

Town of Wrightsville Beach



CAMA Land Use Plan Update

Adopted by the Wrightsville Beach Board of Aldermen: July 10, 2018

Certified by the Coastal Resources Commission: April 4, 2019



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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. 	vi to x
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 conditions in the planning area. 	5-2 to 5-6
<ul style="list-style-type: none"> ● 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 ○ Land Use Compatibility ○ Infrastructure Carrying Capacity ○ Natural Hazard Areas ○ Water Quality 	5-10 5-8 5-13 5-15 5-18
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. 	1-2
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. 	2-1
<ul style="list-style-type: none"> ● Current permanent and seasonal population estimates. 	2-1 to 2-3
<ul style="list-style-type: none"> ● Key population characteristics including age and income. 	2-3, 2-8
<ul style="list-style-type: none"> ● Thirty-year projections of permanent and seasonal population in five-year increments. 	4-1 to 4-2
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<ul style="list-style-type: none"> ● Description of employment by major sectors and community economic activity. 	2-6 to 2-9
Natural Systems	
Description of natural features in the planning jurisdiction to include:	
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<ul style="list-style-type: none"> ● Soil characteristics, including limitations for septic tanks, erodibility, and other factors related to development. 	3-8 to 3-9
<ul style="list-style-type: none"> ● Environmental Management Commission (EMC) water quality classifications and related use support designations. 	3-10 to 3-11
<ul style="list-style-type: none"> ● Division of Marine Fisheries (DMF) shellfish growing areas and water quality conditions. 	3-9, 3-21
<ul style="list-style-type: none"> ● Flood and other natural hazard areas. 	3-3 to 3-5
<ul style="list-style-type: none"> ● Storm surge areas. 	3-4, 3-6 to 3-7

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<ul style="list-style-type: none"> ● Non-coastal wetlands, including forested wetlands, shrub-scrub wetlands and freshwater wetlands. 	3-14
<ul style="list-style-type: none"> ● Water supply watersheds or wellhead protection areas. 	3-11
<ul style="list-style-type: none"> ● Primary nursery areas. 	3-2, 3-21
<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. 	3-11 to 3-18
<ul style="list-style-type: none"> ● Additional natural features or conditions identified by the local government. 	3-19
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. 	3-10 to 3-12 3-11 N/A
<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. 	3-9, 3-21
<ul style="list-style-type: none"> ● Areas experiencing chronic wastewater treatment malfunctions. 	3-8
<ul style="list-style-type: none"> ● Areas with water quality or public health problems related to non-point source pollution. 	3-9 to 3-11
<ul style="list-style-type: none"> ● Areas subject to recurrent flooding, storm surges, and high winds. 	3-3 to 3-7
<ul style="list-style-type: none"> ● Areas experiencing significant shoreline erosion as evidenced by the presence of threatened structures or public facilities. 	N/A
<ul style="list-style-type: none"> ● Environmentally fragile areas (as defined in Part (c)(2)(A)(ix) of this Rule) or areas where resource functions are impacted as a result of development. 	3-11 to 3-15
<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. 	3-11, 3-14
Existing Land Use and Development	
<ul style="list-style-type: none"> ● Map of existing land use patterns. <ul style="list-style-type: none"> ○ Description of the existing land use patterns. ○ Estimates of the land area allocated to each land use category. ○ Characteristics of each land use category. 	3-43 to 3-47
<ul style="list-style-type: none"> ● Map of historic, cultural, and scenic areas designated by a state or federal agency or by the local government. <ul style="list-style-type: none"> ○ Descriptions of the historic, cultural, and scenic areas. 	3-32 to 3-33

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<p>Community Facilities Evaluation of existing and planned capacity, location and adequacy of community facilities to include:</p>	
<ul style="list-style-type: none"> ● Map of existing and planned public and private water supply service areas. <ul style="list-style-type: none"> ○ Description of existing public and private water supply systems to include: <ul style="list-style-type: none"> - Existing condition. - Existing capacity. - Documented overflows, bypasses, or other problems that may degrade water quality or constitute a threat to public health as documented by the DWR. - Future water supply needs based on population projections. 	3-24 to 3-25, 4-5 to 4-6
<ul style="list-style-type: none"> ● Map of existing and planned public and private wastewater service areas. <ul style="list-style-type: none"> ○ Description of existing public and private wastewater systems to include: <ul style="list-style-type: none"> - Existing condition. - Existing capacity. - Documented overflows, bypasses, or other problems that may degrade water quality or constitute a threat to public health as documented by the DWR. - Future wastewater system needs based on population projections. 	3-24 to 3-25, 4-5 to 4-6
<ul style="list-style-type: none"> ● Map of existing and planned multimodal transportation systems and port and airport facilities. <ul style="list-style-type: none"> ○ Description of any highway segments deemed by the NC Department of Transportation (NCDOT) as having unacceptable service as documented on the most recent NCDOT Transportation and/or Thoroughfare Plan. ○ Description of highway facilities on the current thoroughfare plan or current transportation improvement plan. ○ Description of the impact of existing transportation facilities on land use patterns. ○ Description of the existing public stormwater management system. ○ Identification of existing drainage problems and water quality issues related to point source discharges of stormwater runoff. 	3-34 to 3-41, 4-6 to 4-13

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Matrix for Land Use Plan Elements - 15A NCAC 7B.0702	Policy Citation(s)	Page Reference(s)
Future Land Use		
Policies		
<ul style="list-style-type: none"> ● Policies that exceed the use standards and permitting requirements found in Subchapter 7H, State Guidelines for Areas of Environmental Concern. 	N/A	5-7
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. 	15-38	5-10 to 5-12
<ul style="list-style-type: none"> ● Identify strategies to develop public access. 	15-38	5-10 to 5-12
<ul style="list-style-type: none"> ● Address provisions for all segments of the community, including persons with disabilities. 	15	5-10
<ul style="list-style-type: none"> ● For oceanfront communities, establish access policies for beach areas targeted for nourishment. 	24	5-11
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. 	1-14	5-8 to 5-10
<ul style="list-style-type: none"> ● Establish mitigation criteria and concepts to minimize conflicts. 	1-14	5-8 to 5-10
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. 	39-51	5-13 to 5-15
<ul style="list-style-type: none"> ● Ensure improvements minimize impacts to AECs and other fragile areas. 	39-51	5-13 to 5-15

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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. 	52-73	5-15 to 5-17
<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. 	52-73	5-15 to 5-17
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. 	74-98	5-18 to 5-21
<ul style="list-style-type: none"> ● Establish strategies and practices to maintain or improve water quality 	74-98	5-18 to 5-21
Future Land Use Map		Page Reference(s)
<ul style="list-style-type: none"> ● 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. <ul style="list-style-type: none"> ○ Descriptions of land uses and development associated with the future land use map designations. 		4-18 4-14 to 4-17
Tools for Managing Development		
Description of the role of plan policies, including the future land use map, in local decisions regarding land use and development.		6-1 to 6-3
Description of the community’s development management program, including local ordinances, codes, and other plans and policies.		3-34, 6-1 to 6-3
Action Plan and Implementation Schedule		
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.		5-6 to 5-21, 6-1 to 6-3
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.		6-1 to 6-3

PLAN PURPOSE

While the preparation of a comprehensive land use plan is encouraged by North Carolina legislation, there are broader and more important reasons to engage in the planning process. Local government plans and planning efforts affect people's lives. Basically, planning begins with understanding Wrightsville Beach and its people. Tough choices must be made about the natural, manmade, and financial resources in the town. The town's budget should be compared to the plan to ensure that public money will be spent in accordance with the town's goals and objectives. These decisions should be made by its citizens and elected officials to develop a cohesive and mutually agreeable document.

This plan will also respond to two North Carolina statutory planning requirements. First, North Carolina General Statutes (NCGS) 160A-383 specifies that zoning regulations shall be made in accordance with a comprehensive plan. Secondly, New Hanover County is one of the twenty counties included in the Coastal Area Management Act of 1974 (CAMA). The Act establishes a cooperative program of coastal area management between local government and the State. Land use planning lies at the center of local government's involvement.

The February 1, 2016, update of Subchapter 7B – State Guidelines for Land Use Planning of the NC Administrative Code has provided more local flexibility in coastal planning than was provided by the previous guidelines and this plan reflects these changes.

Overall, this plan should be:

- Comprehensive in setting goals and objectives for all aspects of the town;
- Part of a continuous planning process that is timely and responsive to the needs and desires of the town; and
- The legal basis for land use regulations (including CAMA requirements) and a guide for a capital improvements plan for town budgeting.

This CAMA Land Use Plan is a statement by Wrightsville Beach of what it is today, and what it would like to be in the future. A land use plan is an official public document, adopted by the Town of Wrightsville Beach Board of Aldermen.

PLANNING PROCESS

A land use plan is a living document. It requires continual goal setting and implementing, and also achieves more when directed by a combination of public input and town officials' recommendations. The planning process is divided into five (5) steps:

- *Study and Analysis.* The Town of Wrightsville Beach must study land use, population trends, the economic base of the town, and physiographic features.
- *Plan or Policy Preparation.* The land use plan must provide a basic statement of how the town will develop, in what direction, and at what pace.
- *Basic Goals.* The Town of Wrightsville Beach must consider basic goals including: Do we want to grow? Do we want to arrest decline? What balance do we want between growth and preservation of the natural environment?
- *Implementation.* To implement the plan, the town must use such tools as land use regulations, capital improvement programs, and general guidelines for private development and public investment.

SECTION 1. INTRODUCTION

- *Monitoring and Feedback.* The town must continually evaluate how well the plan’s policies are being carried out, whether the goals are realistic, and whether new, unanticipated conditions have occurred. Feedback may become the basis for redesign of this plan.

Why should Wrightsville Beach plan?

- Helps to organize time and work;
- Enables the town to “look before we leap”;
- Makes good common sense;
- Strikes a balance between being recklessly innovative and stubbornly conservative; and
- Forces us to think and organize our time, resources, and efforts.

The intent of this plan is to establish a solid foundation of the ongoing planning program and to serve as the primary policy guide for short- and long-range planning and programmatic decision-making within Wrightsville Beach. Preparation of this document was undertaken to produce a workable, creative, and dynamic plan to guide future long-term growth and development through the next twenty years.

DEVELOPMENT OF THE CAMA LAND USE PLAN

Specifically, this process will result in the adoption of an official CAMA Land Use Plan for the Town of Wrightsville Beach. This planning process will be considered an update to the town’s existing CAMA Land Use Plan initially adopted in 2005. The plan will include an assessment of existing conditions, a summary of public input, projection of future needs for topics relating to land use and development, and a comprehensive listing of goals, policies, and strategies. Because the Town of Wrightsville Beach is located in one of North Carolina’s CAMA counties, the plan will also address issues relating specifically to coastal growth and development.

The plan was developed through the guidance of a 13-member CAMA Land Use Plan Steering Committee. The Steering Committee members, as appointed by the Wrightsville Beach Board of Aldermen, are listed below.

- Jim Busby
- Susan Collins
- David Culp
- Jeff DeGroot
- Pat Koballa
- Darryl Mills
- Robert A. O’Quinn
- William E. Sisson, Jr.
- James C. Smith
- Frank Smith, Jr.
- Calvin Wells
- Allen Rippy (alternate)

Throughout the process, the Steering Committee endeavored to support the town’s vision statement.

Vision Statement

The Town of Wrightsville Beach shall maintain and enhance our community as one of the finest family-oriented beach communities in the United States. We will strive to retain our small town, family friendly character while preserving and enhancing the quality of the natural and man-made environment. We will promote the quality of life that makes Wrightsville Beach a desirable community for visitors and residents alike.

HISTORY

1791 – 1881

Originally known as New Hanover Banks, and owned by the State of North Carolina, the island of Wrightsville Beach was transferred into private hands in three separate grants between 1791 and 1881.



Image Source: Wrightsville Beach Museum of History.



Image Source: Wrightsville Beach Museum of History.

1853 – 1854

The Carolina Yacht Club, recognized as the second oldest east coast yacht club in the United States, was founded in 1853. The Carolina Yacht Club erected the first structure in 1854 on what was soon to be Wrightsville Beach.

1880

The first hotel in the area, the Seaside Park Hotel, was constructed at Wrightsville Sound.



Image Source: New Hanover County Public Library.

1887

Shell Road, from Wilmington to Wrightsville Sound, was completed after 12 years. Train passenger service began by Wilmington & Seacoast Railroad. From Wilmington to Wrightsville Sound, up to 25 round trips per day were made on a steam engine.

SECTION 1. INTRODUCTION

1889

The first hotel on the beach, the Breeze House, was constructed at the Masonboro Switchback Station near Masonboro Inlet.

1897

Colonel F.W. Foster built the first private cottage; another fifty were built within a year.

1899

The Town of Wrightsville Beach, named after the Wright family of Wilmington, was incorporated.



Image Source: Wrightsville Beach Museum of History.

1905

Lumina, "Beautiful Place of Lights," a public three-level pavilion was constructed by Consolidated Light & Power Company for games and entertainment with a magnificent ballroom with the first scientifically designed band shell on the east coast. It became known as the "Showplace of the Atlantic" and virtually every "big band" of the era played there. Sadly, the Lumina was demolished in 1973.

1906

The Hanover Seaside Club, originally organized in 1898 in Carolina Beach, formally opened its new 3-story club on Lumina Avenue.

SECTION 1. INTRODUCTION

1910

The first flight of an airplane built in North Carolina took place on Shell Island. The Wright Brothers plane was built in Ohio.

1915

The first Fire Brigade was established and evolved into the Wrightsville Beach Volunteer Fire Department, which relocated next to Town Hall in 1940. The Wbfd incorporated in 1987.

1916

Tent City was erected at Lumina on Banks Channel where people could rent a tent with electricity at economical rates.

1926

Oleander Drive, a concrete road known as the Wilmington-Wrightsville Speedway, was constructed for better access to Wrightsville Beach.

1929

Dredging started for the Intracoastal Waterway (ICW) in the Wrightsville Sound area. The original idea of the ICW was said to have come from George Washington.

1934

Great Fire of 1934 started at the Kitty Cottage and destroyed the Oceanic Hotel (formerly Tarrymore Hotel) plus over 100 cottages, mostly on the north end.



Image Source: Wrightsville Beach Museum of History.

SECTION 1. INTRODUCTION

1935

The first automobiles accessed Wrightsville Beach upon completion of a wooden, 2-lane, automobile bridge constructed across the Banks Channel, with a walkway adjacent to the trolley trestle.

1937

Ocean View Pier and Hotel was constructed. In 1942, it was renamed Johnnie Mercer's Fishing Pier after the new owner.



Image Source: North Carolina Collection, University of North Carolina at Chapel Hill Library.

1941

The Surf Club was constructed at the northern end of Wrightsville Beach.

The first US Post Office was established at Station 1.

1942

Harbor Island Community Club was founded to promote civic affairs in the community and a closer cooperation with the fire warden, including installation of fire hydrants on the northern end of the Harbor Island.

1944 – 1945

A modern sewer system was installed, replacing old septic tank systems.

A police department was formed in 1945 with two officers in the winter and three officers in the summer.

SECTION 1. INTRODUCTION

1946

CREST Theatre opened for the summer season. A different movie played every day so visitors for the week could attend daily in case of inclement weather. It operated every summer until 1973.



Image Source: Lumina News.

1954

Hurricane Hazel destroyed 89 structures, heavily damaged 155, with 375 requiring repairs. The rebuilding of Wrightsville Beach spurred a new era for the town.

1956

The US Coast Guard Station established next to the Police Department on Waynick Boulevard. It was moved to the southern end of the beach in 1969.

1958

The Heide Trask drawbridge (4-lane) was built across the ICW, replacing the original drawbridge constructed in 1928.



Image Source: Lumina News.

1964

The Blockade Runner Hotel, constructed on the old Ocean Terrace Hotel site, became the largest hotel on the beach.

SECTION 1. INTRODUCTION

1965

Harbor Island was annexed by Wrightsville Beach.

1972

A new concrete 4-lane bridge across Banks Channel replaced the old 2-lane wooden bridge at Station 1.

1995

Wrightsville Beach museum, formerly Meyer's Cottage built in 1909, opens.



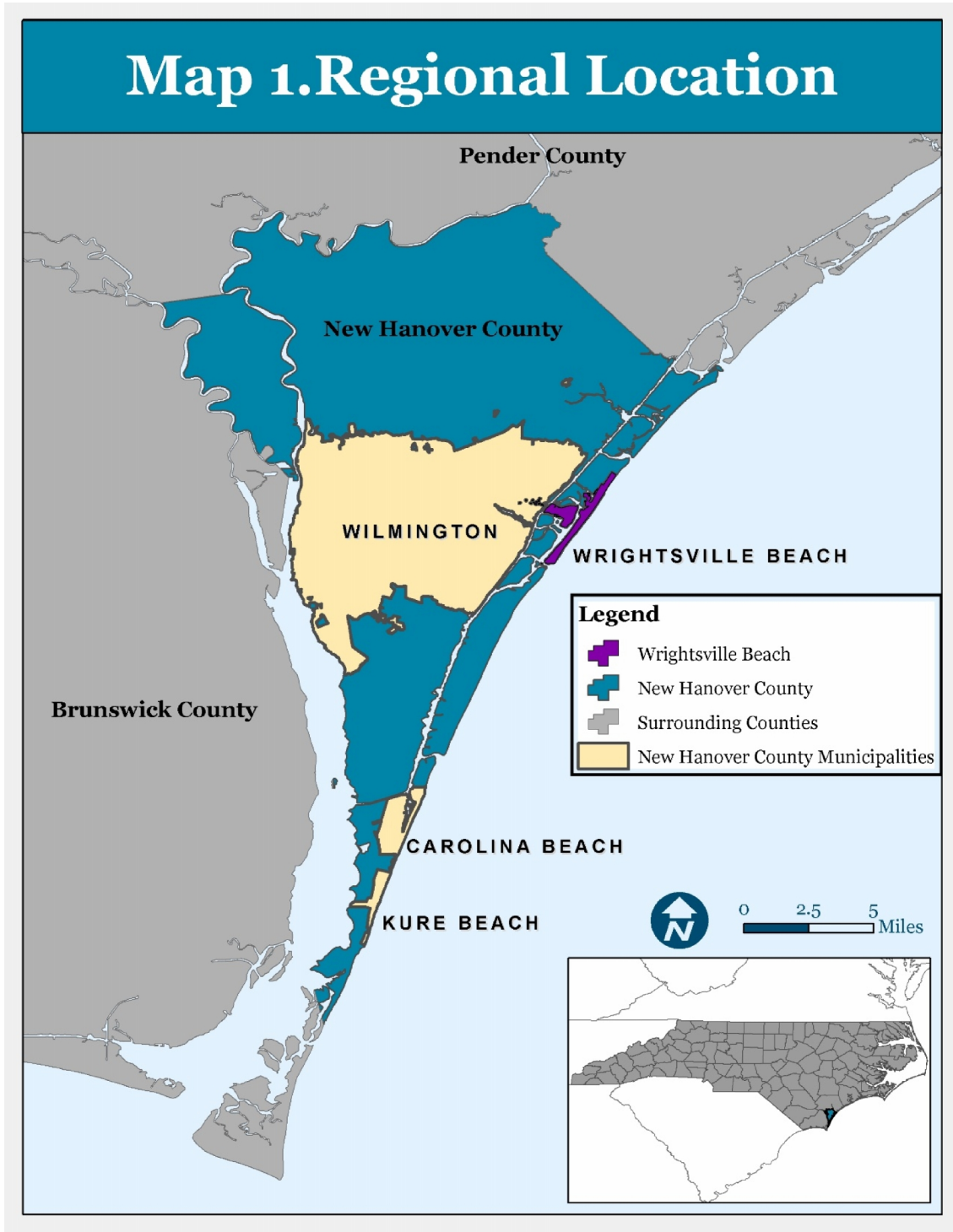
Image Source: VisitNC.com.

1996

Two large hurricanes made landfall near the mouth of the Cape Fear River – Bertha, on July 12 and Fran, on September 5. Both the island's piers were sheared back, hundreds of homes and businesses were damaged, and the imposing dunes topped by sea oats were leveled all along the coast.

REGIONAL LOCATION

The Town of Wrightsville Beach is situated along the eastern seaboard of New Hanover County within southeastern North Carolina. The town is comprised of two migrating barrier islands; however, there is a small portion of the town’s corporate limits situated on the mainland. Wrightsville Beach is approximately 1,328 acres in size and sits immediately adjacent to Wilmington, NC.



INTRODUCTION

This section provides a synopsis of the current population, housing, and economic conditions in Wrightsville Beach. Demographic data is sourced from the 2000 and 2010 US Census, 2010 American Community Survey (ACS), NC Office of State Budget & Management (NCOSBM), and the NC Department of Commerce, Division of Employment Security.

POPULATION

Regional Population

To accurately assess Wrightsville Beach's population change, the broader regional population must be considered. New Hanover County, the county in which Wrightsville Beach resides, is in the North Carolina Southeast Economic Region. From 1990 to 2010, population growth occurred in all counties within this Southeast Economic Region. Of the twelve (12) counties in this region, few saw growth exceeding 50%. These counties, from largest to smallest percentage of growth, were: Brunswick County (110.7%), Hoke County (105.4%), Pender County (81.0%), and New Hanover County (68.5%). Despite New Hanover County having one of the highest population growth rates, Wrightsville Beach experienced a decline of 15.7% from 1990 to 2010. Table 1 provides the population changes from 1990 to 2010 for North Carolina, the Southeast Region, and Wrightsville Beach.

North Carolina experienced a growth rate of 43.9% from 1990 to 2010. Despite that growth rate, North Carolina lags behind five of the counties in the Southeast Economic Region in population growth.

Jurisdiction	1990	2000	2010	% Change '90-'00	% Change '00-'10	% Change '90-'10
<i>Wrightsville Beach</i>	2,937	2,593	2,477	-11.7%	-4.5%	-15.7%
Anson County	23,474	25,275	26,948	7.7%	6.6%	14.8%
Bladen County	28,633	32,278	35,190	12.7%	9.0%	22.9%
Brunswick County	50,985	73,143	107,431	43.5%	46.9%	110.7%
Columbus County	49,587	54,749	58,098	10.4%	6.1%	17.2%
Cumberland County	274,566	302,963	319,431	10.3%	5.4%	16.3%
Duplin County	39,995	49,063	58,505	22.7%	19.2%	46.3%
Hoke County	22,856	33,646	46,952	47.2%	39.5%	105.4%
Montgomery County	23,346	26,822	27,798	14.9%	3.6%	19.1%
<i>New Hanover County</i>	<i>120,284</i>	<i>160,307</i>	<i>202,667</i>	<i>33.3%</i>	<i>26.4%</i>	<i>68.5%</i>
Onslow County	149,838	150,355	177,772	0.3%	18.2%	18.6%
Pender County	28,855	41,082	52,217	42.4%	27.1%	81.0%
Robeson County	105,179	123,339	134,168	17.3%	8.8%	27.6%
Sampson County	47,297	60,161	63,431	27.2%	5.4%	34.1%
Scotland County	33,754	35,998	36,157	6.6%	0.4%	7.1%
Wayne County	104,666	113,329	122,623	8.3%	8.2%	17.2%
<i>Southeast Region</i>	<i>848,811</i>	<i>1,018,826</i>	<i>1,168,993</i>	<i>20.0%</i>	<i>14.7%</i>	<i>37.7%</i>
North Carolina	6,628,637	8,049,313	9,535,483	21.4%	18.5%	43.9%

Source: US Census Bureau.

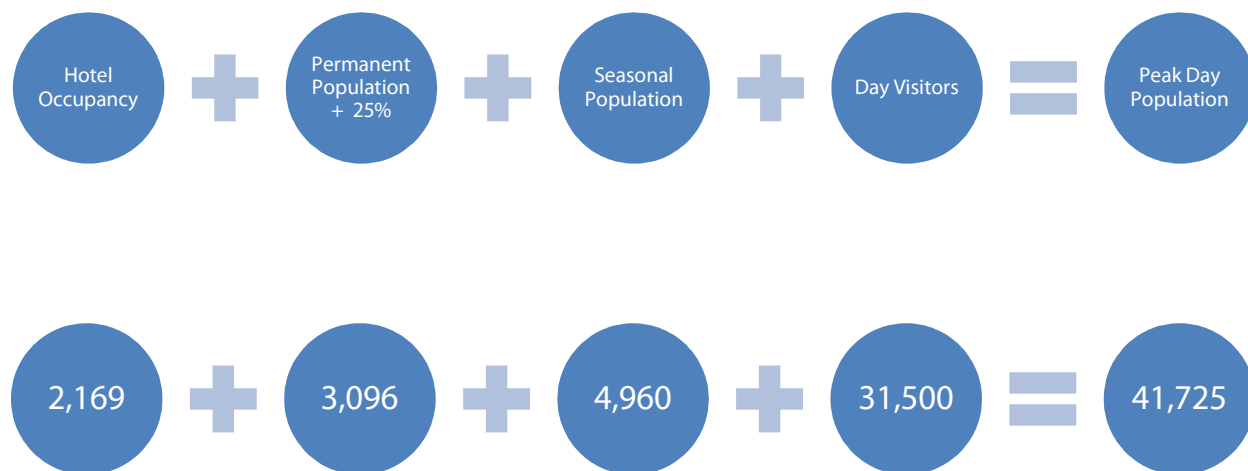
Seasonal Population

Because demographic data is collected only for permanent residents, it can be difficult to determine the precise number of seasonal and peak day visitors that are located in a given jurisdiction and at any given time. Additionally, seasonal figures fluctuate due to major holidays such as Memorial Day, the Fourth of July, and Labor Day. For that reason, two seasonal population estimates are provided: (1) a peak day estimate to include hotel occupancy, permanent population (+25% for guests), seasonal population, and day visitors; and (2) a seasonal-weekly estimate (Memorial Day to Labor Day) to include hotel occupancy, seasonal population, and permanent residents. The seasonal weekly estimate is intended to capture the number of overnight visitors in Wrightsville Beach during the peak summer months.

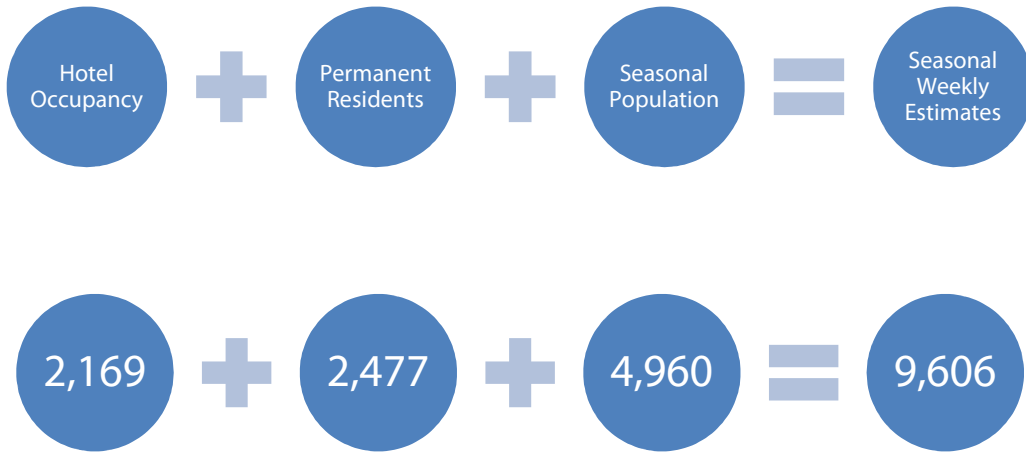
The number of day visitors is calculated by multiplying the traffic counts just before the Wrightsville Beach drawbridge by a factor of three persons per car. Currently, no peak day traffic counts are available for the vehicles entering the island. Therefore, NCDOT Annual Average Daily Traffic (AADT) counts are used. Based upon these figures, it is assumed that half the vehicle count (21,000 vehicles) traversing the bridge is entering the island (10,500 vehicles). This vehicle/traffic count is then multiplied by a factor of three to account for passengers. The AADT figures do not account for peak traffic; however, we can assume that a percentage of the peak day increase is captured within the multiplier of three persons per vehicle.

To account for the occupants in seasonal units, the total number of vacant seasonal units available is multiplied by a factor of 4. Hotel occupancy is accounted for by obtaining data from local hotels which suggests that on average there are 3 persons per occupied hotel unit. Lastly, on peak days, summer visitors and family often stay with permanent residents. To account for this added population, the permanent population was increased by 25%.

Wrightsville Beach Seasonal Population Estimates



SECTION 2. COMMUNITY PROFILE



Sources:

- Hotel Occupancy = Number of units (723) x 3 persons per unit = 2,169
- Permanent Population + 25% = 2,477 + 619.25 = 3,096.25
- Seasonal Population = Total number of seasonal units x 4 persons per unit = 1,240 x 4 = 4,960
- Day Visitors = ½ NCDOT Annual Average Daily Traffic Counts (before bridge west of Airlie Road) x 3 persons per car = 10,500 x 3 = 31,500

Age and Gender Composition

Table 2 provides the town’s population distribution by sex and median age for 2000 and 2010. The male/female distribution has remained fairly constant since 2000. The median age decreased slightly from 2000 to 2010. The town’s median age for 2010 is lower than that of North Carolina (37.8).

Table 2. Gender Distribution and Median Age, 2000-2010				
	2000	% of Total	2010	% of Total
Male	1,442	55.6%	1,314	53.0%
Female	1,151	44.4%	1,163	47.0%
Total	2,593	100.0%	2,477	100.0%
Median Age	37.1		35.6	

Source: US Census Bureau.

HOUSING

Dwelling Unit Growth

Table 3 provides a history of dwelling unit growth for the Town of Wrightsville Beach from 2000 to 2010. The town experienced an increase of 3.6% in total housing units while the county and state both experienced an increase of 27.4% and 22.8%, respectively.

Occupancy Status	Wrightsville Beach			New Hanover County			North Carolina		
	2000	2010	% of Change	2000	2010	% of Change	2000	2010	% of Change
Owner-Occupied	701	718	2.4%	44,109	51,429	16.6%	2,172,355	2,497,900	15.0%
Renter-Occupied	574	413	-28.0%	24,074	34,617	43.8%	959,658	1,247,255	30.0%
Vacant	1,775	2,029	14.3%	11,433	15,390	34.6%	391,931	582,373	48.6%
Total Housing Units	3,050	3,160	3.6%	79,616	101,436	27.4%	3,523,944	4,327,528	22.8%

Source: US Census Bureau.

Age of Dwelling Units

Table 4 provides a history of dwelling unit inventory by the year the structure was built. According to the 2010 American Community Survey, approximately half (50.5%) of the town's dwelling unit inventory is 30 years old or older.

Year Structure Built	2010	% of Total
2005 or later	57	1.8%
2000 to 2004	261	8.3%
1990 to 1999	559	17.7%
1980 to 1989	686	21.7%
1970 to 1979	660	20.9%
1960 to 1969	177	5.6%
1950 to 1959	386	12.2%
1940 to 1949	215	6.8%
1939 or earlier	159	5.0%
Total	3,160	100.0%

Source: US Census Bureau, American Community Survey 5-Year Estimates, 2006-2010.

Dwelling Unit Value

Table 5 provides the town's owner-occupied dwelling unit value estimates for 2010 and 2014. In 2010, North Carolina's median owner-occupied home value was \$149,100, while Wrightsville Beach's median home value was substantially higher at \$989,100. In 2014, this trend remained despite a slight decrease in median home values for Wrightsville Beach.

Owner-Occupied Units	2010	% of Total	2014	% of Total
Less than \$50,000	13	1.8%	14	2.4%
\$50,000 to \$99,999	0	0.0%	16	2.7%
\$100,000 to \$149,999	0	0.0%	0	0.0%
\$150,000 to \$199,999	28	3.9%	5	0.9%
\$200,000 to \$299,999	39	5.4%	18	3.1%
\$300,000 to \$499,999	15	2.1%	72	12.3%
\$500,000 to \$999,999	272	37.9%	253	43.4%
\$1,000,000 or more	351	48.9%	205	35.2%
Total	718	100.0%	583	100.0%
Wrightsville Beach Median (USD)	\$989,100		\$774,700	
North Carolina Median (USD)	\$149,100		\$153,600	

Source: US Census Bureau, American Community Survey 5-Year Estimates, 2006-2010 and 2010-2014.

Housing Affordability and Condition

Housing affordability is difficult to define for a jurisdiction; however, many measures of housing affordability consider 30% of gross monthly income to be the threshold as an allowable/affordable expenditure for housing. The costs associated for homeowners include mortgage payments, taxes, insurance, and utilities. For renters, the affordable cost includes rent and utilities. According to the 2010 US Census, Wrightsville Beach had a slightly higher percentage of homeowners and renters that exceed the 30% housing affordability threshold than the County or State (see Table 6). In 2010, there were 28 homes that lacked complete bathrooms or kitchen facilities in Wrightsville Beach.

	Wrightsville Beach		New Hanover County		North Carolina	
	Number	%	Number	%	Number	%
Mortgage Greater than 30% of Income	229	46.5%	13,874	36.8%	535,120	32.2%
Rent Greater than 30% of Income	231	55.9%	16,450	54.7%	509,691	48.9%
Lacking Complete Plumbing Facilities	28	2.5%	793	0.9%	16,548	0.5%
Lacking Complete Kitchen Facilities	28	2.5%	1,174	1.4%	22,500	0.6%

Source: US Census Bureau, American Community Survey 5-Year Estimates, 2006-2010.

ECONOMY

Employment

Table 7 provides the unemployment rates from January 2007 to January 2016 for New Hanover County and North Carolina. Detailed unemployment data is not available for Wrightsville Beach. Since January of 2007, New Hanover County's unemployment rate has remained below the State's unemployment rate with the exception of 2014 when both the County and the State reached an unemployment rate of 6.9%.

Year	New Hanover County	North Carolina
2007	4.1	5.1
2008	4.6	5.3
2009	8.9	10.2
2010	10.8	12.0
2011	10.1	10.9
2012	9.7	10.0
2013	9.5	9.6
2014	6.9	6.9
2015	5.7	6.0
2016 (through August)	5.6	5.7

Source: NC Employment Security Commission.

Employment by Industry

Table 8 displays the breakdown of civilian employees age 16 years and over by industry. The town's labor force aged 16 years and over decreased from 1,411 in 2010 to 1,355 in 2014. In 2014, the town's largest employment category was Educational Services/Health Care and Social Assistance (21.9%) followed by Arts/Entertainment/Recreation/Accommodation and Food Services (19.9%).

	2010	% of Total	2014	% of Total
<i>Civilian employed population 16 years and over</i>	<i>1,411</i>	<i>100.0%</i>	<i>1,355</i>	<i>100.0%</i>
Agriculture, forestry, fishing and hunting, and mining	0	0.0%	0	0.0%
Construction	134	9.5%	69	5.1%
Manufacturing	70	5.0%	87	6.4%
Wholesale trade	25	1.8%	30	2.2%
Retail trade	38	2.7%	75	5.5%
Transportation and warehousing, and utilities	37	2.6%	60	4.4%
Information	49	3.5%	54	4.0%
Finance and insurance, and real estate and rental and leasing	181	12.8%	132	9.7%
Professional, scientific, and management, and administrative and waste management services	199	14.1%	242	17.9%

SECTION 2. COMMUNITY PROFILE

	2010	% of Total	2014	% of Total
Educational services, and health care and social assistance	277	19.6%	297	21.9%
Arts, entertainment, and recreation, and accommodation and food services	339	24.0%	270	19.9%
Other services, except public administration	52	3.7%	35	2.6%
Public administration	10	0.7%	4	0.3%

Source: US Census Bureau, American Community Survey 5-Year Estimates, 2006-2010 and 2010-2014.

Leading Employers

Table 9 lists the top 25 employers in New Hanover County for the 4th quarter of 2015.

Rank	Company	Industry	Employment Range
1	New Hanover Regional Medical Center	Education & Health Services	1000+
2	New Hanover County School System	Education & Health Services	1000+
3	University of North Carolina at Wilmington	Education & Health Services	1000+
4	PPD Development LLC	Professional & Business Services	1000+
5	County of New Hanover	Public Administration	1000+
6	Cellco Partnership	Information	1000+
7	Cape Fear Community College	Education & Health Services	1000+
8	City of Wilmington, NC	Public Administration	1000+
9	Wal-Mart Associates, Inc.	Trade, Transportation, & Utilities	1000+
10	Harris Teeter	Trade, Transportation, & Utilities	500-999
11	Corning Incorporated	Manufacturing	500-999
12	GE Hitachi Nuclear Americas LLC	Manufacturing	500-999
13	WHA Medical Clinic PLLC	Education & Health Services	500-999
14	Food Lion	Trade, Transportation & Utilities	500-999
15	General Electric Corp	Manufacturing	500-999
16	Forever 21 Retail Inc	Trade, Transportation & Utilities	500-999
17	Carolina Healthcare Associates, Inc.	Education & Health Services	500-999
18	Global Nuclear Fuel Holding Co, Inc.	Manufacturing	500-999
19	Real Time Staffing Services, Inc.	Professional & Business Services	250-499
20	McAndersons, Inc.	Leisure & Hospitality	250-499
21	Lowe's Food Stores, Inc.	Trade, Transportation & Utilities	250-499
22	Lowe's Home Centers, Inc.	Trade, Transportation & Utilities	250-499
23	AAI Pharma Services Corp.	Manufacturing	250-499
24	C N Davis Health Care Center	Education & Health Services	250-499
25	Enterprise Leasing Company	Financial Activities	250-499

Source: NC Department of Commerce, Labor and Economic Analysis Division.

Income

Table 10 provides the average and median income for 2010 to 2014 for Wrightsville Beach, New Hanover County, and North Carolina. From 2010 to 2014, Wrightsville Beach has experienced a slight decrease in both median household income (12.8%) and mean household income (41.5%). The county and state have experienced slight increases in both categories.

Wrightsville Beach had a 15.2% poverty rate in 2010, but similar to the County and State, the town's poverty rate is rising; and in 2014 estimates, this percentage is shown to be approximately 19.6%. This percentage is only slightly higher than the 2014 estimated poverty rate for both the County and State.

	Wrightsville Beach			New Hanover County			North Carolina		
	2010	2014	% Change	2010	2014	% Change	2010	2014	% Change
Median Household Income	\$70,375	\$61,389	-12.8%	\$48,553	\$49,582	2.1%	\$45,570	\$46,693	2.5%
Mean Household Income	\$184,658	\$107,957	-41.5%	\$67,902	\$69,727	2.7%	\$61,781	\$64,555	4.5%
Persons Below Poverty Level (%)	15.2%	19.6%		15.4%	18.1%		15.5%	17.6%	

Source: US Census Bureau, American Community Survey 5-Year Estimates, 2006-2010 and 2010-2014.

Educational Attainment

The overall educational attainment of a community can be a significant indicator in health concerns, economic mobility, and socioeconomic status. In Wrightsville Beach, as in other beach communities across the state, the residents tend to be more educated and hold more advanced degrees than the average North Carolina citizens. In fact, according to the US Census, over 75% of Wrightsville Beach residents have an Associate's degree or higher compared to approximately 35% of the state's population (see Table 11).

	Wrightsville Beach		New Hanover County		North Carolina	
	2010	% of Total	2010	% of Total	2010	% of Total
Population 25 years and over	1,623	100.0%	131,944	100.0%	6,121,611	100.0%
Less than 9th grade	10	0.6%	4,222	3.2%	374,993	6.1%
9th to 12th grade, no diploma	11	0.7%	9,632	7.3%	631,062	10.3%
High school graduate (includes equivalency)	76	4.7%	29,687	22.5%	1,728,039	28.2%
Some college, no degree	289	17.8%	28,500	21.6%	1,278,861	20.9%
Associate's degree	170	10.5%	12,271	9.3%	510,816	8.3%
Bachelor's degree	709	43.7%	31,930	24.2%	1,065,675	17.4%
Graduate or professional degree	357	22.0%	15,701	11.9%	532,165	8.7%

Source: US Census Bureau, American Community Survey 5-Year Estimates, 2006-2010.

Vehicle Availability and Travel Time to Place of Work

Table 12 provides data for vehicle availability and average commuting times. It should be noted that there is no public transit serving Wrightsville Beach; therefore, citizens must rely on automobiles for commuting to and from work. Due to the town's close proximity to the City of Wilmington, commuting times are in line with both county and statewide averages.

	Wrightsville Beach		New Hanover County		North Carolina	
	2010	% of Total	2010	% of Total	2010	% of Total
Total Occupied Housing Units	1,131	100.0%	83,679	100.0%	3,626,179	100.0%
No vehicle available	15	1.3%	5,305	6.3%	234,435	6.5%
1 vehicle available	276	24.4%	29,920	35.8%	1,160,522	32.0%
2 vehicle available	546	48.3%	33,464	40.0%	1,398,345	38.5%
3 or more vehicles available	294	26.0%	14,990	17.9%	832,877	23.0%
Mean Travel Time To Work (Minutes)	19.5		19.8		23.4	

Source: US Census Bureau, American Community Survey 5-Year Estimates, 2006-2010.

Local Economic Drivers

Tourism is a significant driver of Wrightsville Beach's local economy – particularly during the summer months. According to a study for Visit NC by the US Travel Association, in 2015 the economic impact from domestic travel in New Hanover County was estimated at approximately \$520.86 million, allowing New Hanover County to maintain its rank as number 8 among North Carolina's 100 counties in tourism expenditures. The study also mentions that in 2015, travel and tourism in New Hanover County directly provided more than 5,840 jobs that supported a payroll of \$121.05 million. Travel and tourism in the county generates approximately \$46.17 million in state and local tax receipts, representing a \$209.53 tax saving to each county resident.

An array of hotels and seasonal housing units are available to accommodate these visitors. A recent study, sponsored by the NC Department of Commerce, noted that the average spending from an overnight visitor party in North Carolina is approximately \$517 per visit. The average length of stay is 2.7 nights and the average visitor party size is 1.9 people. Supporting industries such as food accommodations, hotels, and local shopping destinations are among the most popular for visitors to the island.

While information regarding Wrightsville Beach's tourist driven economy is not available, annual gross revenues for parking alone speak for the impact of the visitors to the beach community. In the past three years alone, annual gross revenue for parking averaged \$2,444,217.68. In 2015, the annual gross revenue was \$2,669,700, 25% of the town's total 2015 gross revenue.

SUMMARY

Population

- North Carolina's Southeast Region experienced a 37.8% population increase from 1990 to 2010, compared to 43.9% for the State.
- The population of Wrightsville Beach decreased 15.7% from 1990 to 2010.
- The Southeast Region's population increase has been concentrated along the coast. New Hanover County is the 4th fastest growing county in the Southeast Economic Region (68.5%).

Housing

- In 2010, approximately 50% of the town's dwelling units were 30 years old or older.
- Median housing values have decreased by 21.6% from 2010 to 2014 estimates.
- In 2010, 48.9% of housing units were valued at \$1,000,000 or more.
- According to the 2010 American Community Survey, 46.5% of homeowners and 55.9% of renters exceeded the housing affordability threshold.

Economy

- New Hanover County's unemployment rate was below that of the state from January 2007 to January 2016, except in 2014 when the rate for both was 6.9%.
- Wrightsville Beach exceeds the county and state in median and mean household income.
- In 2010, 15.2% of Wrightsville Beach's population was below the poverty line compared to 15.4% for the county and 15.5% for the state.
- Wrightsville Beach surpasses both the county and state in Bachelor's degrees (43.7%) and Graduate and Professional degrees (22.0%).

