for the Consolidation of School Systems within the County of Halifax, NC; a Compensation, Classification, and Benefits Study for Spotsylvania County and Spotsylvania County Public Schools, VA; a Compensation Study for York County, VA; a Comprehensive Audit of Special Education for Virginia Beach City Public Schools; a Temporary Work Assignment and Stipend Study for Goochland County Public Schools, VA; a Classification and Compensation Study for the Prince George County Public Schools, VA; an Efficiency Study for Stafford County Public Schools, VA; a Compensation Study for Roanoke County Public Schools, VA; and Compensation Study for Jefferson County Schools, WV; a Salary Survey for Chapel Hill-Carrboro City Schools, NC; a Performance Audit of the Richland Two School District, SC; Consulting Services for Facility Department Processes for Horry County Schools, SC; a Classification and Compensation Study for Charleston County, SC; a Districtwide Strategic Plan for the Caddo Parish School Board, LA; a Classification and Compensation Study for the City of Amarillo, TX; a Non-Faculty Compensation Review for Austin Community College, TX; Job Classification, Salary Survey, Compensation Plan Study Services for the City of Duncanville, TX; a Job Classification and Compensation Study for the El Paso Community College District, TX; a Classification and Compensation Study for the Lone Star College System, TX; Compensation Consultant Services for Dallas Area Rapid Transit; a Salary Survey for the Los Angeles Unified School District, CA; a Job Classification and Compensation Study for the Davis School District, UT; a Job Analysis, Classification, and Compensation Study for the Ogden City School District, UT; a Classification and Compensation and Equal Pay Study for the City of Albany, OR; a Total Compensation Study for Spokane County, WA; a Compensation Study for the City of Sebring, FL; a Districtwide Job Classification and Compensation Study for the Escambia County School District, FL; Evaluation of the Race to the Top Grant Program for the Florida Department of Education (Team Leader); a Compensation Study for the City of North Miami Beach, FL; a Classification and Compensation Study for the Martin County, FL; an External Audit of Special Education for Broward County Public Schools, FL; a Classification and Compensation Study for Riviera Utilities, AL; a Compensation and Pay Classification Plan Study for the City of Foley, AL; an Organizational, Efficiency, and Effectiveness Study for Manchester Public Schools, CT; a Performance Audit of District Operations for Toledo Public Schools, OH; a Human Resources Department Review/Audit and an Administrative Salary Study for Akron Public Schools, OH; a Compensation and Benefits Study for the Springfield R-12 School District, Missouri, MO; and a Classification and Compensation Study for the Lorain Metropolitan Housing Authority, OH. She has served as the project lead for state-mandated Performance Audits of the Lee County Public Schools, Florida and the Martin County Public Schools, Florida, on behalf of the Office of Program Policy Analysis & Government Accountability (OPPAGA).

Ms. Ressel has participated in and managed 105 efficiency, performance, and academic audits conducted by the Texas Comptroller’s Office in school districts (100) and Higher Education Institutions (5), as well as reviews of state and local governmental agencies.



In addition to directing audits/reviews, Ms. Ressel has personally gathered data for the audits in each of the functional areas, administered surveys, conducted interviews as well as small and large group facilitated sessions as part of the review process, formulated fully supported recommendations and commendations, and has written and edited entire reports.

Project Consultant (Fire and Rescue /Police) – Mr. Tom Maureau. Mr. Tom Maureau is a retired law enforcement Division Commander (27 years) who possesses a unique combination of IT, Law Enforcement, Fire Department, EMS, and Emergency Management expertise developed through numerous Police and Fire Department assignments and as a Florida Registered EMT/Paramedic. Additionally, Mr. Maureau has an MBA in Technology Management and brings an Operations Management/Business Case Analysis approach to all projects.

During his last 10 years of service, Mr. Maureau served as Chief Information Officer (CIO) for Public Safety IT and was the Technical Services Division Commander comprised of Records Management, Crime Analysis, Criminal Intelligence and Property & Evidence. Previous law enforcement assignments include Watch Commander, Criminal Investigations, SWAT, Narcotics/Organized Crime Drug Enforcement Task Force, Armed Robbery Task Force, Career Criminal Unit, Training and Emergency Management.