ENVIRONMENTAL FACTORS

Physiography and Drainage

The Town of Wrightsville Beach is predominantly situated on a migrating barrier island. Approximately 5% of the Town's corporate limits are located on the mainland while 95% are located on a series of two barrier islands including Harbor Island and Wrightsville Beach.

Barrier islands are long, narrow strips of sand, forming islands that protect inland areas from ocean waves and storms. Barrier island migration is the movement of an island landmass towards another area and involves processes that change the island landmass. Migration of an island occurs in response to changes in sea level and coastal evolution.

There are three processes involved in island migration:

- Retreat of open ocean shoreline
- Overwash on the sound shoreline resulting in lagoon-side widening
- Overwash resulting in elevation of the central portion of the island

Barrier island communities are extremely susceptible to evolving physiographic conditions. Sand management and beach nourishment are significant issues that will be discussed in a later section of the plan.

Climate

Wrightsville Beach is hot and humid in the summer, but frequently cooled by sea breezes. Winter is cool with occasional brief cold spells. Rain falls throughout the year and is fairly heavy.

The Town has a mean high temperature of 81° Fahrenheit, a mean low temperature of 46° Fahrenheit, and an annual mean average temperature of 63.9° Fahrenheit. The following summarizes average monthly temperatures for Wrightsville Beach.

Month	Average High (°F)	Average Low (°F)
January	56	36
February	60	38
March	66	44
April	74	51
May	81	60
June	86	68
July	90	72
August	88	71
September	84	66
October	76	54
November	68	45
December	60	38

Source: National Weather Service.

SECTION 3. EXISTING CONDITIONS

Due to Wrightsville Beach's proximity to the coast, the Town is highly susceptible to hurricanes and other coastal storms. Hurricanes are cyclonic storms that originate in tropical ocean waters poleward of about 5° latitude. Basically, hurricanes are heat engines, fueled by the release of latent heat from the condensation of warm water. Their formation requires a low pressure disturbance, sufficiently warm sea surface temperature, rotational force from the spinning of the Earth, and the absence of wind shear in the lowest 50,000 feet of the atmosphere.

Hurricanes that impact North Carolina form in the so-called Atlantic Basin, from the west coast of Africa westward into the Caribbean Sea and Gulf of Mexico. Hurricanes in this basin generally form between June 1 and November 30, with a peak around mid-September. As a hurricane develops, barometric pressure at its center falls and winds increase. Winds at or exceeding 39 mph result in the formation of a tropical storm which is given a name and closely monitored by the NOAA National Hurricane Center in Miami, Florida. When winds are at or exceed 74 mph, the tropical storm is deemed a hurricane.



Hurricane intensity is measured using the Saffir-Simpson Scale, ranging from 1 (minimal) to 5 (catastrophic). The following scale categorizes hurricane intensity linearly based upon maximum sustained winds.

- **Category 1:** Winds of 74 to 95 miles per hour. Very dangerous winds will produce some damage: Well-constructed frame homes could have damage to roof, shingles, vinyl siding, and gutters. Large branches of trees will snap and shallowly rooted trees may be toppled. Extensive damage to power lines and poles likely will result in power outages that could last a few to several days.
- **Category 2:** Winds of 96 to 110 miles per hour. Extremely dangerous winds will cause extensive damage: Well-constructed frame homes could sustain major roof and siding damage. Many shallowly rooted trees will be snapped or uprooted and block numerous roads. Near-total power loss is expected with outages that could last from several days to weeks.
- **Category 3:** Winds of 111 to 129 miles per hour. Devastating damage will occur: Well-built framed homes may incur major damage or removal of roof decking and gable ends. Many trees will be snapped or uprooted, blocking numerous roads. Electricity and water will be unavailable for several days to weeks after the storm passes.
- **Category 4:** Winds of 130 to 156 miles per hour. Catastrophic damage will occur: Well-built homes can sustain severe damage with loss of most of the roof structure and/or exterior walls. Most trees will be snapped or uprooted and power poles downed. Fallen trees and power poles will isolate residential areas. Power outages will last weeks to possibly months. Most of the area will be uninhabitable for weeks or months.
- **Category 5:** Winds greater than 157 miles per hour. Catastrophic damage will occur: A high percentage of framed homes will be destroyed, with total roof failure and wall collapse. Fallen trees and power poles will isolate residential areas. Power outages will last for weeks to possibly months. Most of the area will be uninhabitable for weeks or months.

Similar to hurricanes, coastal storms are ocean-fueled storm events capable of causing substantial damage to coastal areas due to their associated strong winds and heavy surf. The nor'easter is a particularly devastating type of coastal storm, named for the winds that blow in from the northeast and drive the storm up the US East Coast alongside the Gulf Stream, a band of warm water that lies off the Atlantic coast. They are caused by the interaction of the jet stream with horizontal temperature gradients and generally occur during the fall and winter months when moisture and cold air are plentiful. Coastal storm events are known for dumping heavy amounts of rain and snow, producing hurricane-force winds, and creating high surf that causes severe beach erosion and coastal flooding.

The following provides a listing of all hurricane events that have impacted Wrightsville Beach since 1996. A more comprehensive overview of storm history is available in the Southeastern NC Regional Hazard Mitigation Plan which was adopted by the Town on March 10, 2016.

- July 12, 1996 – Hurricane Bertha
- September 5, 1996 – Hurricane Fran
- August 27, 1998 – Hurricane Bonnie
- September 7, 1999 – Hurricane/Tropical Storm Dennis
- September 14, 1999 – Hurricane Floyd
- September 18, 2003 – Hurricane Isabel
- August 14, 2004 – Hurricane/Tropical Storm Charley
- September 13, 2005 – Hurricane Ophelia
- August 31, 2006 – Tropical Storm Ernesto
- August 27, 2011 – Hurricane Irene
- Tropical Storm Andrea – June 7, 2013
- Hurricane/Tropical Storm Arthur – July 3, 2014

Flood Hazard Areas

Flooding is a localized hazard that is generally the result of excessive precipitation. It is the most common environmental hazard, due to the widespread geographical distribution of rivers and coastal areas, and the attraction of residents to these areas. However, in coastal regions, storm surge and wind-driven waves are significant components of flooding. Floods can be generally considered in two categories: flash floods, the product of heavy localized precipitation in a short time period over a given location; and general floods, caused by precipitation over a longer time period and over a given river basin. While flash floods occur within hours of a rain event, general flooding is a longer-term event, and may last for several days. The primary types of general flooding are riverine flooding, coastal flooding, and urban flooding.

Floodplains are divided into areas expected to be inundated by spillovers from stream flow levels associated with specific flood-return frequencies. The National Flood Insurance Program (NFIP) uses flood zone designations to indicate the magnitude of flood hazards in specific areas. The following are flood hazard zones located within Wrightsville Beach and a definition of what each zone means.

- **Zone AE:** Areas with a 1% annual chance of flooding and a 26% chance of flooding over the life of a 30-year mortgage. In most instances, base flood elevations derived from detailed analyses are shown at selected intervals within these zones.
- **Zone VE:** Areas subject to inundation by the 1% annual chance flood event with additional hazards due to storm-induced velocity wave action.

- **Zone X:** Areas of minimal flood hazard, usually in areas with a 0.2% chance of flooding over the life of a 30-year mortgage.

Map 2 delineates the flood zone categories and locations while Table 14 describes each flood zone category in acres and percentage of total Town acreage.

Type	Acres	% of Town Acreage
X (0.2% Annual Chance)	22.69	1.71%
AE	534.55	40.25%
VE	724.92	54.59%
Total	1,282.16	96.55%

Source: Federal Emergency Management Agency.

Storm Surge Inundation

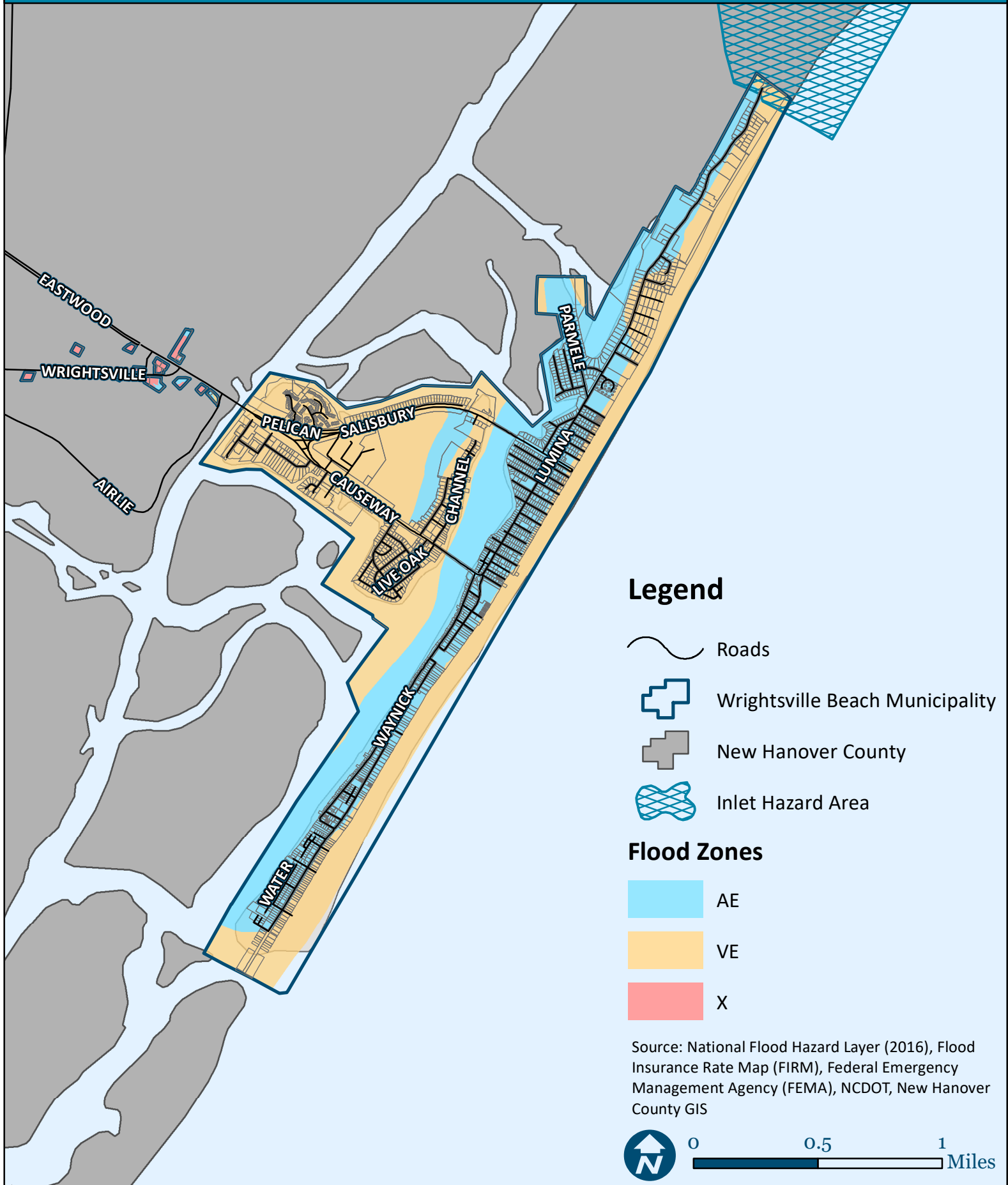
Maps 3 and 4 display areas of Wrightsville Beach that may be impacted by a hurricane-generated storm surge based on the SLOSH (Sea, Land, and Overland Surges from Hurricanes) model developed by the National Oceanic and Atmospheric Administration (NOAA), which computes storm surge heights from tropical cyclones, such as hurricanes. The SLOSH model estimates the extent of storm surge inundation for “fast-moving” storms (forward velocity greater than 15 miles per hour) and for “slow-moving” storms (forward velocity less than 15 miles per hour).

Fast Moving Storm	Acres	% of Town Acres
Category 1 & 2	884.70	66.5%
Category 3	904.14	67.9%
Category 4 & 5	913.29	68.7%
Slow Moving Storm	Acres	% of Town Acres
Category 1 & 2	858.19	64.6%
Category 3	893.26	67.2%
Category 4 & 5	909.01	68.4%

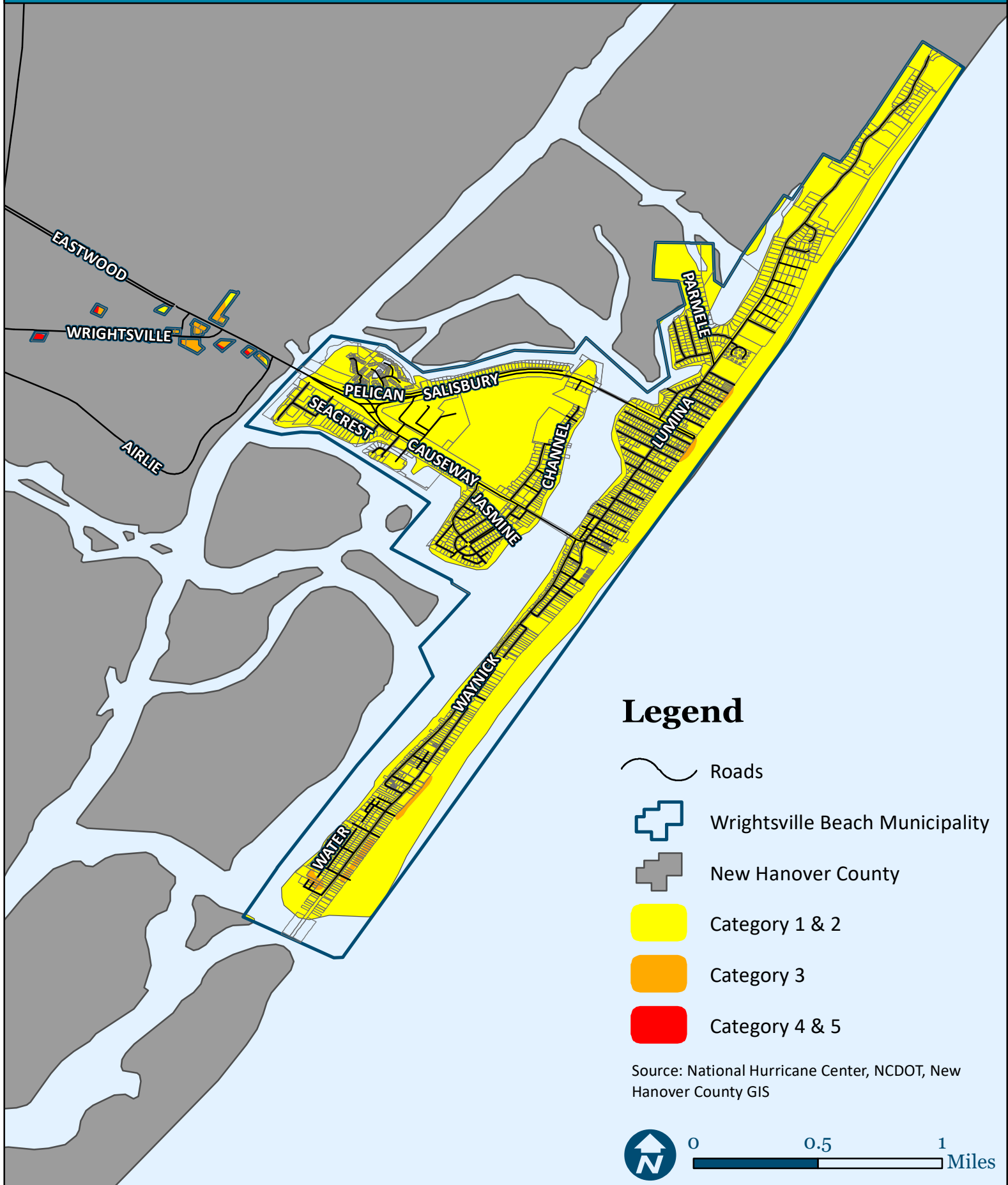
Source: Federal Emergency Management Agency.

Storm surge inundation from a “fast-moving” storm would result in the greatest potential damage to property in Wrightsville Beach.

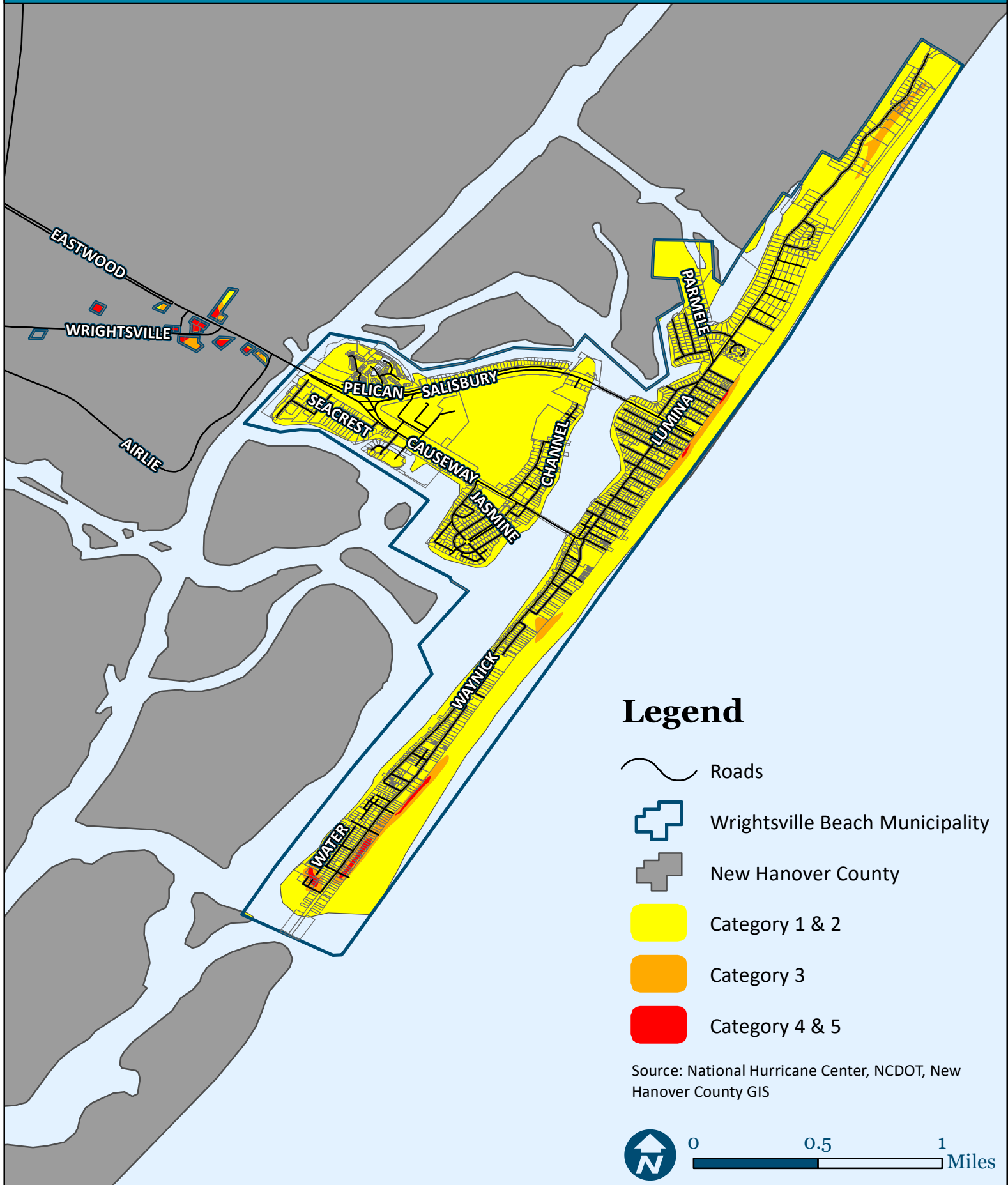
Map 2. Flood Hazard Areas



Map 3. Fast Moving SLOSH



Map 4. Slow Moving SLOSH



Soils

According to the 2014 Soil Survey Geographic Database, there are ten (10) different soil types within Wrightsville Beach’s planning jurisdiction. The most prominent soil types are fine sands. Fine sands account for more than 500 acres of the soil in Wrightsville Beach. Very poorly drained or “hydric” soils account for nearly 60% of the soil types that are discussed in Table 16. See Map 5 for the location of “Very Poorly Drained” hydric soils.

Table 16. Soil Types

Soil Type	Slope Gradient	Drainage Class	Acres	% of Total
Baymeade fine sand, 1 to 6 percent slope	3	Well drained	13.08	1.06%
Borrow pits	3	Well drained	1.42	0.11%
Johnston soils	1	Very poorly drained	0.05	0.01%
Kureb sand, 1 to 8 percent slope	3	Excessively drained	1.76	0.14%
Leon sand	1	Poorly drained	3.36	0.27%
Lynn haven fine sand	1	Poorly drained	1.07	0.09%
Newhan fine sand	5	Excessively drained	493.70	39.92%
Seagate fine sand	1	Moderately well drained	4.65	0.38%
Tidal marsh	1	Very poorly drained	98.97	8.00%
Urban land	1	Very poorly drained	215.45	17.42%
Water	0	Very poorly drained	403.09	32.60%
Total			1,236.60	100.00%

Source: Soil Survey Geographic Database (SSURGO), 2014.

Chronic Wastewater Treatment System Malfunctions

Wrightsville Beach’s wastewater treatment is provided by the Cape Fear Public Utility Authority (CFPUA). There are 142 pump stations, approximately 840 miles of gravity sewer line, and 134 miles of pressurized sewer force main. Wastewater is treated at one of three facilities:

- James A Loughlin (Northside Plant) – 2311 N. 23rd Street – Permitted to treat up to 16 million gallons of wastewater daily.
- M’Kean Maffit (Southside Plant) – 3436 River Road – Permitted to treat up to 12 million gallons of wastewater daily.
- Walnut Hills – 17 Little Creek Road – Permitted to treat up to 100,000 gallons of wastewater daily.

The three facilities have not experienced any chronic system malfunctions.

Public Health Hazards

There are no issues regarding septic tanks in Wrightsville Beach.

Map 5. Water Quality, Approved Shellfishing Areas, and Hydric Soils



Surface Waters

The North Carolina Division of Water Resources (formerly the Division of Water Quality) assigns water quality classifications to all named waters of the State of North Carolina. The classifications are based upon the existing or contemplated best usage of the various streams and segments of streams within a basin, as determined through studies, evaluations, and comments received at public hearings. The state water classification system is broken down as follows:

Table 17. NC Division of Water Resources Water Body Classifications	
PRIMARY FRESHWATER AND SALTWATER CLASSIFICATIONS*	
Class	Best Uses
C and SC	Aquatic life propagation/protection and secondary recreation
B and SB	Primary recreation and Class C uses
SA	Waters classified for commercial shellfish harvesting
WS	<i>Water Supply Watershed.</i> There are five WS classes ranging from WS-I through WS-V. WS classifications are assigned to watersheds based on land use characteristics of the area. Each water supply classification has a set of management strategies to protect the surface water supply. WS-I provides the highest level of protection and WS-V provides the least protection. A Critical Area (CA) designation is also listed for watershed areas within a half-mile and draining to the water supply intake or reservoir where an intake is located.
SUPPLEMENTAL CLASSIFICATIONS	
Sw	<i>Swamp Waters:</i> Recognizes waters that will naturally be more acidic (have lower pH values) and have lower levels of dissolved oxygen.
Tr	<i>Trout Waters:</i> Provides protection to freshwaters for natural trout propagation and survival of stocked trout.
HQW	<i>High Quality Waters:</i> Waters possessing special qualities including excellent water quality, Native or Special Native Trout Waters, Critical habitat areas, or WS-I and WS-II water supplies
ORW	<i>Outstanding Resource Waters:</i> Unique and special surface waters that are unimpacted by pollution and have some outstanding resource values.
NSW	<i>Nutrient Sensitive Waters:</i> Areas with water quality problems associated with excessive plant growth resulting from nutrient enrichment.
<i>*Primary classifications beginning with an "S" are assigned to salt waters. Source: NC Department of Environmental Quality.</i>	

North Carolina Water Quality Basics

What Are Surface Water Classifications?

Surface Water Classifications are designations applied to surface water bodies, such as water streams, rivers and lakes, which define the best uses to be protected within these waters (for example swimming, fishing, drinking water supply) and carry with them an associated set of water quality standards to protect those uses. Surface water classifications are one tool that state and federal agencies use to manage and protect all streams, rivers, lakes, and other surface waters in North Carolina. Classifications and their associated protection rules may be designed to protect water quality, fish and wildlife, the free flowing nature of a stream or river, or other special characteristics.

How Do They Affect Me?

Before you buy property, plan a new development project, construct a new road or undertake other land use activities, you should check with local, state, and federal agencies about the assigned surface water classification for the waterbody on your property. Many of the newer classifications, especially those designed to protect drinking water supplies and certain high quality waters, have protection rules which regulate some land or disturbance and other human activities.

Why Do They Sometimes Overlay?

Many streams, rivers, and lakes may have several classifications applied to the same area. This is because surface waters are classified to protect different uses or special characteristics of the waterbody. For example, a stream or specific stream segment may be classified as Class WS-III Tr HWQ by the NC Division of Water Resources (DWR). This protects it as a drinking water supply (WS-III), as Trout Waters (Tr), and as High Quality Waters (HWQ). The stream segments upstream or downstream may have different classifications based on other water uses or stream characteristics.

Stream's Classification?

DWR classifies all surface waters. A waterbody's classification may change at the request of a local government or citizen. DWR reviews each request for a reclassification and conducts an assessment of the waterbody to determine the appropriateness of the reclassification. DWR also conducts periodic waterbody assessments which may result in a recommendation to reclassify the waterbody. In order for a waterbody to be reclassified it must proceed through the rule-making process.

SECTION 3. EXISTING CONDITIONS

Map 5 on page 3-9 delineates the location of and classification of surface waters in Wrightsville Beach's planning jurisdiction. Many waters within the Wrightsville Beach corporate limits are classified as "SB," while others adjacent to the corporate limits are classified as High Quality Waters (HQW) and Outstanding Resource Waters (ORW) (see Table 17 for descriptions). These are supplemental classifications intended to protect waters by a standard that exceeds those of the state overall. These classifications are due to the presence of active shellfish saltwater areas that are conducive to commercial shellfishing, which are classified "SA." These waters are also suitable for all recreational uses, such as boating or swimming. There are no water supply watersheds in Wrightsville Beach.

Some of the "SA" waters outside the Town's corporate limits are classified as Impaired and do not support or only conditionally support commercial shellfishing. Map 6 depicts impaired waters in and around Wrightsville Beach. The exact locations must be field verified and are subject to change. Each impaired water body is also listed by size and location in Table 18.

Water Body	Location	Size	Parameter of Interest
Banks Channel	Doctors Yacht Basin	5.8 S Acres	Shellfish Growing Area Status (Fecal, SH, SA)
Banks Channel	South Topsail Beach Canals	33.9 S Acres	Shellfish Growing Area Status (Fecal, SH, SA)
Banks Channel	Prohibited Area at Annamaria	4.2 S Acres	Shellfish Growing Area Status (Fecal, SH, SA)

Source: Draft 2016 Category 5 Assessments EPA Submittal – 303(d) List.

Environmentally Fragile Areas

In coastal North Carolina, fragile areas are considered to include wetlands, ocean beaches and shorelines, estuarine waters and shorelines, public trust waters, natural resource fragile areas, areas sustaining remnant species, unique geological formations, registered natural landmarks, swamps, prime wildlife habitats, areas of excessive slope, areas of excessive erosion, scenic points, archaeological sites, and historical sites. While not identified as fragile areas in the 15A NCAC 7H Use Standards, maritime forests and outstanding resource waters (ORWs) should also be considered fragile areas.

The New Hanover County 15A NCAC 7H Areas of Environmental Concern (AECs) include estuarine waters and estuarine shorelines, public trust areas, coastal wetlands, ocean beaches and shorelines, areas of excessive slope, areas of excessive erosion, and natural resource fragile areas (including significant natural heritage areas and protected lands). It should be noted that the ocean beaches and shorelines are located in incorporated beach communities.

[Estuarine Waters and Estuarine Shorelines \(AEC\)](#)

An "estuary" can be defined as "a semi-enclosed coastal body of water that has a free connection to the open sea and within which sea water is measurably diluted with fresh water derived from land drainage." Estuaries serve as transition zones between fresh and salt water and are protected from the full force of ocean wind and waves by barrier islands, mudflats, and/or sand.

For regulatory purposes, the inland, or upstream, boundary of estuarine waters is the same line used to separate the jurisdictions of the Division of Marine Fisheries and the Wildlife Resources Commission. However, many of the fish and shellfish that spend parts of their lives in estuaries move between the "official" estuarine and inland waters.

Map 6. Impaired Waters & Nursery Areas



Estuarine shorelines are those areas extending from the normal high water level or normal water level along the estuarine waters for a distance of 75 feet landward. These areas support the ecological function of estuaries and are highly vulnerable to erosion caused by wind or water and to damage caused by boat wake and development.

Under CAMA rules, all lands 75 feet landward from the mean high tide are classified as estuarine shorelines and are subject to CAMA development regulations. No domestic discharges are permitted in these waters. Boats are also not allowed to discharge in these waters.

Public Trust Areas

The North Carolina Division of Coastal Management (DCM) defines “Public Trust Areas” as the coastal waters and submerged lands that every North Carolinian has the right to use for activities such as boating, swimming, or fishing. These areas often overlap with estuarine waters, but they also include many inland fishing waters. The following lands and waters are considered public trust areas:

- All waters of the Atlantic Ocean and the lands underneath, from the normal high water mark on shore to the state’s official boundary three miles offshore;
- All navigable natural water bodies and the lands underneath, to the normal high water mark on shore (a body of water is considered navigable if you can float a canoe in it). This area does not include privately-owned lakes where the public does not have access rights;
- All waters in artificially created water bodies that have significant public fishing resources and are accessible to the public from other waters; and
- All waters in artificially created water bodies where the public has acquired rights by prescription, custom, usage, dedication, or any other means.

Although public trust areas must be delineated by on-site analysis, all submerged lands adjacent to Wrightsville Beach along the Intracoastal Waterway and the Atlantic Ocean should be considered public trust areas.

Under CAMA regulations, all lands 30 feet landward of public trust areas are subject to the restrictions for estuarine shoreline areas.

Why Are Estuaries Important?

The lands and waters of the estuarine system are home to fish nursery areas, spawning areas, shellfish beds, and other habitats essential to North Carolina’s commercial and recreational fishing industries.

More than 90% of North Carolina’s commercial and recreational seafood species (such as shrimp, flounder, oysters, and crabs) depend on the protective habitat and nutrients found in coastal wetlands and estuarine waters for much of their lives.

The stems, roots, and seeds of many coastal wetland plants provide food and nesting materials for waterfowl and other wildlife. Marsh plants guard against erosion and flood damage; their leaves and stems dissipate wave energy, and their root systems bind soil. The nutrients and decayed plant material produced by marsh plants also contribute to the productivity of the estuarine system.

Estuarine plants trap debris and excess nutrients and help regulate the flow of fresh water into the estuary, maintaining the system’s balance. Estuarine shorelines act as natural barriers to erosion and flooding. Certain soil formations and plant communities along estuarine shorelines also help slow erosion. Natural buffers along the shoreline protect the water from excess sediment and pollutants, and they protect nearby developments from flooding and erosion.

Estuarine waters and public trust areas are important because they support commercial and recreational fishing, boating, swimming, and other recreational activities.

SECTION 3. EXISTING CONDITIONS

[Coastal Wetlands](#)

The Coastal Resources Commission (CRC) rules define “Coastal Wetlands” as any marsh in the 20 coastal counties (including New Hanover, and therefore, Wrightsville Beach) that regularly or occasionally floods by lunar or wind tides, and that includes one or more of the following ten (10) plant species:

- *Spartina alterniflora*: Salt Marsh (Smooth) Cordgrass
- *Juncus roemerianus*: Black Needlerush
- *Salicornia spp.*: Glasswort
- *Distichlis spicata*: Salt (or Spike) Grass
- *Limonium spp.*: Sea Lavender
- *Scirpus spp.*: Bulrush
- *Cladium jamaicense*: Sawgrass
- *Typha spp.*: Cattail
- *Spartina patens*: Salt Meadow Grass
- *Spartina cynosuroides*: Salt Reed or Giant Cordgrass

Coastal wetlands provide significant environmental and economic benefits to Wrightsville Beach. They protect against flooding, help maintain water quality, provide habitat to wildlife, and serve as part of the estuarine system.

In 2003, the Division of Coastal Management classified and mapped coastal wetlands based on an analysis of several existing data sets, including aerial photographs and satellite images of coastal areas in North Carolina, including Wrightsville Beach. Even though the presence of wetlands must be established by an on-site delineation and investigation of plants, DCM produced an excellent representation of wetlands in the Town, and throughout coastal North Carolina.

According to the US Fish and Wildlife Service, nearly half of Wrightsville Beach is considered wetlands (see Table 19 and Map 7).

Wetland Types	Acres	% of Town Acreage
Estuarine and Marine Deepwater	416.49	31.36%
Estuarine and Marine Wetland	241.18	18.16%
Total	657.67	49.52%

Source: US Fish and Wildlife Service (2016).

[Protected Lands and Natural Heritage Program Natural Areas](#)

Protected lands are areas dedicated to conservation and open space uses that are protected from development by regulation or by ownership by governments or non-profit organizations. The North Carolina Division of Coastal Management has identified these areas through the assistance of the NC Center for Geographic Information and Analysis (NCGIA). There are several sites designated as Protected Lands in Wrightsville Beach (see Map 8). The sites are comprised of State, Town-owned, and private open space areas. Additionally, other facilities such as CAMA Public Access locations and town parks may be considered protected lands and are discussed further in the Community Facilities section of the plan.

SECTION 3. EXISTING CONDITIONS

Natural Heritage Program Natural Areas (NHNA) are areas containing ecologically significant natural communities or rare species. The North Carolina Natural Heritage Program of the NC Department of Environment and Natural Resources identifies and helps facilitate the protection of these areas. Map 8 provides the location of all Natural Heritage Program Natural Areas falling within, or in close proximity to, the corporate limits of Wrightsville Beach. The main focus areas for the biodiversity/wildlife habitat assessment are aquatic and terrestrial habitats, landscape function, and connectivity. Biodiversity refers to the degree of variation of life forms within a given ecosystem, and is one measure of the health of ecosystems. Certain places that support specific functions at high levels of integrity also support a broad range of other functions that are not able to be measured directly. Previously defined places, such as Natural Heritage Program Natural Areas (NHPNAs) or Outstanding Resource Waters (ORW), or other intact large scale landscapes, represent the most important places to focus conservation action because they indicate high quality systems. Appendix D provides a US Fish & Wildlife Services list of endangered/threatened species in New Hanover County.

[Slopes in Excess of 12%](#)

There are no slopes in excess of 12% located within Wrightsville Beach's corporate limits, with the exception of sand dunes.

[Inlet Hazard Areas](#)

This AEC covers the land at the northern end of Wrightsville Beach near Shell Island Resort. The inlet hazard area extends inland a sufficient distance to encompass the area where the State reasonably expects the inlet to migrate. Development within inlet hazard AEC's must comply with three key use standards: (1) setbacks for the ocean hazard area; (2) density for commercial and residential structures limited to no more than 3 units per acre; and (3) only residential structures of 4 units or less or commercial structures of 5,000 square feet or less are allowed. Refer to Map 2 on page 3-5 for the location of the inlet hazard area in Wrightsville Beach.

[Ocean Beaches/Shorelines and Areas of Excessive Erosion](#)

Ocean beaches and shorelines are lands consisting of unconsolidated soil materials (i.e., sand) that extend from the mean low water line landward to a point where either: (a) the growth of vegetation occurs; or (b) a distinct change in slope or elevation alters the configuration of the land form, whichever is farther landward. The entire southern border of Wrightsville Beach constitutes an Ocean Hazard AEC as defined by CAMA. The Ocean Hazard AEC covers North Carolina's beaches and any other oceanfront lands that are subject to long-term erosion and significant shoreline changes. The seaward boundary of this AEC is the mean low water line. The landward limit of the AEC is measured from the first line of stable natural vegetation and is determined by adding a distance equal to 30 times the long-term, average annual erosion rate for that stretch of shoreline to the distance of erosion expected during a major storm.

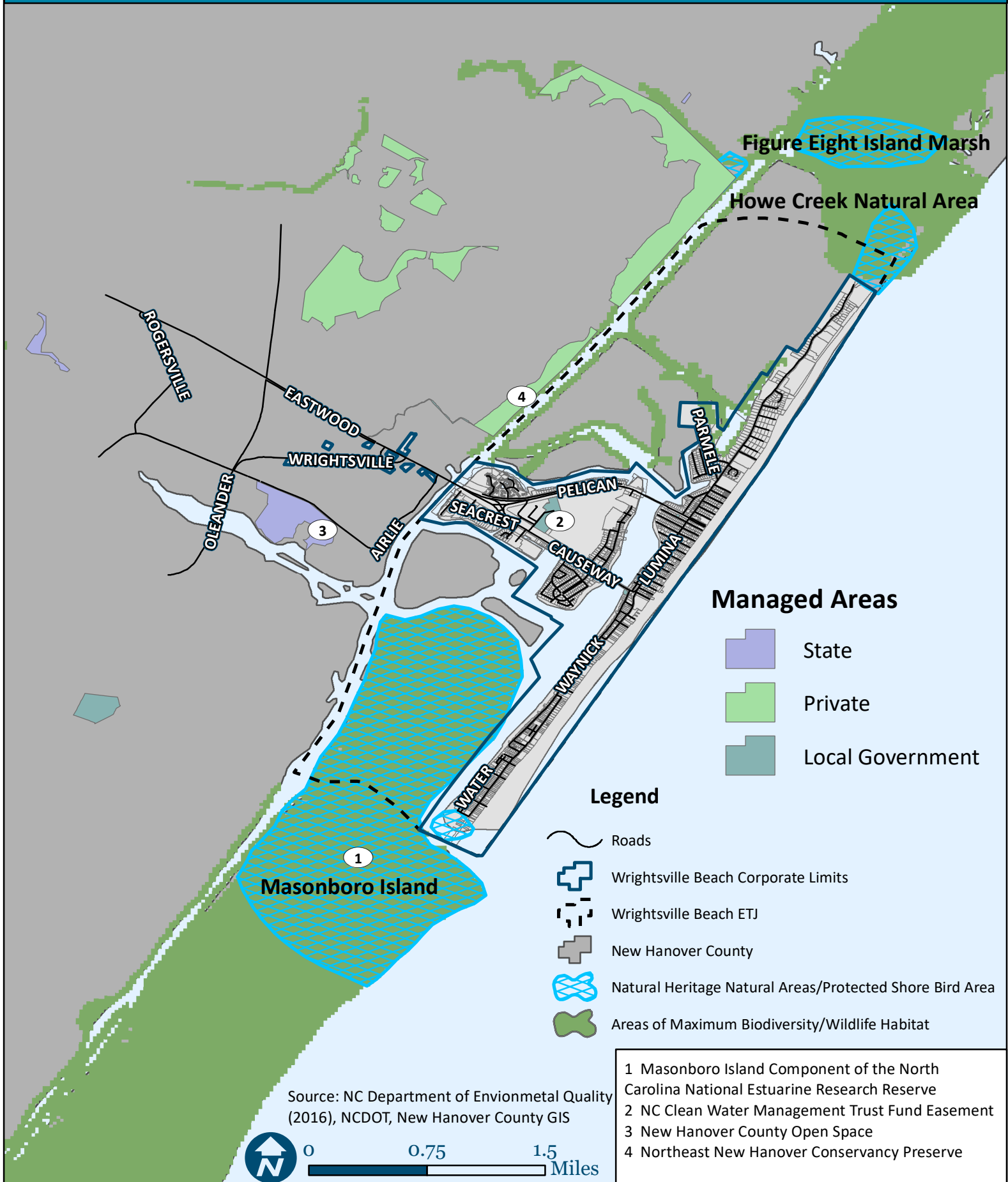
The CRC updates long-term erosion rates about every five years, using aerial photographs to examine shoreline changes. General maps of erosion rates are available from the Division of Coastal Management; detailed erosion rate maps are available for inspection at all Division of Coastal Management field and local permitting offices.

Wrightsville Beach has approximately 4.5 miles of oceanfront shoreline, is southeast facing, and flanked by two inlets (Masonboro and Mason). Approximately 4.1 miles of shoreline demonstrates accreting characteristics, while the remaining 0.2 miles (2.1%) is eroding. The average, maximum, and minimum blocked erosion rate at Wrightsville Beach is two feet per year.

Map 7. Wetlands



Map 8. Natural Heritage Natural Areas & Managed Areas



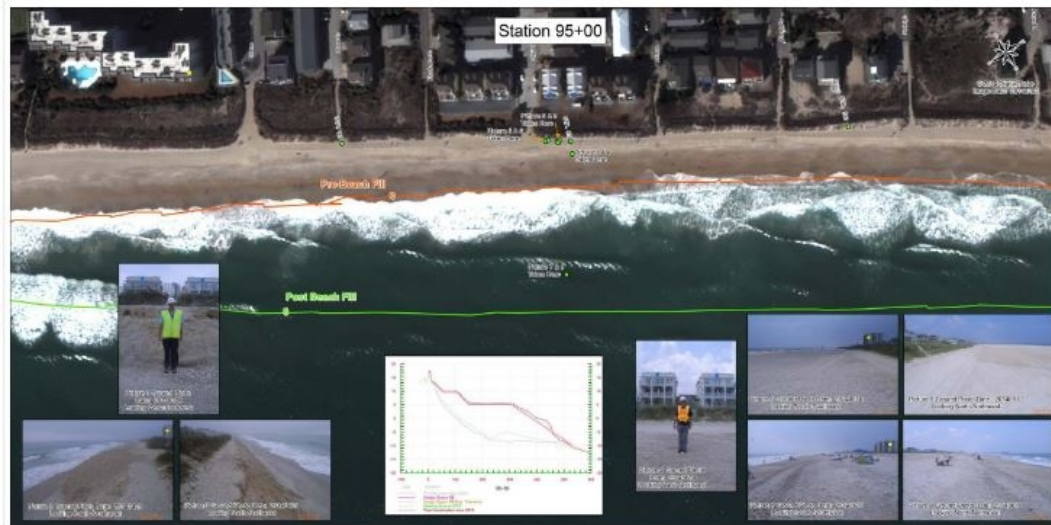
- 1 Masonboro Island Component of the North Carolina National Estuarine Research Reserve
- 2 NC Clean Water Management Trust Fund Easement
- 3 New Hanover County Open Space
- 4 Northeast New Hanover Conservancy Preserve

SECTION 3. EXISTING CONDITIONS

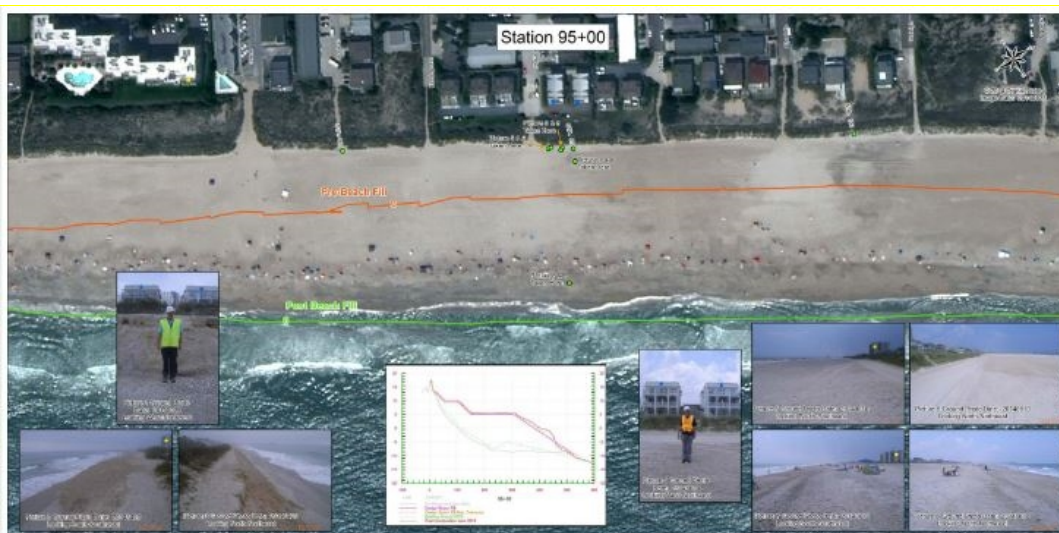
[Beach Renourishment](#)

Coastal erosion at Wrightsville Beach is caused by two major factors: storm related coastal erosion and impacts from the Masonboro Inlet navigation projects' jetties. Because of these factors, the Wrightsville Beach project is budgeted under two separate budget line items. First, coastal erosion due to coastal storms is budgeted in the flood risk management line item and is appropriately cost shared with federal construction and non-federal required contributed funds. Second, impacts of the Masonboro Inlet jetties are budgeted under the navigation line item and are accomplished using federal construction funds. The jetties have impacted the natural replenishment of sand from littoral, or longshore, drift. Mitigation prescribed for these impacts is to bypass sand to both Wrightsville Beach and Masonboro Island on a four (4) year periodic cycle.