Subsequent to his retirement, Mr. Maureau developed new skills, experience and expertise from over 13 years' as a consultant to state, city and county agencies and public safety Information Technology companies.

Mr. Maureau has experience in a variety of projects including:

- Strategic planning; gap, risk, and cost benefit analysis
- Leveraging public safety technology systems for maximum operational effectiveness and time efficiency
- Technology Master Plan – Development through implementation
- The procurement, design, configuration, implementation and support of public safety technology systems including CAD, RMS, Mobile, GIS, JMS, Information Sharing, Criminal/Business Intelligence, In-Car Camera/Body Worn Camera, Logging & Recording; and Radio
- 9-1-1/PSAP, Law Enforcement, Fire and EMS operations analysis
- 9-1-1/PSAP consolidation feasibility studies
- PSAP/Public safety staffing analysis
- Project management
- Improvement of public safety software

Mr. Maureau has worked with a wide spectrum of large, medium, and small public safety agencies including New York City, Los Angeles County and City, Boston, Miami-Dade County and City of Milwaukee.

Project Consultant (Fire and Rescue/Police) - Mr. Michael Misrahi. Mr. Misrahi will assist Mr. Maureau in reviewing the efficiency of the Fire and Rescue and Police Departments. He is a Senior Consultant at Evergreen who possesses an academic background in operations management, public safety staffing, and labor relations studies, which is coupled with professional experience analyzing quantitative and qualitative data. He has worked with the firm for more than six years. He is very knowledgeable of the operations of fire and police departments, having worked with more than 100 clients, many of which, that included a police and/or fire in the overall study. Some of the recent large municipalities that included the police department in its study includes the City of Raleigh, NC and City of Orlando, Florida. He has an MBA and a Bachelor's Degree in History from Florida State University.

Project Consultant (Operations/Parks and Recreation) – Dr. Jeff Ling. Dr. Ling is the President of Evergreen Solutions has been with the firm since its inception in 2004. He has more than 25 years consulting experience in the following areas: efficiency reviews; human resources management; performance improvement; process analysis; strategic planning, and organizational design.



Dr. Ling has worked with a multitude of clients on hundreds of engagements across the nation including, work with state and local governments, school districts, institutions of higher education, quasi-governmental agencies, and private industry. He has been instrumental in creating, reviewing, and evaluating the methodology employed by Evergreen Solutions. His background and skill set make him uniquely qualified for assessing organizational critical needs and strategy. He is also an expert in policy development and long-term planning.

A sample of the types of studies Dr. Ling has been involved with include: **Management and Efficiency Reviews.** He developed and employed the methodology for assessing the strategic alignment used by Evergreen Solutions for public sector organizations. He provided guidance as well as feedback regarding future growth, potential cost savings as it relates to the optimization of certain departments for a number of diverse organizations across the country. He has served on the Evergreen Team for several efficiency reviews in the State of North Carolina, including Davie and Lee County. In addition, he directed a management review for the City of Fountain in Colorado which included looking at the optimization of certain departmental functions. **Strategic Planning** – He led a number of research teams on engagements to create strategic visioning. **Classification/Compensation Studies:** He developed the methodology and techniques for organizations to employee for successful data collection and implementation based on internal and external equity needs. **Pay for Performance**– He has provided the framework for many organizations transitioning into goal-based performance evaluation systems or fully functional merit-based pay structures. He understands the importance of a well stratified, objective based review process and has been instrumental in assisting a number of large organizations transition from traditional systems into merit-based pay structures with minimal transitional costs and interruption. He has worked with public works departments and utilities on strategy development, job analysis, staffing, and organizational design in more than 300 organizations.

Dr. Ling holds a Doctorate's Degree from Florida State University in Political Science and has taught courses addressing research methodology, statistical analysis, public management, and political economy at various universities.

Project Consultant (Parks and Recreation) - Dr. Angele Yazbec. Dr. Yazbec is a Consultant with Evergreen who will assist Dr. Ling in reviewing the efficiency of the Parks and Recreation Department. She possesses a Ph.D. in Cognitive Psychology from Florida State University, and has a strong background in quantitative and qualitative analysis. She is able to apply her knowledge and skills as a Consultant for Evergreen through various functions including: designing surveys, conducting market survey research, conducting focus group sessions and interviews, and preparing reports and presentations in a variety of formats for multiple audiences.

Dr. Yazbec also has experience in evaluating the efficiency of service delivery in a variety of public organizations. Some of her recent municipal experience includes: Franklin County, NC; City of Goldsboro, NC; Transylvania County, NC; Charles County Government, MD; Town of Hilton Head Island, SC; Beaufort County, SC; City of Brookhaven, GA; City of Woodstock, GA; City of Dalton, GA; City of Forest Park, GA; City of Duluth, GA; City of Dunwoody, GA; City of Roswell, GA; City of Tybee Island, GA; Lee County Commission, AL; City of Jacksonville Beach, FL; City of Orlando, FL; City of New Smyrna Beach, FL; Town of Surfside, FL; Brazoria County, TX; Hood County, TX; City of Portland, TX; City of Lockhart, TX; City of South Padre Island, TX; and Columbia County, OR.

2) Description of the Firm's Overall Approach to the Project

Evergreen's methodology is organized into the following study areas to ensure that the key criteria are met: Project Initiation; Diagnostic Review; Detailed Review; Analysis and Recommendations; and Presentation and Feedback.

The first step in a study of this type is to develop a comprehensive understanding of the project requirements during the Project Initiation Phase. Our team will meet with key stakeholders including managers, department heads, and council members to gather information leading to a more clearly defined project scope, objectives, and time lines. Next, we will submit a list of needed data items to provide additional background information for use as we conduct research for the study.

The collected data along with additional interviews will be used to conduct a diagnostic review to determine strategic needs, major services areas, functional areas, and major programs (Diagnostic Review Phase). A key deliverable of the diagnostic review is the creation of the overall model of the services provided that serves as the basis for high level analysis and the foundation for lower level analysis.



In addition, the diagnostic review will define the parameters of each service area by describing the following:

- Demand – what is the level of demand per service area?
- Structure – what programs and organizational structure are in use?
- Activities – how is work organized at the process, task, and activity level?
- Resources – what financial, human capital, culture, knowledge, technology, space, and other inputs are in use?

The Detailed Review Phase follows the diagnostic review and includes the operational resource review and optimal utilization elements of the study. The service model tool will be further defined during the detailed review through an analysis of the exact resources utilized and the desired as well as actual outcomes. This process involves linking strategic needs, services, programs, processes, tasks, and activities. By linking tasks with strategic need, costs, and benefits can be calculated.

The Analysis and Recommendation Phase addresses the “gap” between the current state or “as is” and the future state or “to be” and lists the steps or recommendations necessary to close it. How well resources meet strategic needs and if the resources are being maximized is considered as part of the analysis. Linkages between strategic needs, services, and resources will be analyzed with tools that isolate the relative costs and benefits of service areas, programs, processes, and tasks. Some of the tools for analysis include service factoring, resource loading, benchmarking, and best practices modeling. Detailed analysis of operational resources utilization will indicate the desired structure, actual and desired flow of work, workload, service delivery mechanisms, management practices, staffing needs, and policy modifications.

The changes identified in this phase serve as the basis for findings and recommendations. Typically, recommendations address specific elements documented in the gap analysis. In order to make the recommendations implementable, action plans, costs, and responsibility should be assigned to each. The recommendations will be discussed with the Town of Carolina Beach (Town’s) Project Manager to determine the most practical solutions for the respective departments.

The final phase of the study will be to present the findings and recommendations to key stakeholders. A draft report will be prepared that shows the findings and recommendations for review and comment by key stakeholders. After making necessary corrections and edits to the draft report, a final report will be prepared and submitted for review. Once approved, key elements of the final report will be extracted and developed into a presentation that summarizes the project methodology, key project milestones, analytical findings and recommendations.