According to an article in the [Lumina News](#) in August 2016, the USACE has concluded that allocating money for Wrightsville Beach renourishment projects generates a good return on investment, but represents only one of many elements that will determine the availability of federal money for coastal storm damage projects. The last beach renourishment project for Wrightsville Beach took place in 2014.



Wrightsville Beach Coastal Storm Damage Reduction Project 2014 – Before Construction *Image Source: USACE-Wilmington District.*



Wrightsville Beach Coastal Storm Damage Reduction Project 2014 – After Construction *Image Source: USACE-Wilmington District.*

Sea Level Rise

The potential impact of future sea levels to coastal North Carolina caused the Coastal Resources Commission (CRC) to ask the Science Panel on Coastal Hazards in 2009, to develop an assessment of future sea levels for NC. Representative Concentration Pathways (RCPs) are a series of scenarios defined by a specific mix of emissions, concentrations and land use. RCP 2.6 is the “best case” scenario in which greenhouse gases are lowest in concentration, and RCP 8.5 is the “worst case” with the highest concentration. According to the NC Sea Level Rise Assessment – Final Report 2016, the mean Relative Sea Level Rise (RSLR) for the Wilmington area is 2.4 inches in 30 years. Globally, this number jumps between 5.7 to 9.8 inches in Scenario RCP 2.6, and 6.5 to 11.0 inches in Scenario RCP 8.5.

These predictions are based on a 30-year timeframe to allow increased confidence as opposed to 60- or 100-year forecasts. Due to rapidly advancing climate and sea level sciences, the 2010 report recommended an update every five years.

Areas of Resource Potential

[Regionally Significant Parks](#)

The discussion of parks and open space is addressed in the Community Facilities section of the plan.

[Marinas and Mooring Fields](#)

“Marinas” are defined as any publicly or privately owned dock, basin, or wet boat storage facility constructed to accommodate more than ten boats and providing any of the following services: permanent or transient docking space, dry storage, fueling facilities, haulout facilities, and repair service. Not included in this definition are facilities that only allow boat access or temporary docking and that do not include the services provided by marinas specified above. There are numerous marinas located in Wrightsville Beach. The following provides the marinas and their location:

- Wrightsville Beach Marina – 6 Marina Street
- Seapath Yacht Club – 330 Causeway Drive
- Atlantic Marine (Marina Location) – 101 Keel Street
- Carolina Yacht Club – 401 South Lumina Avenue

A “freestanding mooring” is any means to attach a ship, boat, or other watercraft to a stationary underwater device, mooring buoy, buoyed anchor, or piling not associated with an existing or proposed pier, dock, or boathouse. When more than one freestanding mooring is used in the same general vicinity, it is known as a “mooring field.” CAMA has regulations for the safe siting and operation of moorings and mooring fields.

Wrightsville Beach allows mooring, but has guidelines that can limit, or prohibit, mooring in certain areas. According to Wrightsville Beach Town Ordinance 92.19, boaters are prohibited from mooring or anchoring their vessels for more than 30 consecutive days. This ordinance does not apply to boats moored at a dock or pier, as long as the dock or pier does not extend beyond the pierhead line.

[Floating Homes](#)

A floating home or structure is any structure, not a boat, supported by means of floatation and designed to be used without a permanent foundation which is used for human habitation or commerce. A structure is considered a floating home or structure if it is inhabited or used for commercial purposes for more than 30 days in any one location. A boat may be deemed a floating structure if its means of propulsion have been removed or rendered inoperative and it contains at least 200 square feet of living area. In Wrightsville Beach, floating homes must abide by the standards stated in the Town of Wrightsville Beach's Code of Ordinances, Title XV, Section 155.7.12: Floating Homes.

[Aquaculture](#)

As defined under NC General Statute 106-758, aquaculture is the propagation and rearing of aquatic species in controlled or selected environments, including, but not limited to ocean ranching. There is no significant aquaculture in Wrightsville Beach, except for the University of North Carolina-Wilmington (UNCW) facility. UNCW established the aquaculture facility on Harbor Island in 1997. The research, educational, and developmental facility currently consists of controlled-environment broodstock holding systems, larviculture laboratory, nutrition laboratory, ornamental fish laboratory, experimental hatchery with live feeds production systems, pilot commercial scale hatchery/nursery, and a variety of experimental re-circulating growout tank systems. Feed preparation and analytical laboratories are located on site.

[Channel Maintenance and Interstate Waterways](#)

Portions of Banks Channel and Motts Channel are within Wrightsville Beach's corporate limits. These channels are home to marinas and areas for sailing, motorized boating, fishing, waterskiing, wakeboarding, stand-up paddle board, and other activities.

The Atlantic Intracoastal Waterway (ICWW) extends through New Hanover County's eastern boundary. The waterway, along with the inlets which provide access to the ocean, provides an indispensable route for fishermen, commercial barge traffic, and recreational boat traffic, all instrumental to the county's economic well-being.

The ICWW is a continuous sheltered waterway used by commercial and private shallow draft vessels. The US Army Corps of Engineers maintains the ICWW for 1,088 miles between Norfolk, Virginia, and Miami, Florida. The ICWW serves ten (10) ports, fourteen (14) military bases, and four (4) US Coast Guard Bases. The users of this waterway are: tugs and barges, passenger vessels, fishing industry vessels, construction vessels, marine businesses, shipyards, and recreational boaters.

The economic value of the ICWW to North Carolina is substantial. The ICWW provides \$257 million in annual sales within the State, generating over 4,000 jobs, \$124 million in wages, \$35.6 million in federal taxes and fees, and \$21.4 million in state taxes and fees. If silt or other deposits filled in the channels, safe and efficient movement of commercial fishing and transport vessels could be impeded. New Hanover County supports dredging and general maintenance of the Intracoastal Waterway.

SECTION 3. EXISTING CONDITIONS

[Finfish, Finfish Habitat, and Primary Nursery Areas](#)

The North Carolina Marine Fisheries Commission (MFC) has adopted definitions in rule for anadromous spawning and nursery areas. Anadromous fish spawning areas are those areas where evidence of spawning of anadromous fish has been documented by direct observation of spawning, capture of running ripe females, or capture of eggs or early larvae [NCAC 31.0101 (20)(C)]. Anadromous fish nursery areas are those areas in the riverine and estuarine systems utilized by post-larval and later juvenile anadromous fish [NCAC 31.0101(20)(D)]. Anadromous fish are born in freshwater and spend most of its life in the sea only to return to freshwater to spawn.

The waters of the White Oak/Onslow Bay river basin are an important habitat for several anadromous fish species. Some anadromous fish that spawn in the White Oak/Onslow Bay river basin include the Striped Bass (*Morone saxatilis*), American Shad (*Alosa sapidissima*), Hickory Shad (*Alosa mediocris*), Blueback Herring (*Alosa aestivalis*), Alewife (*Alosa pseudoharengus*), and Atlantic Sturgeon (*Acipenser oxyrinchus oxyrinchus*). All six species are considered both sport and commercial fish and are taken by standard commercial fishing gear.

[Shellfish](#)

The Shellfish Sanitation Section is responsible for monitoring and classifying coastal waters as to their suitability for shellfish harvesting for human consumption. Recommendations are made to the Division of Marine Fisheries to close those waters that have the potential for causing illness and opening those that are assured of having clean, healthy shellfish. Map 5 on page 3-9 illustrates the “APPROVED” shellfishing areas.

COMMUNITY FACILITIES/SERVICES/EVENTS

Wrightsville Beach provides or supports a variety of community facilities and services for residents and visitors (see Map 9). In beach communities, these facilities and services must be able to withstand the influx of seasonal visitors. This section provides a description of community facilities including health care resources; public works; parks, recreation, and open space; special events; schools; parking; police; fire and rescue; emergency management; historic properties; and administration.

Health Care Resources

[New Hanover Regional Medical Center \(NHRMC\)](#)

NHRMC is located at 2131 S. 17th Street in Wilmington, less than 10 miles from Wrightsville Beach. NHRMC is a public, not-for-profit healthcare system that offers care to everyone who needs it, regardless of their ability to pay. NHRMC provides more than \$145 million a year in charitable uncompensated care. This service is provided with no local tax support. Other relevant information regarding NHRMC follows:



- NHRMC boasts 66 different locations throughout New Hanover County.
- The NHRMC team includes approximately 6,000 employees, 560 physicians on medical staff, and 700 active volunteers.
- Featured services of NHRMC are: Bariatric Surgery, Behavioral Health, Cancer Care, Children's Health, Emergency Services, Heart Center, Home Care, Imaging & Diagnostics, Neuroscience Center, Orthopedic Care, Rehabilitation, Spine Services, Stroke, Trauma Center, Urgent Care, and Women's Health.

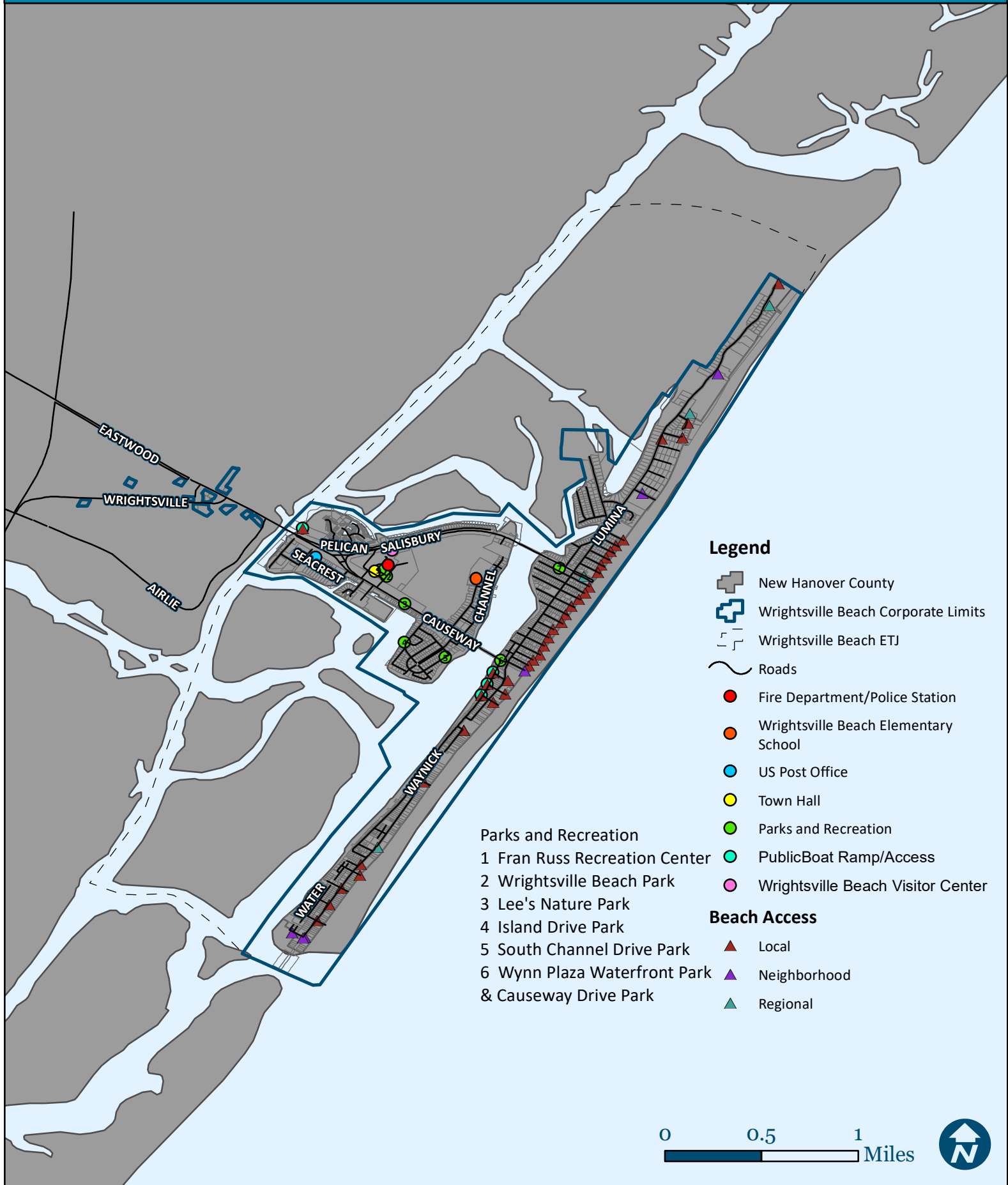
[Medac Urgent Care](#)

Medac Urgent Care is less than three miles away from Wrightsville Beach and is located at 1442 Military Cutoff Road in Wilmington. This facility is a convenient, cost-effective alternative to emergency room care. Medac Urgent Care provides medical care for people who either do not have a primary care physician, or whose primary care physician might not be available when care or treatment is needed. Relevant information regarding Medac Urgent Care includes:



- 4 exam rooms
- 2 trauma bays
- 1 X-ray room
- 1 Physician's Assistant
- 1 Registered Nurse
- Certified Medical Assistant (during peak times)
- 1 X-ray Technologist
- 9 Administrative Personnel
- An average of 25 patients treated per day

Map 9. Community Facilities



SECTION 3. EXISTING CONDITIONS

[New Hanover County Health Department \(NHCHD\)](#)



Established in 1879, NHCHD is the oldest health department in North Carolina. NHCHD is the first health department to become accredited in Southeastern NC. It is governed by a Board of Health comprised of eleven (11) community members serving three-year terms. The Board of Health strives to coordinate resources necessary to maintain the health and well-being of all New Hanover County residents. The Board also oversees projects that are vital to the health of the community.

The NHCHD provides education and outreach programs, environmental health information and public health preparedness exercises. Appointments are available for: Adult Health Services, Child/Adolescent Health Services, Laboratory Services, Women's Health Services, Maternal Health Services, Care Management Services, Community Health, Nutrition Services, Dental Health Services, School Health, and Mental Health Services.

Public Works

The Wrightsville Beach Public Works Department performs many important functions for residents and visitors and is divided into eight (8) divisions: Building Maintenance, Fleet Maintenance, Public Works Administration, Sanitation, Sewer, Stormwater Maintenance, Street Maintenance, and Water.

[Stormwater Maintenance and Management](#)

The stormwater system within the Town of Wrightsville Beach is a municipal separate storm sewer system (MS4). The MS4 consists of approximately 47,000 feet of piping, manholes, and outfall pipes. There are approximately 500 feet of open ditch and 2,500 linear feet of sheet flow area.

After its annexation by Wrightsville Beach in the late 1960s, Harbor Island saw significant development changes. These changes included paving of roadways, installation of sewer systems, and installation of storm drainage systems. The construction of the Federal Desalination Plant, which is located in what is now the Municipal Complex included storm drainage systems for those areas.

The construction of the North Carolina Department of Transportation (NCDOT) highway systems of US Highway 74, 76, and the N. Lumina Avenue connector included the construction of storm drainage systems appropriate to those areas. During the 1960s, portions of these systems were extended to provide drainage for Town streets and some private entities. Some of the private or other entities include Station 1, Blockade Runner Hotel, Carolina Yacht Club, and the Coast Guard Station at the south end of Wrightsville Beach.

The last construction involving storm drainage occurred in the mid 1980s with the development of the northern part of the Shell Island area. As part of that development project, efforts were made to contain the stormwater on the properties developed through the use of French-drain systems. The most notable examples are Shell Island Resort, Duneridge, and the municipal parking lots at 2938 and 2498 N. Lumina Avenue. The Wrightsville Dunes development used brick pavers as a component of the driveway/parking areas to provide more pervious surface than would be typical with concrete or asphalt construction. Adjacent to, but on the opposite side of Highway 74 at Duneridge, there is a sheet flow area of 700 feet. The border between the road surface and the sound has been left to natural growth in order to provide a buffer for the sound and to assist in the trapping of potential pollutants.

SECTION 3. EXISTING CONDITIONS

County and private maintained systems are located on properties other than Town or state land and do not have recorded easements or maintenance contracts with the Town. The Town performs no maintenance on these systems. Maintenance activities are limited to Town systems and routine non-construction maintenance on NCDOT systems. Routine non-construction maintenance includes street sweeping, leaf collection, video inspection, high-pressure water cleaning, and vacuum debris removal. In addition, Town systems also benefit from construction maintenance activities such as line repair, replacement, and catch basin repairs.

Maintenance activities are triggered by one of two methods:

- Direct complaint; or
- Scheduled maintenance.

The Town maintains a work order system that allows the scheduling of maintenance activities with variable intervals. These activities are scheduled monthly, bi-monthly, quarterly, semi-annually, and annually. Work orders document the issue and date, completion date, and total man-hours required for completions.

Despite these efforts, the Town's low elevation and the fact that many outfall pipes are underwater during high tides create frequent drainage problems after major storm events. The Town has identified the following areas as priority drainage problems:

- Between Stone and Columbia Streets on North Lumina Avenue;
- Greensboro Street through the intersection of Salisbury Street on North Lumina Avenue;
- Cypress Drive;
- Myrtle Court;
- Marina Street; and
- Channel Avenue.

To help alleviate these drainage problems, the Town requires that all new development maintain its stormwater runoff at preconstruction levels. In addition, the Town is exploring the feasibility of installing infiltration systems under roads during scheduled NCDOT maintenance.

Public Utilities Systems

The Wrightsville Beach Public Works Department provides water services in addition to collection, treatment and transmission of wastewater services for all residents/businesses. The department is committed to ensuring water quality, and owns and maintains nine (9) wells, two (2) elevated tanks, seven (7) lift stations, and two (2) water treatment centers located in several areas of the town. Average water usage is approximately 707,417 gallons per day. There are approximately 21 miles of gravity sewer and force main ranging from 6" to 14" in diameter. Wastewater from the Town is pumped to the Cape Fear Public Utility Authority (CFPUA) and the average daily wastewater usage is 545,929 gallons per day.

Electric service is provided to Wrightsville Beach by Duke Energy Progress. Natural gas is not available in the Town.

Solid Waste Disposal and Recycling

The Town of Wrightsville Beach collects solid waste twice weekly from all residential units in its jurisdiction. Commercial waste is picked up as needed up to 7 days per week by the Town. There is no County trash collection system in the unincorporated portion of the County which includes Wrightsville Sound. Homeowners and businesses in this area contract with private waste collection services. This arrangement is currently considered to be adequate and will continue for the foreseeable future. Solid waste is disposed of in the County landfill. County facilities are adequate to meet current and future needs. The Town of Wrightsville Beach also operates a recycling center on Seawater Drive between the Police and Fire stations. The recycling center serves Wrightsville Beach residents and visitors; however, recycling services are provided by New Hanover County.

Parks, Recreation, and Open Space

Public Access

Wrightsville Beach's public accesses and parks contain amenities ranging from picnic shelters and event stages to playgrounds and outdoor fitness equipment. Wrightsville Beach currently has 47 locations that provide access to the beach and sound. There are three types of access locations:

- **Regional** access sites are generally the largest and often feature restrooms, showers, picnic tables, and ample parking (25+).
- **Neighborhood** access sites generally have fewer parking spaces than regional sites and often do not have facilities such as showers and restrooms; however, there are exceptions.
- **Local** sites are generally dune crossovers with little or no associated parking and no facilities. However, bicycle racks may be provided. These are primarily used by pedestrians who reside within a few hundred yards of the site.

Local public access points are more informal, using easements and rights-of-way created in the subdivision of the island. These access points have signs identifying them as public access and some have dune crossovers.

Out of 47 access points within the Town's corporate limits, 39 utilize street parking, five (5) have no parking available, and four (4) have parking lots. The four access points with parking lots are located at 2698 North Lumina Avenue, 2498 North Lumina Avenue, 2398 North Lumina Avenue, and 650 South Lumina Avenue.

Built in 1930 as a completely wooden structure, Johnnie Mercer's Pier was rebuilt as solid concrete in direct response to the devastation caused by passing hurricanes. The facility contains a tackle shop, gift store, snack bar, small arcade, and most importantly, a pier that extends more than 1,200 feet into the Atlantic Ocean. On-street parking is available at this location. The pier is often used for enjoying views, photography, and fishing. Up to 75 visitors per day gain access to the pier during peak seasons.

A reasonable guideline for effective public access to public trust areas throughout Town is to have an available access facility within ¼-mile of most residential properties. This standard places public access within walking distance and easy biking distance for most residents and visitors. Map 9 provides the location of all access points by type.

SECTION 3. EXISTING CONDITIONS

Parks and Open Space

According to the Town of Wrightsville Beach 2013 – 2018 Parks, Recreation and Open Space Master Plan, the Town contains and maintains seven (7) parks. Listed below are the parks and their amenities:

- Wrightsville Beach Park – 13 acres
 - Tennis courts/back-wall, sand volleyball courts, basketball courts, softball field, soccer/football/multipurpose field, jogging/fitness trail, exercise station, playground areas and equipment, an outdoor amphitheater, picnic shelters with grills, 104 vehicle parking lot, and public restrooms.
 - The inclusive playground is equipped with a variety of components and an exercise equipment area. Play components include: an Aero Glider, six (6) slides, spin cups, a Quattro See-Saw, a unity dome, cruise line, a variety of sensory components, a wheelchair swing, a wacky log, a cozy cocoon, climbing tunnel, infant swings, and ladder & rope climbers. The playground was funded with a \$300,000 grant from Trillium Health Resources in 2016. Exercise equipment includes: a power & agility step exercise station and a core, torso, and balance exercise station.
- Wynn Plaza Waterfront Park - 0.85 Acre
 - Transient dockage, outdoor shower, gazebo, benches, and a waterfront walkway.
- Causeway Drive Park - 0.5 Acre
 - Protective fence.
- Greensboro Street Park - 0.8 Acre
 - Playground equipment, covered shelter and picnic table, and benches.
- South Channel Drive Park - 0.5 Acre
 - Benches and steps leading to Banks Channel.
- Island Drive Park - 0.5 Acre
 - Benches and steps leading to Motts Channel.
- Lee's Nature Park - 0.5 Acre
 - Nature-oriented park for plant and bird identification, and benches.



Wrightsville Beach Park Playground
Image Source: Town of Wrightsville Beach.

See Map 9 for the location of these parks and facilities.

Additional special areas and facilities include:

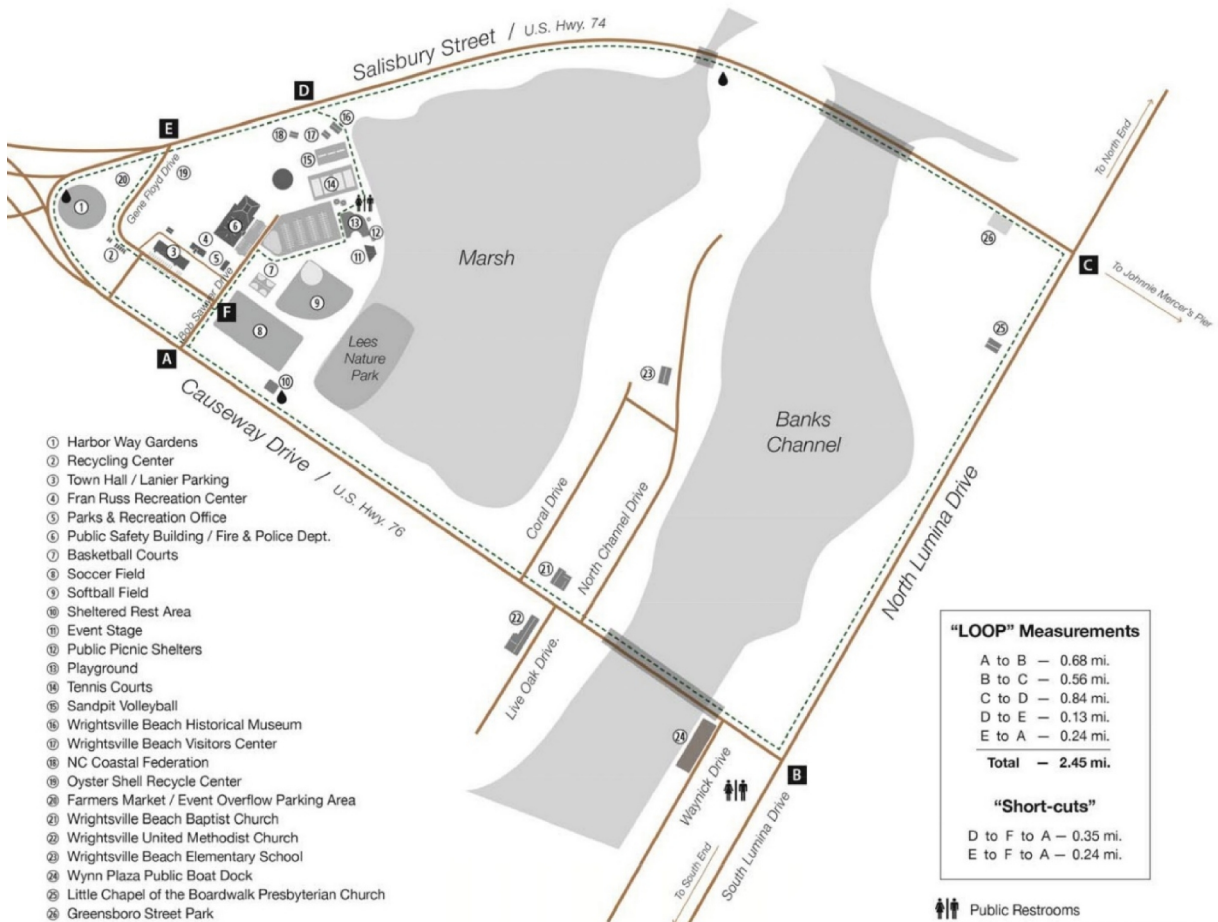
- Fran Russ Recreation Center
 - The Fran Russ Recreation Center, located behind Town Hall, is the only indoor parks and recreation program facility in Wrightsville Beach. There are approximately 2,450 square feet of usable space and a small kitchen area within the center. The Center is equipped with indoor areas for recreation programs including yoga, aerobics, line dancing lessons, Pilates, tone and stretch, and after-school programs, as well as serving as a room for community meetings and events.

SECTION 3. EXISTING CONDITIONS

- John Nesbitt Loop
 - The John Nesbitt Loop is a very popular trail stretching 2.45 miles in Wrightsville Beach. The trail begins at Causeway Drive/US Highway 76, wraps around North Lumina Drive, bends around Salisbury Street/US Highway 74 over Banks Channel and then connects back to Causeway Drive/US Highway 76. The Trail, locally dubbed “The Loop,” is heavily used for walking, biking, jogging, and skating.



The Loop along Salisbury Street
Image Source: Town of Wrightsville Beach.



Map depicting the John Nesbitt Loop Image Source: Town of Wrightsville Beach.

The Town of Wrightsville Beach Parks and Recreation Division holds many athletics, programs, and special events including football and baseball leagues, soccer camp, tennis camp and lessons, and yoga.

SECTION 3. EXISTING CONDITIONS

[Wrightsville Beach Museum of History](#)

The Wrightsville Beach Museum of History exists to preserve and share the history of the Town. The museum is closed on Mondays, but is open at varied times the rest of the week. A scaled model of Wrightsville Beach circa 1910 is contained in the museum in addition to exhibits featuring the early days of the beach. There are approximately 20 visitors per day. Admission is free and there are many events held and hosted by the museum, including:

- The **Wrightsville Beach Stand Up Paddle (SUP) Surf Pro-Am** is an annual event hosted by the Wrightsville Beach Museum and Carolina Paddleboard Company. There are cash prizes for the top four (4) professionals and beautiful hand-made trophies for amateurs. This event is held annually in April.
- The **Museum Art Events** allow artists to participate in *plein air* events and showcases some of the artists' visions of Wrightsville Beach and the marshes on canvas. These events are typically held in the Spring.
- **Lumina Daze** is held at the Blockade Runner Resort and Hotel and allows residents and visitors to experience a time where big bands played and people danced at the Lumina. There is a silent auction, food, drinks, dancing, and a movie on the lawn. This event is held annually in August.
- The **Wrightsville Beach Museum Waterman Hall of Fame** is intended to be a lasting tribute for the achievements of the generations of Wrightsville Beach watermen and women who have shaped the community and its relationship with the water. Award recipients are selected by the Wrightsville Beach Waterman Hall of Fame Board comprised of members of the Wrightsville Beach Museum Board of Directors and community participants who represent a cross-section of those who have been a part of Wrightsville Beach water sports throughout the decades. Induction ceremonies are held in the latter parts of the year.
- The **Jingle Bell Run** is an annual 5K Run and Walk holiday event held to benefit the Wrightsville Beach Museum of History. This event is held in December.
- **Camp Chris Stone**. Dedicated to the memory and ideals of a long-time Wrightsville Beach resident, Camp Chris Stone allows children the opportunity to explore Wrightsville Beach's environment and gain an appreciation for nature. Camp Chris Stone is held in the summer months.

Special Events

[North Carolina Holiday Flotilla](#)

The Annual North Carolina Holiday Flotilla attracts more than 50,000 people to Wrightsville Beach. This event begins with the Boat Parade, a great number of colorfully lighted boats filling the Banks Channel, and is followed by fireworks. The event has had 34 successful years with the 35th expected in November 2018. The boats enter, and place, in categories such as: Best Power Boat 31' and Over, Best Power Boat 23' to 31', Best Power Boat 22' and Under, Best Sailboat, Best in Show, People's Choice, Crowd Favorite, and Best Costumes & Crew Spirit. The NC Holiday Flotilla is a well-known local event celebrating the holidays.



North Carolina Holiday Flotilla *Image Source: ncholidayflotilla.org.*

SECTION 3. EXISTING CONDITIONS

[Cape Fear Blue Marlin Tournament](#)

The Cape Fear Blue Marlin Tournament is an annual points-based, rod and reel, hook and line tournament boasting 43 successful years as of 2016. This event attracts sponsors, fishermen, participants, and spectators alike. On average, 30-60 boats ranging from 30 to 80 feet enter the tournament. Each boat has a crew of 8 to 12 people. Attendance can exceed 1,000 non-participants, some from other states, because this event is part of the NC Governors Cup Series. The tournament is expected to celebrate its 44th event in mid-2017.

[Support. Hope. Assist. Reflect. Empower. \(S.H.A.R.E.\) King Mackerel Tournament](#)

The S.H.A.R.E. King Mackerel Tournament began in the winter of 2010 when the founder of S.H.A.R.E. approached members of the Reel Buzz Fishing Team about holding a king mackerel tournament as a fundraiser. The tournament, held out of Dockside Marina, helps to promote S.H.A.R.E. as well as the sport of tournament king mackerel fishing. In the past few years, 140-160+ boats have entered the event with 2-4 participants each. There is a Captain's party and silent auction which attracts an additional 200-300 guests. The tournament boasts one of the highest percentage payouts of any king mackerel tournament. The S.H.A.R.E. King Mackerel Tournament is held mid-year.

Schools

While increases in the number of school-aged children at Wrightsville Beach have been small, the New Hanover County School System has experienced an explosion in its student population. As a result, nearly all schools are at or over capacity. Wrightsville Beach Elementary serves grades K-5 and it is the only school in the Town. It is approaching capacity even with the addition of mobile classrooms. In 2016, the schools that serve the Town of Wrightsville Beach and current enrollments are: Wrightsville Beach Elementary (356), Noble Middle School (819), and Hoggard High School (1,869). In addition to the public school system, other educational facilities in New Hanover County include several private schools (primary, secondary, and special education), the University of North Carolina at Wilmington, and Cape Fear Community College.

Parking

Wrightsville Beach receives a substantial amount of visitor and tourist traffic during peak holiday seasons. With increasing popularity as a popular vacation getaway, Wrightsville Beach accommodates the non-permanent residents with eight (8) metered parking lots, on-street parking with pay stations, and pay-by-phone parking. These spots can be paid by the hour or per day, depending on the needs of the visitor. According to the Parking Office, Wrightsville Beach contains over 1,600 metered spots and 42 non-metered spots.



Pay Parking Lot Provided at the Regional Public Beach Access Image Source: HCP, Inc.

Police

The Wrightsville Beach Police Department serves an area of approximately two (2) square miles, 125 business establishments, and nearly 3,000 housing units. The department has a total of 27 full-time employees, 25 of which are sworn officers. The department is comprised of one (1) Chief of Police, two (2) Captains, four (4) Sergeants, three (3) Corporals, fifteen (15) Patrol Officers, and two (2) administrative personnel. In 2015 the department received 13,812 calls for service, a 1.13% increase from 2014 (13,657). Of the calls in 2015, 259 led to arrests for part 1 and 2 offenses.



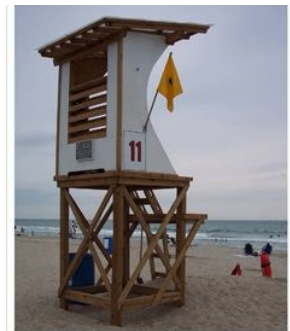
Wrightsville Beach Police Vehicle Image Source: [Town of Wrightsville Beach](#).

Fire and Rescue

The Wrightsville Beach Fire Department is a combination department consisting of both career and volunteer firefighters and the Ocean Rescue Squad. The department's mission is to enhance the quality of life in Wrightsville Beach through fire prevention, fire suppression, emergency medical services, and protection from dangerous conditions created by humankind or nature. This department responds to approximately 150 fire alarms and 450 emergency medical calls annually.

The Fire Department consists of 37 active members and 3 retired members. The thirteen (13) full-time career members consist of one (1) Fire Chief, four (4) Captains, three (3) Lead Fire Equipment Operators, three (3) Fire Equipment Operators, and two (2) full-time Ocean Rescue Personnel. The volunteer staff consists of interns, volunteers, and paid-on-call members. The Fire Department maintains one (1) pumper, two (2) combination pumper/aerial rigs, and a 4-wheel drive emergency medical unit.

The Wrightsville Beach Ocean Rescue Squad (WBOR) is responsible for ensuring public safety on the beach strand. Their mission statement is to enhance the safety and enjoyment of the beach strand experience through a proactive public education, ocean rescue, and emergency medical services program. The Squad is led by an Ocean Rescue Director and a Lifeguard Captain; both of whom have a NC Firefighter II Certification, NC EMT Certification, extensive water rescue background and experience, and are United States Lifeguard Association (USLA) Advanced Agency open water instructors and Cardiopulmonary Resuscitation (CPR) – Automated External Defibrillator (AED) instructors. Additionally, the squad employs 32 seasonal Ocean Rescue team members, 24 part-time EMT's, 4 part-time paramedics, and 3 supervisors with EMT and/or paramedic (national/state) certifications. The WBOR has the following equipment: 2 primary response vehicles with full EMS capabilities, 1 utility vehicle, 4 ATV's with advance medical supplies, 13 lifeguard stands with medical supplies and associated equipment for duty, 1 personal watercraft (PWC) sled, and 20 800MHz radios for communication. In 2016, there were 516 total interventions, 162 medical calls (30 needing EMS advanced medical intervention), 23 Emergency 911 calls for water rescues, and 24 lost children – there was zero loss of life.



Lifeguard Tower Image Source: [Town of Wrightsville Beach](#).

Emergency Management

The Town of Wrightsville Beach is one of four (4) incorporated municipalities in New Hanover County that are part of the New Hanover County Emergency Operations Plan (EOP). The EOP is a signed agreement

among the jurisdictions and partner agencies in New Hanover County which provides the mechanism for coordinating the delivery of assistance and resources to the residents, visitors, and businesses of New Hanover County during a major disaster or emergency.

The EOP is modeled after the National Response Framework (NRF). The basic plan presents the policies and concept of operations that guide how the New Hanover County government plans to coordinate its disaster response effort. It also includes planning assumptions, response and recovery actions, and assigned responsibilities.

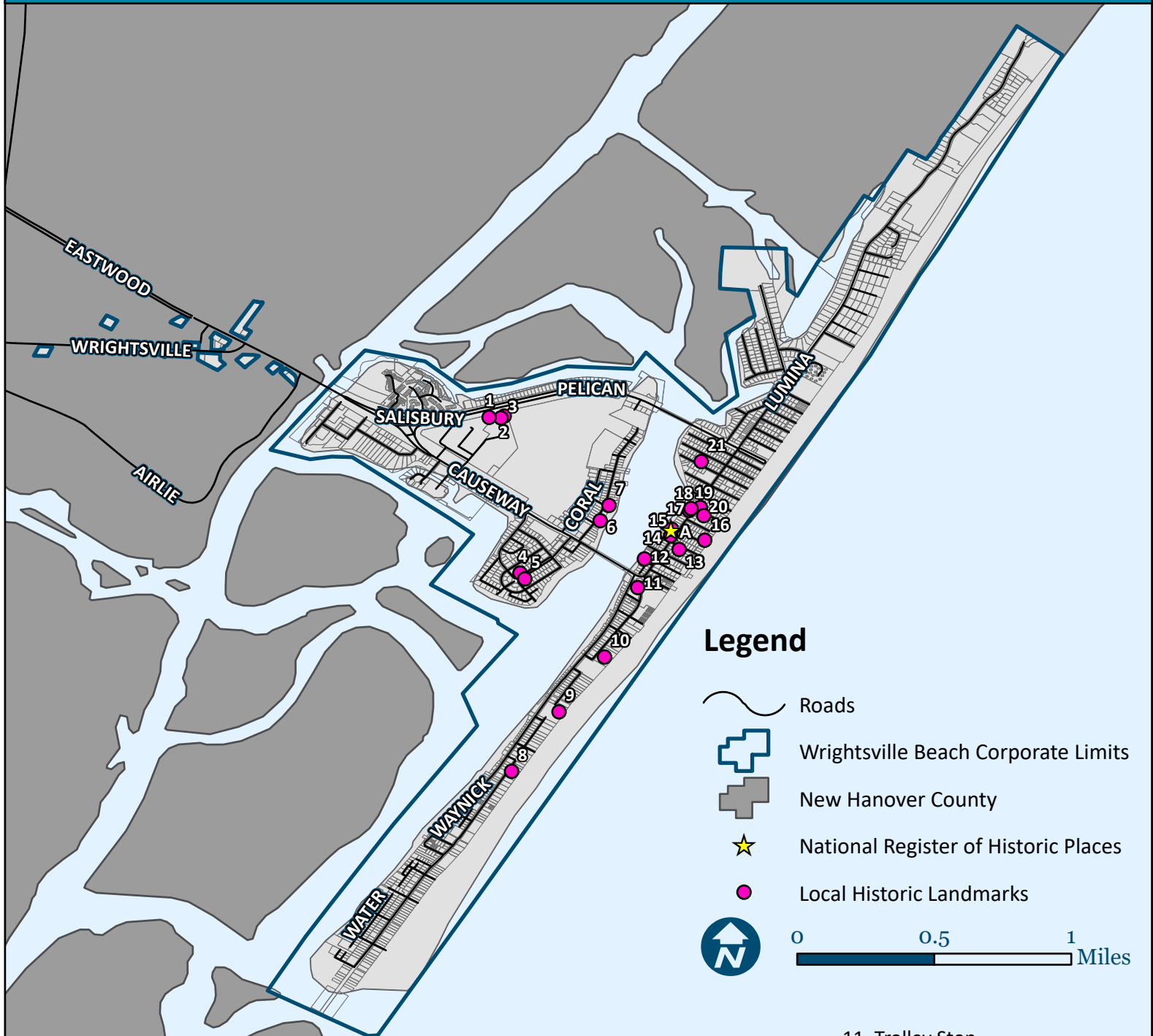
Historic Properties

Wrightsville Beach has a number of locally designated historic properties located throughout its corporate limits. The Historic Landmark Commission, composed of five (5) members appointed by the Board of Aldermen, investigates, reports, and recommends the addition of new properties to the Town's list of historic landmarks. There are currently 21 properties listed as a local historic landmark. The following provides of listing of the landmarks which are delineated on Map 10:

- Bellamy House – 120 Live Oak Drive
- Bender-Howell Cottage – 303 West Salisbury Street
- Carolina Yacht Club – 401 South Lumina Avenue
- Churchill Cottage – 15 East Charlotte Street
- Davis-Landis Cottage – 221 South Lumina Avenue
- Davis-Patteson Cottage – 500 Lumina Avenue
- Denny Cottage – 523 South Lumina Avenue
- Ewing-Bordeaux Cottage – 405 North Lumina Avenue
- Hanby Cottage – 2 West Atlanta Street
- Harris Cottage – 104 North Channel Drive
- John Q. Meyers Cottage – 303 West Salisbury Street
- Keith-Jones Cottage – 6 Augusta Street
- Kingoff-Falls Cottage – 4 East Atlanta Street
- McCumber-Sneeden Cottage – 202 North Channel Drive
- Palmgren-O'Quinn House – 303 West Salisbury Street
- Shore Acres Model Home – 121 Live Oak Drive
- Sprunt-Willets Cottage – 207 North Lumina Avenue
- Trolley Stop – 94 South Lumina Avenue
- Van Leuven-Whitesides Cottage – 14 West Oxford Street
- Williams-Bordeaux Cottage – 407 North Lumina Avenue
- Wilmington Light Infantry Club – 10 Channel Avenue

The National Register of Historic Places is the official list of the nation's historic places worthy of preservation. Authorized by the National Historic Preservation Act of 1966, the National Park Service's National Register of Historic Places is part of a national program to coordinate and support public and private efforts to identify, evaluate, and protect America's historic and archeological resources. The James D. and Frances Sprunt Cottage located at 207 North Lumina Avenue is on the National Register of Historic Places.