Detailed Work Plan

PHASE I: PROJECT INITIATION

Task 1.0: Confirm Scope, Objectives and Timing

TASK GOALS

- Develop an understanding of the organization and operations.
- Finalize project work plan, time lines, and deliverables that will lead to the successful accomplishment of all objectives of the study.
- Identify and interview key stakeholders to assess the organization’s operations.
- Prepare changes in the work plan, time lines or deliverables, as appropriate.

TASK ACTIVITIES

- 1.1 Finalize project design, contractual arrangements and schedule on-site arrangements for the study.



- 1.2 Meet on-site with key stakeholders to establish lines of communication and develop an initial assessment of operations in the Town of Carolina Beach. Identify areas of special concern to the key stakeholders.
- 1.3 Identify communication channels, reporting relationships, and responsibilities of project staff.
- 1.4 Review scope of work. Confirm the project objectives, tasks, and time lines.
- 1.5 Review products to be delivered.
- 1.6 Finalize project design and contractual arrangements, and schedule on-site arrangements for the study.
- 1.7 Revise original work plan and finalize the time lines for each project task with the Town's Project Manager. Disseminate revised work plan.
- 1.8 Develop a communication plan to govern the sharing of information in all phases of the project.
- 1.9 Conduct a briefing with key stakeholders, including the Town Manager and elected officials, appointees, directors, and managers regarding the project overview, roles and responsibilities, major deliverables and expected outcomes.

KEY PROJECT MILESTONES

- Identified communication channels and reporting relationships and responsibilities of project staff
- Confirmation of project objectives, tasks and time lines
- Clearly defined expectations for products to be delivered and the scope and form of delivery

PHASE II: DIAGNOSTIC REVIEW

Task 2.0: Collect Data

TASK GOALS

- Collect and review existing studies, reports and other pertinent data.
- Identify strategic needs and service areas.
- Identify concerns and clarify duties and responsibilities within the Town of Carolina Beach.

TASK ACTIVITIES

- 2.1 Meet with the Town's Project Manager for the Town of Carolina Beach and determine available and/or previously collected resources.
- 2.2 Obtain and analyze reports and background materials pertinent to the study, including:
 - strategic and department plans, mission, vision, goals, objectives and performance standards;
 - position descriptions;
 - organization charts and flow charts of work processes;
 - current and prior year's departmental budgets (previous two years);
 - independent financial audits;
 - recent financial audits and internal audit reports;



- expenditure reports;
 - staffing data that reflects resource allocation and utilization;
 - administrative and financial policies, procedures and practices;
 - personnel policies, procedures and practices;
 - current workload and workload trend information;
 - service level reports including performance measures;
 - citizen feedback or assessments;
 - operating statistics; and
 - other relevant data that may impact the findings and conclusions of this study.
- 2.3 Review current and past organizational structures and staffing levels.
- 2.4 Review and summarize current services provided and staff workloads for all departments both in the off-season (winter) and during the summer tourist season.
- 2.5 Create a draft list of strategic needs and service areas for the Town and share with the Town's Project Manager.
- 2.6 Revise the draft list of strategic needs and service areas based on feedback from the Town's Project Manager.
- 2.7 Design service model to be completed in the remainder of the phase based on the strategic needs and service areas.

KEY PROJECT MILESTONES

- Collection of existing data pertinent to this study
- Summary of high level strategic needs and services areas
- Framework for service model

Task 3.0: Document and Review Existing Organization and Operations

TASK GOALS

- Review current operations in the Town of Carolina Beach.
- Identify functional areas and major programs.
- Determine what is working well with the Town's current organizational structure and staffing levels, and determine the areas that may need improvement.

TASK ACTIVITIES

- 3.1 Interview key staff and stakeholders, identified in conjunction with the Town's Project Manager, to validate strategic needs and service areas, clarify duties and responsibilities, document current functional areas, summarize major programs, and answer specific questions regarding departmental organization and operations to assure that a valid understanding of the Town of Carolina Beach.
- 3.2 Develop, issues, and collect an employee survey that identifies the strengths, weaknesses, opportunities, and threats of the organization as well as asks about activities and resources. The survey can be web or paper-based, and will target all Town employees included in the study. The survey will be used to assess the health of the organization's culture, internal relationships, and attitudes towards the workplace.



- 3.3 Analyzed the survey data and create a profile of the Town of Carolina Beach as well as functional area levels that includes activities and resources.
- 3.4 Assign functional areas and major programs to the specific strategic needs and service areas, and weight the allocated resources. Review the associated activities for consistency and feasibility.
- 3.5 Update the service model and provide it to the Town's Project Manager for review and feedback.
- 3.6 Develop written profile for each service area that includes:
- **Demand** – What is the level of demand per service area by internal and external customers?
 - **Structure** – What programs and organizational structure are in use and what other approaches have been utilized?
 - **Activities** – How is work organized at the process, task, and activity level?
 - **Resources** – What financial, human capital, culture, knowledge, technology, space, and other inputs are in use?
- 3.7 Prepare and submit summary of diagnostic review findings highlighting strategic needs, major services areas, functional areas, and major programs.
- 3.8 Discuss the results with the Town's Project Manager and other staff associated with the project to validate the results.

KEY PROJECT MILESTONES

- Completion of interviews
- Summary of employee survey results
- Completion of major sections of the service model
- Preliminary summary of operations

PHASE III: IN-DEPTH REVIEW

Task 4.0: Determine Operational Requirements and Best Practice Research

TASK GOALS

- Determine the major federal, state, and local requirements for each service, functional, and program area.
- Identify best practices that can be applied to the Town of Carolina Beach.
- Research best practices by each service, functional, and program area.
- Create a document that summarizes requirements and operational expectations.

TASK ACTIVITIES

- 4.1 Discuss with the Town's Project Manager the plan for reviewing the Town's operational requirements.



- 4.2 Conduct research on the major federal, state, and local requirements.
- 4.3 Create a detailed document which summarizes the major requirements by service, functional, and program area. The document will include a requirements matrix that can be readily used during later phases and discussion purposes.
- 4.4 Conduct best practices review for each service, functional and program area.
- 4.5 Assess the extent to which best practices could be applied to the Town of Carolina Beach.
- 4.6 Develop a list of possible improvements based on results of the best practices review.
- 4.7 Create a best practice matrix for reference in later phases.
- 4.8 Discuss the results with the Town's Project Manager.

KEY PROJECT MILESTONES

- Requirements matrix and document
- Best practice matrix

Task 5.0: Conduct Management, Organizational Structure, and Efficiency Review

TASK GOALS

- Assess linkage between resources, processes, and current outcomes.
- Collect relevant benchmarks for all operational phases.
- Determine areas where the Town exceeds or lags comparable benchmarks.
- Define the current and desired state of the Town.

TASK ACTIVITIES

- 5.1 Review the service model that includes strategic needs, service areas, functional areas, and major programs with the Town's Project Manager before beginning this task.
- 5.2 Discuss with and receive feedback from the Project Manager about the rating tools to be utilized during this task. Make any requested adjustments.
- 5.3 Conduct interviews and focus groups with managers and employees to identify the exact resources, processes utilized, supporting activities or tasks, and the desired as well as actual outcomes.
- 5.4 Compare and contrast the Town's organizational structure, services, and staffing levels with other similar sized cities in North Carolina and other industry staffing standards if available.
- 5.5 Review current and future Town tax structure to other towns of similar size and makeup.
- 5.6 Collect secondary benchmark data for each major element of a service operation: input, utilization, and outcomes.
- 5.7 If necessary, contact representatives of the benchmark agencies to identify the appropriate contact person(s).
- 5.8 Request benchmark data for comparison and integrate into the secondary data database.