Map 10. Historic Properties



National Register of Historic Places

A. James D. and Frances Sprunt Cottage

Local Historic Landmarks

- | | |
|-----------------------------|------------------------------------|
| 1. Palmgren- O'Quinn House | 11. Trolley Stop |
| 2. Bender-Howell Cottage | 12. Wilmington Light Infantry Club |
| 3. John Q. Meyers Cottage | 13. Kingoff-Falls Cottage |
| 4. Bellamy House | 14. Hanby Cottage |
| 5. Shore Acres Model Home | 15. Sprunt-Willets Cottage |
| 6. Harris Cottage | 16. Churchill Cottage |
| 7. McCumber-Sneeden Cottage | 17. Ewing-Bordeaux Cottage |
| 8. Denny Cottage | 18. Williams-Bordeaux Cottage |
| 9. Carolina Yacht Club | 19. Davis-Patteson Cottage |
| 10. Davis-Landis Cottage | 20. Keith-Jones Cottage |
| | 21. Van Leuven- Whitesides Cottage |

Administration

The Town of Wrightsville Beach operates under a Council-Manager form of government. The Town has a 5-member Board of Aldermen who appoints the Town Manager. The Town Manager is responsible for the day-to-day operation of the Town and oversight of the 5 municipal departments.

[Board of Aldermen](#)

The Board consists of the Mayor, Mayor *Pro Tem* and three (3) Aldermen. The primary duties of the Board are to:

- Determine Town policies and levels of service;
- Adopt and amend Town ordinances and resolutions;
- Determine how the money in the budget is to be raised and for what purposes it is to be spent;
- Determine what Town taxes are to be levied and set the tax rate for *ad valorem* taxes;
- Approve all contracts and agreements; and
- Appoint citizens to various boards and committees and represent the municipality as its leadership in all areas.

[Planning Board](#)

As specified in the Town of Wrightsville Beach Code of Ordinances Chapter 32, the Wrightsville Beach Planning Board is a 7-member advisory board which has review authority on numerous land use applications and acts in an advisory capacity to the Board of Aldermen on various other planning matters.

[Board of Adjustment](#)

The Wrightsville Beach Board of Adjustment is a state-mandated body that operates on a level between the enforcement officers and the courts. Appeals from and review of any order, requirement, decision, or determination made by a public official or employee charged with the enforcement of the Unified Development Ordinance (UDO) are heard by the Board of Adjustment. The Board of Adjustment also has the authority to grant variances and render interpretations of the UDO. Decisions of the Board of Adjustment may only be appealed for review by the Superior Court of New Hanover County.

TRANSPORTATION

A major component of any land use plan is an assessment of the existing transportation system. For Wrightsville Beach, this system includes automobiles, bicycle, pedestrian, and air travel. These systems must be evaluated based on their ability to serve the community's existing and future needs.

The existing transportation system is assessed in the Wrightsville Beach Community Transportation Plan. The plan was adopted by the Wrightsville Beach Board of Aldermen in February 2013, and seeks to “develop an integrated community-based plan that provides choice, establishes identity, and promotes safety for residents, business owners, and visitors.” This plan will leverage the community characteristics and the recommendations made in the Community Transportation Plan in an effort to provide a sound foundation for land use policy decisions that will transpire as recommended improvements are accomplished. Recommended improvements and future concerns are addressed in Section 4 of this plan.

Roadway & Vehicular Traffic

Access to Wrightsville Beach is provided through US Highway 74; the only other way to access the Town is by water. According to 2015 NCDOT Annual Average Daily Traffic (AADT) counts, the highest volume of vehicular travel is at a point West of Airlie Road, just before the Heide Trask Bridge (23,000). It should be noted that seasonal traffic counts are not typically available for the town; however, in 2016, there were counts taken at the Heide Trask Bridge during 4th of July (see page 3-37 for further discussion). Efforts should be made to partner with NCDOT to capture seasonal counts throughout the summer months. These counts would provide a greater understanding of peak traffic volume needs. See Map 11 for existing roadway conditions & 2015 AADT.

Powell Bill

Powell Bill monies are allocated from state highway funds to eligible incorporated municipalities for the primary purpose of resurfacing streets within corporate limits. Other uses of these funds include maintaining, repairing, constructing, reconstructing, or widening any street or public thoroughfare within the municipal limits, or planning, construction, and maintenance of bikeways, greenways or sidewalks. The Town of Wrightsville Beach contains 11.15 miles of eligible Powell Bill roads with approximately \$69,500 allocated for local road upkeep each year.

Functional Classifications

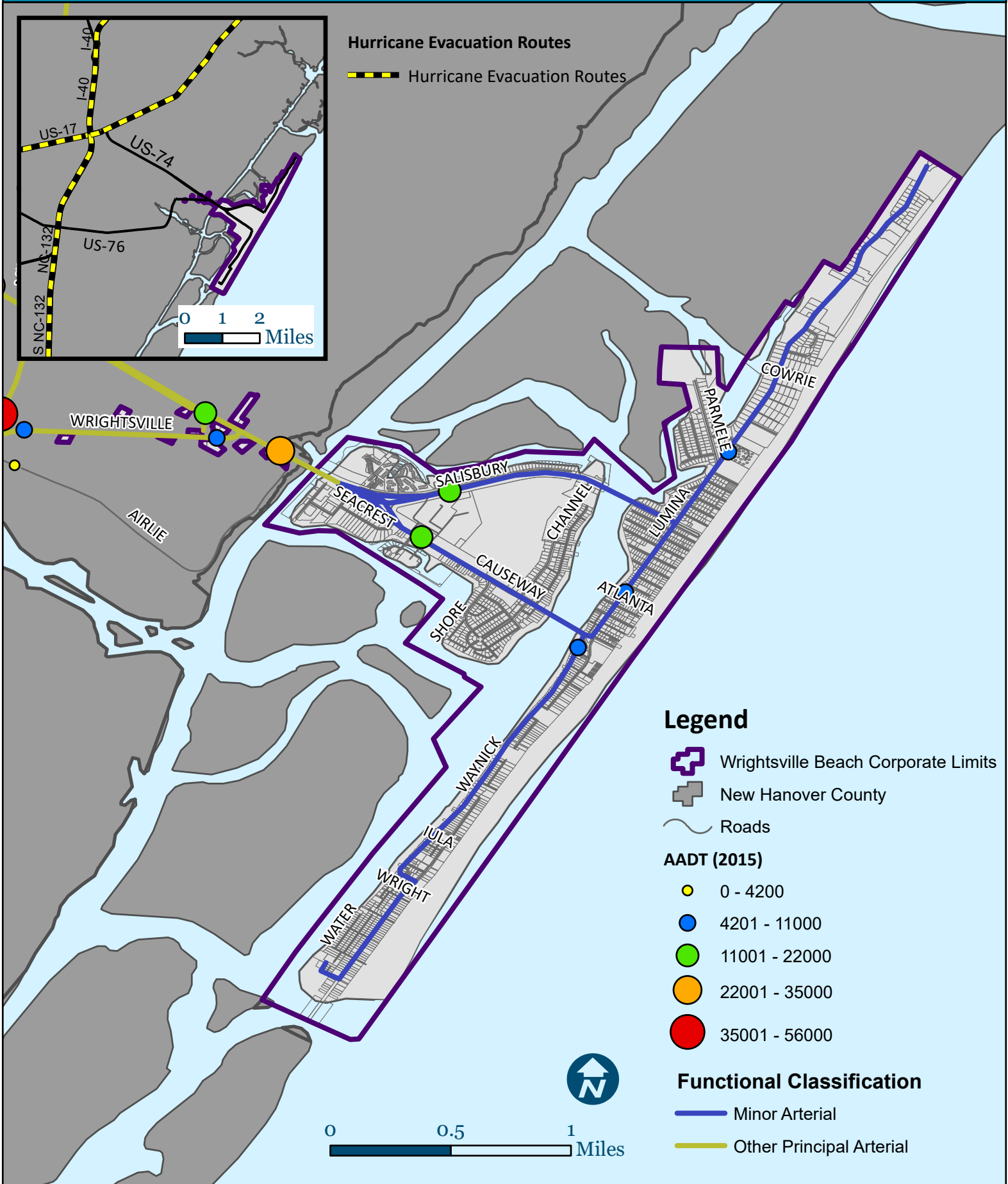
All roads within Wrightsville Beach fall into one of three categories. These categories are intended to provide an idea of the type of access and levels of traffic that the roadway may accommodate. The categories are as follows:

- **Arterials** (principal and minor) are roadways that provide high mobility and operate at higher speeds (45 mph or greater). Principal arterials are divided further into three subcategories: Interstate, Other Freeway and Expressway, and Other Principal Arterial. Arterial roads generally provide cross-town connectivity and regional routes throughout the urbanized area.
- **Collectors** generally operate at a lower rate of speed (typically 35 mph or less) and provide critical connections in the roadway network by bridging the gap between arterial roads and local streets. The primary purpose of collector streets is to collect traffic from neighborhoods and distribute to the established system of major and minor arterials. Wrightsville Beach has no segments of road categorized as collector by NCDOT.
- **Local** street facilities provide a higher level of access and generally have lower speeds. Typically, local streets serve as a means to connect lower impact land uses, such as single-family homes, to the broader transportation network. Wrightsville Beach has no segments of road categorized as local by NCDOT.

Principal Arterials

- Although **US Route 74 (Eastwood Road)** does not go through the Town's corporate limits, it is the primary route which leads vehicles in and out of the Wrightsville Beach area. The posted speed limit is 45 mph traveling to Wrightsville Beach prior to becoming 35 mph just before the Heide Trask Bridge. US Route 74 (Eastwood Road) falls under the Other Principal Arterial category.

Map 11. Existing Roadway Conditions & Annual Average Daily Traffic (AADT)



Minor Arterials

- **US Route 74 (Salisbury Street)** splits shortly after the Heide Trask Bridge and meanders along the northern portion of Harbor Island. Much of the land use adjacent to this portion of US Highway 74 is single-family residential aside from the commercial and government areas of Harbor Island and sporadic commercial locations on the beach portion of the Town. The posted speed limit for this section of the road is 35 mph. At the intersection of Salisbury Street and North Lumina Avenue, the route takes a left turn and becomes a 25 mph zone for the remainder of the road segment.
- **US Route 76 (Causeway Drive)** is a continuation of US Route 74 and splits at the same place as US Route 74 (Salisbury Street). Similar to US Route 74 (Salisbury Street), much of the land use adjacent to this minor arterial is single-family residential with smaller percentages of commercial and governmental. This segment of road has a posted speed limit of 35 mph. At the intersection of Causeway Drive and South Lumina Avenue, the route takes a right turn and continues at 35 mph until it nears Corbett Street and slows to 20 mph for the remainder of the road segment.
- A **portion of North Lumina Avenue** between Causeway Drive and Salisbury Street is positioned roughly at the center of the beach portion of the town. The majority of the land use adjacent to this segment of North Lumina Avenue is single-family residential with commercial primarily at the southern portion. The posted speed limit on this stretch of road is 25 mph.

Regional Accessibility

Regional accessibility is important for many municipalities, especially those that focus much attention to the tourist industry. The ease and accessibility of traveling to the town helps the local economy flourish while also aiding neighboring cities and towns that benefit from Wrightsville Beach as a visitor's destination.

US Highway 74 is an east-west highway that runs for 515 miles from Wrightsville Beach, NC to Chattanooga, TN. The route serves as an important highway from the sea to the mountains and connects the cities of Asheville, Charlotte, and Wilmington. The availability of this route not only provides for ease of long distance travel across the state, but also provides a direct route to and from the Wilmington International Airport for Wrightsville Beach visitors and residents. US Highway 17 Business intersects with US Highway 74 and leads into the heart of Wilmington's downtown via US Highway 17 Business (Market Street).

US Highway 76 is an east-west highway that travels for 548 miles from Wrightsville Beach, NC to Chattanooga, TN. The route traverses 4 different states: North Carolina, South Carolina, Georgia, and Tennessee. US Highway 76 (Oleander Drive) towards Wilmington eventually transitions to US Highway 76 (Wooster Street) which transitions into US 17 Business at 3rd Street.

US Highway 17, also known as the Coastal Highway, is a north-south highway starting from Winchester, VA and ending in Punta Gorda, FL. This route runs through Virginia, North Carolina, South Carolina, Georgia, and Florida. The length and location of this route provides easy access to Wrightsville Beach for residents and visitors from much of the east coast.

Access to Harbor Island and the Beach

The Heide Trask Bridge, the single entrance and exit for the Town of Wrightsville Beach, is a drawbridge crossing the Intracoastal Waterway. This drawbridge opens daily on the hour between the hours of 7:00 AM to 7:00 PM for boats, and upon request by boats with a commercial license. The only exception to this schedule is between 7:00 AM and 11:00 AM on the third and fourth Saturdays in September every year for a Triathlon run, when the bridge does not open. If the bridge is under construction, the bridge openings follow coast guard protocol.



Heide Trask Bridge Image Source: Town of Wrightsville Beach.

In the spring of 2014, the bridge underwent a \$7.95 million rehabilitation project awarded to American Bridge Company of Coraopolis, PA. The project included rehabilitating the concrete bridge deck, replacing the steel grid deck, mechanical/electrical upgrades, cleaning and painting the structure, and upgrading the bridge control house. This construction closed the bridge to general traffic from the hours of 11:30 PM to 5:00 AM for a few nights during the rehabilitation.

Through meetings with town staff and the use of an online survey, it has been determined that many stakeholders are concerned about turning movement queues backing up into the main travel lanes. This situation has caused many drivers to take shortcuts to avoid these intersection problems. An additional concern is the lack of access for non-motorized road users. The 2015 AADT at a point slightly before the Heide Trask Bridge indicated 23,000 vehicles. In 2016, the weeks before, during, and after the 4th of July, the Wilmington Urban Area Metropolitan Planning Organization (WMPO) produced counts that indicated an average daily vehicle count of 37,749 at the bridge. The number provided by WMPO is a total vehicle count, meaning half of the vehicles (approximately 18,875) are the average number of vehicles accessing the island during this three (3) week time period. The current configuration of the entrance to the Town is outdated for the high volumes experienced during summer months. Long queues develop and unsafe traffic conditions materialize as drivers become impatient.

The Town of Wrightsville Beach is planning to study the construction of a new multi-lane fixed bridge while also maintaining the existing bridge. The Town is asking the NCDOT for \$100,000 from the federal Unified Planning Work Program to complete the study. The study would need to evaluate current and future traffic demands, examine the feasibility and potential location of a new multi-lane fixed bridge. Additionally, it would need to consider maintaining the existing bridge and identifying new pedestrian and bicycle facilities.

In 2016, the Wilmington City Council awarded nearly \$650,000 to Intercoastal Marine, LLC, of Mount Airy to complete a walkway underneath the Heide Trask Bridge. For bicyclists and pedestrians, this effort will offer a safer alternative to crossing the bridge.

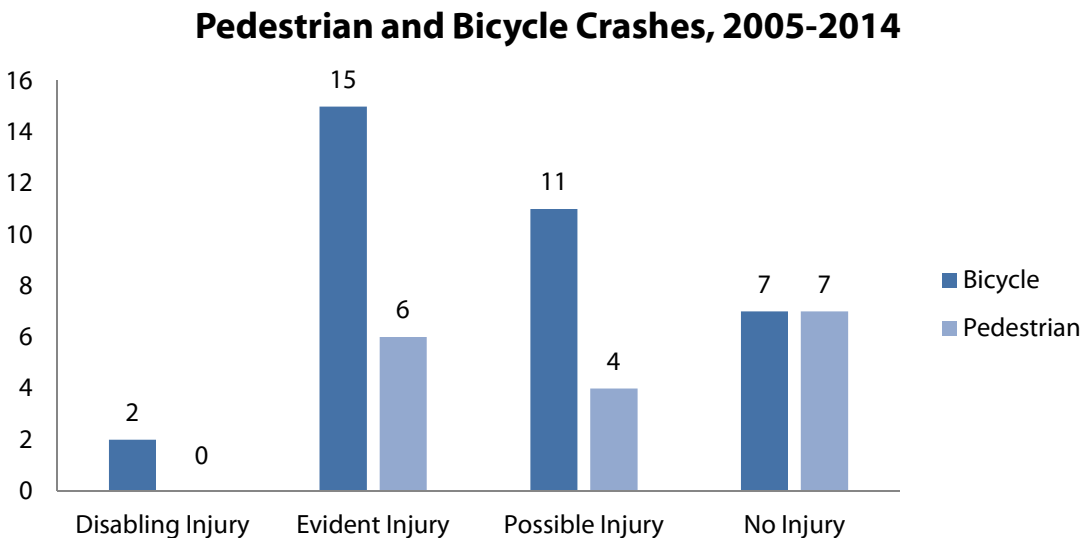
Bicycle and Pedestrian Travel

Over the last forty years, less emphasis has been placed on non-motorized forms of movement, often to the detriment of cyclists and pedestrians. Walking trips have experienced a dramatic decline in recent decades. From 1970 to 2010, the United States experienced more than a 50% decrease in the number of individuals walking to work. During that same time, obesity rates for children and adolescents have nearly tripled.

In fact, it was not until 1998 that the Federal Highway Administration authored a guidance manual addressing the design of bicycle and pedestrian facilities. More recently, walking and cycling have begun to emerge again as more popular options for both travel and health. Throughout the state, citizens increasingly desire to travel by foot or wheel, particularly in communities such as Wrightsville Beach which experience a large influx of tourists during peak seasons.

Because Wrightsville Beach is a beach vacation destination, there is an increased demand for bicycle and pedestrian travel. Destinations such as the Beach, Intracoastal Waterway, parks, and commercial areas all attract bicyclists and pedestrians. There are a number of plans that influence bicycle and pedestrian travel in Wrightsville Beach, with some – such as the “Pelican Drive/ Salisbury Street Bicycle Plan” – focusing directly on non-vehicular travel. This bicycle plan was adopted in September of 2009. There is currently no pedestrian transportation plan for the town, though planning grants are available through the NCDOT Division of Bicycle and Pedestrian Transportation to complete such a plan.

The chart below illustrates the number of pedestrian and bicycle crashes separated by varying severities between the years of 2005 and 2014. During this time, there were 38 reported bicyclist and pedestrian crashes. Of the 38 crashes, over 60% resulted in injury.



Source: University of North Carolina Highway Safety Research Center.

SECTION 3. EXISTING CONDITIONS

Wrightsville Beach contains approximately 11 miles of sidewalk. The majority of the sidewalk is on Harbor Island with the remainder crossing the bridges to the barrier island, running mostly along Lumina Avenue and sporadically branching into side streets.

The town also contains nearly 6 miles of linear bicycle facilities. These facilities are separated into two parts: Paved Shoulders (approx. 1.7 miles) and Shared Lane (approx. 4.3 miles).

Map 12 illustrates the location of existing bicycle and pedestrian facilities.

Airport

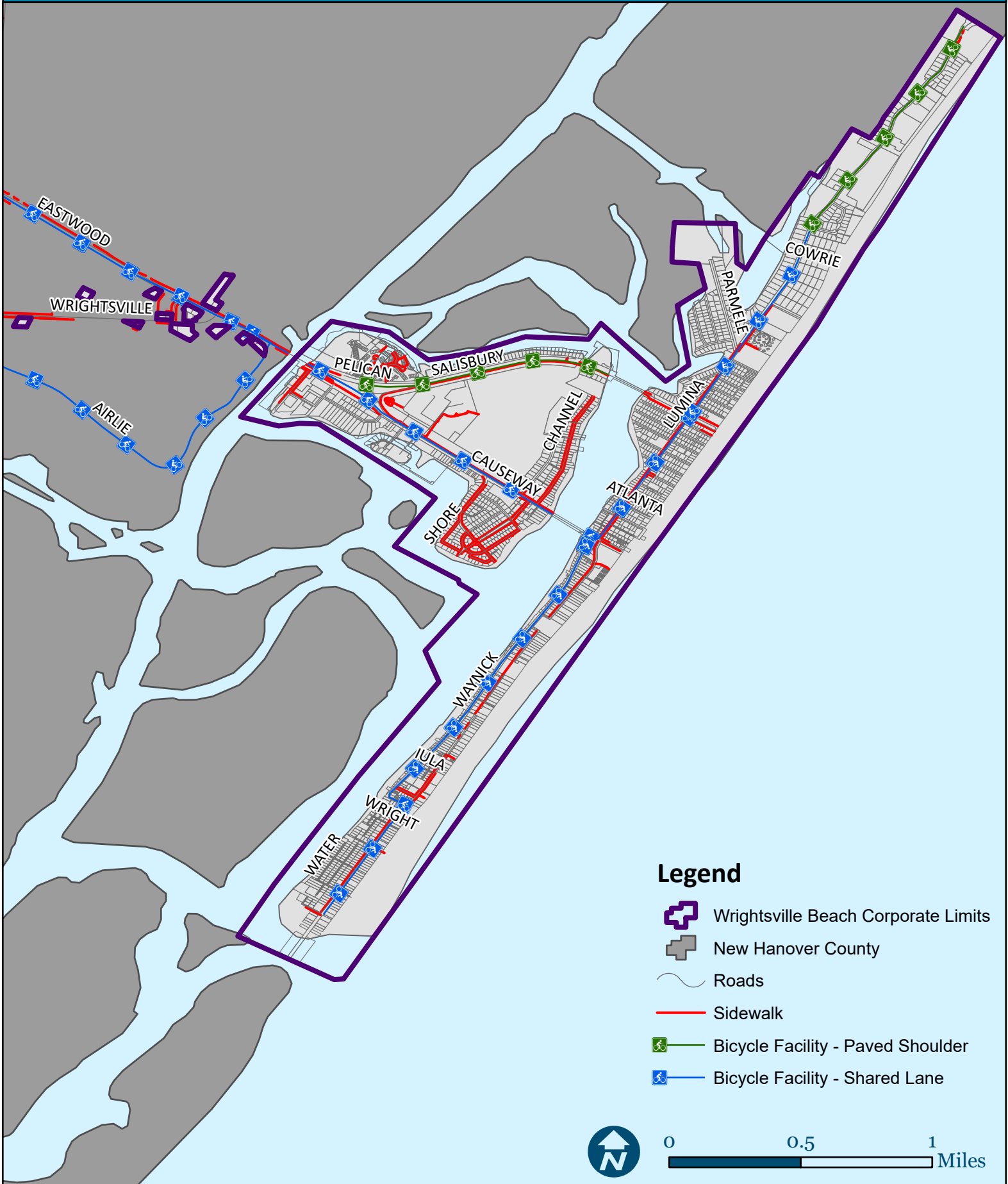
The Wilmington International Airport (ILM), located fewer than 10 miles west of Wrightsville Beach, is owned by New Hanover County. It contains a single terminal with eight (8) gates and has two (2) runways. The runways are 8,016 feet and 7,754 feet in length, respectively. There have been many recent additions such as expanded seating and customer amenities post security, and a pavement rehabilitation project that won the 2014 NAPA Award for Best Aviation Pavement Project.



Wilmington International Airport Image
Source: Port City Daily.

In 2012, the Wilmington International Airport provided services for just under 800,000 passengers, moved 3.7 million pounds of cargo, embarked over 400,000 aircraft, and debarked slightly under 400,000 aircraft. This airport provides an alternative to RDU International Airport for this part of the country and creates substantial economic impacts on Wrightsville Beach.

Map 12. Bicycle and Pedestrian Conditions



EXISTING LAND USE

Introduction

This section of the plan includes the existing land use analysis for Wrightsville Beach’s planning jurisdiction. Simply put, the existing land use analysis details what is “on the ground” today. This categorization differs from zoning, which specifically defines what use is currently allowed on a specific parcel, and outlines design and development guidelines for those intended uses such as setbacks, minimum lot sizes, buffering and landscaping requirements, etc. Existing land use conditions are classified by building types/uses and include eight categories: Single-Family Residential, Multi-Family Residential, Commercial, Office and Institutional, Recreational, Utilities and Transportation, Water, and Undeveloped. In addition, different land use types yield higher per acre values based upon land utilization, location, and proximity to services.

Existing Land Use Conditions

Of the developed land in Wrightsville Beach, the primary use is single-family residential. Much of the land that exists on the island has been subdivided for single-family housing units and has subsequently been developed as such. Commercial areas exist in five primary nodes throughout the Town’s corporate limits including the “Johnnie Mercer Pier” Business District, the Lumina Business District, the Harbor Island Business District, the mainland commercial areas, and along Salisbury Street.

Again, existing land use should not be confused with zoning. Existing land use classifies the current land use, which may differ from current zoning. The following provides further breakdown of the existing land use categories utilized:

- Single-Family Residential
- Multi-Family Residential
- Commercial (retail, wholesale, and service establishments)
- Office and Institutional (government, churches, offices, and schools)
- Recreational
- Utilities and Transportation
- Water
- Undeveloped

Wrightsville Beach’s existing land use is depicted on Map 13, and the corresponding acreages are provided in Table 20. Except for Water and Right-of-Way areas, Single-Family Residential is the largest land use category with 17.3% of the Town’s area. Recreational is the second largest category with approximately 107 acres, or 8.1% of the acreage within the Town’s planning jurisdiction. Multi-Family Residential land use is the third largest category at 6.1%. Commercial land use occupies 72 acres or approximately 5.5% of the Town’s planning jurisdiction. This percentage of commercial land use is not abnormally low for most North Carolina barrier island municipalities.

Land Use	Acres	% of Total
Single-Family Residential	226.9	17.3%
Multi-Family Residential	79.5	6.1%
Commercial	72.1	5.5%
Office and Institutional	40.6	3.1%
Recreational	106.8	8.1%

SECTION 3. EXISTING CONDITIONS

Land Use	Acres	% of Total
Utilities and Transportation	3.9	0.3%
Right-of-Way	333.1	25.4%
Water	426.4	32.5%
Undeveloped	22.8	1.7%
Total	1,312.10	100.0%

Source: Town of Wrightsville Beach.

To better understand land use types and structures, images are provided on the following pages depicting each land use type.

Single-Family Residential



Single-family residential land use contains nearly 1,350 parcels on over 225 acres in the Town's corporate limits. This land use type occupies the majority of the beach portion, approximately one-third of Harbor Island, and has no presence on the mainland area. The reasons for the nonconformities are varied, including setback issues and limitations regarding minimum lot size. This issue will be addressed further in the Future Demands section of the plan.

Multi-Family Residential



Multi-family residential contains over 340 parcels on approximately 80 acres in the Town's corporate limits. This land use type is found at various locations with a large concentration at the northern end of the beach, centrally along the southern end of the beach, and throughout portions of Harbor Island.

SECTION 3. EXISTING CONDITIONS

Commercial



Commercial land use in Wrightsville Beach contains nearly 100 parcels on approximately 71 acres. This land use type is located in key nodes throughout the Town's corporate limits. There have been changes in the commercial landscape throughout the Town, stemming back to zoning deliberations concerning redevelopment of the central Harbor Island commercial area. This effort did not result in redevelopment; however, the issue of mixed use development within certain portions of the town was discussed at that time. Land development considerations regarding commercial areas throughout the Town, including building height, continue to be a topic of discussion. Through discussions with the Land Use Plan Steering Committee, key stakeholders, and Town staff, there are five defined commercial areas considered candidates for reuse including: the "Johnnie Mercer Pier" Business District, the Lumina Business District, the Harbor Island Business District, the mainland commercial areas, and along Salisbury Street. Within existing commercial areas, the issue of density and mixed use development should be addressed during the planning process.

Office & Institutional



Office and Institutional contains 21 parcels on about 40 acres of land within the Town. Much of this land use type can be found on Harbor Island, with sporadic locations throughout the beach area and a larger parcel off Parmele Boulevard containing the Public Works Office. Office and Institutional development throughout Wrightsville Beach is properly positioned and does not currently pose any land use conflict.

Recreational



There are 20 parcels of Recreational land use type in Wrightsville Beach, covering just under 90 acres of land. Recreational use areas and facilities can be found at various locations along the beach area. These locations along the beach are predominantly parks under one acre in size and beach access points. Other sites, which are high traffic areas, are the Wrightsville Beach Park and the public boat ramp – both located on Harbor Island.

Wrightsville Beach has worked diligently to promote public access and to accommodate transient visitors, both overnight and daily travelers.

Utilities and Transportation



Utilities and Transportation covers almost four (4) acres of land on 21 parcels of property within the Town. This land use type occupies much of the eastern portion of Harbor Island, while the beach portion of Wrightsville Beach contains few parcels of this type. This land use category also includes all acreage of right-of-way throughout the corporate limits. The most significant issue facing the beach regarding transportation is the “choke point” created by the Heide Trask Bridge, when opened. This issue will be a factor in Future Land Use and should be closely considered in the Future Demands section of this plan.

Water



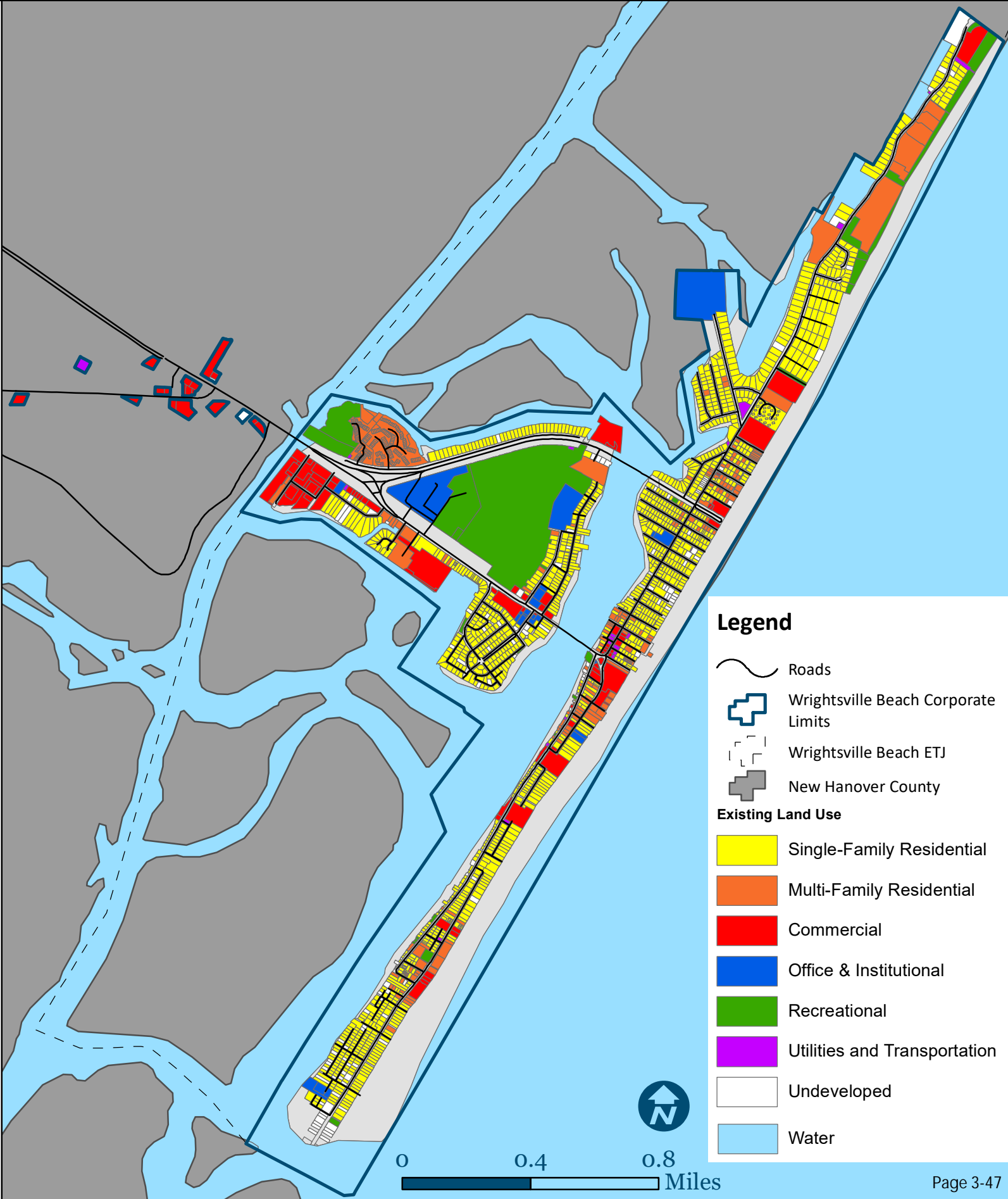
As indicated in Table 20, there are approximately 598 acres of land use classified as Water throughout the Wrightsville Beach corporate limits. These areas are considered Public Trust Areas.

Undeveloped

Undeveloped land in Wrightsville Beach’s corporate limits occupies over 50 acres of land within 131 parcels. Some “Undeveloped” parcels have the potential, and may be suitable, for development while others, such as the large undeveloped area on the northern tip of Harbor Island, have a designation of “very poorly drained” hydric soils. In total, there are 28 of the 131 parcels that are zoned Conservation Zone (P-1) or Shore Zone (S-1). These zoning districts inhibit development and provide strict guidelines on what is allowed. Complete descriptions of P-1 and S-1 can be found below.

Of the 131 undeveloped parcels, more than 90% are under 1 acre in size, and the majority of these parcels are designated for residential development. While zoning regulations will require that a majority of the vacant parcels under an acre be developed as single-family residential, the larger parcels will provide for additional development scenarios, which may require zoning ordinance text and map amendments.

Map 13. Existing Land Use



Undeveloped Parcels by Zoning Classification

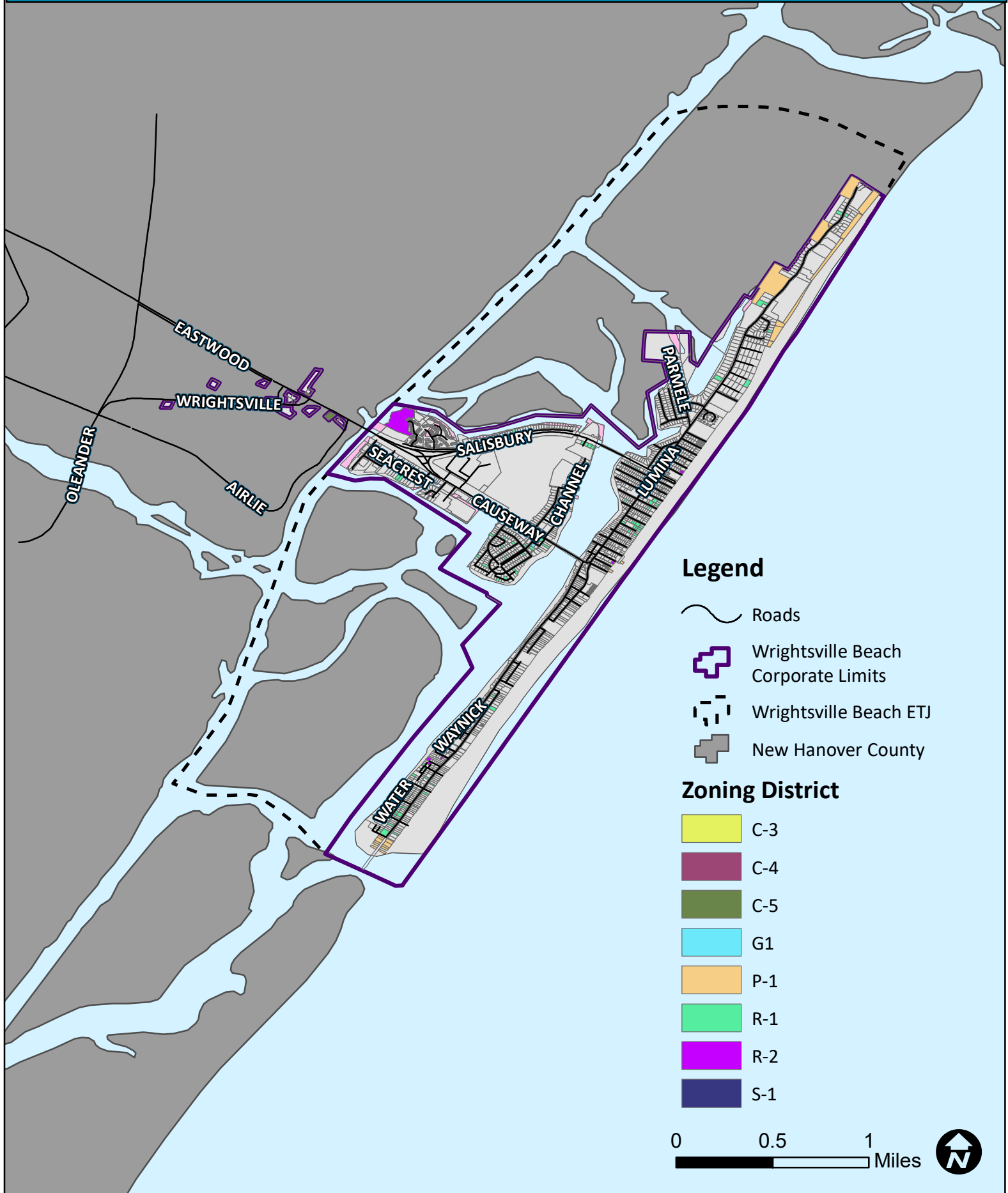
Table 21 and Map 14 provide a synopsis of the zoning classifications for all undeveloped parcels remaining in the Town of Wrightsville Beach. The following provides a summary of the Town's existing zoning districts:

- R-1 Residential District – Principal use of land is for single-family residences
- R-2 Residential District – Principal use of land is for medium-density residential uses
- PC Private Club District – Established to accommodate private clubs
- C-1 Commercial District I – Established to embrace existing and growing commercial, tourist, and short-term residential uses.
- C-2 Commercial District II – Established to embrace existing and growing commercial, tourist, and short-term residential uses.
- C-3 Commercial District III – Established to permit those specialized uses which will fulfill the special needs of daily commuters and periodic short-term visitors.
- C-4 Commercial District IV – Established to accommodate a growing volume of short-term hotel-motel visitors.
- C-5 Commercial District V – Established to permit light to medium neighborhood commercial use.
- G-1 Public and Semipublic District – Includes property owned by a local, state, or federal agency.
- S-1 Shore Zone – Contains built-up land constructed by the state, the federal government, and the Town.
- P-1 Conservation Zone – Established as a district in which no lot or parcel of land may be developed for any purpose except commercial piers (where P-1 zone adjoins a zone permitting a marina), private piers (where the P-1 zone adjoins a residential district), and ocean-related business activities as permitted in Chapter 92 of the Code of Ordinances.

Zoning District	Acres	% of Vacant Parcels
R-1 Residential District	14.2	27.4%
R-2 Residential District	8.2	15.8%
PC Private Club District	0.0	0.0%
C-1 Commercial District I	0.0	0.0%
C-2 Commercial District II	0.0	0.0%
C-3 Commercial District III	0.5	1.0%
C-4 Commercial District IV	0.2	0.4%
C-5 Commercial District V	0.7	1.3%
G-1 Public and Semipublic District	0.2	0.4%
S-1 Shore Zone	0.1	0.2%
P-1 Conservation Zone	27.8	53.5%
Total	51.9	100.0%

Source: Town of Wrightsville Beach.

Map 14. Undeveloped Parcels by Zoning



SUMMARY

Environmental Factors

- The Town of Wrightsville Beach is predominantly situated on a migrating barrier island, and is located in the southeastern Coastal Plain of North Carolina. Communities located in this region of the state are united by their proximity to the Atlantic Ocean and its riverine estuaries.
- Over the course of a typical year, the temperature ranges from 36°F to 90°F.
- Over 96% of Wrightsville Beach's corporate limits are impacted by a Special Flood Hazard Area (SFHA).
- Fine sands account for more than 41% of the soil in Wrightsville Beach.
- The Town of Wrightsville Beach has three separate areas: the mainland, Harbor Island, and the principal barrier island along Lumina Avenue. Except for the mainland portion of the Town, all areas of the Town's planning jurisdiction are required to meet CAMA guidelines.
- Wetlands occupy nearly 50% of Wrightsville Beach's corporate limits.

Community Facilities/Services/Events

- There are several health care resources within a 10-mile radius of the Town, including New Hanover Regional Medical Center, Medac Urgent Care, and the New Hanover County Health Department.
- The Public Works department performs many important functions for residents and visitors. Departmental concerns focus on stormwater hotspots. Priority drainage problems have been identified at North Lumina Avenue between Stone and Columbia Streets, Greensboro Street through the intersection of Salisbury Street on North Lumina Avenue, Cypress Drive, Myrtle Court, Channel Avenue, and Marina Street.
- Wrightsville Beach's public accesses and parks contain amenities ranging from picnic shelters and event stages to playgrounds and outdoor fitness equipment.
- Public schools that serve the Town include Wrightsville Beach Elementary, Noble Middle School, and Hoggard High School.
- The Wrightsville Beach Police Department serves an area of approximately two (2) square miles, 125 business establishments, and nearly 3,000 housing units.
- The Wrightsville Beach Fire Department responds to approximately 150 fire alarms and 450 emergency medical calls annually.
- In 2016, the Ocean Rescue Squad responded to 516 total interventions, 162 medical calls, 23 emergency 911 calls for water rescues, and 24 lost children notifications.
- There are currently 21 properties listed as a local historic landmark. The James D. and Frances Sprunt Cottage is on the National Register of Historic Places.

Transportation

- According to the 2015 Annual Average Daily Traffic (AADT) counts, the highest volume of vehicular travel is at a point just before the Heide Trask Bridge (23,000). It should be noted that this number does not reflect seasonal traffic counts.
- There are approximately 11.15 miles of eligible Powell Bill roads in Wrightsville Beach, allowing the Town to receive approximately \$69,500 each year for local road improvements.
- Because the Town is a beach vacation destination, there is an increased demand for bicycle and pedestrian travel. Destinations such as the beach, Intracoastal Waterway, parks and recreational facilities, and commercial areas all attract bicyclists and pedestrians.
- There are approximately 11 miles of sidewalk and nearly 6 miles of linear bicycle facilities available to Wrightsville Beach residents and visitors.
- Air service is provided by the Wilmington International Airport, which is located less than 10 miles from Wrightsville Beach.

Existing Land Use

- Wrightsville Beach continues to primarily be a single-family residential community.
- Wrightsville Beach includes multiple nonconforming residential structures.
- There are commercial areas which may be candidates for reuse.
- Wrightsville Beach has diligently provided recreational options for the community, including public access.
- The Heide Trask Bridge and its future disposition will be a primary future factor affecting Future Land Use.
- Only 4.7% of Wrightsville Beach's land area continues to be undeveloped.

INTRODUCTION

Multiple factors influence a community’s future growth. Wrightsville Beach’s future growth and land use will be strongly influenced by:

- Limited vacant land
- Aging structures
- Building height
- Population pressure from mainland development
- Future disposition of the C. Heide Trask Bridge
- Future zoning
- Maintaining supportive infrastructure
- Preservation of the Town’s natural assets.