- 5.9 Compare and contrast operational benchmark information such as staffing, staff relative to workload, function staff relative to total staff, customer satisfaction levels and uses of technology as well as operational elements such as inputs, utilization results, and outcomes.
- 5.10 Create a matrix that illustrates the Town's performance ratings by service, functional, and program area compared to the benchmark data.
- 5.11 Review benchmark data and legal requirements related to service offerings, availability, and levels based on the requirements matrix that was based on discussion with managers.
- 5.12 Review current and future Town services and workloads to determine the most effective and efficient management and organizational structure to meet the demands and expectations of elected officials, Town residents, business owners, and vacationers.
- 5.13 Identify current and desired level of outcomes of department operations and performance gaps based on the survey results, self evaluations, and benchmark data.
- 5.14 Discuss with managers the Town's desired state in comparison to where their service, functional, and operational area outcomes are currently. Categorize comments into: required by federal, state, or local law; high demand from citizens; or low demand from citizens.
- 5.15 Determine root causes and categorize findings into subgroups by service, functional, and program area.
- 5.16 Create a document summarizing information from this task.
- 5.17 Review findings with Project Manager for comment and approval.

KEY PROJECT MILESTONES

- Updated service model
- Benchmark identification and determination of key performance measures
- Benchmark database
- Benchmark matrix results
- Summary document of findings

PHASE IV: PROJECT REPORTING

Task 6.0: Conduct Gap Analysis and Make Recommendations

TASK GOALS

- Review policies and procedures used by the Town of Carolina Beach.
- Evaluate performance and management structure.
- Assess resource alignment.

TASK ACTIVITIES

- 6.1 Review findings document from the previous task.



- 6.2 Create a matrix that identifies all gaps between the current and desired operations of the Town.
- 6.3 Conduct detailed efficiency and effectiveness analysis of the service, functional, and program areas. Include in the analysis the following elements:
 - objectives, priorities, and programs of the department;
 - current workload and workload trend information;
 - services and service levels provided by each organizational unit;
 - activity and task assignments;
 - staffing level and needs;
 - communications and workflow among the various Town departments;
 - the maximization of efficiency of existing resources;
 - operational cost per unit produced or outcome obtained; and
 - major functions, program, and work tasks improvements.
- 6.4 Identify areas of missing services, duplicate services, overlapping services, and potential opportunities and update the gap matrix.
- 6.5 Determine the best overall structure for the Town of Carolina Beach.
- 6.6 Create several proposed organizational structures to address the Town's needs. Determine the span of control and resource allocations necessary.
- 6.7 Estimate the overall resource and cost savings for each alternative.
- 6.8 Assign each previously identified gap a priority based on the cost and benefit analysis.
- 6.9 Select the best option for implementation.
- 6.10 Write recommendations and action plans for the highest priority areas.
- 6.11 Provide details on the action plan that includes a time line, resources needed, and assigned roles.
- 6.12 Identify if the recommendation is linked to another and how they are linked.
- 6.13 Create a summary document that links recommendations and outcomes from the study.
- 6.14 Discuss the recommendations with the Town's Project Manager, and provide a briefing to other stakeholders as designated.
- 6.15 Identify performance measures that may result in assessing the effectiveness of those recommendations that are implemented.

KEY PROJECT MILESTONES

- Efficiency and effectiveness analysis
- Updated gap analysis matrix
- List of potential improvements
- Recommendations and detailed action plans
- Performance measures to ensure recommendations are implemented



Task 7.0: Prepare Draft and Final Reports**TASK GOALS**

- Prepare draft report.
- Prepare final report.
- Make presentation.

TASK ACTIVITIES

- 7.1 Prepare draft report of findings and recommendations.
- 7.2 Submit draft report.
- 7.3 Meet with Town Manager, Town's Project Manager, and other key stakeholders, as appropriate, to review the draft report and to verify the accuracy of the findings.
- 7.4 Based on the comments on the initial report, make appropriate revisions.
- 7.5 Prepare final report.
- 7.6 Present final report.

KEY PROJECT MILESTONES

- Draft report
- Final report
- Final presentation

3. Assistance from Town Staff and Elected Officials

We will look to the Town's staff for assistance throughout the duration of the project; however, we suspect most of the time that we will need staff involvement will occur near the initial commencement of work and will be fairly minimal. Evergreen Solutions will want a Project Manager to be designated at the Town office who would be our central point of contact. This will require more frequent interaction and involvement with Evergreen's consultant team. As far as what will be needed from elected officials, we would expect only their participation in a one-hour interview during the onset of the project in order to gather information necessary to complete the project effectively and thereby deliver sound recommendations.