Because of these many variables, it is difficult to forecast future permanent or seasonal population. For example, a desire to maintain Wrightsville Beach as a predominantly residential community may run headlong into the rezoning of property to a more flexible mixed use category. The decisions made in this plan will determine the demand for infrastructure and services.

The discussion in this section of community facilities and services needs and future land use is intended to provide a foundation for the development of implementing actions as a component of this plan. These sections provide a summary of need with regard to community services and facilities, while also defining future growth and land use patterns.

POPULATION PROJECTIONS

Calculating future population is a difficult task and is at best an imperfect science. Because Wrightsville Beach is largely developed, the Town has a better opportunity to control growth than a community which has extensive undeveloped property and a greater range of existing land uses.

Wrightsville Beach’s permanent population has actually declined from 1990 to 2010, a decrease of 15.7%. Without reconfiguration of the Town’s zoning, significant population increase will not occur. The Town has only 131 vacant parcels, of which 22.4 acres, or 100 parcels, are zoned for residential use (excluding any conditional use multi-family development in the C-3 district). An additional 100 single-family dwelling units could be constructed. At the 2010 average household size (2.2 persons per household), an additional 220 permanent population could be accommodated. This results in a build-out population of 2,697. It is assumed that this situation will occur by 2035.

Table 22. Wrightsville Beach Forecast Population, 2035					
2010	2015	2020	2025	2030	2035
2,477	2,521	2,565	2,609	2,653	2,697

Source: HCP, Inc.

Projections of day visitor traffic are more difficult than permanent population. The New Hanover County population, including all municipalities, is expected to increase by 22.9% by 2040. Most of the Town’s day visitor traffic appears to be from New Hanover County. Thus, by 2035, peak day traffic should increase to approximately 51,270 people.

SECTION 4. FUTURE DEMAND/PROJECTIONS

Table 23. Wrightsville Beach Peak Day Population, 2035

2015	2020	2025	2030	2035
41,725	44,185	46,646	49,107	51,270

Source: HCP, Inc.

The greatest future population pressure will come from Wilmington-New Hanover County. The current county land use plan forecasts a range of population growth of 249,026 to 337,054 by 2040. Both the low and high forecasts represent significant population growth. The peak day population will be limited by accessibility across the Intracoastal Waterway and on island parking facilities.

The City of Wilmington Comprehensive Plan targets the area west of Wrightsville Beach along Eastwood Road, categorized as mixed use, as an “area of opportunity.” This is defined as an area of the City which will experience more intense change through new development, redevelopment, and infrastructure improvements. In addition, the Mayfaire area is identified as a major mixed use center. Further mixed use development is anticipated in the area between Military Cutoff Road and Wrightsville Beach. While there are no specific population forecasts for the Eastwood Road area, it is clear that there will be a significant population increase on Wrightsville Beach’s doorstep.

HOUSING

As outlined under the existing land use section of the plan, there are 131 acres of vacant/undeveloped land throughout Wrightsville Beach’s corporate limits. Nearly 76% of these vacant parcels are zoned for single family/duplex residential development. As noted under the population projections discussion, this may result in approximately 100 additional single family/duplex residential units. This growth is very limited for barrier island beach communities. In addition to single-family home construction, there is also potential growth regarding mixed use and/or multi-family development on a portion of the remaining 32 vacant acres of developable land. Aside from this, all development will be in the form of infill and redevelopment of aging/underutilized properties. Historically, there has been a trend in Wrightsville Beach to redevelop older and smaller beach cottages with large single-family structures that maximize a respective lot’s development potential. Regardless of what form this development takes, the impact of population growth on service demand relating to this development should be minimal.

ECONOMY

The Town of Wrightsville Beach has historically maintained three distinct commercial centers located throughout the Town’s corporate limits. These include the Lumina Business District, the Harbor Island Business District, and the South End Business District. The commercial centers have not necessarily expanded over the last ten to twenty years, and the integrity of the districts have not changed substantially. During the development boom between 2004 and 2008, there were several projects proposed that would have transitioned the Harbor Island commercial district into more of a mixed use land use pattern; however, this shift would have maintained the existing first floor commercial square footage, and therefore the overall character of the area.

The Town will aim to continue to support the Town’s commercial operations; however, there should be a focus on recruiting and maintaining businesses that align with the vision defined in this plan regarding the future of Wrightsville Beach.

SECTION 4. FUTURE DEMAND/PROJECTIONS

The following provides a summary of key issues identified through the public input process that relate to economic development and growth throughout the Town's planning jurisdiction. Specific action statements regarding efforts to address these issues will be outlined in Section 5 of the plan.

- Parking and access.
- Beach renourishment.
- Protection of commercial base.
- Water/sewer with regard to Town ownership/capacity
- Redevelopment of the Johnnie Mercer's Pier Business District.
- Municipal/county tax rate.
- Redevelopment of the Lumina Business District (Central Business District).
- Protection of tourism base.
- Potential redevelopment of commercial areas.
- Preservation of historic structures.
- Redevelopment of Harbor Island Business District.
- Redevelopment of the South End/Crystal Pier Business District.

FUTURE COMMUNITY FACILITIES AND SERVICES NEEDS

A variety of factors has an impact on the land use, infrastructure, and transportation systems within a given jurisdiction. For Wrightsville Beach, the primary impacts are related to a growing permanent population, increasing use of second homes throughout the entire year, increasing visitation in the pleasant spring and fall seasons, the desire for additional amenities, and the desire for sustained economic growth.

While managing these impacts, the Town must stay true to its core identity, recognizing that the reason Wrightsville Beach has succeeded is its desirability as a beach destination which embraces its "family beach image" and "small-town atmosphere." Particular emphasis should be placed on preserving the Town's number one asset – the beach, and also on future development policies that carefully balance the "family beach image" and "small town atmosphere" with additional opportunities for economic success.

Community infrastructure and services such as utilities, beach nourishment, police, fire, emergency medical services, public works, and recreation will all be affected by these factors, as well as projected growth and development. Projected needs that will result from future development and changes to the land use pattern are discussed within this section. In addition to impacts on infrastructure and services, discussion includes recommendations for enhancing the built environment through capital improvement.

Public Safety (Police and Fire/EMS)

As noted in Section 3, the Wrightsville Beach Police Department serves an area of approximately two (2) square miles and the department received approximately 13,812 calls for service in 2015. The Town's Police Department is housed in the recently constructed Public Safety building and all facility and personnel needs appear to be adequate for current service demand. The Town revolves patrol vehicles and equipment through capital improvements planning associated with the annual budgeting process. This practice will continue to take place through the planning period and resources will be adjusted on an as-needed basis.

Along with the Town's Police Department, the Fire and EMS personnel have relocated into the recently constructed Public Safety building. All fire suppression apparatus and equipment are replaced on a rotating schedule through the town's capital planning addressed through the budgeting process. It should be noted

that there are currently no significant equipment or personnel needs regarding the Town's fire department operations.

The last function of the Town's Public Safety Program, is the Ocean Rescue Squad (ORS). The ORS currently employs twenty-eight seasonal lifeguards during peak summer months. The Town assesses the demand for service annually, and will continue to do so as the Town's peak seasonal population increases during the planning period.

Parks Recreation & Open Space

The Town of Wrightsville Beach is currently implementing the Town's 2013-2018 Parks, Recreation, and Open Space Master Plan. The plan outlines a range of recommendations for the Town's various open space and recreational facilities. The following provides a summary of these recommendations for each Town-owned passive and/or active recreational facility. It should be noted that these improvements are simply recommendations identified through the planning process.

[Wrightsville Beach Park](#)

Wrightsville Beach Park is the flagship of the Town's park system as it is the largest and most diverse park. Future facilities and amenities that could be added to the park include more outdoor tennis courts, lights for the existing tennis courts, a Frisbee golf course, a shuffleboard area, a horseshoe area, a bocce ball area, additional exercise stations, and a "doggie park/area."

[Greensboro Street Park](#)

Greensboro Street Park provides an excellent set of amenities as a small neighborhood mini-park. There is room within the park for the addition of a water fountain and a small playground structure for ages 5-12.

[South Channel Drive Park](#)

The steps leading down to Banks Channel at South Channel Drive Park will require maintenance and periodic replacement. The facilities are adequate; however, additional landscaping could be added to include a rain garden.

[Wynn Plaza Waterfront Park](#)

The site furnishings at Wynn Plaza Waterfront Park are suitable and adequate for the park. Every effort should be made to maintain the visual beauty of the park through landscaping and proper maintenance. A designated kayak/canoe/paddleboard launching dock/area could be established to facilitate public access to Banks Channel for non-motorized watercraft.

[Causeway Drive Park](#)

A gazebo and benches could be added to the Causeway Drive Park to allow residents the opportunity to take better advantage of the view of the AIWW and passing vessels. A rain garden could also be constructed for beautification purposes and to reduce non-point source pollution.

[Lee's Nature Park](#)

The existing facilities at Lee's Nature Park are adequate for the use the park receives.

[Island Drive Park](#)

The installation of additional landscaping would serve to beautify the site to include a rain garden. The steps providing access to Motts Channel and a low-tide sand/bench area will require maintenance and periodic replacement.

[Fran Russ Recreation Center](#)

There is a definite need and opportunity to upgrade and improve the Fran Russ Recreation Center facility. Recommended improvements and upgrades include adding a state-of-the-art sound system and renovating the interior of the facility.

[Kayak/Canoe/Paddleboard System](#)

The Town of Wrightsville Beach offers excellent opportunities and experiences for kayak/canoe/paddleboard enthusiasts. However, there are no signs, buoys, or markers designating any actual trail routes. Public access is provided at the North Carolina Wildlife Resources Commission boat ramp on Harbor Island and can be gained at the Wynn Plaza Waterfront Park. Signage, markers, and trail buoys could be erected that accurately describe the available routes to users and provide easy to follow directions. Additionally, information kiosks could be placed in strategic locations around town and an information brochure/pamphlet could be created and distributed.

[John Nesbitt Loop](#)

Items that would effectively improve “The Loop” include widening the existing trail to at least six (6) feet where possible; resurfacing the trail where possible with a surface more flexible and resilient than concrete; improving the lighting; installing a system to provide a watering mist at strategic locations; additional landscaping; and adding fitness/exercise stations along the length of the trail.

Water and Sewer System

The Wrightsville Beach Board of Aldermen enlisted the services of McKim & Creed Engineers to complete a Preliminary Engineering Report establishing options and/or alternatives for long-term solutions regarding the provision of central water and wastewater treatment services. Of particular concern are issues relating to the Town’s central water system. According to the report, salt water intrusion continues to be a constant issue based on a recent study of the Town system, completed by GMA, Inc. Three (3) of the Town’s wells are experiencing high chloride concentrations from salt water intrusion. An additional three (3) wells require rehabilitation to increase yield. The GMA, Inc., study, completed in August 2015, identified a number of options to develop a long term sustainable water supply for the Town, which were evaluated as part of the McKim & Creed report. The options that were investigated included the following:

- **Option 1** – Town to purchase water from Cape Fear Public Utility Authority (CFPUA) May 1 to September 30 (summer peak) to supplement well production.
 - *Option 1A* – Town to purchase water from CFPUA May 1 to September 30 (summer peak) to supplement well production and remove wells 1, 3, and 8 from operation.
 - *Option 1B* – Town to purchase water and re-pump at Water Treatment Center 2 (WTC2) from CFPUA May 1 to September 30 (summer peak) to supplement well production.
 - *Option 1C* – Town to rehabilitate wells to increase yield per the *Skipper’s Well Drilling Service Report* and purchase water from CFPUA May 1 to September 30 (summer peak) to supplement well production.

- **Option 2** – Town to purchase all water from CFPUA.
- **Option 3** – Town to purchase water from CFPUA during off-season months and store the water in an aquifer storage and recovery (ASR) system to be withdrawn during the peak summer months.
- **Option 4** – CFPUA acquires operation of the Town’s water and wastewater system.
- **Option 5** – CFPUA integrates the Town’s mainland distribution system and customers into the CFPUA system.
- **Option 6** – Town to purchase water on an as-needed basis for emergency use purposes (option not included in the original McKim & Creed report).

A water quality analysis has also been conducted to evaluate the impacts of blending the CFPUA water supply with the Town’s groundwater supply, which could occur in several of the identified partnership options.

The condition of the Town’s wastewater system is deteriorating. Many older clay collection lines are failing and infiltration is a continuing problem. Repair/upgrade/maintenance is a major issue confronting the Town’s sewer collection system. The Town will continue to consider the options stated in this section for addressing its future water and wastewater system needs. A detailed breakdown and further documentation of the McKim & Creed study is provided in Appendix A.

Water Quality/Stormwater Management

The Town is fortunate to enjoy excellent water quality in the Atlantic Ocean, Banks Channel, and the Intracoastal Waterway. As water quality is essential to the quality of life and the Town’s economic success, the Town will continue to strive to maintain that excellent water quality. The biggest threat to water quality within the Town is non-point source stormwater runoff.

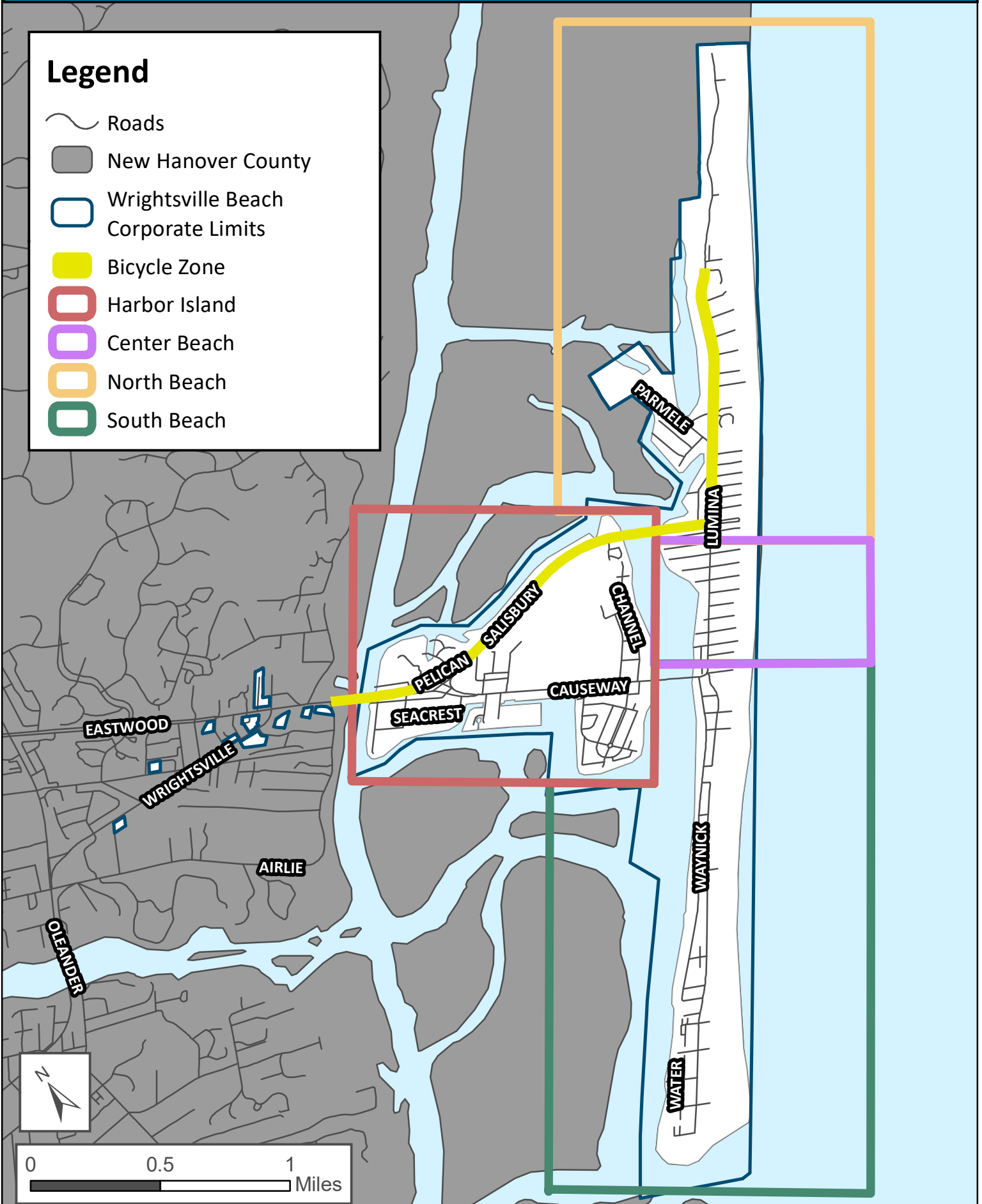
Wrightsville Beach will continue to work diligently to develop and maintain policies and land development regulations aimed at mitigating and/or minimizing these impacts. The Town will continue implementation of its comprehensive stormwater management program which requires both residential and nonresidential development to construct on-site stormwater facilities that limit or eliminate the impacts of runoff on adjoining properties, as well as adjacent waterbodies. The Town follows the NC Department of Environmental Quality Coastal Stormwater Regulations. The Town’s stormwater management program applies to all commercial development, and residential development that disturbs more than 10,000 square feet. A professional engineer must seal the plan; residential development with less than 10,000 square feet does not require an engineer’s seal.

Additions or modifications to existing single-family residential structures that involve less than 1,000 square feet of impervious surface are exempt from the stormwater management plan requirement. Also, maintenance or alterations that do not change quantity or quality of runoff are not required to submit a plan.

Transportation/Street Maintenance

In 2013, the Town of Wrightsville Beach completed the Town’s Community Transportation Plan under the direction of Kimley-Horn and Associates, with assistance from the Wilmington Urban Area Metropolitan Planning Organization. This plan addresses a range of transportation improvements including multi-modal transportation improvements for both pedestrians and cyclists. Map 15 provides the general location of areas targeted for improvement.

Map 15. Transportation Planning Areas



The following provides a summary of improvements identified for the four portions of the beach outlined on Map 15 (Harbor Island, South Beach, North Beach, and Center Beach).

[Harbor Island](#)

Harbor Island is defined as the area that begins at the Heide Trask drawbridge east to the causeway bridges. This area generally is considered the gateway to Wrightsville Beach and includes a diversity of uses including Wrightsville Beach Town Hall, community post office, community parks, fire station, Wrightsville Beach Elementary School, marinas, retail and service uses, as well as a host of residential uses. Key issues at this location were identified as follows:

- Confusing intersection at Salisbury/Causeway.
- Interruption of traffic flow resulting from drawbridge.
- Bicycle and pedestrian safety and connectivity.
- Perception of speeding.

In response to the documented concerns and issues, a series of recommendations was developed for Harbor Island. US 74 and US 76 diverge at the intersection of Causeway Drive and Salisbury Street immediately east of the Heide Trask drawbridge. As the only connection to the mainland, this intersection accommodates all movements on and off the island. The current unsignalized configuration places a priority on the Causeway Drive movements. According to traffic counts collected for the Community Transportation Plan (CTP), seven (7) out of ten (10) vehicles entering the intersection eastbound in the morning continue on Causeway Drive. The design of the intersection includes numerous stops, yields, and merges, resulting in numerous conflict points. Many visitors also find the atypical configuration confusing. The addition of heavy vehicles towing boats and turning to and from the marinas and boat ramps coupled with pedestrians and bicyclists trying to reach the Post Office and restaurants to the south results in several types of conflicts.

Through cooperation with the Wilmington MPO, NCDOT, and Town, an evaluation of alternate intersection treatments was conducted. Specifically, two alternative designs were evaluated: a signalized intersection and a roundabout. The traffic analysis performed for each design demonstrated acceptable levels-of-service. However, careful consideration by plan participants including the MPO, NCDOT, and the Town as well as public input resulted in support for the roundabout option. The roundabout also is the recommended alternative in the Cape Fear Commutes 2035 Transportation Plan. The benefits of the roundabout option include the following:

- Reduces vehicular conflict points.
- Channelizes pedestrian and bicycle movements.
- Better distributes eastbound traffic and lessens the reliance on Causeway Drive for beach access.
- Offers a signature gateway and sense of arrival to the island.
- Operates seamlessly during power outages.
- Creates additional open space at the Town entrance.

SECTION 4. FUTURE DEMAND/PROJECTIONS



Conceptual Design for Causeway Drive/Salisbury Street Image Source: *Wrightsville Beach Community Transportation Plan*

Notable features include the following:

- Dual lane roundabout.
- Gateway features at roundabout.
- Resurfaced roadways, including Old Causeway Drive.
- Improved connection to Driftwood Court.
- Painted bicycle lane in boat ramp parking lot.
- Enhanced crosswalks and pedestrian connectivity at the roundabout and connections to Keel Street and Driftwood Court.
- Wider Loop.

South Beach

South Beach is characterized as the portion of the barrier island from Stone Street south to the southern point of the island. Waynick Boulevard and South Lumina Avenue function as a parallel couplet offering access to several small secondary streets that provide access primarily to residential and recreational uses. South Lumina Avenue lacks full continuity and alternates between north and southbound one-way status. Key issues at this location were identified as follows:

- Heavy conflicts between pedestrians, cyclists, and motor vehicles at the intersection of Waynick Boulevard and Causeway Drive.
- Northbound left turns at Waynick Boulevard and Causeway Drive intersection.
- Lack of north-south bicycle and pedestrian connectivity.
- Waterfront access (beach and inner coast).
- Underutilized lanes on Waynick Boulevard.
- Lack of special events parking.
- Perceived speeding on Waynick Boulevard.

SECTION 4. FUTURE DEMAND/PROJECTIONS

The following recommendations for South Beach were developed in response to the key issues. This intersection serves as a secondary gateway to Wrightsville Beach because it is the main access point to the barrier island. The intersection actually is an elongated confluence of several roads, including Causeway Drive, Waynick Boulevard, Lumina Avenue, and Stone Street. The signalized intersection struggles under the weight of vehicle movements, pedestrian activity, and bicycle traffic. Traffic counts collected for the CTP revealed 56% of vehicles entering the intersection from eastbound Causeway Drive travel south on Waynick Boulevard in the morning peak period. The afternoon and event peak periods experience most vehicles turning left onto Causeway Drive. While South Lumina Avenue is one-way southbound, vehicles were observed traveling northbound. Waynick Boulevard was observed to function far below capacity.

The discussion of this area focused on improving bicycle and pedestrian safety while better accommodating traffic exiting the beach. A design plan was developed that converts Waynick Boulevard to 3-lane facility with a striped multi-use path, creates dual lefts for the northbound approach, and tightens the intersection for improved pedestrian safety.



Conceptual Design for Causeway Drive/Waynick Boulevard Image Source: *Wrightsville Beach Community Transportation Plan.*

Notable features include the following:

- Converts Waynick Boulevard to a 3-lane section with striped multi-use path with a door zone to separate it from parallel parking.
- Provides dual left turns from Waynick Boulevard to Causeway Drive.
- Channelizes one-way entrance to Lumina Avenue and improves land markings to reduce wrong-way movements.

SECTION 4. FUTURE DEMAND/PROJECTIONS

- Adjusts stop bar locations to improve turning radii.
- Utilizes parallel parking on Waynick Boulevard as a buffer between the road and multi-use path.
- Straightens crosswalks at Waynick Boulevard to limit pedestrian exposure.
- Includes bulb-outs at Lumina Avenue/Stone Street intersection to reduce pedestrian exposure.
- Adds ADA-compliant curb ramps at all crosswalks.
- Adjusts the signal timing to provide adequate crossing.
- Wayfinding signs could be installed for kayak launch points.
- Striped multi-use path could be converted to angled parking during special events.
- Traffic turning right from Waynick Boulevard may experience additional delay without an exclusive right-turn lane.

[North Beach](#)

North Beach is characterized as the area located between Salisbury Street north to the terminus of North Lumina Avenue (at Shell Island Resort). It is primarily accessed by North Lumina Avenue with several local streets offering access to residential and recreational uses. Key issues at this location were identified as follows:

- Lack of support for a roundabout at North Lumina Avenue/Salisbury Street (as recommended in [Cape Fear Commutes 2035 Transportation Plan](#)).
- Improved pedestrian crossings at North Lumina Avenue and Salisbury Street.
- Inconsistent bicycle accommodations.
- Emergency access to beach is in a location that is congested (proximity to Surf Club).
- Pedestrian and bicycle access south to the Center Beach area.

The recommendations for the North Beach area focus on improving the bicycle and pedestrian network by raising awareness to bicyclists' right to the road and delineating pedestrian crossings. The intersection of Salisbury Street and North Lumina Avenue is a secondary gateway to the beach area, particularly those destined for the resorts in north Wrightsville Beach. The intersection was studied in detail as part of the Pelican Drive/Salisbury Street Bicycle Plan. The intersection also appears in the [Cape Fear Commutes 2035 Transportation Plan](#) as a recommended roundabout. Additional field review and traffic analysis showed the intersection does not operate poorly under existing conditions. Support for the roundabout was not strong among elected officials and the public, particularly if parking supply would be impacted. After careful consideration, a new design was created for the area that included features such as realigned travel lanes, reorganized parking, pedestrian refuge, and bicycle facilities. The Pelican Drive/Salisbury Street Bicycle Plan recommends the following:

- Alter parking areas on Salisbury Street to create room for 6-foot bicycle lanes on either side of the street.
- Redesign parking areas for better traffic flow, clarity, and safety.
- Install an eastbound bicycle lane to the public beach access at the end of Salisbury Street.

SECTION 4. FUTURE DEMAND/PROJECTIONS



Street-level view of the proposed bike lane and curb extensions at the Salisbury/North Lumina intersection.



Profile view of Option B bike-ped bridges and off-road connector trail parallel to Salisbury Street.



Proposed Recommendations for the Intersection of Salisbury Street and North Lumina Avenue.

Selected Images from the Pelican Drive/Salisbury Street Bicycle Plan Image Source: *Wrightsville Beach Community Transportation Plan*.

Center Beach

Center Beach includes the portion of the beach located between Stone Street (to the south) and Salisbury Street (to the north). This area is the traditional center of the beach where several commercial uses including restaurants, rental, and recreational uses, can be found as well as a diversity of residential uses. Parking along southbound Lumina Avenue is restricted on weekends to provide extra room for the Loop and access for emergency vehicles when warranted. Key issues for this location were identified as follows:

- Congestion, including conflict between vehicles, pedestrians, and bicyclists.
- North Lumina Avenue serves as a portion of the Loop by pedestrians and bicyclists.
- Need to maintain dedicated space for emergency response along North Lumina Avenue.
- Pedestrian crossings along North Lumina Avenue within proximity to commercial uses.
- Parking.
- Salisbury Street and North Lumina Avenue intersection (design, parking, and operations).

The recommendations for this area focus on short-term improvements to North Lumina Avenue. Right-of-way constraints are the limiting factor in the development of recommendations even though the area is bracketed by two access points to the beach – Causeway Drive to the south and Salisbury Street to the north – and suffers from the worst peak season congestion in Wrightsville Beach. Two options for North Lumina Avenue between Causeway Drive and Salisbury Street were explored as part of the CTP. The recommended short-term option is to maintain the existing cross section and add sharrows to emphasize shared use between motor vehicles and bicyclists. Sharrows also should help draw bicyclists away from the parking areas into the travel lanes with slow-moving vehicles. The second option creates a striped multi-use path similar to the

proposed path on Waynick Boulevard by permanently removing parking on the southbound side of the road. Parking in this area already is restricted during peak periods to allow emergency vehicle access and additional room on the Loop. By permanently removing parking and restriping the road for a multi-use path, a dedicated space for bicyclists and pedestrians can be created. This option would continue to provide space for emergency vehicles when necessary and may be converted to angled parking during events. Crosswalks are recommended on three locations along North Lumina Avenue:

- Columbia Street.
- Atlanta Street.
- Fayetteville Street.

[C. Heide Trask Bridge](#)

The Town of Wrightsville Beach, in concert with NCDOT and the Wilmington Area Metropolitan Planning Organization, are reviewing options regarding future access across the Intracoastal Waterway from the mainland to Wrightsville Beach. These discussions will continue through the planning period.

FUTURE LAND USE

The Town of Wrightsville Beach’s vision for future land use is depicted on the future land use map (Map 16). The map is an objective and cannot always be used as a precise guideline.

The future land use map should be used as a foundational guide for decisions concerning the zoning/rezoning of property. NCGS 150A-383 requires the following consistency statement:

“Zoning regulations shall be made in accordance with a comprehensive plan. When adopting or rejecting any zoning amendment, the governing board shall also approve a statement describing whether its action is consistent with an adopted comprehensive plan and any other officially adopted plan that is applicable, and briefly explaining why the board considers the action taken to be reasonable and in the public interest. That statement is not subject to judicial review.

“The Planning Board shall advise and comment on whether the proposed amendment is consistent with any comprehensive plan that has been adopted and any other officially adopted plan that is applicable. The Planning Board shall provide a written recommendation to the governing board that addresses plan consistency and other matters as deemed appropriate by the Planning Board, but a comment by the Planning Board that a proposed amendment is inconsistent with the comprehensive plan shall not preclude consideration or approval of the proposed amendment by the governing board.”

The future land use analysis includes eight (8) land use sectors. These sectors are based on: (1) current land use patterns, (2) physical and man-made limitations, (3) environmentally sensitive areas, (4) input received from the Advisory Committee, public, and Town staff during development of the plan, and (5) future land use goals and implementing strategies. All of the future land use sectors are connected to the Town zoning ordinance districts in effect in 2017. Because a zoning district is connected to a land use sector does not mean that the rezoning of a property(ies) to a particular district is desirable. For example, the rezoning of a parcel which is included in the commercial land use category to C-4 may not be desirable if the proposed parcel is serving a residential area or adjacent to residential development.

It is emphasized that the future land use map cannot be attained/supported without some revisions to the Town’s Unified Development Ordinance. Suggested revisions will be discussed in the implementing strategies section.

Future Land Use Sectors

Commercial

Commercial land uses are dispersed throughout the corporate limits. The future land use map defines four land use sectors that will support commercial development: Commercial/Mixed Use, Mainland Commercial, Private Club, and Mixed Use Overlay. The following items are important future land use considerations:

- Redevelopment and beautification of the commercial areas.
- Reduction of traffic impacts/traffic congestion.
- In-fill development on the existing vacant parcels.
- Prohibition of commercial encroachment on residential neighborhoods.
- Inclusion of some vest-pocket parks/open space to provide pedestrian-friendly and landscaped areas which will “break” the commercial landscape.

- Enhancement of transportation corridor appearance.

There are approximately 63 acres of Commercial/Mixed Use, Mainland Commercial, and Private Club land depicted on the future land use map. Approximately 29 acres of the Commercial future land use sector are designated as Mixed Use Overlay areas.

Commercial/Mixed Use: This land use sector is designed to accommodate the widest range of commercial activities, and is established to accommodate commercial activities that draw business primarily from, and provide services to, major thoroughfares/streets within the Town. The minimum lot size is 10,000 square feet. This sector is consistent with the C-1, C-2, C-3, and C-4 districts. The following provides a general description of these zoning districts:

- *Commercial District I.* The C-1 district is established to embrace the existing and growing commercial, tourist, and short-term residential uses. Maximum density for hotels and motels shall be 48 units per acre.
- *Commercial District II.* The C-2 district is established to embrace the existing and growing commercial, tourist, and short-term residential uses. Maximum density for hotels and motels shall be 48 units per acre.
- *Commercial District III.* The C-3 district is established to permit those specialized uses which will fulfill the special needs of daily commuters and periodic short-term visitors. Maximum density for hotels and motels shall be 48 units per acre.
- *Commercial District IV.* The C-4 district is established to accommodate a growing volume of short-term hotel-motel visitors. Maximum density for hotels and motels shall be 48 units per acre.

Mainland Commercial: This land use sector coincides with the Town’s C-5 zoning district. All parcels in this land use sector are located on the mainland side of the Heide Trask Bridge. This district is intended to support light to medium commercial land uses that will have a minimal impact on surrounding residential uses. The following provides a general summary of the C-5 zoning district.

- *Commercial District V.* The C-5 district is established to permit light to medium neighborhood commercial use. Maximum density for hotels and motels shall be 36 units per acre.

Private Club: This land use sector is intended to support facilities that are reserved for registered members. The facilities and land use associated with them are private in nature and reserved for use by members and their guest. The Private Club land use sector is compatible with the existing PC zoning district. The following provides a general description of the PC district:

- *Private Club District.* The PC district is established to accommodate private clubs.

Mixed Use Overlay: This land use sector should allow a mixture of varying residential density, office-institutional, commercial (including boat storage, sales, and maintenance), and open space uses. Both vertical and horizontal mixed uses will be permitted. Office and institutional usage may be used as a buffer/transition between lower and higher density land uses. Flexible design controls should be implemented when adjacent to established residential areas. The existing zoning ordinance allows mixed use structures in the C-1, C-2, and C-3 zoning districts.

Mixed use development should consider the following:

- Small scale centers of activity appropriate for Wrightsville Beach.

- Buildings compatible with Wrightsville Beach landscape and architecture.
- Focus on pedestrian-friendly design.
- Provision of outdoor common space for people interaction and “gathering”.
- Prohibition of large-format retail stores.
- Preferred uses providing small scale retail, offices, and service businesses such as restaurants.
- Provision of residential at varying densities.

Office and Institutional

The Office and Institutional land use sector will provide for the development of office and community institutions that have similar development characteristics and require locations close to both residential and commercial uses. This land use sector should prohibit commercial uses. It is intended to encourage the development of office and institutional uses that provide a step down in intensity between developed commercial districts and nearby neighborhoods and conservation areas. The Office and Institutional land use sector also provides for the development of municipal services sites. The minimum lot size is 5,000 square feet. There are approximately 61 acres of office and institutional land depicted on the future land use map. This land use sector also accommodates non-profit institutions such as churches, schools, or private clubs which may be located in residential areas.

The Office and Institutional land use sector is partially compatible with the existing G-1 zoning districts. However, a specific O/I district may be established to in the Town’s UDO to include conventional office use. The following describes the existing G-1 zoning district:

- *Public and Semi-Public District.* The G-1 district includes property owned by a local, state, or federal agency.

Residential

Residential land uses are divided into the following land use categories based on associated variable residential densities: Low Density Residential, Medium Density Residential, and High Density Residential. The location of residential land uses is based on existing residential development patterns and zoning.

Low Density Residential: The Low Density Residential land use sector is a single-family residential area. Multi-family and duplex uses are not permitted. The minimum lot size is 8,000 square feet. There are approximately 209 acres of low density residential land depicted on the future land use map. This sector is consistent with the R-1 district. The following provides a general description of this zoning district:

- *R-1 Residential District.* The R-1 district is established as a district in which the principal use of the land is for single-family residences. The regulations of this district are intended to protect existing residential areas with minimum lot sizes of 8,000 square feet and to encourage, in selected portions of the planning area, the subdivision of undeveloped property into lots with a minimum of 8,000 square feet.

Medium Density Residential: The Medium Density Residential land use sector is predominantly single-family residential with residential duplexes permitted. The minimum lot size for single-family use is 8,000 square feet. There are approximately 92 acres of medium density residential land depicted on the future land use map. This sector is consistent with the R-2 district. The following provides a general description of this zoning district:

SECTION 4. FUTURE DEMAND/PROJECTIONS

- R-2 Residential District.** The R-2 district is established as a district in which the principal use of land is for medium-density residential uses. The regulations of this district are intended to protect existing residential areas with a minimum lot size in accordance with the Town of Wrightsville Beach Unified Development Ordinance. The minimum required lot area for a duplex on a nonconforming lot in the R-2 district shall be 4,000 square feet.

High Density Residential: The High Density Residential land use sector includes some areas of the Commercial District III (C-3) which allows multi-family development as a conditional use. There are approximately 38 acres of high density residential land depicted on the future land use map.

Conservation

This land use sector includes: Town-owned open space/recreation areas and areas of environmental concern as defined by NCAC 7H (see pages 3-11 to 3-18).

Please note that because of map scale, it is impossible to delineate all conservation areas on the future land use map. In-field verification is required to determine the exact location of conservation areas. This land use sector includes approximately 103 acres (corporate limits) on the future land use map. The Conservation land use sector includes the following zoning districts: Shore Zone (S-1) and Conservation Zone (P-1).

Future Land Use Acreage

The future land use sector acreages are described in Table 24, below.

Table 24. Wrightsville Beach Future Land Use Acreages						
	Corporate Limits		Extraterritorial Jurisdiction		Total Planning Jurisdiction	
Land Use Sector	Acres	% of Total	Acres	% of Total	Acres	% of Total
Commercial/Mixed Use	42	3.1%	0	0.0%	42	1.3%
Mainland Commercial	13	0.9%	0	0.0%	13	0.4%
Private Club	8	0.6%	0	0.0%	8	0.3%
Office and Institutional	61	4.5%	0	0.0%	61	1.9%
Low Density Residential	209	15.4%	0	0.0%	209	6.7%
Medium Density Residential	92	6.8%	0	0.0%	92	2.9%
High Density Residential	38	2.8%	0	0.0%	38	1.2%
Conservation	103	7.6%	1,790	100.0%	1,893	60.1%
Right-of-Way	792	58.3%	0	0.0%	792	25.2%
Total	1,358	100.0%	1,790	100.0%	3,148	100.0%

Source: HCP, Inc.

Map 16. Future Land Use



INTRODUCTION

This plan establishes goals and implementing actions for the land use/quality of life issues that will affect Wrightsville Beach's future. This section also responds to the NCAC 7B requirements for CAMA certified land use plans. The stated actions are designed to address issues which have been identified by the Steering Committee, staff, elected officials, and citizens of Wrightsville Beach.

The goals and implementing actions will also assist Town officials in making long-range decisions in such areas as economic development, provision of community services and facilities, transportation planning, community preservation, environmental management, and CAMA regulatory requirements.

This section of the plan includes specific implementing actions for each of the following areas of concern:

- Land Use Compatibility
- Public Access
- Infrastructure Carrying Capacity
- Natural Hazard Areas
- Water Quality
- Local Concerns

The responsibility for implementing the recommendations included in this plan belongs to the Wrightsville Beach elected officials. The adoption of this plan is not the end but rather the beginning of a continuous pragmatic process. Opportunity exists for the Town to provide positive direction to development as it continues to occur. How well this plan serves depends on the quality of the plan and how Wrightsville Beach officials administer local land use ordinances and capital spending programs. Creating a plan, workable conditions, and capital spending programs is not overly difficult. The true test will come in putting the plan, ordinances, and programs into action on a day-to-day basis. Some of the actions stated in this plan may be implemented in months while others may require years to accomplish effectively. Planning is only as good as the commitment and abilities of the people responsible for implementing the plan. Wrightsville Beach is fortunate to have involved citizens, dedicated elected officials, and competent staff. It is expected that this practice will continue into future years.

Goals and implementing actions frequently utilize the following words: should, continue, encourage, enhance, identify, implement, maintain, prevent, promote, protect, provide, support. The intent of these words is defined as follows:

- *Should:* An officially adopted course or method of action intended to be followed to implement the community goals. Though not mandatory as "shall," it is still an obligatory course of action unless clear reasons can be identified that an exception is warranted. Town staff and Planning Board should be involved at all levels from planning to implementation.
- *Continue:* Follow past and present procedures to maintain desired goal, usually with Town staff involved at all levels from planning to implementation.
- *Encourage:* Foster the desired goal through Town policies. Could involve Town financial assistance.
- *Enhance:* Improve current goal to a desired state through the use of policies and Town staff at all levels of planning. This could include financial support.

SECTION 5. GOALS AND IMPLEMENTING ACTIONS

- *Identify:* Catalog and confirm resource or desired item(s) through the use of Town staff and actions.
- *Implement:* Take action to guide the accomplishment of the Plan recommendations.
- *Maintain:* Keep in good condition the desired state of affairs through the use of Town policies and staff. Financial assistance should be provided if needed.
- *Prevent:* Stop described event through the use of appropriate Town policies, staff actions, Planning Board actions, and Town finances, if needed.
- *Promote:* Advance the desired state through the use of Town policies and Planning Board and staff activity at all levels of planning. This may include financial support.
- *Protect:* Guard against a deterioration of the desired state through the use of Town policies, staff, and, if needed, financial assistance.
- *Provide:* Take the lead role in supplying the needed financial and staff support to achieve the desired goal. The Town is typically involved in all aspects from planning to implementation to maintenance.
- *Support:* Supply the needed staff support, policies, and financial assistance at all levels to achieve the desired goal.
- *Work:* Cooperate and act in a manner through the use of Town staff, actions, and policies to create the desired goal.

PUBLIC INPUT

A successful planning process must have comprehensive, inclusive, and constructive input from the public. The plan will serve the needs of Wrightsville Beach's citizenry and should, therefore, be written on their behalf. Throughout the planning process, several methods were used to solicit public input. A CAMA Land Use Plan Steering Committee, made up of key community representatives and citizens, was tasked with steering the consultant throughout the process. To supplement input received from this committee, a public input survey was distributed to all residents and property owners registered on the Town's outreach network. The survey was also posted continuously on a dedicated project website.

A Town-wide meeting was also used to gather citizen input. Survey results and information from the public meetings are summarized in this section. See Appendix B to view the community survey results in their entirety.

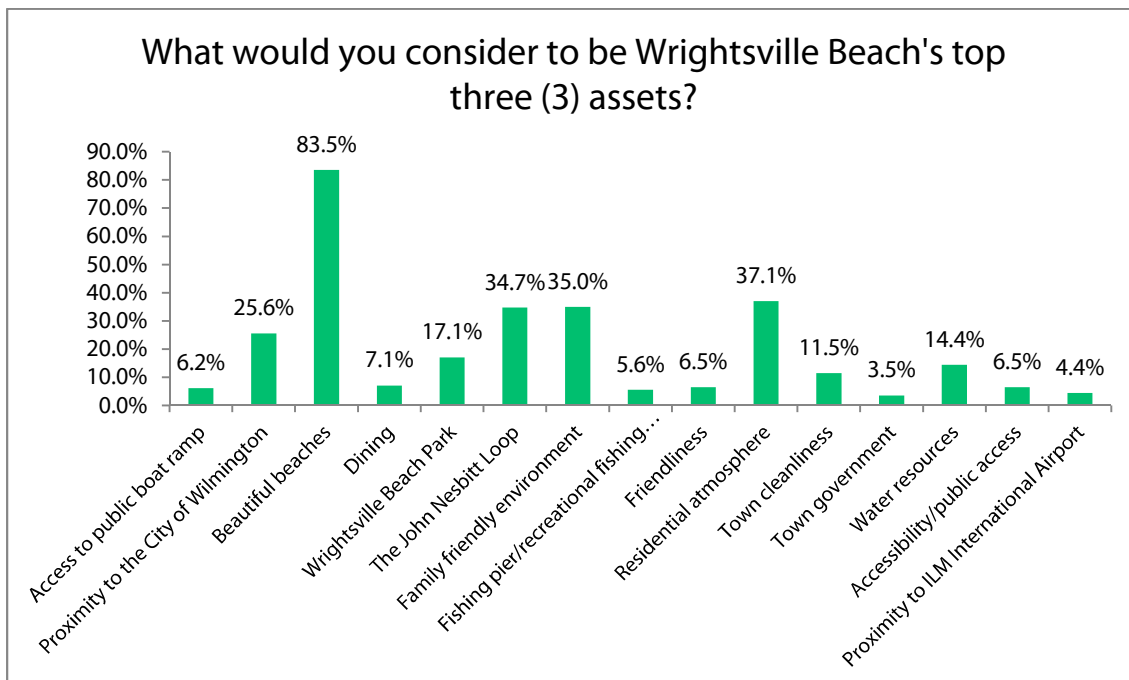
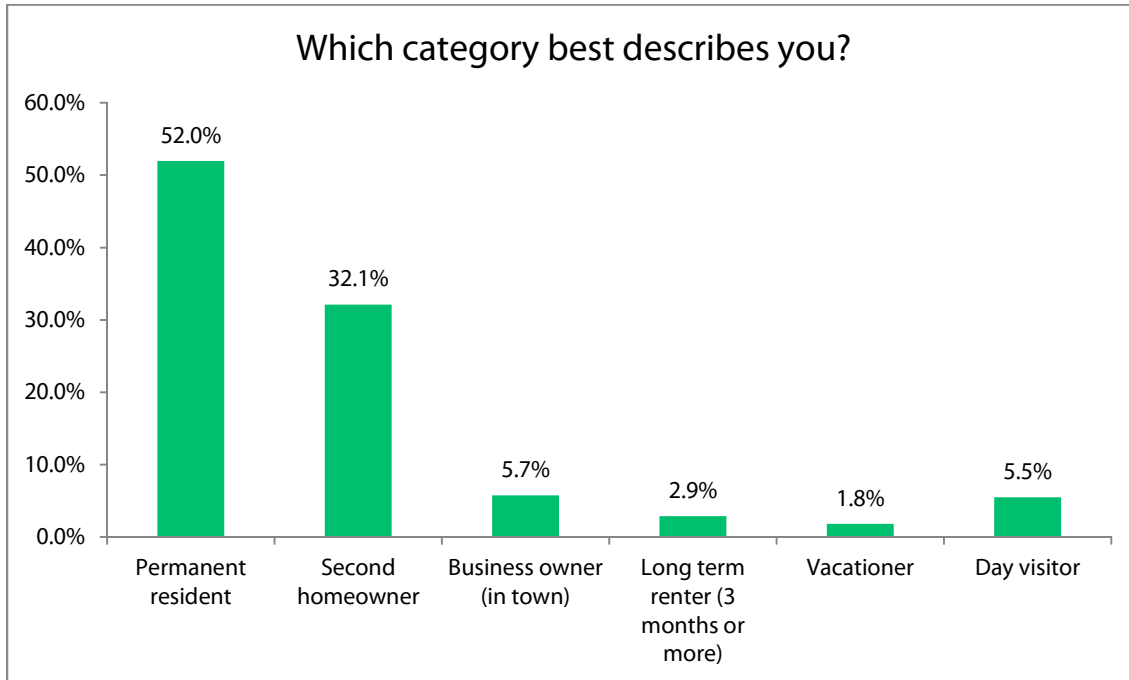
Project Website

At the outset of the project, a website dedicated to the preparation of the CAMA Land Use Plan was established (<http://www.planwrightsvillebeach.com/>). Through August 9, 2017, there had been 4,307 "hits" on the website. All information concerning plan development was posted on the website. The website provided continuous access for the public to obtain information and provide input.

SECTION 5. GOALS AND IMPLEMENTING ACTIONS

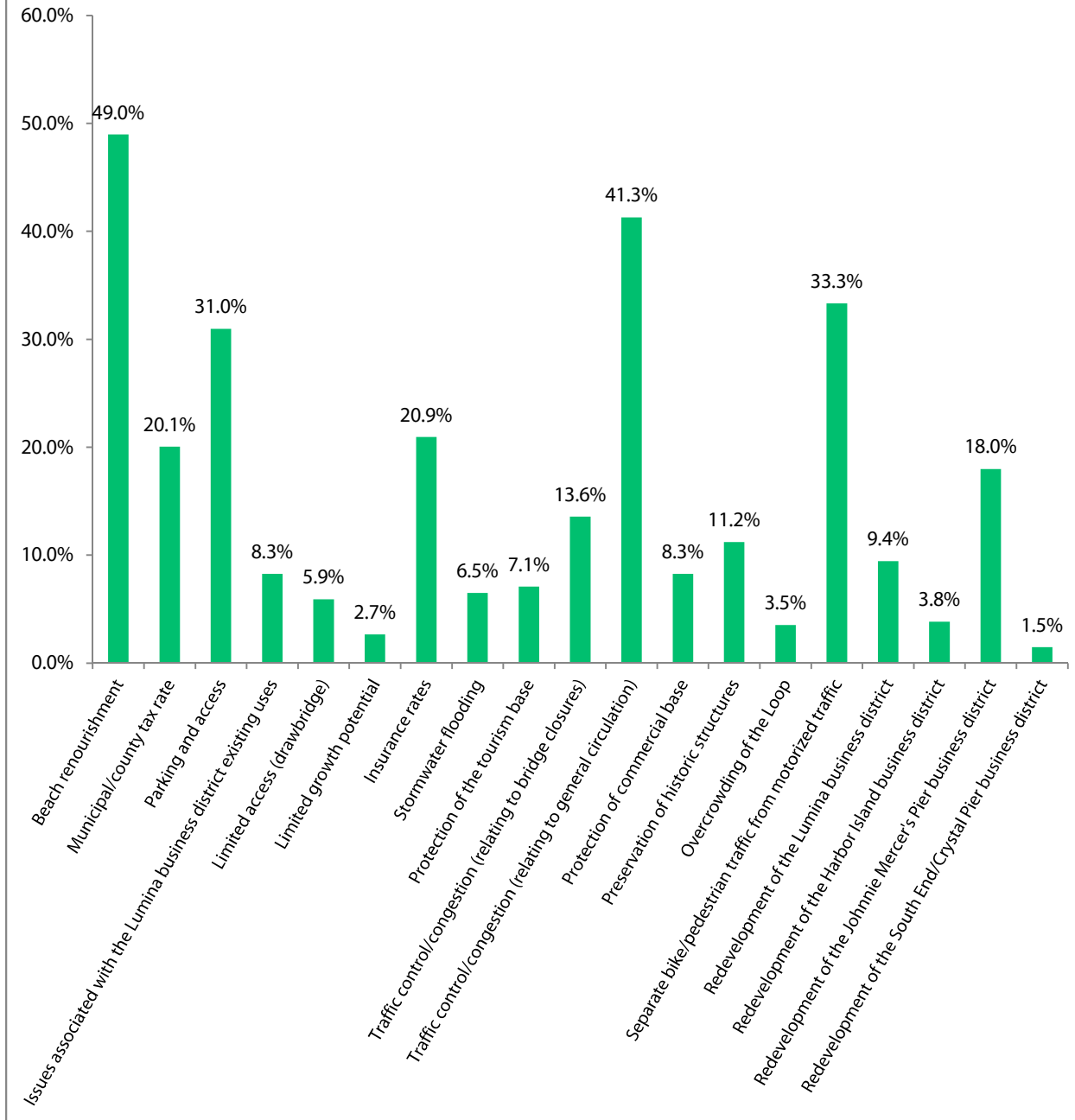
Community Survey Results

At the onset of the planning process, a community survey was created. The survey questions were drafted based upon stakeholder interviews conducted during project initiation. These interviews were conducted with various citizens, Town staff, and elected leaders. The survey was made available to residents online and was mailed to all property owners. From February 2017 through June 2017, 383 survey responses were collected. All input from citizens was provided to the Steering Committee for review. The following summarizes the survey results:



SECTION 5. GOALS AND IMPLEMENTING ACTIONS

What would you consider the top three (3) most significant issues/concerns facing Wrightsville Beach?



SECTION 5. GOALS AND IMPLEMENTING ACTIONS

Town Meeting Results

In addition to the Steering Committee input and outreach survey, a Town-wide public input meeting was conducted on March 16, 2017, to better understand the desires of residents. The meeting was advertised online, in the newspaper, and through posting of notices in public places. Approximately 47 people attended the March 16th meeting which focused on identification of future Town concerns/needs, prioritized by those in attendance. The following provides a summary of the top ten major concerns/needs identified:

1. Parking and Access
2. Traffic Control/Congestion (Relating to General Circulation)
3. Separate Bike/Pedestrian Traffic from Motorized Traffic
4. Beach Renourishment
5. Protection of Commercial Base
6. Water Quality
7. Water/Sewer Regarding Town Ownership/Capacity
8. Insurance Rates
9. Maintain Height/Density Requirements
10. Redevelopment of Johnnie Mercer's Pier Business District

It should be noted that the top 4 concerns/issues identified above through the town-wide meeting are the same as those identified through the town-wide survey effort, as follows:

1. Beach Renourishment
2. Traffic Control/Congestion (Relating to General Circulation)
3. Separate Bike/Pedestrian Traffic from Motorized Traffic
4. Parking and Access

GOALS

The following planning process goals have been heavily influenced by public input/opinion received during the planning process and the input of the Steering Committee. An annual review of these goals should be conducted by the Board of Aldermen and Planning Board and adjusted, if necessary, as implementation is accomplished. These goals support carefully managed growth and have been prioritized by the Steering Committee.

- Adopt and apply local policies that balance protection of natural resources and fragile areas with economic development.
- Ensure that public infrastructure systems are sized, located, and managed so the quality and productivity of the AEC's and other fragile areas are protected and restored.
- Maximize public access to all portions of the beaches and public trust waters of the Town of Wrightsville Beach, and maximize recreational opportunities for residents and visitors.
- Maintain and, where possible, improve the natural environment and water quality within and adjacent to Wrightsville Beach.
- Protect public health and safety from the damaging effects of storm surges, wave action, flooding, high winds, and erosion associated with hurricanes, severe weather, and other hazards.

POLICIES REGARDING LAND USE AND DEVELOPMENT IN AEC'S

Wrightsville Beach accepts state and federal law regarding land uses and development in AEC's (Areas of Environmental Concern), including all NCAC 7H standards. By reference, all applicable state and federal regulations are incorporated into this document. No policies exceed the use standards and permitting requirements found in Subchapter 7H, State Guidelines for Areas of Environmental Concern. However, Wrightsville Beach does not consider the following issues to be relevant at this time within its planning jurisdiction:

- Maritime Forests
- Peat or Phosphate Mining's Impact on any Resource
- Development of Sound and Estuarine System Islands

The Areas of Environmental Concern and Fragile Areas within Wrightsville Beach's planning jurisdiction include the following:

- Public trust areas
- 404 wetlands
- Inlet hazard area
- Ocean erodible area
- Outstanding resource waters (ORW)

For the issuance of CAMA permits within areas of environmental concern, the state's minimum acceptable use standards are defined by 15A NCAC 7H. A local unit of government must adopt policies which, at a minimum, are equal to and consistent with the state's minimum use standards.

The second area of land use plan application is that of establishing policies to guide the jurisdiction's local planning. This process may apply both within areas of environmental concern where CAMA regulations apply and in non-CAMA regulated areas of the Town's planning jurisdiction. Under North Carolina legislation, land use plans are not regulatory controls. Non-CAMA related recommendations must be implemented with local land use ordinances such as a Unified Development Ordinance. For example, if this plan recommends that the average residential density should be three dwelling units per acre within a particular area, then the density must be achieved through local regulatory controls.

The final area of application is that of "Consistency Review." Proposals and applications for state and federal assistance, or requests for agency approval or projects, are normally reviewed against a jurisdiction's land use plan to determine if the project is consistent with local policies. Inconsistencies of a project with local policies could serve as grounds for denial or revision of a project. For example, an individual or agency may request state or federal funding to construct a 30-unit assisted living housing project. If the proposed location of the project is within an area in which this land use plan states that the residential density should not exceed two dwelling units per acre, the project may be judged to be inconsistent with the local land use plan.

Note the following clarifications:

- No policy is subordinate to another.
- All management topics have equal status.

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- The future land use map may show some areas in a developed category which may also include sensitive habitats or natural areas. The intent of that development should be designed/permitted to protect these areas through utilization of concepts such as specific in-field verification and mapping, on-site plans, and subdivision plats. Development/project approval should be based on project design which avoids substantial loss of important habitat/environmentally sensitive areas.

LAND USE MANAGEMENT TOPICS

A key objective of any comprehensive plan is the creation of a robust and achievable set of goals, objectives, and implementing actions. These items should support implementation of the future land use map. Implementation of these is the responsibility of Wrightsville Beach elected officials, staff, and citizens. Decisions made as a result of this plan should serve to enhance the quality of life for residents, support long-term economic growth, and promote viable land use and development patterns. This plan serves as the Town's overall comprehensive plan and also provides for compliance with the CAMA Land Use Plan requirements.

CAMA Land Use Plans must support the goals of CAMA, define the CRC's expectations for the land use policies, and provide a basis for land use plan review and certification. Goals, objectives, and implementing actions are provided for each of the following CAMA management topics: Public Access, Land Use Compatibility, Infrastructure Carrying Capacity, Natural Hazard Areas, and Water Quality, in addition to other local areas of concern. These implementing actions apply to the Town's entire planning jurisdiction.

This plan is intended to support Wrightsville Beach's vision statement. No negative impacts are anticipated by the implementation of the goals, objectives, and implementing actions which are included in this plan. All implementing actions are prioritized/scheduled by: high; medium; low; or continuing. The scheduling for these priorities following plan adoption is: high - within 2 fiscal years (FY2017-2018 to FY2018-2019); medium - 3 to 5 fiscal years (FY2019-2023); low - 6 to 8 fiscal years (FY2024-2026); continuing - a daily implementing action.

NOTE: It is intended that all goals, objectives, and implementing actions are consistent with applicable State and Federal requirements when State and Federal requirements apply.

MANAGEMENT GOALS, PLANNING OBJECTIVES, AND IMPLEMENTING ACTIONS

Land Use Compatibility

Management Goal: Promote the appropriate balance between private property rights, economic development, environmental protection, and community cohesiveness.

Planning Objectives: Policies that promote an attractive community, a high quality of life, and a unique sense of place while mitigating risks to public health, safety, and welfare.

Implementing Actions:

1. The Town will encourage single-family and duplex residences, appropriate neighborhood-oriented businesses, parks, and natural areas. *Schedule: Continuing*
2. Multi-family complexes shall be limited to sites where they are presently located and Board approved mixed-use developments. *Schedule: Continuing*

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3. New or expanded single family and duplex homes that are out of scale with structures in their vicinity will be discouraged. The Town supports maintaining a height limit of 40 feet and a floor area ratio of 0.7 (70%) of the lot area. **Schedule: Continuing**
4. The Town will encourage commercial establishments providing basic goods and service to year-round residents and visitors. Examples include grocery stores, drug stores, sit-down restaurants, etc. **Schedule: Continuing**
5. The Town supports the concept of mixed-use projects in order to revitalize and preserve the economic viability of existing commercial areas on the Island. Such developments must be designed to be consistent with surrounding neighborhoods/areas. The Town will consider developing small area plans (Marina, Causeway, CBD, South End, and Johnnie Mercer's Pier areas). In order to achieve and maintain the optimal use and land values of properties within the Mixed Use Overlay areas, the Town may consider design flexibility for sites and buildings. Any flexibility should be governed by design controls or guidelines developed within the Town's zoning ordinance. **Schedule: High**
6. Mineral production and extraction activities, other than dredging for beach renourishment or channel maintenance, shall not be permitted within the planning jurisdiction of Wrightsville Beach. **Schedule: Continuing**
7. New development and redevelopment which would act to degrade the quality of Areas of Environmental Concern (AECs) in Wrightsville Beach's planning jurisdiction shall not be permitted. **Schedule: Continuing**
8. The Town encourages the improvement, preservation, and enhancement of the Town's neighborhoods. **Schedule: Continuing**
9. Residential, recreational, research, educational, and commercial land uses are all appropriate types of use along the estuarine shoreline, provided all standards of 15A NCAC Subchapter 7H relevant to estuarine shoreline AECs are met, and the proposed use is consistent with the policies set forth in this plan. **Schedule: Continuing**
10. The Town will support and enforce, through its CAMA Minor Permitting capacity, the State policies and permitted uses in AECs. Acceptable uses within the individual AECs of the estuarine system shall be those requiring water access or those that cannot function elsewhere, such as simple access channels; structures to prevent erosion; navigation channels; boat docks; marinas; piers; wharfs; and mooring pilings. Such uses shall be in accordance with the general use standards for coastal wetlands, estuarine waters, and public trust areas stated in 15A NCAC subchapter 07H.0208. **Schedule: Continuing**
11. Acceptable land uses in Coastal Wetlands may include utility easements, fishing piers, docks, and wildlife habitat management activities. Examples of uses not permitted include restaurants, businesses, residences, apartments, motels, hotels, parking lots, private roads, highways, trailer parks, and factories. **Schedule: Continuing**
12. The Town supports State policies for ocean hazard areas as set forth in Chapter 15A NCAC subchapter 07H of the State CAMA regulations. Suitable land uses in ocean hazard areas include ocean shoreline erosion control activities, dune establishment and stabilization, structural accessways,

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and building construction standards. Residential, commercial, and recreational land uses, and parking lots for beach access are also acceptable uses in ocean hazard areas provided they meet all other provisions of 15A NCAC subchapter 07H and other state and local regulations. **Schedule:** *Continuing*

13. The Town supports the policies and regulations of State and Federal permitting agencies concerning the development of ocean piers, and shall encourage proper maintenance and safety of such piers. **Schedule:** *Continuing*
14. The Town will continue to maintain and upgrade existing municipal capital facilities to accommodate growth and development/redevelopment consistent with the future land use map. These facilities will be extended and/or modified to accommodate this growth; however, all improvements associated with new growth will be funded by the developer. **Schedule:** *Continuing*

Public Access

Management Goal: Maximize public access to the beaches and the public trust waters of the coastal region.

Planning Objectives: Policies that address access needs and opportunities, with actions 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.

Implementing Actions:

15. The Town shall maintain and, where possible, improve existing public access facilities. Where possible, the Town should seek funding from federal, state, or county sources for these improvements. When making improvements to existing public access facilities, the following are considered to be priorities for improvements:
 - Fixing the dune walkover structures at public access sites;
 - Bike racks;
 - Additional shower and bathroom facilities;
 - Additional changing stations (clothes);
 - Ensure that disabled persons have access to the water. **Schedule:** *High*
16. The Town shall identify suitable sites for marking with state designated signs that say “water access.” In identifying sites, Town staff will survey each site and its suitability for various uses and make this information available on its website. The Town will also consider whether public safety or environmental concerns make the site appropriate for marking. Once the inventory is completed, the Town shall request that DEQ’s Division of Coastal Management provide marked and numbered signs that can be installed by the Town’s Public Works Department. **Schedule:** *Medium*
17. Public pedestrian access is limited to designated dune crossover areas in order to minimize damage to dunes and vegetation. Walking on dunes or acting in any manner that causes damage to dunes and vegetation is against state regulations and the Town’s Dune Stabilization regulations. **Schedule:** *Continuing*

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18. Beach access paths -- that is, natural paths through the dunes at designated, unimproved public access site -- shall not exceed 36 inches in width. *Schedule: Continuing*
19. Development activity that completely obstructs the view from the road to public trust waters shall be discouraged. Where possible, development and redevelopment activity should allow some visual access to public trust waters from the roadway. This implementing action will generally be accomplished through the enforcement of zoning regulations. Town staff shall review ordinances to determine if stricter standards are needed to protect visual access to public trust waters from roadways. *Schedule: Continuing*
20. Off-road vehicles (with the exception of Town or emergency vehicles) are not allowed outside public rights-of-way and private drives at Wrightsville Beach. *Schedule: Continuing*
21. The Town is committed to county, state, and federal programs that maximize public access to the beaches and public trust waters of the Town of Wrightsville Beach. These programs include, but are not limited to, the Coastal Area Management Act, the North Carolina Public Beach Access Program, Federal channel maintenance and inlet projects, and beach renourishment projects. *Schedule: High*
22. The Town will continue to support participation in the Wrightsville Beach Tourism Development Committee in coalition with members of the business community in their role as delineated in North Carolina General Assembly Session Law 2002-138, House Bill 1707. *Schedule: Continuing*
23. The Town supports new revenue sourcing to assist in the recovery of administrative/maintenance costs associated with the use of the Town's beach and tourism related facilities by non-residents. Historically, given the high number of residents of New Hanover County using the Town's facilities, costs such as life guard services and maintenance of facilities to access the beach and public trust waters were shared by reimbursement from the New Hanover County Budget. In the absence of such county funding, new revenue sources must be developed from county, state, or federal sources to supplement the cost-reimbursements available pursuant to the room occupancy tax. The Town believes that the following are costs incurred as a result of the influx of non-residents for which new revenue sources are needed to offset the increased burden on Wrightsville Beach taxpayers:
 - Police costs associated with visitors to Wrightsville Beach and large special events. This includes reimbursement for a percentage of police salaries determined by percent of work related to visitors, overtime generated by tourism and special events, and administrative costs associated with visitors to Wrightsville Beach.
 - Lifeguard costs.
 - Maintenance and repair of public access facilities.
 - Maintenance of public restrooms and access related facilities.
 - Improvement of public access facilities, public restrooms and related tourism facilities.
 - Water and sewer service.
 - Sanitation.
 - Park Ranger costs. *Schedule: Medium*
24. The Town will seek all available grant funding for beach nourishment and maintenance. *Schedule: High*

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25. The Town shall seek to increase public awareness of safe boating rules. To increase the public awareness of safe boating rules, the Town shall undertake the following actions:
- Post Wrightsville Beach Safe Boating Rules at the public boat ramp and at five strategic locations along specific, well-traveled navigation channels.
 - In conjunction with area merchants, print and distribute safe boating rules on tide tables.
 - Sponsor through a nonprofit organization, the preparation of a locally produced video, combining and overview of the area's scenic and recreational water resources, with a summary of the most important boater precautions and safe boating tips. *Schedule: High*
26. The Town shall seek to ensure the responsible use of jet skis and other similar personal watercraft in the public trust waters of Wrightsville Beach. In order to promote the proper operation of jet skis and other types of personal watercraft, the Town shall post small unobtrusive signs around the perimeter of the marsh at the north and south ends of Wrightsville Beach notifying jet skiers of the County ordinance concerning the use of jet skis in marsh areas. *Schedule: Medium*
27. The Town shall seek to improve existing no wake zone signage and enforcement. In order to improve the signage and enforcement of no wake zones, the Town shall undertake the following actions:
- Work with Federal, State, and County officials to find ways to improve the enforcement of existing no wake zones.
 - Request that New Hanover County, working in conjunction with the US Coast Guard, the US Army Corps of Engineers, and the NC Wildlife Resources Commission, make all official no wake zone signs consistent throughout the area.
 - Request the State prohibit private individuals and organizations from posting unauthorized, but official looking, regulatory type signage on or near public waters. Courtesy signs, however, using unofficial color and non-legal wording could still be permitted.
 - Support full funding for the New Hanover County Sheriff's Marine Patrol.
Schedule: Medium
28. The Town shall continue to enforce its ordinances pertaining to the location and enforcement of its surf zones. When revising the ordinance, the Town shall consult with user groups in order to balance competing interests. *Schedule: Continuing*
29. Projects that would directly or indirectly block or impair existing navigational channels shall be prohibited. This includes, but is not limited to, projects that deposit spoils below mean high water, extend piers beyond the established pier head line or any projects determined to be detrimental to navigation of the public trust waters. *Schedule: Continuing*
30. The Town shall continue to strictly enforce its pierhead line, as well as applicable development standards for docks and piers, whichever are stricter. *Schedule: Continuing*
31. The Town shall not approve the establishment or expansion of any additional mooring buoys/spaces or anchorage areas within the Town's jurisdiction. The Town shall investigate whether modifications to its ordinances are necessary to prohibit additional mooring facilities and anchorage areas.
Schedule: High

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32. The Town shall not permit the expansion or intensification of existing marinas and the development of additional marinas, including upland marinas in excavated basins. Intensification is defined as adding dry stack or wet slip storage to existing marinas. The Town shall review current zoning ordinance to determine if stricter standards for the expansion or intensification of existing marinas or the development of new marinas is warranted. When conducting the review, Town staff will determine whether existing state codes and regulations are adequate to ensure that the Town's concerns will be addressed. *Schedule: Medium*
33. The Town shall prohibit the expansion and development of additional dry stack storage facilities by individual homeowners and businesses. *Schedule: Continuing*
34. Vessels for hire and charter boats/cruise ships shall only be allowed in conjunction with existing marinas, and shall not cause an expansion in the amount of surface water consumed or parking demand generated. *Schedule: Continuing*
35. The Town shall discourage the expansion and development of additional commercial fisheries vessel dockage where such expansion is inconsistent or incompatible with existing or projected uses. Commercial fisheries vessel dockage at currently used commercial facilities along the soundside waterfront is acceptable. *Schedule: Continuing*
36. The Town shall encourage the State wildlife officials to find ways to increase accessibility to the state wildlife boat ramp and reduce problems associated with congestion and parking problems. *Schedule: High*
37. The Town supports the development, maintenance, and enhancement of its parks and recreational facilities for the benefit of residents and visitors alike. In order to maintain and enhance its parks and recreational facilities, the Town shall consider the following improvements to recreational facilities:
- Additions to the Frances L. Russ Recreation Center to increase space for programming;
 - Addition of lights to the tennis courts, softball fields, or soccer fields to increase recreational programming;
 - The construction of an additional picnic shelter to expand the availability of this heavily used facility. *Schedule: High*
38. The Town will continue to implement the Wrightsville Beach Parks and Recreation Plan. The Town will review and update this plan on a periodic basis. *Schedule: Medium*

Infrastructure Carrying Capacity

Management Goal: Ensure that public infrastructure systems are appropriately sized, located, and managed so that quality and productivity of AECs and other fragile areas are protected or restored.

Planning Objectives: Policies that establish service criteria and ensure improvements minimize impacts to AECs and other fragile areas.

Implementing Actions:

39. The Town will continue to partner with local non-profit entities to support various grant funding efforts. *Schedule: Continuing*

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40. The Town will consider support for State and Federal bridge and road improvement programs on a case-by-case basis. *Schedule: Continuing*
41. The Town will continue to explore opportunities to put utilities underground. *Schedule: Low*
42. The Town shall encourage on-street parking for visitors, unless the addition or retention of these facilities creates a public safety concern. *Schedule: Continuing*
43. The Town shall maintain an ongoing joint planning relationship with the City of Wilmington and New Hanover County for the Wrightsville Sound Area emphasizing input from the Town on issues of land use, community appearance, open space and traffic management for areas outside the Town corporate limits. *Schedule: High*
44. The Town supports the use of bicycles as a functional means of reducing automobile traffic and parking demand at the beach. These efforts will include implementation of the Town's Community Transportation Plan. To advance this implementing action, the Department of Planning and Parks should undertake the following actions:
 - Review Bike Path Plan to determine possible phases of implementation.
 - Seek grants for implementing varied phases.
 - Place signage for current bike paths.
 - Place bike racks throughout community. *Schedule: High*
45. The Town shall maintain the ordinance which requires that all new development or redevelopment tie into the centralized sewer system. *Schedule: Continuing*
46. The Town shall strive to maintain efficient uninterrupted operation of water and wastewater facilities. The Public Works Department shall monitor the capability and maintenance of wastewater facilities and where necessary make improvements. The Public Works Department shall also monitor the Town's water supply to determine if aquifers are threatened, or if other alternatives are required. *Schedule: High*
47. The Town shall take steps to maintain its fire protection and ensure that future development does not threaten its current North Carolina Response Rating of 4. The Town shall adopt an ordinance requiring sprinklers or other necessary fire protection measures for new development projects where such actions will help ensure that the Town maintains its current North Carolina Response Rating. *Schedule: High*
48. The Town shall conduct an analysis of infrastructure before rezoning parcels to allow for more intensive development or changing development standards to allow for higher densities and intensities. This analysis shall determine if existing infrastructure can provide adequate service to the Town as a whole in light of the proposed re-zonings or development standard changes. The infrastructure analysis shall review road capacity, water and sewer capacity, fire flow capacity, public access and other infrastructure demands related to future development. *Schedule: Continuing*
49. The Town will work with Wilmington Urban Area Metropolitan Planning Organization, as well as the NC Department of Transportation, to identify innovative solutions aimed at alleviating traffic congestion. *Schedule: High*

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50. The Town will work with the Wilmington Urban Area Metropolitan Planning Organization and the NC Department of Transportation to identify solutions for addressing congestion and traffic issues associated with the Heide Trask Bridge. *Schedule: High*
51. The Town supports developing an Active Transportation Plan to help mitigate some of the most problematic traffic issues. The plan would increase driver and community awareness of pedestrians and bicyclists in a manner that positively impacts the behavior of motorists. *Schedule: High*

Natural Hazard Areas

Management Goal: Conserve AECs 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.

Planning Objectives: 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.

Implementing Actions:

52. The Town will work to implement all strategies outlined in the Southeastern NC Regional Hazard Mitigation Plan. This plan is updated on a five-year cycle. *Schedule: High*
53. The Town supports relocating all structures landward when endangered by the damaging effects of storm surges, wave action, flooding, high winds, and erosion associated with hurricanes and other severe weather. Redevelopment of damaged or destroyed structures will be permitted only in accordance with the Town's ordinances provided that current building standards and CAMA requirements are met. *Schedule: Medium*
54. The Town supports continued research on sea level rise and recognizes its potential impact on coastal areas. In response to these concerns, the Town shall review its policies regarding development in areas below an elevation of 5 feet, support regular beach renourishment, and supports relocating structures potentially threatened by sea level rise with federal, state, or private funds. *Schedule: Continuing*
55. The Town supports the acquisition of property that is unsuitable for development due to coastal hazards when such acquisition serves a useful public purpose such as access to the beach or sound. Acquisition of appropriate properties is also encouraged by federal and state agencies. To provide a proactive approach, the staff of the Department of Planning and Parks shall identify priority areas for land acquisition after severe storm events in order to mitigate damage from future storms. *Schedule: Medium*
56. The Town shall investigate outside funding sources for land acquisition and shall encourage gifts and donations for tax credits as a mitigation measure for future storm events. *Schedule: Medium*
57. The Town shall take actions necessary to reduce the cost of flood insurance to property owners by maintaining or improving the Community Rating System (CRS) status. *Schedule: High*

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58. The Town shall require all new and substantially improved structures to meet federal, state and local standards for construction in flood-prone areas. *Schedule: Continuing*
59. The Town will grant variances to its Flood Plain Ordinance only on rare occasions provided that the individual property meets the findings set forth under FEMA guidelines. The Town will continue to maintain the Town's Community Rating System (CRS) status. *Schedule: High*
60. Preserve open space in floodplain areas to minimize potential storm damage. The Department of Planning and Parks shall update the Town of Wrightsville Beach's Flood Damage Prevention Ordinance after the North Carolina Emergency Management (NCEM) mapping revisions are completed. *Schedule: Medium*
61. To help mitigate the effect of storm related hazards, the Town shall work with federal, state, and local governments to undertake regular beach renourishment projects. The Town, in cooperation with the County, should develop a strategy for the Town to become financially self-sufficient so that regular beach renourishment projects can still be funded in the event that federal and state funding for beach renourishment projects is reduced. *Schedule: High*
62. The Town shall use a variety of methods, including CAMA setback requirements and local zoning setbacks, to discourage development in areas that potentially threatens public health and safety as a result of hurricanes and other severe storm events. *Schedule: High*
63. Reduce the risk of damage from urban fires as a result of future development. The Public Works Department, in conjunction with the Fire Department, shall consider increasing the size of water lines and water mains on the south end of the island and installing water mains at all dead end streets. *Schedule: Medium*
64. The Town shall update its Hurricane Management Plan yearly in concert with county and state emergency management officials, and with input from Town residents. The plan shall encompass pre-storm and immediate post-storm activities and policies of the Town. Issues addressed in the Hurricane Management Plan include:
- Criteria for issuing building permits in a post-storm setting;
 - Orderly issuance of building permits in a post-storm setting;
 - Sequence of restoration for public utilities and services;
 - Public infrastructure repair and replacement;
 - Beach re-entry;
 - Debris pick-up;
 - Damage assessment;
 - Evacuation procedures;
 - Recovery Task Force membership and duties;
 - Public health and safety issues. *Schedule: High*
65. Ensure that all evacuation shelters are well-publicized, accessible, and meet national standards for public safety and supplies. *Schedule: Continuing*
66. Provide effective evacuation prior to natural hazard events. *Schedule: Continuing*

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67. The Town shall maintain established mutual aid agreements and where necessary develop new agreements to assist with post-storm event clean-up, damage assessment, and reconstruction activities. *Schedule: High*
68. The staging schedule for the re-establishment of essential services and the reconstruction and repair of properties damaged in a storm event depends on the severity of the storm and the damage inflicted. The Town will work to restore essential services related to public health, safety and welfare first. Properties suffering minor damage will be issued permits as expeditiously as possible. Properties suffering major damage will generally be allowed to implement temporary protective measures designed to protect their property from further damage or to correct public safety problems. *Schedule: High*
69. The Town shall issue building permits as expeditiously as possible to property owners who have received minor damage after storm events. If a structure is damaged more than 50% of the value of the structure, the property owner will have to rebuild or modify the structure to meet current ordinances and building standards. *Schedule: Continuing*
70. The Town shall maintain assessments of current infrastructure usage and need for expansion, repair, or replacement. Following major storm events, the Town will assess damage to public infrastructure at the earliest possible time. Damage which affects public health and safety will be corrected as soon as practicable. Damage to existing infrastructure will also be evaluated for potential opportunities for repair or expansion consistent with existing capital improvement and repair needs. Long-term repair or replacement of infrastructure will be prioritized based on resources available, impact on the integrity of the infrastructure, mitigation of future hazard situations, and the Town's capital improvement program. *Schedule: Continuing*
71. Reduce the frequency of electrical outages and length of time such outages last after hurricanes and severe storm events. The Department of Public Works shall convene a working group with electrical service providers within the county, and provide a report with specific recommendations and detailed implementation timelines that addresses the issues of: 1) disaster preparedness; and 2) communication with County officials during and immediately after a natural hazard event that results in loss of electrical power. *Schedule: High*
72. Reduce property loss due to flooding as a result of storm events. In the event that the President declares Wrightsville Beach a disaster area, the Department of Planning and Parks shall apply for funding from the federal Hazard Mitigation Grant Program (HMGP). *Schedule: High*
73. Develop specific and timely recommendations for implementing hazard mitigation measures following a state or federally declared natural disaster. In the event that the President declares Wrightsville Beach a disaster area, the Department of Planning and Parks shall apply for funding from the Hazard Mitigation Grant Program (HMGP). *Schedule: High*

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Water Quality

Management Goal: Maintain, protect, and where possible, enhance water quality in all coastal wetlands, rivers, streams, and estuaries.

Planning Objectives: Policies that establish actions and practices to control nonpoint source pollution and maintain or improve water quality.

Implementing Actions:

74. The Town shall undertake no activity nor approve any activity that is deleterious to the long-term viability and productivity of its ecosystem. *Schedule: Continuing*
75. The Town shall not allow wetlands or oceanfront beach areas to be damaged by the installation of new bulkheads, groins, or seawalls. *Schedule: Continuing*
76. The Town adheres to CAMA policies and regulations concerning beach erosion control. Structures including, but not limited to, bulkheads, riprap, groins or other similar features, which act to harden the shoreline along the beach, shall not be permitted. Beach renourishment, relocating structures, or other “non-hardening” measures shall be encouraged. *Schedule: Continuing*
77. The Town will continue to work towards maintaining or improving the current cost share formula for federal/state/local governments for beach renourishment projects. *Schedule: Continuing*
78. The Town shall require proper maintenance of existing bulkheads and seawalls for health, safety, and aesthetic reasons. *Schedule: Continuing*
79. The Town shall require construction and maintenance of estuarine bulkheads within the context of CAMA regulations. *Schedule: Continuing*
80. The Town shall avoid undertaking any activity or approving any activity that destroys habitat for loggerhead turtle nesting. *Schedule: Continuing*
81. Tree cover at Wrightsville Beach, whether maritime or otherwise, is a highly valued asset. The Town encourages efforts to preserve existing tree cover in all new development or redevelopment activities. *Schedule: Continuing*
82. The Town supports the “Big Sweep” beach clean-up program and all other similar efforts to enhance the cleanliness of the natural environment. *Schedule: Continuing*
83. The Town supports measures to recycle and reduce the amount of solid waste generated by residents, visitors, and businesses. The Public Works Department will develop a program to reduce the problems associated with wet garbage that results in leaking dumpsters and garbage trucks. Activities to be considered include:
 - Educating the public to reduce the liquid content in garbage cans and dumpsters;
 - Creating incentives for businesses to use compactors;
 - Locating dumpster facilities away from places where they are visible to the public or near public access points;

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- Improving maintenance and operation of garbage trucks;
 - Avoiding placement of dumpsters over or in close proximity to storm drains;
 - Reviewing the zoning code to find ways to improve dumpster location. *Schedule: High*
84. The Town supports all efforts to preserve Masonboro Island. *Schedule: Continuing*
85. Due to the critical role that both coastal and 404 wetlands play in protecting the quality of estuarine waters and in providing habitat for fish and wildlife, the Town strongly supports designation and preservation of all remaining coastal wetlands in accordance with CAMA and US Army Corps of Engineers requirements. *Schedule: High*
86. The Town supports maintaining Mason's Inlet and the resulting Bird Sanctuary at the North End that resulted from the project completed by the U.S. Army Corps of Engineers in March 2002. *Schedule: Continuing*
87. The Town will inform and educate the public about the importance of stormwater management and the water quality and environmental problems associated with nonpoint sources of pollution. The Town shall adopt a stormwater education and outreach program with the following components:
- Create a regional stormwater educational cooperative;
 - Locate and distribute stormwater educational materials;
 - Create and run stormwater public service announcements;
 - Develop and present a stormwater educational curriculum;
 - Determine if there is need for a stormwater hotline. Implement a hotline if it is found to be necessary;
 - Create or partner with an existing green business program;
 - Create or partner with an existing "green yard" program;
 - Create a stormwater construction site education program;
 - Target trash, car washing, disposal of household chemicals and used oil, application of lawn care products and pet waste through the stormwater education and outreach program;
 - Target varied audiences through the stormwater education and outreach program.
- Schedule: Medium*
88. The Town shall involve the public in the development of its stormwater program in order to increase awareness, develop a feeling of ownership, and build future coalitions between stakeholder groups. The Town shall continuously comply with NPDES Phase II Stormwater Permit requirements pertaining to public participation and involvement. *Schedule: High*
89. The Town shall continue its efforts to identify and eliminate illicit discharges and implement the provisions of its NPDES Phase II Stormwater Permit application that pertain to illicit discharge elimination. Additionally, the Town will enforce all federal, state, and local nonpoint source stormwater regulations in an effort to protect the water quality in adjacent waterbodies. Local ordinances will be updated as needed. *Schedule: High*
90. The Town shall implement the provisions of its NPDES Phase II Stormwater Permit application pertaining to post construction stormwater management for new development and redevelopment activities and implement stormwater control measures. *Schedule: Continuing*

SECTION 5. GOALS AND IMPLEMENTING ACTIONS

91. The Town shall develop a program and work with City and County officials to reduce, to the maximum extent practicable, sources of fecal coliform to its estuarine and ocean waters with the goal of opening up all of Wrightsville Beach's waters to shellfishing. The staff of the Public Works Department shall work with City of Wilmington and New Hanover County to identify ways to reduce fecal coliform loadings from nonpoint sources to coastal waters adjacent to Wrightsville Beach. The Town shall also encourage the City of Wilmington and New Hanover County to take steps to improve water quality in Bradley Creek as well as other waters that impact water quality in and adjacent to Wrightsville Beach. *Schedule: Medium*
92. The Town shall not allow new direct discharges of stormwater into SA waters or expand existing discharge points to any constructed stormwater conveyance system or constructed system of conveyances that discharge into SA waters. Expansion is defined as an increase in drainage area resulting in a net increase in peak flow from the 1-year, 24-hour storm. Overland sheet flow of stormwater or stormwater discharge to a wetland vegetated buffer or other natural area capable of providing treatment or absorption will not be considered a direct discharge of stormwater. *Schedule: Continuing*
93. The Town shall utilize structural and non-structural BMPs designed to reduce the quantity and increase the quality of existing stormwater discharges. The Public Works Department shall continue to support the following ongoing nonstructural BMPs in order to reduce the quantity or increase the quality of stormwater discharges:
- Develop a comprehensive post-construction stormwater strategy;
 - Implement a stormwater inspection program;
 - Conduct a needs assessment for stormwater utility fees;
 - Develop an impervious surface management plan. *Schedule: Medium*
94. When state roads are repaired or resurfaced, the Town shall require request that the Department of Transportation (DOT) use infiltration systems and other structural or nonstructural BMPs necessary to treat stormwater generated from road surfaces. When Town roads are repaired or resurfaced, the Town shall seek state funding to assist with its efforts in treating stormwater generated by road surfaces, using infiltration devices and other structural and nonstructural BMPs. *Schedule: Continuing*
95. The Town shall preserve and, where possible, enhance all existing wetland areas to improve water quality and provide a buffer for flooding. *Schedule: Continuing*
96. Where appropriate, the Town shall use economic incentives to encourage existing development to retrofit properties and install structural or nonstructural BMPs that reduce stormwater runoff. *Schedule: Continuing*
97. Where practicable, the Town shall eliminate stormwater discharges resulting from municipal activities. Where elimination is not possible, the Town shall mitigate the sources of stormwater discharges to the maximum extent practicable. The staff of the Public Works Department shall expand its efforts to identify and eliminate stormwater discharges resulting from the Town's municipal activities. Actions that should be taken include:

SECTION 5. GOALS AND IMPLEMENTING ACTIONS

- Develop pollution prevention plan;
- Hold workshops on pollution prevention for municipal employees;
- Implement and enforce stormwater control maintenance and hazardous materials storage requirements;
- Adopt pollution prevention ordinance;
- Create a pollution prevention/good housekeeping program that focuses on training and proper best management practices (BMPs) for fleet maintenance, construction, and other municipal activities.

Further details on the contents of the recommended actions for pollution prevention and good housekeeping for municipal operations are contained in the Town's NPDES Phase II Stormwater Permit Application. *Schedule: Medium*

98. The Town supports the maintenance and preservation of all green space/open space, both passive and active. *Schedule: Continuing*

Local Concerns

In addition to the CRC Management Topics outlined above, CAMA guidelines also allow for the inclusion of policies to address local areas of concern. The following provides implementing actions which address concerns and/or issues unique to the Town of Wrightsville Beach.

99. The Town will work to protect the Town's existing commercial base. This task will be accomplished through implementation of this plan and enforcement of local zoning regulations. *Schedule: Continuing*
100. The Town supports redevelopment of the Marina, Causeway, CBD, South End, and Johnnie Mercer's Pier business districts. The Town will encourage the establishment of mixed use development that is compatible with adjacent development patterns and uses. *Schedule: High*
101. The Town supports a reduction in the frequency of bridge openings associated with the Heide Trask Bridge. The Town prefers establishment of a system that limits, or at a minimum reduces, the frequency of openings. *Schedule: High*
102. The Town supports the efforts of the Wrightsville Beach Chamber of Commerce in promoting economic expansion and tourism within Wrightsville Beach. *Schedule: Continuing*
103. The Town will work with the Wilmington Urban Area Metropolitan Planning Organization and the NC Department of Transportation in attempting to identify a solution to the overcrowding of "The Loop." The increasing popularity of The Loop has resulted in congestion that is potentially dangerous due to the sidewalk being in close proximity to traffic in certain areas. *Schedule: High*
104. The Town will consider the development of a Town-sponsored smartphone app focused on the dissemination of local news and notifications. *Schedule: High*

GUIDE FOR LAND USE DECISION MAKING

It is intended that this document be an integral part of the Wrightsville Beach decision-making process concerning future land use. This document should be consulted prior to any decision being made by the Wrightsville Beach staff, Planning Board, and/or Board of Aldermen concerning land use and development.