Some of the functions we anticipate needing assistance from Town staff will include: providing requested data and documents; meeting in-person with our consulting team when they are on-site in the Town of Carolina Beach; assisting with logistics and arranging space for interviews, focus groups, and meetings; facilitating components of the project communication plan—such as employee email lists, contact information, and other relevant data; reviewing interim deliverables and providing feedback; and resolving outstanding project issues with identifying supplemental information.

While the data collection and outreach coordination will represent the majority of the staff time that would be requested by Evergreen Solutions, we anticipate that overall staff time dedicated to the project will be minor—approximately three percent or less of total project hours.



In addition, Evergreen Solutions values feedback and will look to the Town's Project Manager and other decision makers for guidance at different milestones throughout the project.

4. Detailed Timeline

Evergreen Solutions possesses the staff, skills, and tools to complete the requested study for the Town of Carolina Beach and deliver final recommendations in four months. This time line correspond to the tasks and deliverables identified in our detailed work plan in **Section 2**. This time line is based on a tentative start date of July 1, 2020, and a completion date of October 31, 2020. This time line can be modified in any way to best meet the needs of the Town of Carolina Beach.

5. Deliverables

The following includes all of the deliverables that will result from the study:

- Identified communication channels and reporting relationships and responsibilities of project staff
- Confirmation of project objectives, tasks and time lines
- Clearly defined expectations for products to be delivered and the scope and form of delivery
- Collection of existing data pertinent to this study
- Summary of high level strategic needs and services areas
- Framework for service model
- Completion of interviews
- Summary of employee survey results
- Completion of major sections of the service model
- Preliminary summary of operations
- Requirements matrix and document
- Best practice matrix
- Updated service model
- Benchmark identification and determination of key performance measures
- Benchmark database
- Benchmark matrix results
- Summary document of findings
- Efficiency and effectiveness analysis
- Updated gap analysis matrix
- List of potential improvements
- Recommendations and detailed action plans
- Performance measures to ensure recommendations are implemented
- Draft and final report
- Final presentation

6. Proof of Insurance and Disclosure of any Litigation

We have attached a certificate of insurance naming the Town of Carolina Beach as the certificate holder in the **Appendix**. There has been no legal action taken against the firm nor is there any pending litigation.

7. Staffing Continuity

We at Evergreen Solutions pride ourselves on providing continuity of service and implementing quality control procedures to ensure a successful study. Our workload is never too heavy so as to compromise the quality of any project we are on contract to complete or place undue stress on our project team. Should Evergreen Solutions be



awarded this contract we give you our word that our consultants will be available to Town staff whenever they are needed to answer any questions regarding project deliverables.

8. Preliminary Cost Proposal

Evergreen Solutions is committed to providing the highest quality consulting services to our client partners for a reasonable price. Evergreen Solutions is fortunate that our overhead is minimal and our expenses are reasonable so we can pass that cost savings on to our clients. Our total, not-to-exceed, fixed fee to complete the study is **\$30,000**. This total cost is all inclusive, and includes travel costs, fringe benefits, indirect cost (overhead), and all other out-of-pocket expenses.

We are willing to negotiate the time, scope, and cost of the basic tasks, or any other options that the Town of Carolina Beach wishes to identify. Evergreen Solutions federal employer identification number is 20-1833438.



*Appendix:
Certificate of Insurance*





AGENDA ITEM COVERSHEET

PREPARED BY: Kim Ward, Town Clerk

DEPARTMENT: Clerk

MEETING: Council Workshop 06/23/2020

SUBJECT: Closed Session to Discuss an Attorney/Client Matter

RECOMMENDED MOTION:

Motion to go into closed session to discuss an attorney/client matter in accordance to NCGS 143-318.11(a)(3).

The matters being discussed include:

TCB vs. Carolina Freeman LLC NHC 18 CVS 3151

TCB vs, B&F Enterprises LLC NHC 18 CVS 3152

TCB vs DRDK, LLC NHC 18 CVS 3153

TCB vs Freeman Beach, LLC 18 CVS 3154