EXISTING DEVELOPMENT PROGRAM

The existing management program includes the following plans/ordinances: Unified Development Ordinance (including Flood Damage Prevention Ordinance), Stormwater Management Ordinance, Illicit Stormwater Discharge Ordinance (state enforced), 2005 CAMA Core Land Use Plan Update, Parks and Recreation Comprehensive Master Plan, Community Transportation Plan, Southeastern NC Regional Hazard Mitigation Plan, and the current fiscal year Capital Improvements Plan.

CONTINUING PLANNING PROCESS

This plan provides the framework upon which zoning and subdivision regulations and the capital improvements plan should be based. In fact, the preparation of a land use plan and map is mandated by North Carolina legislation as a prerequisite for zoning for both cities and counties.

Specifically, in implementing this plan, the following should serve as guiding land use/planning principles:

- Consider the future land use map as part of the policies included in this plan.
- Consult this plan, including the future land use map, during the deliberation of all rezoning requests and proposed text amendments.
- Consider the following in deliberation of all zoning petitions:
 - All deliberations should consider this plan's goals, implementing strategies, and future land use map.
 - All uses that are allowed in a zoning district must be considered. A decision to rezone or not to rezone a parcel or parcels of property cannot be based on consideration of only one use or a partial list of the uses allowed within a zoning district.
 - Requests for zoning changes should not be approved if the requested change will result in spot zoning. Spot zoning is a form of discriminatory zoning whose sole purpose is to serve the private interests of one landowner instead of furthering the welfare of the entire community as part of an overall zoning plan. Spot zoning is based on the arbitrary and inappropriate nature of a rezoning change rather than, as is commonly believed, on the size of the area being rezoned.
 - Zoning which will result in strip development should be discouraged. Strip development is a mélange of development, usually commercial, extending along both sides of a major street. Strip development is often a mixture of auto-oriented enterprises (e.g., gas stations, motels, and food stands), and truck-dependent wholesale and light industrial enterprises. Strip development may severely reduce traffic-carrying capacity and disrupt traffic flow of abutting streets by allowing for excessive and conflicting curb cuts.
 - Access management should be considered in all land use/zoning decisions.
 - The concept of uniformity should be supported in all zoning deliberations. Uniformity is a basic premise of zoning which holds that all land in similar circumstances should be zoned

SECTION 6. TOOLS FOR MANAGING DEVELOPMENT

alike; any different circumstances should be carefully balanced with a demonstrated need for such different treatment.

- Specifically, the Planning Board and Board of Aldermen should ask the following questions:
 - Is the request in accordance with this plan? Zoning regulations shall be made in accordance with the Town's Comprehensive Plan (NCGS 160A-383). When adopting or rejecting any zoning amendment, the Board of Aldermen shall also approve a statement describing whether its action is consistent with the Town's Comprehensive Plan and any other officially adopted plan that is applicable, and briefly explaining why the Board of Aldermen considers the action taken to be responsible and in the best public interest.
 - Will the request have a serious adverse impact on traffic circulation and other infrastructure?
 - Will the request have an adverse impact on other Town services, including police protection, fire protection, or public works?
 - Will the request have an adverse impact on the New Hanover County Schools?
 - Is there a good possibility that the request, as proposed, will result in lessening the enjoyment or use of adjacent properties?
 - Will the request, as proposed, cause serious noise, odors, light, activity, or unusual disturbances?
 - Does the request raise legal questions such as spot zoning, hardship, or violation of precedents?
 - Does the request adversely impact water quality or other natural resources?
 - Will the request adversely impact beach maintenance or access?

Following adoption of this plan, the Town may implement the following to ensure effective citizen participation:

- Encourage diverse public participation and citizen input in all land use decisions and procedure development processes, and encourage citizen input.
- Publicize all meetings of the Planning Board and Board of Adjustment through newspaper advertisements, public service announcements, internet notices, and on the Town's website.
- Utilize broad-based advisory committees to assess and advise the Town on special planning issues/needs, including implementation of this plan.
- All Planning Department activities will be available on the Town's website.
- At a minimum, update this plan every five to seven years.

LAND USE PLAN AMENDMENTS

At which time the Town of Wrightsville Beach CAMA Land Use Plan needs to be amended, the Town will apply the guidelines for Land Use Plan Amendments under Subchapter 7B, Section 0901 of the North Carolina Administrative Code. A brief summary of those guidelines is provided below.

- The Land Use Plan may be amended as a whole by a single resolution or in parts by successive resolutions. The successive resolutions may address geographical sections, county divisions, or functional units of subject matter.
- The Town must hold a public hearing of which the public has been properly notified.

SECTION 6. TOOLS FOR MANAGING DEVELOPMENT

- Copies of the proposed amendment(s) must be available for review at the Town Municipal Building during designated hours.
- The executive secretary or a designated agent of the Coastal Resources Commission shall be given notice of the public hearing, a copy of the proposed amendment(s), and a reason for the amendment(s).
- Amendments must be consistent with the Coastal Resources Commission's Land Use Planning Guidelines (15A NCAC 7B) and, if possible, with the Land Use Plans of adjacent jurisdictions.
- If possible, the Town shall adopt the plan amendments expeditiously following the close of the public hearing.
- The Town will provide the executive secretary of the Coastal Resources Commission with a copy of the amended text or maps, and certification of adoption within 7 days of adoption.

CITIZEN PARTICIPATION

For the preparation of this plan, the Wrightsville Beach Board of Aldermen adopted a citizen participation plan. A copy of that plan is included as Appendix C. Following adoption of this plan, Wrightsville Beach will implement the following to ensure adequate citizen participation:

- The Town will encourage public participation in all land use decisions and procedural development processes while encouraging citizen input via its boards and commissions.
- Wrightsville Beach will advertise all meetings of the Town's Planning Board and Board of Adjustment through newspaper advertisements, public service announcements, internet notices, and on the Town's website.
- The Town will, at least annually, conduct a joint meeting of the Board of Aldermen and the Town's Planning Board to identify planning issues/needs.
- Ensure that the membership of all planning related and *ad hoc* advisory committees has a cross-section of Wrightsville Beach's citizenry.

DRAFT
PRELIMINARY
ENGINEERING REPORT

TOWN OF WRIGHTSVILLE BEACH
WATER SUPPLY PARTNERSHIP OPTIONS
SYSTEM-WIDE CONDITION ASSESSMENT
ASSET VALUE DETERMINATION

Prepared for:



Town of
Wrightsville Beach
North Carolina

May 2017

Prepared by:



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SECTION I

HYDRAULIC MODELING & PARTNERSHIP OPTIONS

I. Project Background and Purpose

The Town of Wrightsville Beach currently owns, operates, and maintains public water and wastewater systems that serve approximately 2,700 customers. The purpose of this study is to identify feasible solutions to water supply issues that the Town is currently experiencing, including high chloride concentrations in the well system, an increase in infiltration and inflow of the wastewater collection system and the need to provide long term, viable service to customers. The public water system is supplied via nine (9) groundwater wells, which produce approximately 260 million gallons of water per year. Based on a recent study of the Town system, completed by GMA, Inc., salt water intrusion continues to be a constant issue with the well water supply with three (3) of the wells experiencing high chloride concentrations from salt water intrusion. An additional three (3) wells require rehabilitation to increase yield. The GMA, Inc. study, completed in August 2015, identified a number of options to develop a long term sustainable water supply for the Town, which have been evaluated as part of this report. The options investigated include the following:

- ❖ **Option 1** - Town to Purchase Water from Cape Fear Public Utility Authority (CFPUA) May 1 to September 31 (Summer Peak) to Supplement Well Production
 - *Option 1A* – Town to Purchase Water from CFPUA May 1 to September 31 (Summer Peak) to Supplement Well Production and Remove Wells 1, 3 and 8 from operation
 - *Option 1B* – Town to Purchase Water and Re-pump at Water Treatment Center 2 (WTC2) from CFPUA May 1 to September 31 (Summer Peak) to Supplement Well Production
 - *Option 1C* – Town to Rehabilitate Wells to Increase Yield per the *Skipper's Well Drilling Service Report* and Purchase Water from CFPUA May 1 to September 31 (Summer Peak) to Supplement Well Production
- ❖ **Option 2** - Town to Purchase all Water from CFPUA
- ❖ **Option 3** - Town to Purchase Water from CFPUA during Off-Season Months and Store the Water in an Aquifer Storage & Recovery (ASR) System to be Withdrawn During the Peak Summer Months
- ❖ **Option 4** - CFPUA Acquires Operation of the Town's Water and Wastewater System

- ❖ **Option 5** - CFPUA integrates the Town's Mainland Distribution System and Customers into the CFPUA System

A water quality analysis has also been conducted to evaluate the impacts of blending the CFPUA water supply with the Town's groundwater supply, which would occur in several of the identified partnership options. Paragraph VIII of Section I (page 24) provides a detailed discussion of the findings of this analysis.

Additionally, the Town's public sanitary sewer system includes over 92,000 linear feet of gravity sewer and 25,000 linear feet of sewer force mains. Flow is collected and conveyed to one of the seven (7) lift stations on the island. From there, it is conveyed to the CFPUA system for treatment at CFPUA's Southside Wastewater Treatment Plant (SSWWTP). In addition to the Partnership Options noted above, evaluations for the following were completed and included in this report:

- System Wide Condition Assessment and 10-Year Capital Improvements Plan (Refer to *Section II* of this report)
- System Asset Value Determination (Refer to *Section III* of this report)

II. Existing Water System – Town of Wrightsville Beach

The Town of Wrightsville Beach's public water supply system includes over 195,000 linear feet of water distribution piping with an average operating pressure of 50 psi. Water is supplied by nine wells that withdraw water from the Peedee Aquifer. There are a total of four (4) finished water wells that pump directly into the system, four (4) raw wells that pump into Water Treatment Center 1 (WTC 1) and one (1) raw water well that pumps to Water Treatment Center 2 (WTC 2) before entering the distribution system. Each finished water well consists of a well head and gaseous chlorine injection prior to the distribution system. Each water treatment center consists of a ground storage tank, high service pumps and gaseous chlorine injection prior to the distribution system. The storage in the system consists of a total of 1.5 million gallons of ground storage at the water treatment centers, and two elevated storage tanks with a total capacity of 0.5 million gallons.

Demands are spread throughout the entire system; however, the majority of demands are located centrally near the location of Elevated Tank No. 1 on Parmele Blvd. The seasonal fluctuation of population, due to tourism, has a significant effect on daily water demands. During the winter season, the average daily demand is approximately 500,000 gallons per day, whereas during the summer season, the peak daily demand can exceed 2 million gallons per day.

According to the Town's 2015 Local Water Supply Plan, the nine (9) water supply wells have a current 12-hour supply of 1.589 MGD. During the summer months, wells are overdrawn on days where the demand exceeds the 12-hour regulatory supply of the well system. While the 12-hour

regulatory requirement is based on a yearly average, the acute withdrawal during summer peaks potentially increases impacts of salt water intrusion. As previously noted, elevated chloride concentrations and increasing salinity has been a long term issue with several wells in the system as evidenced by the 2015 GMA report, which ultimately recommended discontinuing the use of wells 1, 3 and 8 due to elevated chloride concentrations. If these wells are removed from service, the 12-hour supply of the wells would decrease to approximately 1 MGD.

In addition to the current system maintained by the Town, an 8" diameter emergency interconnection with Cape Fear Public Utility Authority (CFPUA) is located on the mainland at WTC 2. Per consultations with Town staff, it is our understanding that the interconnection has not been operated, thus its viability is unknown. **Figure I-1** provides the location of the emergency interconnection.

III. Existing System – Cape Fear Public Utility Authority

The City of Wilmington and New Hanover County's public water supply is owned and operated by Cape Fear Public Utility Authority (CFPUA) and consists of over 1,000 miles of water distribution piping that averages 70 psi near the interconnection with Wrightsville Beach. The CFPUA system includes 11 elevated tanks, 3 booster pump stations, a raw water pumping station and a permitted but not yet operational aquifer storage and recovery system (ASR). The finished water storage is 24.65 million gallons in the CFPUA system. The ASR system, once functional, is intended to provide an additional 10 million gallons per day of stored water for water quality, peak shaving and emergency use per the 2015 CFPUA Local Water Supply Plan.

Water is supplied to the Sweeney Water Treatment Plant (SWTP) via surface water intake along the Cape Fear River at Lock and Dam #1. SWTP has a current capacity of 35 MGD. In cases of emergency or to meet peak day demand, there are several groundwater wells that can be utilized to provide short-term supply within the Sweeney WTP service area.

The Nanofiltration Membrane Facility is supplied by 25 groundwater wells which draw from the the Castle Hayne and PeeDee Aquifers. The Nano Water Plant has a current capacity of 6 MGD. There are also 24 older wells within the plant's service area; however these wells are only utilized in cases of emergency or to meet peak day demands and are not part of the CFPUA's normal water supply operations

IV. Water Supply Partnership Options - Alternatives Analysis

As previously noted, five partnership options and three sub-alternatives to Option 1 were identified and evaluated for feasibility in providing the Town with long-term future water supply. These options are detailed as follows:

Option 1 – Town to Purchase Water from CFPUA May 1 to September 31 (Summer Peak) to Supplement Well Production

During the summer months, an increase in population results in a dramatic rise in water usage, primarily due to irrigation demands and tourism. The current well system has a maximum 12-hour supply of approximately 1.5 MGD, which is significantly below summer maximum day demands. For example, holiday weekends such as Memorial Day and Independence Day can result in water usage as high as 2.3 MGD resulting in significant withdrawal exceeding the 12-hour limit. As previously noted, the 12-hour regulatory requirement is based on a yearly average, however, the acute withdrawal during summer peaks potentially increases impacts of salt water intrusion. For the purposes of this evaluation, the 2015 maximum day demand of 1.916 MGD was used as the summer peak day demand.

Option 1 would entail a partnership with CFPUA to purchase finished water to supplement well production during periods that Town demands surpass the 1.5 MGD threshold, thereby meeting the peak summer demands and reducing the withdrawal from existing wells. As an initial evaluation of this option, hydraulic modeling was performed by utilizing the existing 8" CFPUA-Wrightsville Beach emergency interconnection located at WTC 2. In this scenario, the interconnection pipe would be opened via motor actuated control valve (or similar device) when tank levels fall more than a foot below the current head range. The interconnection would only be engaged when demands reach or exceed the existing 1.5 MGD well supply threshold or when the Town cannot sufficiently meet peak demands. Model results indicate that the existing 8" interconnection is not sufficient to supply the volume of water needed to meet summer peak demands. In order to adequately supply these demands, a new 12" interconnection with CFPUA would be required installed along Southerland Drive from Eastwood Road to Wrightsville Avenue (reference **Figure I-1**). It also noted that higher pressures in the CFPUA system will result in increased pressures along the mainland and Harbor Island while the interconnection is operational. Based on the CFPUA system and model results, the pressures in these areas would increase from approximately 50 psi to approximately 75 psi. Therefore, a pressure reducing valve would be required at the proposed interconnections in order to maintain current pressures and operational conditions present on the island.

In order to fully implement Option 1, a number of improvements will be required. These are briefly outlined as follows and depicted on **Figure I-1** and **Figure I-2**:

- 1) 1,000 linear feet (LF) of 14" diameter HDPE DR-9 Class 200 pipe (11.7" inside diameter) directionally drilled under the ICW to parallel the existing 14" diameter HDPE pipe (10.1" inside diameter) at the Causeway Bridge. Based on the increased flow from the CFPUA supply source, the velocity in the existing 14" main would be 5.5 feet per second. While this main would be sufficient to accommodate supply from CFPUA hydraulically, this line would become a major critical component and therefore a parallel main is recommended for redundancy.
- 2) 1,000 LF of 12" diameter main that connects to a 24" CFPUA line near Eastwood Road on the mainland.

- 3) Replacement of the short section of 6" diameter pipe with 10" line near the intersection of Eastwood Road and Wrightsville Avenue on the mainland.
- 4) 2,000 LF of distribution piping parallelisms or replacements due to significant velocity increases.
- 5) Pressure reducing valve at the 12" and 8" interconnection locations to maintain current system pressures as well as maintain tank levels within the current head range.

As an alternative to the parallel directional drill under the ICW noted in Item 1 above, the Town could choose not to construct this parallel main. In the event of failure of the existing ICW main, the output of the existing wells on the island could be increased to supply island demands, while the emergency interconnection could be utilized to supply mainland demands. This would represent a significant savings in the initial implementation costs, however, operating velocity in this pipeline would increase and the risk of failure of the single ICW pipe crossing would remain.

It is noted increasing supply from the mainland under this option will result in changes in pipeline velocities in certain areas of the system. As noted above, approximately 2,000 feet of existing distribution piping has been identified for replacement due to anticipated, significant velocity increases. There are additional pipes in the system that may be at risk of failure due to a combination of age and increased velocities. Based on consultations with staff, these mains have been identified, however, are not included as part of the initial implementation components noted above. It is our understanding that staff recognizes the potential for leaks or failures and would prefer to address these on a case by case basis should a failure occur, rather than expending capital funds for replacement in the initial implementation. Appendix C contains the following figures identifying velocity impacts in the system that would result from Option 1:

- ✓ Appendix C - Figure C1: Maximum Pipe Velocity
- ✓ Appendix C - Figure C2: Change in Pipe Velocity

It is recommended that changes in velocity greater than 3 ft/s should be considered to have an increased risk of failure. Mains that have a change in velocity greater than 2 ft/s and are excessively old or comprised of either Asbestos Cement or Galvanized Steel will have also have an increased risk of failure. These mains should be monitored and replaced if necessary.

Water Quality and Blending Analysis

If Option 1 were implemented, it would result in a blending of the CFPWA water supply and the Town's groundwater supply. A water quality blending analysis was completed and found that the differing water sources would generally be compatible with only minor concerns over scaling. It is also noted that CFPWA utilizes liquid sodium hypochlorite for disinfection and the Town's disinfection method is gaseous chlorine. While the differing methods pose no issues for blending, it is recommended that the Town consider converting from gaseous to liquid chlorine disinfection. Gas chlorination poses a safety hazard not only for Town employees but also to residents. A

detailed discussion of the water quality analysis is provided in Paragraph VIII of Section I of this report (page 24).

Opinion of Probable Project Cost

An opinion of probable project cost was developed based on the recommended improvements required to implement Option 1 and is provided in the following table.

Table I-1 – Partnership Option 1 Opinion of Probable Cost

Item	Quantity	Unit	Unit Cost	Total Cost	Total Cost (1)
14" Parallel Directional Drill ICW	1,000	LF	\$1,000	\$1,000,000	N/A
12" Connection to CFPUA System	1,000	LF	\$125	\$125,000	\$125,000
16" Bore and Jack Encasement Pipe	150	LF	\$400	\$60,000	\$60,000
12" Carrier Pipe	150	LF	\$100	\$15,000	\$15,000
Replace Existing 6" with 10" Pipe	100	LF	\$100	\$10,000	\$10,000
Misc. Parallel/Replacement Pipes	1,000	LF	\$100	\$100,000	\$100,000
12" Pressure Reducing Valve Vault	1	EA	\$30,000	\$30,000	\$30,000
			Subtotal	\$1,340,000	\$340,000
			Technical Fees	\$201,000	\$51,000
			Contingency	\$335,000	\$85,000
			Total Cost	\$1,876,000	\$476,000

(1) *Opinion of Probable cost without parallel ICW Directional Drill*

Advantages and Disadvantages

The advantages and disadvantages of Option 1 are provided as follows:

Advantages

- Provides adequate supply to meet the Town’s peak summer demands
- Provides adequate pressure to supply the Town’s peak summer demands
- Reduces withdrawal from existing wells
- WTC 2 can be removed from service during operation of the CFPUA interconnection, reducing O&M costs
- Negligible impacts to current system pressures or operations

Disadvantages

- Requires capital expenditure for implementation
- Requires upgrades of interconnection to the CFPUA system
- Recommended parallel ICW water main increases initial implementation costs
- Increases velocities in existing distribution pipelines and increases failure risk
- Requires upgrades of existing piping within the distribution system
- Purchase of water from CFPUA may result in additional costs

Option 1A – Town to Purchase Water from CFPUA to Supplement Well Production with Wells 1, 3 and 8 Removed From Service

As previously noted, the GMA report recommended that Wells 1, 3 and 8 be removed from service due to water quality issues from high chloride concentrations. If these wells were removed from service, supply to the island areas would be reduced and additional water supply will be required to supplement well production. Option 1A was evaluated under the premise that Wells 1, 3, and 8 are not in service and the additional water supply will be purchased from CFPUA. Similar to Option 1, the existing 8" interconnection does not have sufficient capacity to convey water from the CFPUA to meet the Town's demands; therefore, additional interconnections and piping modifications will be required.

Hydraulic modeling indicates that the reduction in island well supply sources results in a need for increased supply from CFPUA. With CFPUA providing supplemental water in this scenario on an as needed basis, significant velocity impacts would occur in approximately 16,000 LF of pipelines on the island. This is primarily due to short duration, high volume flows that would be supplied by the CFPUA system to the island distribution system as the CFPUA supply attempts to compensate for the reduced well production. Modeling results indicate these velocities will be significantly higher than current velocities and would create considerable risk of failure. To address this issue, the Town could implement the following variations:

Option 1A (A) – Install a flow control valve and meter that regulates and limits flow from CFPUA to the island. Based on short-term, peak demands the CFPUA supply would be limited to 1,200 GPM, which allow reduced system velocities while meeting peak demands. The existing ICW water main would operate at just below 5 feet per second and would not require parallelism, however, a parallel main would be recommended based on the reduced well yield.

Option 1A (B) – This variation would utilize the ground storage tank at Water Treatment Center 2 to store and re-pump finished CFPUA water into the Wrightsville Beach system. Operationally, water supplied by CFPUA would be conveyed directly to the WTC 2 ground tank. The Town's existing pumping configuration at WTC 2 would need to be modified to upsize the existing pumping capacity to 1,200 GPM. For this option, it is recommended that two 1,200 GPM pumps with VFD control be installed at WTC 2 to boost the hydraulic grade and convey finished water to meet the demands in the system.

For either option, it is noted that the Town could maintain Wells 1, 3, and 8 and place them back in service in the event of an emergency.

Infrastructure improvements for both Option 1A(A) and Option 1A(B) are nearly identical to Option 1, which is shown in **Figure I-1** and **Figure I-2**. The required modifications are summarized as follows:

- 1) 1,000 linear feet (LF) of 14" diameter HDPE DR-9 Class 200 pipe (11.7" inside diameter) directionally drilled under the ICW to parallel the existing 14" diameter HDPE pipe (10.1" inside diameter) at the Causeway Bridge. Based on the increased flow from the

CFPUA supply source, the velocity in the existing 14" main would be 5.5 feet per second. While this main would be sufficient to accommodate supply from CFPUA hydraulically, this line would become a major critical component and therefore a parallel main is recommended for redundancy.

- 2) 1,000 LF of 12" diameter main that connects to a 24" CFPUA line near Eastwood Road on the mainland.
- 3) Replacement of the short section of 6" diameter pipe with 10" line near the intersection of Eastwood Road and Wrightsville Avenue on the mainland.
- 4) 2,000 LF of distribution piping parallelisms or replacements due to velocity increases.
- 5) Pressure reducing valve at the 12" and 8" interconnection locations to maintain current system pressures as well as maintain tank levels within the current head range.
- 6) Flow meter and flow control valve vault (Option 1A(A)).
- 7) Upgrade WTC 2 pumps to 1,200 GPM (2 each) with VFD control (Option 1A(B)).

As previously noted, increasing supply from the mainland will result in changes in pipeline velocities in certain areas of the system. As noted above, approximately 1,000 feet of existing distribution piping has been identified for replacement due to anticipated, significant velocity increases. Additional pipes are present in the existing system that may be at risk of failure due to a combination of age and increased velocities. Based on consultations with staff, these mains have been identified, however, are not included as part of the initial implementation components noted above. It is our understanding that staff recognizes the potential for leaks or failures and prefer to address these on a case by case basis should a failure occur, rather than expending capital funds for replacement in the initial implementation. Appendix C contains the following figures identifying velocity impacts in the system that would result from Option 1A:

- ✓ Appendix C - Figure C1: Maximum Pipe Velocity
- ✓ Appendix C - Figure C2: Change in Pipe Velocity

It is recommended that changes in velocity greater than 3 ft/s should be considered to have an increased risk of failure. Mains that have a change in velocity greater than 2 ft/s and are excessively old or comprised of either Asbestos Cement or Galvanized Steel will have also have an increased risk of failure. These mains should be monitored and replaced if necessary.

Water Quality and Blending Analysis

If Option 1A were implemented, it would result in a blending of the CFPUA water supply and the Town's groundwater supply. The water quality blending analysis for this option is identical to Option 1, which found that the differing water sources would generally be compatible with only minor concerns over scaling. A detailed discussion of the water quality analysis is provided in Paragraph VIII, Section I of this report (page 24).

Opinion of Probable Project Cost

An opinion of probable project cost was developed based on the recommended improvements required to implement Option 1A and is provided in the following table.

Table I-2 – Partnership Option 1A Opinion of Probable Cost

Item	Quantity	Unit	Unit Cost	Total Cost	Total Cost (1)
14" Parallel Directional Drill ICW	1,000	LF	\$1,000	\$1,000,000	N/A
12" Connection to CFPUA System	1,000	LF	\$125	\$125,000	\$125,000
16" Bore and Jack Encasement Pipe	150	LF	\$400	\$60,000	\$60,000
12" Carrier Pipe	150	LF	\$100	\$15,000	\$15,000
Replace Existing 6" with 10" Pipe	100	LF	\$100	\$10,000	\$10,000
Misc. Parallel/Replacement Pipes	1,000	LF	\$100	\$100,000	\$100,000
12" Pressure Reducing Valve Vault	1	EA	\$30,000	\$30,000	\$30,000
Flow Meter & Control Valve Vault	1	EA	\$50,000	\$50,000	\$50,000
Upgrade WTC 2 Pumps	1	LS	\$75,000	\$75,000	\$75,000
			Subtotal	\$1,465,000	\$465,000
			Technical Fees	\$219,750	\$69,750
			Contingency	\$366,250	\$116,250
			Total Cost	\$2,051,000	\$651,000

(1) *Opinion of Probable cost without parallel ICW Directional Drill*

Advantages and Disadvantages

The advantages and disadvantages of Option 1A are provided as follows:

Advantages

- Provides adequate supply to meet the Town’s peak summer demands
- Provides adequate pressure to supply the Town’s peak summer demands
- Removes Wells 1, 3, and 8 which have high chloride concentrations from service
- Wells 1, 3, and 8 can be maintained and placed back into service for emergency events
- Reduces withdrawal from existing wells
- The Town’s well system can be removed from service during the peak summer months
- Negligible impacts to current system pressures or operations

Disadvantages

- Requires capital expenditure for implementation
- Requires upgrades of interconnection to the CFPUA system
- Requires parallel ICW water main which increases initial implementation costs
- Increases velocities in existing pipelines and increases failure risk
- Requires upgrades of existing piping within the distribution system
- Purchase of water from CFPUA may result in additional costs

Option 1B – Town to Purchase Water from CFPUA to Supplement Well Production and Store and Re-pump Water Out of Water Treatment Center 2

Option 1B would utilize the ground storage tank at Water Treatment Center 2 to store and re-pump finished CFPUA water into the Wrightsville Beach system. Operationally, water supplied by CFPUA would be conveyed directly to the WTC 2 ground tank and the Town would then utilize the existing 1,000 gpm pump at WTC 2 to boost the hydraulic grade and convey finished water to meet the demands in the system. While modeling results indicate that this option is hydraulically feasible, it will result in higher O&M costs when compared to Option 1 while providing nearly identical results and requiring similar capital improvements to implement. **Figure I-1** and **Figure I-2** provide schematics of required infrastructure improvements for Option 1B.

Option 1 would utilize the higher pressures of the CFPUA system to meet demands and fill the tanks in the Wrightsville Beach system and WTC 2 could be removed from service during periods that CFPUA is supplementing the water supply. Comparatively, Option 1B would require that WTC 2 remain in service, resulting in on-going electrical costs to operate the facility as well as recurrent maintenance costs. While some minor benefit could be argued by having the additional storage provided by the WTC 2 ground tank, the costs associated with O&M for this option would far outweigh the minimal impact of increased system storage. Therefore, Option 1B is not recommended.

Advantages and Disadvantages

The advantages and disadvantages of Option 1B are provided as follows:

Advantages

- Provides adequate supply to meet the Town's peak summer demands
- Provides adequate pressure to supply the Town's peak summer demands
- Reduces withdrawal from existing wells
- Negligible impacts to current system pressures or operations

Disadvantages

- Higher O&M costs due to ongoing operation of WTC 2
- Requires capital expenditure for implementation
- Requires upgrades of interconnection to the CFPUA system
- Requires parallel ICW water main which increases initial implementation costs
- Increases velocities in existing pipelines and increases failure risk
- Requires upgrades of existing piping within the distribution system
- Purchase of water from CFPUA may result in additional costs

Option 1C – Town to Rehabilitate and Repair Existing Wells to Increase Yield

Under Option 1C, a number of existing wells in the system would be rehabilitated in order to improve yields. An evaluation of the existing wells was performed in January 2017 by *Skipper's Well Drilling & Pump Service* which is provided in Appendix B. Based on their findings, work can be performed to improve the well field yield by approximately 360,000 gallons per day.

Based on the increased yield, the 12-hour well supply was increased by 0.72 million gallons per day to a total of 1.908 million gallons per day. For comparison, the Town's maximum daily demand for the previous two calendar years reached a peak of 1.916 and 2.31 MGD respectively. Based on this evaluation, the Town could potentially experience a supply shortage during peak summer months of approximately 400,000 gallons per day. Under Option 1C, this shortfall could be addressed as follows:

Option 1C (A) - Increase well pump run times during the specific peak days, while managing overall yearly average well operation to be at or below the 12-hour maximum regulatory requirement. Advantages and Disadvantages of this option are:

Advantages

- Utilizes existing infrastructure by rehabilitating existing wells
- Provides increased water supply capability
- Negligible impacts to current system pressures or operations
- Minimal upgrades required to distribution system
- Does not require system blending with CFPWA water source

Disadvantages

- Does not meet recent historical/measured peak day demands. Extended well run times may be required for specific peak day demands
- Does not provide additional capacity should peak demands increase
- Would require extended well operation on peak days
- Impacts from elevated chlorides are unknown
- Chloride levels may increase with increased withdrawal rates and times

By increasing well output, pipe velocities will be increased in certain areas of the system. Specifically, Well 8 improvements will result in a 2-3 feet per second velocity increase in the pipelines along Salisbury Street and at the Banks Channel crossing. For the purposes of this report, it is assumed that these pipelines are capable of accommodating the increased velocities, however, if Option 1C (A) is implemented it is recommended that the Town monitor all improvements and system operation. Therefore, capital cost impacts associated with this alternative would be minimal, excluding the noted well improvements.

Option 1C (B) - Purchase additional water from CFPUA to meet the peak summer demand shortfall. Based on the previous two calendar yeas approximately 400,000 gallons per day could be required. Advantages and Disadvantages of this option are:

Advantages

- Utilizes existing infrastructure by rehabilitating existing wells
- Provides increased water supply capability on the island
- Provides CFPUA source for supplemental supply during peak periods
- Negligible impacts to current system pressures or operations
- WTC 2 may be removed from service during periods that CFPUA interconnections are operational, reducing O&M costs.

Disadvantages

- Requires continued long-term use of island wells
- Impacts from elevated chlorides are unknown
- Chloride levels may increase with increased withdrawal rates and times
- Purchase of water from CFPUA may result in additional costs

If implemented, Option 1C (B) would require the identical infrastructure improvements as previously identified in Option 1 with an Opinion of Probable Project Cost of \$1.9M (or \$0.5M if the ICW directional drill is not constructed). Improvements are shown on **Figure I-1** and **Figure I-2** and would include the following major components:

- 1) 1,000 linear feet (LF) of 14" diameter HDPE DR-9 Class 200 pipe (11.7" inside diameter) directionally drilled under the ICW to parallel the existing 14" diameter HDPE pipe (10.1" inside diameter) at the Causeway Bridge.
- 2) 1,000 LF of 12" diameter main that connects to a 24" CFPUA line near Eastwood Road on the mainland.
- 3) Replacement of the short section of 6" diameter pipe with 10" line near the intersection of Eastwood Road and Wrightsville Avenue on the mainland.
- 4) 2,000 LF of distribution piping parallelisms or replacements due to significant velocity increases.
- 5) Pressure reducing valve at the 12" interconnection location to maintain current system pressures as well as maintain tank levels within the current head range.

Option 2 – Town to Purchase all Water from CFPUA

Option 2 would entail the Town of Wrightsville Beach removing their well water system from service and purchasing all water, year-round from CFPUA. With this option, CFPUA would be the primary water supply source; however, the Town could maintain their wells in the case of an emergency event. Modeling results indicate this to be a hydraulically feasible option and the CFPUA system could supply all of the Town's needs, including the peak summer months. It is noted that rate evaluations are not included in the scope of this document, however, a review of current billing structures indicate that the CFPUA current bulk rate of \$2.95 per 1,000 gallons is above the current average billed rate (\$2.94 per 1,000 gallons) that the Town charges customers. Consequently, Town rates would potentially require restructuring to be commensurate with the current CFPUA rate structure. Additionally, the information presented in this option is based on hydraulic feasibility and assumes that CFPUA has available water treatment capacity to meet the Town's needs.

In comparison to other options presented in this report, the purchase of all water supply from CFPUA would eliminate issues with water quality or blending of differing water sources. Blending would only be required should the Town place their wells in service, and as previously noted, no significant issues are anticipated if the differing water sources were to be blended. Additionally, it is anticipated that a chlorine residual will be present at the mainland connection to the CFPUA system, however, it is also anticipated that chlorine decay is likely to occur as the water is distributed throughout the Town's system. If this option were implemented, it is recommended that the Town provide/maintain a chlorine booster at the location(s) on the island that currently have chlorine injection capability to maintain the required residual.

With this option, it is noted NCDEQ requires that public water systems maintain one-half of the annual average daily demand in storage. By removing the operation of the well system and WTC's the resultant storage is 500,000 GPD, which equals one-full day of storage based on the Town's annual average daily demand.

Based on hydraulic modeling and evaluations, the change in supply of water from multiple sources throughout the system to one centralized source (CFPUA) on the mainland will necessitate distribution system piping modifications. Primarily, these modifications will be required to reduce velocities and pressures and provide capacity improvements to allow water to be efficiently distributed throughout the system. Recommended improvements for Option 2 are summarized as follows and are shown on **Figure 3**:

- 1) 1,000 linear feet (LF) of 14" diameter HDPE DR-9 Class 200 pipe (11.7" inside diameter) directionally drilled under the ICW to parallel the existing 14" diameter HDPE pipe (10.1" inside diameter) at the Causeway Bridge. Based on the increased flow from the CFPUA supply source, the velocity in the existing 14" main would operate at 5.7 per second. While this main would be sufficient to accommodate supply from CFPUA

hydraulically, this line would become a major critical component and therefore a parallel main is recommended for redundancy.

- 2) 1,000 foot long 8" diameter pipe directionally drilled under the Banks Channel at the South Banks Channel Bridge
- 3) 1,000 LF of 12" diameter main that connects to a 24" CFPUA line near Eastwood Road on the mainland.
- 4) 100 foot long 10" diameter line that connects the two systems on the west side of the bridge crossing the Intracoastal Waterway
- 5) Replacement of the short section of 6" diameter pipe with 10" line near the intersection of Eastwood Road and Wrightsville Avenue on the mainland.
- 6) 5,000 LF of distribution piping parallelisms or replacements due to significant velocity increases.
- 7) Pressure reducing valves at the CFPUA system interconnections to maintain current system pressures as well as maintain tank levels within the current head range.

Similar to other options presented in this report that require increased supply from the mainland, changes in pipeline velocities in certain areas of the system will occur. As noted above, approximately 5,000 feet of existing distribution piping has been identified for replacement due to anticipated, significant velocity increases. There are additional pipes in the system that may be at risk of failure due to a combination of age and increased velocities. Based on consultations with staff, these mains have been identified, however, are not included as part of the initial implementation components noted above. It is our understanding that staff recognizes the potential for leaks or failures and have chosen to address these on a case by case basis should a failure occur, rather than expending capital funds for replacement in the initial implementation. Appendix C contains the following figures identifying velocity impacts in the system that would result from Option 1:

- ✓ Appendix C – Figure C3: Maximum Pipe Velocity
- ✓ Appendix C – Figure C4: Change in Pipe Velocity

It is recommended that changes in velocity greater than 3 ft/s should be considered to have an increased risk of failure. Mains that have a change in velocity greater than 2 ft/s and are excessively old or comprised of either Asbestos Cement or Galvanized Steel will have also have an increased risk of failure. These mains should be monitored and replaced if necessary.

Water Quality and Blending Analysis

If Option 2 were implemented, all water would be supplied via the CFPUA system and that blending would only occur in the event that the Town placed their well system into service. As noted, the differing water sources would generally be compatible and no major concerns would be anticipated if this were to occur. A detailed discussion of the water quality analysis is provided in Paragraph VIII of Section I of this report (page 24).

Opinion of Probable Project Cost

An opinion of probable project cost was developed based on the recommended improvements required to implement Option 2 and is provided in the following table.

Table I-3 – Partnership Option 2 Opinion of Probable Cost

Item	Quantity	Unit	Unit Cost	Total Cost
14" Directional Drill ICW	1,000	LF	\$1,000	\$1,000,000
8" Directional Drill Banks Channel	1,000	LF	\$750	\$750,000
12" Interconnection	1,000	LF	\$125	\$125,000
20" Bore and Jack	150	LF	\$400	\$60,000
12" Carrier Pipe	150	LF	\$100	\$15,000
10" Interconnection (14" Bore & Jack)	150	LF	\$350	\$52,500
10" Carrier Pipe	150	LF	\$80	\$12,000
Replace Existing 6" with 10" Pipe	100	LF	\$90	\$9,000
8" Parallel/Replacement Pipes	4,500	LF	\$80	\$360,000
12" Parallel/Replacement Pipes	500	LF	\$100	\$50,000
10" Pressure Reducing Valve Vault	1	EA	\$28,000	\$28,000
12" Pressure Reducing Valve Vault	1	EA	\$30,000	\$30,000
Chlorine Booster Improvements	3	EA	\$20,000	\$60,000
Subtotal				\$2,551,500
Technical Fees				\$382,725
Contingency				\$637,875
Total Cost				\$3,572,100

Advantages and Disadvantages

The advantages and disadvantages of Option 2 are provided as follows:

Advantages

- Provides adequate supply to meet the Town’s peak summer demands
- Provides adequate pressure to supply the Town’s peak summer demands
- Provides long-term solution for Town water demand needs
- Allows well field to be removed from service
- Improved water quality from highly treated CFPUA source
- Reduced O&M costs for operating wells, WTC’s, etc.
- Negligible impacts to current system pressures or operations
- Eliminates issues with chlorides in well water supply

Disadvantages

- Requires capital expenditure for implementation
- Requires upgrades of interconnection to the CFPUA system

- Required Parallel ICW water main increases initial implementation costs
- Increases velocities in existing pipelines and increases failure risk
- Requires upgrades of existing piping within the distribution system
- Potentially requires rate adjustments due to CFPUA rate structure

Option 3 – Town to Purchase Water from CFPUA during Off-Season Months and Store the Water in an Aquifer Storage & Recovery (ASR) System to be Withdrawn During the Peak Summer Months

Option 3 was evaluated to supplement the Town's water supply by utilizing an Aquifer Storage & Recovery (ASR) System. An ASR system is used to store water via an injection well(s) into an aquifer during times when water is widely available, and recover water from the same well(s) during times when additional water is needed to meet peak demands. With this option, Wrightsville Beach would purchase treated water from CFPUA during off-season months and store the water in an ASR system to be withdrawn during the summer to supplement the water supply on peak demand days.

According to the 2015 GMA report, costs for a similar system in neighboring Brunswick County include \$1.46 per gallon/per day for capacity and annual operational costs of \$30,000 for 1 million gallons per day for a total of \$1,494,000 in annual costs. A system constructed for Wrightsville Beach would have similar costs for operating the ASR and would also incur costs for the purchase of water from CFPUA during the month off-peak period from September to April. At the CFPUA basic rate cost of \$2.95 per 1,000 gallons, the annual cost of purchasing water would be approximately \$177,000. If an off-peak rate could be negotiated with CFPUA, the cost may be reduced, however, the purchase of water would still be a considerable impact to economic feasibility. As noted in the 2015 GMA report, the projected capital costs for this option include a hydrogeologic investigation and feasibility study (\$0.5M) and the installation of a new well system (\$1.5M). Therefore, the total estimated capital cost of this project would be \$2M.

Potential issues with installing an ASR system for the Town include permitting challenges, lack of real estate, loss of water in the aquifer, risk of contamination of ground water, etc. The ASR well system would need to be separated from both existing wells and potential new wells so that no interference occurs between the respective systems. Similar to other options presented in this report, Option 3 would result in a blending of the CFPUA water supply and the Town's well supply during peak summer months, however, water quality blending analysis indicates that the respective water sources are compatible and no major concerns are anticipated.

Summarily, an ASR system for the Town will have significant challenges associated with feasibility, permitting, and available real estate for implementation. Additionally, capital costs as well as on-going O&M concerns indicate that an ASR system is not economically viable for the Town. Therefore, Option 3 is not recommended to meet the Town's water supply needs.

Option 4 – CFPUA Acquires Operation of the Town’s Water and Wastewater System

Under this option, CFPUA would acquire, operate, and maintain the Town’s entire water system. Financially, the town would not purchase water from CFPUA and Town customers would become customers of the CFPUA. From an engineering and hydraulic standpoint, the water system improvements for this option are identical to the previously discussed Option 2. The water system infrastructure requirements for this option are shown on **Figure I-3** and the opinion of probable cost for implementation is \$3.6M.

Additionally, the CFPUA would also acquire, operate, and maintain the Town’s wastewater system under this option. A System-Wide Condition Assessment is included in Section II of this report, which includes the Town’s water and wastewater assets and infrastructure. A hydraulic model of the wastewater system was not included as part of this report, however, a 10-year Capital Improvements Plan (CIP) has been developed and is included in Section II. The CIP addresses infrastructure needs for both the water and wastewater systems based on the System-Wide Condition Assessment, review of existing record data, and consultations with Town staff.

In conjunction with the System-Wide Condition Assessment and 10-Year CIP, the Town’s water and wastewater systems were evaluated and appraised as a total replacement cost (cost to build the entire system in 2017) and as a depreciated value (cost of current system with age factored in). The *Asset Value Determination* is addressed in Section III of this report.

The System-Wide Condition Assessment, 10-Year CIP, and Asset Value Determination provide a valuable informational baseline on the condition, value, and improvements required to maintain system viability and will assist the Town in discussions with CFPUA should Option 4 be considered.

Option 5 – CFPUA integrates the Town’s Mainland Distribution System and Customers into the CFPUA System

Option 5 would entail conveying the Town’s mainland distribution to CFPUA, whereby all Wrightsville Beach customers that reside on mainland would either become direct CFPUA customers or be served by the CFPUA system through the Town system. With this configuration, Water Treatment Center 2 would be dedicated solely to providing water supply across the Intracoastal Waterway to the island areas with the premise of increasing supply to the areas of the island with the highest demands. WTC 2 would utilize the existing distribution mains to convey water to island customers while the remaining water distribution piping on the mainland would be used to supply mainland Town customers via the CFPUA system.

With this configuration, blending of the CFPUA water source and the Town’s water source would not occur, therefore, the issues and concerns with blended water source quality are not applicable.

Based on hydraulic analysis and review of the Town’s operational data, the average demand for Wrightsville Beach is approximately 0.7 MGD (million gallons per day). The mainland component is comprised of a single well that accounts for approximately 30,000 GPD (gallons per day) of the 0.7 MGD average demand (+/-4.3%). While this option would allow additional water to be conveyed to the island areas, the impact on meeting the Town’s overall needs would be negligible. Therefore, this option does not provide a significant benefit to the Town with regards to water supply and is not recommended.

V. Partnership Alternatives Summary

Based on the evaluations of the partnership options presented, it is our recommendation that Options 1, 1A, 1C, 2 and 4 are feasible from an engineering and hydraulic perspective. Options 1B, 3 and 5 were deemed not feasible and were are not recommended to address the water supply issues currently facing Wrightsville Beach.

A brief summary of feasible options is provided as follows:

Option 1 - Town to Purchase Water from CFPUA May 1 to September 31 (Summer Peak) to Supplement Well Production (Reference Figures I-1 and I-2)

Under Option 1, the Town of Wrightsville Beach would continue to operate and maintain its water and wastewater infrastructure. During peak summer periods the Town would purchase water from CFPUA to supplement their well production in order to meet peak demands. Option 1 would require the following primary infrastructure improvements.

- 1,000 linear foot 14" directional drill under the ICW
- 1,000 foot long 12" diameter line that connects to a 24" line near Eastwood Road
- Replacement of the short section of 6" diameter pipe with 10" noted above.
- 1,000 linear feet of distribution piping parallelisms or replacements
- Pressure reducing valve at the connection to the CFPUA system

Figure I-1 and Figure I-2 provide schematics of the required modifications. The opinion of probable project cost for Option 1 is \$1.9M. If the 14" directional drill under the ICW is not constructed the opinion of probable project cost would be \$0.5M.

Option 1A - Town to Purchase Water From CFPUA to Supplement Well Production with Wells 1, 3, and 8 Removed from Service (Reference Figure I-3)

Option 1A was evaluated under the premise that Wells 1, 3, and 8 are removed from service due to water quality issues and elevated chlorides and the additional water supply would be purchased from CFPUA. During peak summer periods CFPUA supply would be directed to WTC 2 or bypass WTC 2 and utilize a flow control/meter vault to regulate CFPUA system flow. Option 1A would require the following primary infrastructure improvements.

- 1,000 linear foot 14" directional drill under the ICW
- 1,000 foot long 12" diameter line that connects to a 24" line near Eastwood Road
- Replacement of the short section of 6" diameter pipe with 10" noted above.
- 1,000 linear feet of distribution piping parallelisms or replacements
- Pressure reducing valve at the connection to the CFPUA system
- Flow control valve and flow meter vault
- Upgrade WTC 2 pumps to 1,200 GPM (2 each) with VFD control

Figure I-1 and **Figure I-2** provide schematics of the required modifications. The opinion of probable project cost for Option 1A is \$2.1M. If the 14" directional drill under the ICW is not constructed the opinion of probable project cost would be \$0.7M.

Option 1C - Town to Rehabilitate and Repair Existing Wells to Increase Yield

Option 1C would require the Town to rehabilitate the wells per the January 2017 *Skipper's Well Drilling & Pump Service* documentation (reference correspondence in Appendix B). This option would allow the town to maintain their system as is while increasing the overall yield of the system by approximately 360,000 gallons per day. Hydraulic modeling results indicate that although this option is feasible, a deficit may be incurred on days with high peak demands. In addition to improving the well yield, the Town would need to purchase water from CFPUA to supplement peak days when current well supplies are not sufficient to meet demands. Based on these findings, Option 1C is very similar in cost and piping modifications to Option 1, however, less water would need to be purchased from CFPUA given the increased well yields that may be achievable. Option 1C would require the following primary infrastructure improvements:

- Rehabilitation of wells as shown in the Skipper Report
- 1,000 linear foot 14" directional drill under the ICW
- 1,000 foot long 12" diameter line that connects to a 24" line near Eastwood Road
- Replacement of the short section of 6" diameter pipe with 10" noted above.
- 2,000 linear feet of distribution piping parallelisms or replacements
- Pressure reducing valve at the connection to the CFPUA system

Figure I-1 and **Figure I-2** provide schematics of the required modifications. The opinion of probable project cost for Option 1C is \$1.9M (excluding well capacity improvements). If the 14" directional drill under the ICW is not constructed the opinion of probable project cost would be \$0.5M.

Option 2 – Town to Purchase all Water from CFPUA

Option 2 would entail The Town of Wrightsville Beach removing their well water supply system from service and purchasing all water from CFPUA. Under this option, the town would maintain the existing wells in the case of an emergency and CFPUA would be the primary water supply source. With this option, the change in supply of water from multiple sources throughout the system to one centralized source (CFPUA) on the mainland will necessitate distribution system piping modifications. Primarily, these modifications will be required to reduce velocities and pressures that will be increased as a result of purchasing all water from CFPUA. Recommended improvements are summarized as follows:

- 1,000 linear foot 14" directional drill under the ICW
- 1,000 linear foot 8" directional drill under the Banks Channel along Causeway Dr
- 1,000 foot long 12" diameter line that connects to a 24" line near Eastwood Road

- 200 foot long 10" diameter line that connects to the CFPUA system west of the ICW
- Replacement of the short section of 6" diameter pipe with 10" noted above.
- 5,000 linear feet of distribution piping parallelisms or replacements
- Pressure reducing valves at the connections to the CFPUA system

Figure I-3 provides a schematic of the required modifications. The opinion of probable project cost for Option 2 is \$3.6M

Option 4 – CFPUA Acquires Operation of the Town’s Water and Wastewater System

Under Option 4, CFPUA would acquire, operate, and maintain the Town’s entire water and wastewater system. Consequently, Town customers would become water and sewer customers of CFPUA. From an engineering and hydraulic standpoint, the water system improvements for this option are identical to Option 2. Therefore, the improvements required and resultant opinion of probable project cost for Option 4 is also identical to Option 2 summarized above

A summary of opinion of probable project costs for each option is provided as follows:

Table I-4 – Opinions of Probable Project Costs

Option	Description	Opinion of Probable Project Cost	Opinion of Probable Project Cost (1)
Option 1	Town to Purchase Water from CFPUA May 1 to September 31 (Summer Peak) to Supplement Well Production	\$ 1.9 M	\$ 0.5 M
Option 1A	Town to Purchase Water From CFPUA to Supplement Well Production with Wells 1, 3, and 8 Removed from Service	\$ 2.1 M	\$ 0.7 M
Option 1C	Town to Rehabilitate Existing Wells to Improve Yields	\$ 1.9 M	\$ 0.5 M
Option 2	Town to Purchase all Water from CFPUA	\$ 3.6 M	N/A
Option 4	CFPUA Acquires Operation of the Town’s Water and Wastewater System	\$ 3.6 M	N/A

(1) Opinion of probable cost less the installation of a parallel water main under the ICW, if applicable.

It is noted that these costs are specific to implementation of the water supply partnership options only. A 10-Year Capital Improvements Plan has been developed as part of the System Wide

Condition Assessment in Section II of this report, which encompasses both water and sewer infrastructure needs separate of the partnership options.

VI. Permitting Requirements

Anticipated permitting requirements for the feasible options identified in this report are provided in the following table.

Table I-5 – Anticipated Permitting Requirements

Permit Required	Regulatory Agency
Public Water Supply Permit	NCDEQ
Erosion & Sedimentation Control Permit	NCDEQ
Stormwater Management Permit	NCDEQ
Encroachment Agreement	NCDOT
Wetlands Permit	US Army Corps of Engineers
CAMA Permit	Division of Coastal Management
Waterway Crossing Easement	NC Department of Administration
Technical Review Committee Approval	City of Wilmington

VII. Anticipated Project Schedule

A schedule has been developed for infrastructure improvements associated with the feasible options presented in this report and presented below. It is noted that this schedule is intended to be a general, representative schedule. If a specific option is chosen by the Town, a detailed schedule specific to that option should be further developed.

• Design	6 Months
• Permitting	4 Months
• Bid & Award	2 Months
• <u>Construction</u>	<u>12 Months</u>
Total Estimated Timeline	24 Months

VIII. Water Quality & Blending Analysis

The Town of Wrightsville Beach owns, operates, and maintains a public water supply system serving approximately 2,700 customers. The water distribution system is supplied by nine (9) groundwater supply wells in the Peedee Aquifer, producing approximately 260 million gallons of potable water per year (0.712 MGD average). The wells range in depth from approximately 157 feet to 193 feet, and range in diameter from 6 to 10 inches. Several of the wells are experiencing salt water intrusion issues and deteriorating water quality, and other wells require rehabilitation to increase yield. McKim & Creed, Inc. is evaluating a number of short and long-term alternatives to meet the Town's water supply needs. These options primarily focus on a partnership with Cape Fear Public Utility Authority (CFPUA) to supply finished water to Wrightsville Beach via the Sweeney WTP, a surface water supply treatment plant.

Because these options involve blending different water supply sources which could potentially impact the overall finished water quality, McKim & Creed developed a hydraulic model of the Wrightsville Beach water distribution system to evaluate hydraulics within the water system and source water blending in the water distribution system. Potential impacts of blended water quality include health considerations from leaching of toxic metals including lead and copper from the water distribution system, disinfection effectiveness for control of pathogenic organisms, disinfection byproducts formation potential, corrosion or scaling of the water distribution system, and aesthetic concerns such as taste, odor, and turbidity. The approach to the blending analysis includes the following elements:

1. Prepare data sheets showing the typical water quality characteristics of the existing wells and the CFPUA Sweeney WTP water supply.
2. Determine existing disinfection practices of the CFPUA Sweeney WTP and the existing Wrightsville Beach well water supplies to evaluate compatibility.
3. From the hydraulic model of the water distribution system, develop a range of potential water quality blends for various operating scenarios in the water distribution system from the water supply sources.
4. Using data from the blending analyses, calculate the Langelier Saturation Index (LSI), and Calcium Carbonate Precipitation Potential (CCPP). These are commonly utilized indices to predict the potential of the water blends to precipitate calcium carbonate (scale forming) or dissolve calcium carbonate (corrosivity).
 - a. LSI provides a measure of the stability of the water with respect to the degree of calcium carbonate saturation. If a water supply has a negative LSI value, it is under saturated with respect to calcium carbonate and is potentially corrosive. Larger negative numbers indicate a greater potential for corrosion. If the LSI value is positive, it is over saturated with respect to calcium carbonate and tends to be scale forming. The larger the positive number, the greater the scale potential.

- b. CCPP is a more reliable water stability index since it provides a quantitative measure of the calcium carbonate deficit or excess of the water. A CCPP value of "0" indicates the water is stable with respect to calcium carbonate precipitation. Values greater than "0" indicate greater potential for calcium carbonate precipitation. Values in the range of -5 to zero indicate passive corrosivity. Values in the range of -5 to -10 indicate that the water is mildly corrosive, and values less than -10 indicate aggressive corrosion.
5. Evaluate the general aesthetic quality of the water at potential blends for color, turbidity, appearance, taste, and odor.
 6. Based on the results of the blending analysis, determine appropriate mitigation measures such as restricting or modifying operational scenarios, recommended rehabilitation measures, water treatment alternatives, or other appropriate measures.
 7. Develop appropriate cost opinions for recommended mitigation measures if required.

Well Water Supply Evaluations

Water quality data for the existing Wrightsville Beach wells and the calculated LSI values and calcium carbonate precipitation potentials are summarized in Table I-6. Water quality parameters are expressed as calcium carbonate equivalent concentrations.

Table I-6 - Wrightsville Beach Well Water Quality Summary

PARAMETER	W1	W2	W3	W4	W5-8	W11
Ca, mg/l	189.8	239.7	142.3	129.9	159.8	162.3
Mg, mg/l	4.1	4.1	4.1	4.1	4.1	8.2
Na, mg/l	267.6	173.4	282.9	272	211.1	213.2
T. Alk., mg/l	182	204	172	170	180	180
Cl, mg/l	233	212	225.9	211.8	197.7	206.2
pH, units	8.2	7.9	8.5	8.5	8.2	8.5
LSI	0.88	0.73	1.04	0.96	0.86	1.12
CCPP	283.5	333.7	236.3	223.6	253.8	256.3

Both the calculated LSI and CCPP values as shown in **Table I-6** indicate that the well water is over-saturated with calcium carbonate and tends to form calcium carbonate scale in the water distribution piping system. The CCPP values indicate the potential for significant calcium carbonate scaling in the water distribution system. The disadvantage of this is potential reductions in the overall capacity of the water distribution system. The advantages of a protective calcium carbonate layer in the water distribution piping system include reduced potential for corrosion of copper plumbing systems in houses and buildings, reducing the risk of copper and lead contamination.

CFPUA Water Supply Evaluation

Water quality data from the CFPUA Sweeney WTP and calculated LSI and CCPP are summarized in **Table I-7**. Water quality parameters are expressed as calcium carbonate equivalent concentrations.

Table I-7 – CFPUA Finished Water Quality Summary

PARAMETER	Sweeney WTP
Ca, mg/l	25
Mg, mg/l	0
Na, mg/l	58.8
T. Alkalinity, mg/l	23
Chloride, mg/l	15.5
Sulphate, mg/l	45.9
pH, units	7.4
LSI	-1.58
CCPP	119

Although the LSI value indicates that the water tends to be slightly aggressive, the more reliable CCPP value indicates that the water tends to form a protective calcium carbonate coating in the water distribution piping system.

Blended Water Supply Evaluation

Blending of the CFPUA water supply with the Wrightsville Beach water supply is proposed only during the peak season to meet peak potable water demands. The hydraulic model of the Wrightsville Beach water distribution system indicates a wide range of blending ratios of the two water supplies during peak season. The CCPP values for the Wrightsville Beach wells range from 223.6 to 333.7, with 264.5 an average value. The CCPP value for the CFPUA water supply is approximately 119; therefore, any blending ratio of the two water supplies will result in a positive CCPP value within this range. Based on this analysis, any blended ratio of the water supplies will tend to favor a scale forming scenario in the water distribution system. One advantage of utilizing the CFPUA water supply is to provide some reduction of the overall scale forming potential in the water distribution system.

From the evaluation of limited analytical data, both the CFPUA water supply and the Wrightsville Beach water supply have small amounts of total organic carbon (TOC), typically in a range up to approximately 1 to 2 ppm. Both water supplies utilize free residual chlorination for disinfection; therefore, the potential exists for the formation of disinfection byproducts (DBP) such as HAA5 and THMs during the spring and summer months. Careful control and monitoring of the chlorine dosage will help mitigate the formation of DBPs in the water distribution system. During this time of year, water demand increases and reduces water age in the distribution system. Lower water age in the distribution system also helps to mitigate DBP formation. During the summer, water age in the Wrightsville Beach water distribution system ranges from 3 to 5 days. During the winter, water age ranges from 3 to over 7 days.

Wrightsville beach utilizes gas chlorination for disinfection and CFPUA utilizes sodium hypochlorite to maintain residual chlorine in the finished water from the Sweeney WTP. The different disinfection practices should not be a significant issue with blending of the water supplies, and minimal disinfectant concentrations in the blended water should be sufficient to maintain the bacteriological quality of the finished water. Generally, sodium hypochlorite reacts in water to form hypochlorite ion and hydroxyl ion; chlorine gas reacts to form hypochlorous acid and hydrochloric acid. The amount of chlorine added to the water is relatively small compared to the buffering capacity of the water; therefore, no significant changes in the pH of the finished water should occur.

Water Quality Aesthetics Evaluation

TBD

Mitigation Alternatives

Mitigation strategies to improve deteriorating water quality include reductions in well withdrawal rates, construction of new wells in areas less affected by potential salt water intrusion,

implementation of water treatment technologies, or blending with alternative water supplies such as CFPUA.

Reduction of withdrawal rates from wells experiencing increasing salinity concentrations can be an effective strategy to improve water quality. Maintaining higher operating static heads in the wells can reduce potential salt water intrusion; however, GMA has already confirmed that this strategy has not been effective at Wrightsville Beach due to decreasing water levels in the Peedee Aquifer and increasing chloride concentrations. The chloride concentrations in some wells are already approaching EPA Drinking Water Standards.

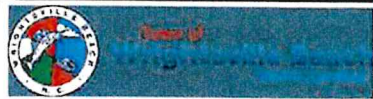
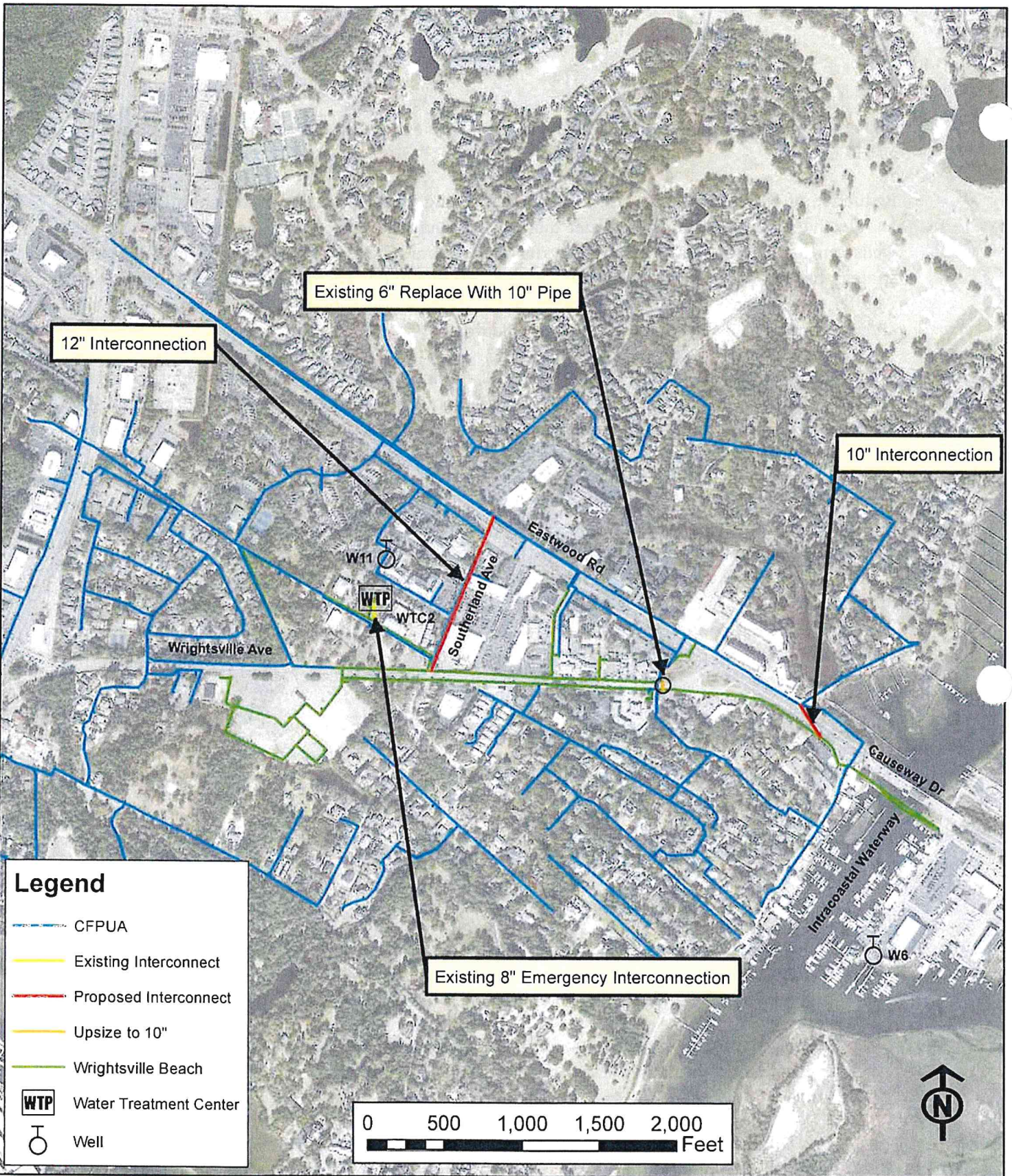
Construction of new wells, perhaps on the mainland, in appropriate locations to maintain higher operating static heads with less salt water intrusion potential is another alternative. This involves extensive hydrogeological investigation and other practical considerations such as relative location, water transmission mains, operation and maintenance costs, etc.

The most appropriate treatment technology for reduction of TDS concentrations in the well water, including sodium chloride, is high pressure reverse osmosis (RO) membrane technology. These systems utilize high pressure feed pumps (400-600 psi) to pump the brackish water across the surface of spiral wound semipermeable membrane elements overcoming the natural osmotic pressure of the salt water, forcing water through the membrane and rejecting a high portion of the dissolved solids. Advantages include relatively high purity product water and a concentrate stream that could be discharged back to the sea. Disadvantages include very high capital and operating costs.

Water Quality & Blending Recommendations

McKim & Creed, Inc. offers the following general comments and recommendations for consideration:

1. The results of this analysis indicate that blending of the Wrightsville Beach well water supply system with the CFPUA Sweeney WTP provides a feasible alternative for increased water supply capacity.
2. Analysis of the CCPP values for the water supplies indicates similar tendencies to scale forming rather than corrosivity in the water distribution system which could increase the potential for lead and copper contamination in the drinking water.
3. Although the CFPUA utilizes sodium hypochlorite for disinfection and Wrightsville Beach utilizes gas chlorination, the different disinfection practices should not be a significant issue.
4. Gas chlorination is a major safety hazard not only for Wrightsville Beach employees but also to the community on the island. It is not only hazardous but is subject to a variety of Federal regulations. Converting to sodium hypochlorite disinfection should be considered as an alternative by Wrightsville Beach.

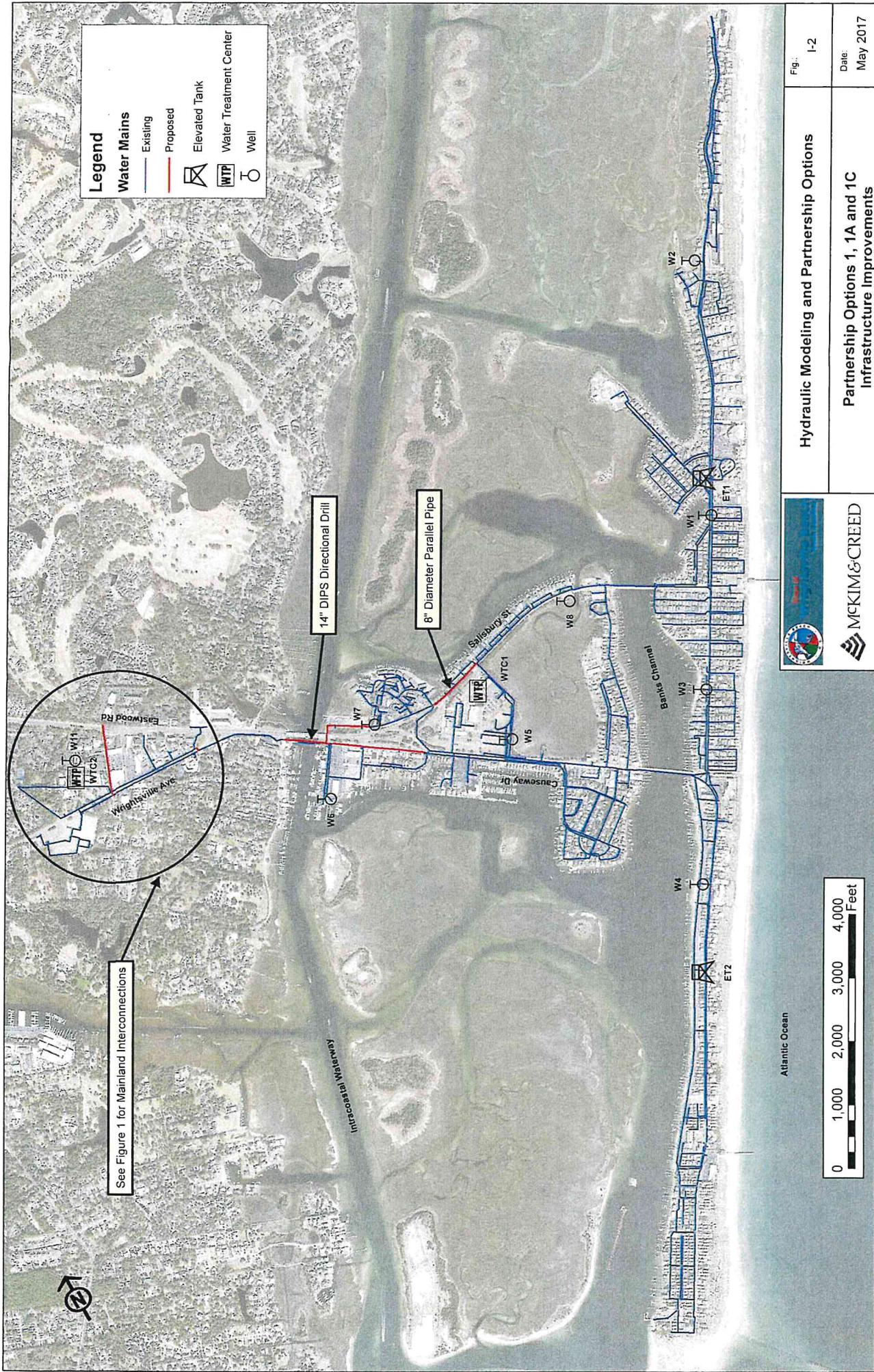


Hydraulic Modeling and Partnership Options

Partnership Options 1, 1A, 1C, 2 and 4 Mainland Interconnections

Fig.:
I-1

Date:
May 2017



Legend

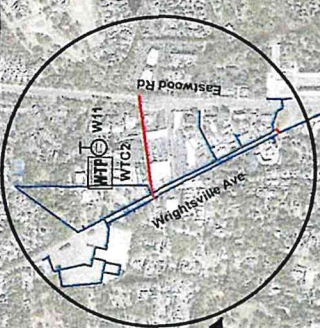
Water Mains

- Existing (Blue line)
- Proposed (Red line)

Elevated Tank (Square with 'X')

Water Treatment Center (Square with 'WTP')

Well (Circle with 'W')



See Figure 1 for Mainland Interconnections

14" DIPS Directional Drill

8" Diameter Parallel Pipe



Atlantic Ocean



McKIM & CREED

Hydraulic Modeling and Partnership Options

Partnership Options 1, 1A and 1C
Infrastructure Improvements

Fig. I-2

Date: May 2017

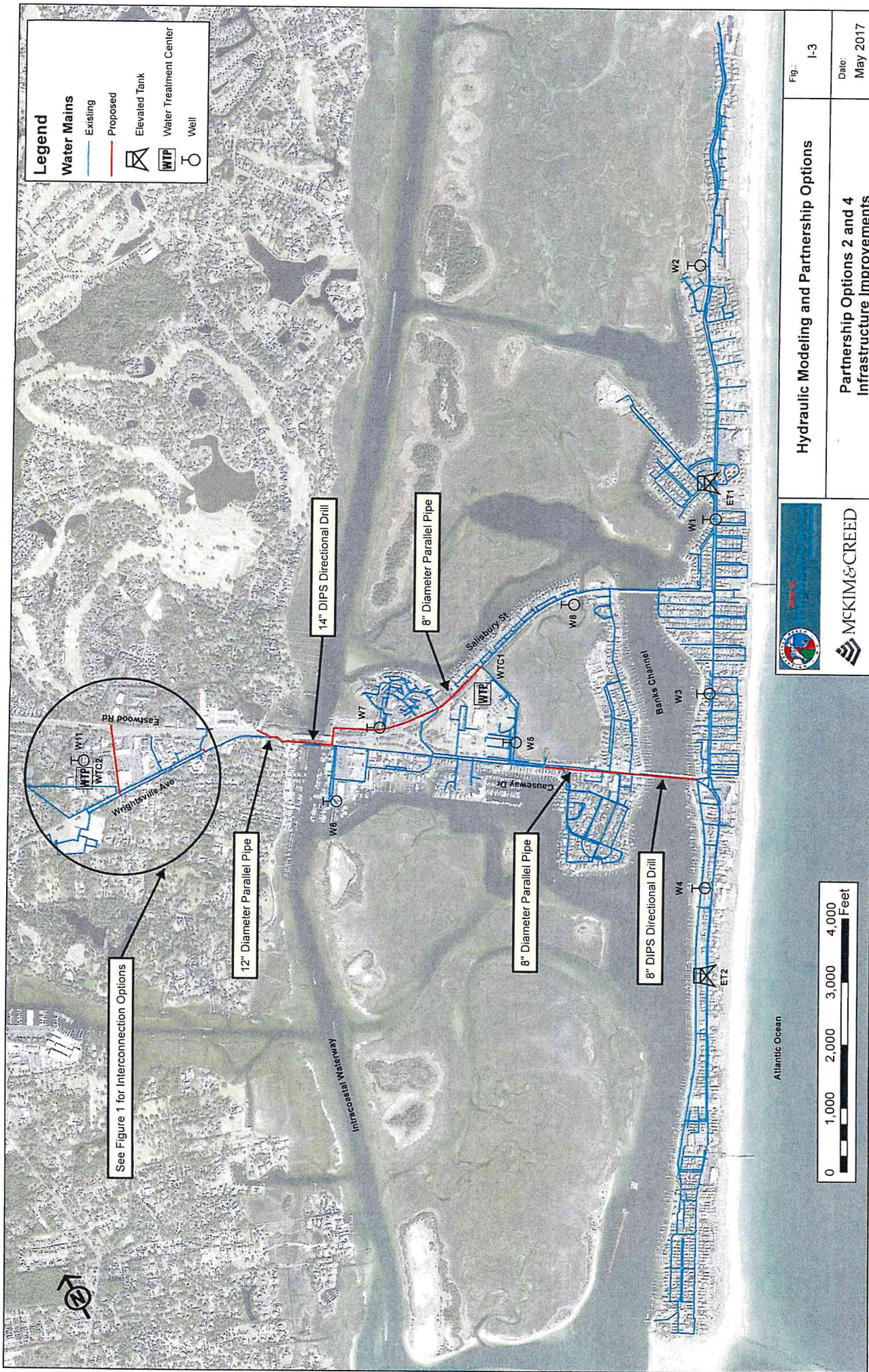
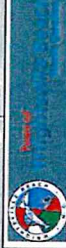


Fig. I-3

Date: May 2017

Hydraulic Modeling and Partnership Options

Partnership Options 2 and 4 Infrastructure Improvements



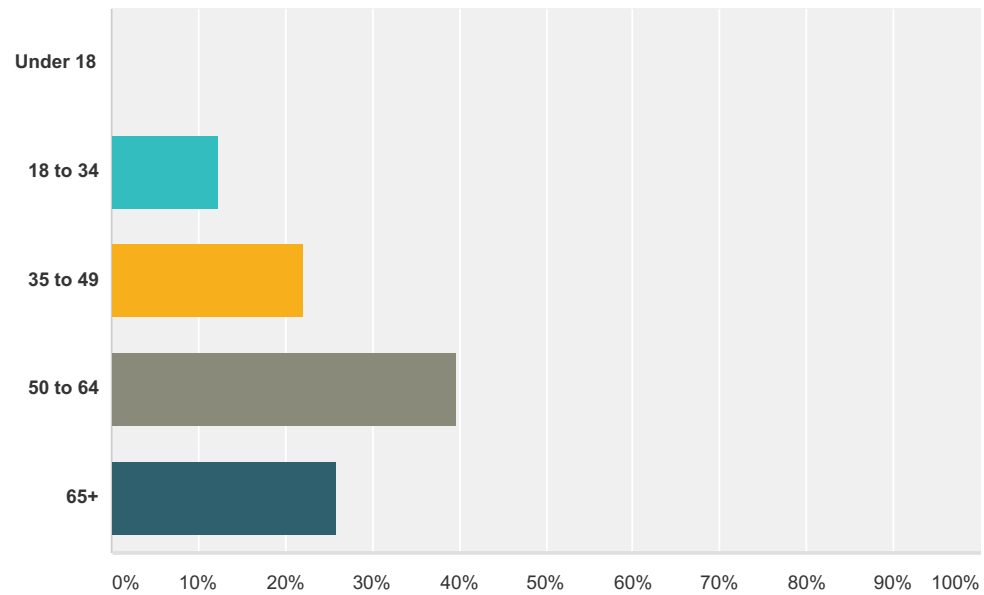
MCKIM & CREED

Appendix B. CAMA Land Use Plan Survey Results

Wrightsville Beach CAMA Land Use Plan Survey

Q1 What is your age range (age of person completing this survey)?

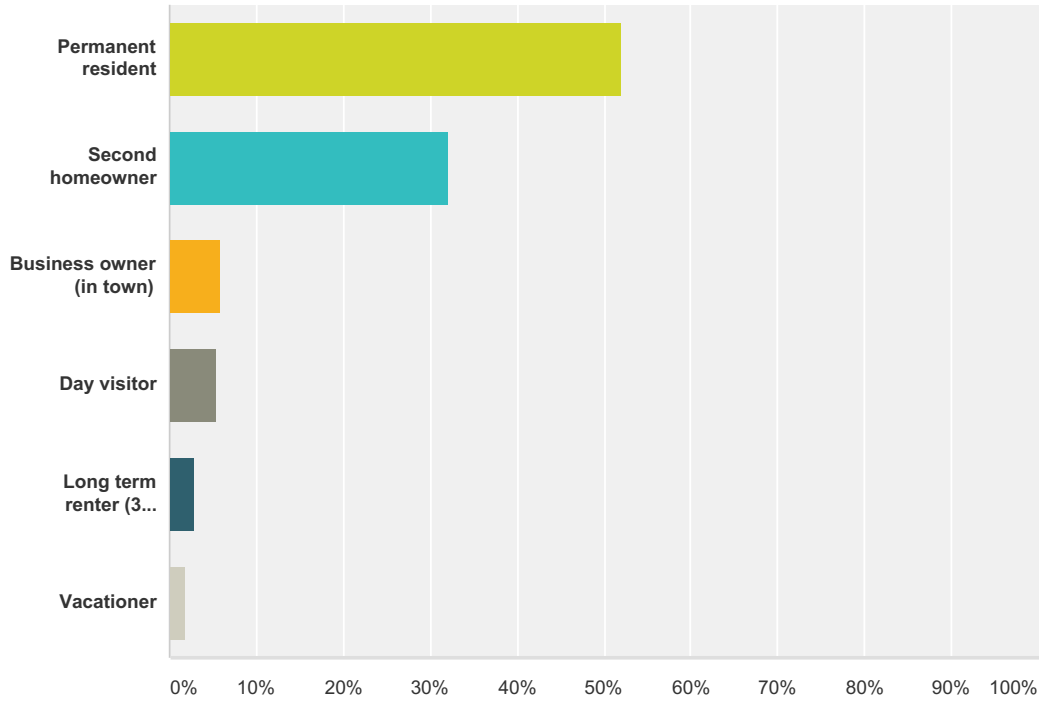
Answered: 383 Skipped: 0



Answer Choices	Responses
Under 18	0.00% 0
18 to 34	12.27% 47
35 to 49	22.19% 85
50 to 64	39.69% 152
65+	25.85% 99
Total	383

**Q2 Which category best describes you?
Please select only ONE.**

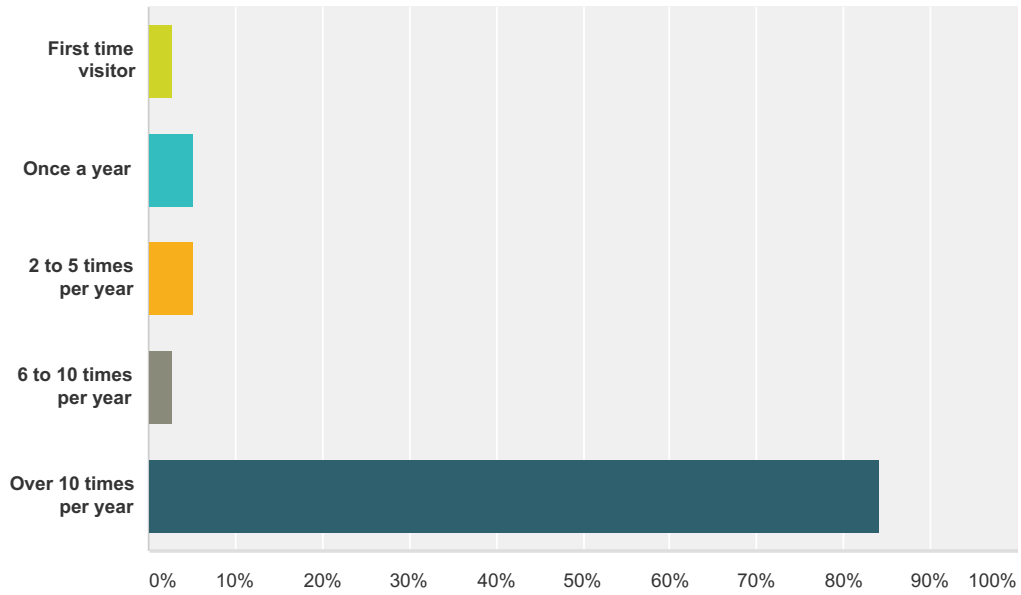
Answered: 383 Skipped: 0



Answer Choices	Responses	
Permanent resident	51.96%	199
Second homeowner	32.11%	123
Business owner (in town)	5.74%	22
Day visitor	5.48%	21
Long term renter (3 months or more)	2.87%	11
Vacationer	1.83%	7
Total		383

Q3 If not a permanent resident, how often do you visit Wrightsville Beach?

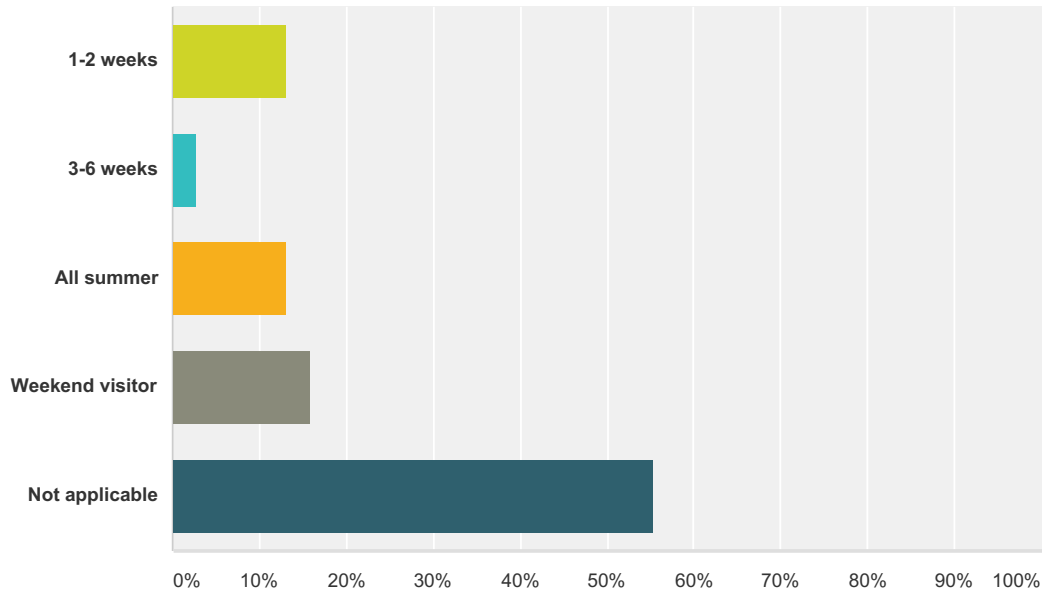
Answered: 38 Skipped: 345



Answer Choices	Responses
First time visitor	2.63% 1
Once a year	5.26% 2
2 to 5 times per year	5.26% 2
6 to 10 times per year	2.63% 1
Over 10 times per year	84.21% 32
Total	38

Q4 What is the average duration of your stay?

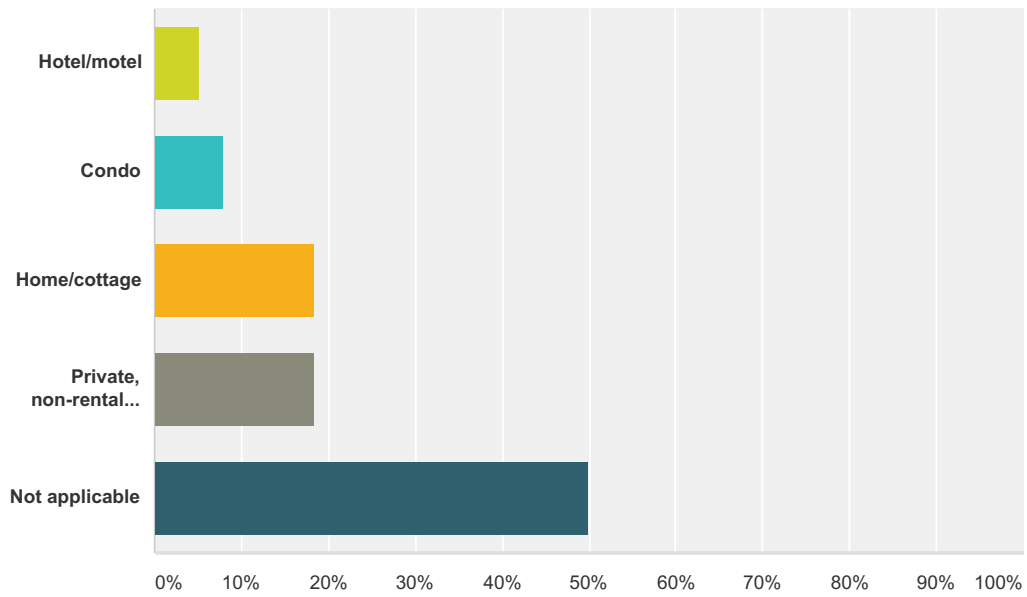
Answered: 38 Skipped: 345



Answer Choices	Responses
1-2 weeks	13.16% 5
3-6 weeks	2.63% 1
All summer	13.16% 5
Weekend visitor	15.79% 6
Not applicable	55.26% 21
Total	38

Q5 When you visit Wrightsville Beach, what is your choice for accommodations?

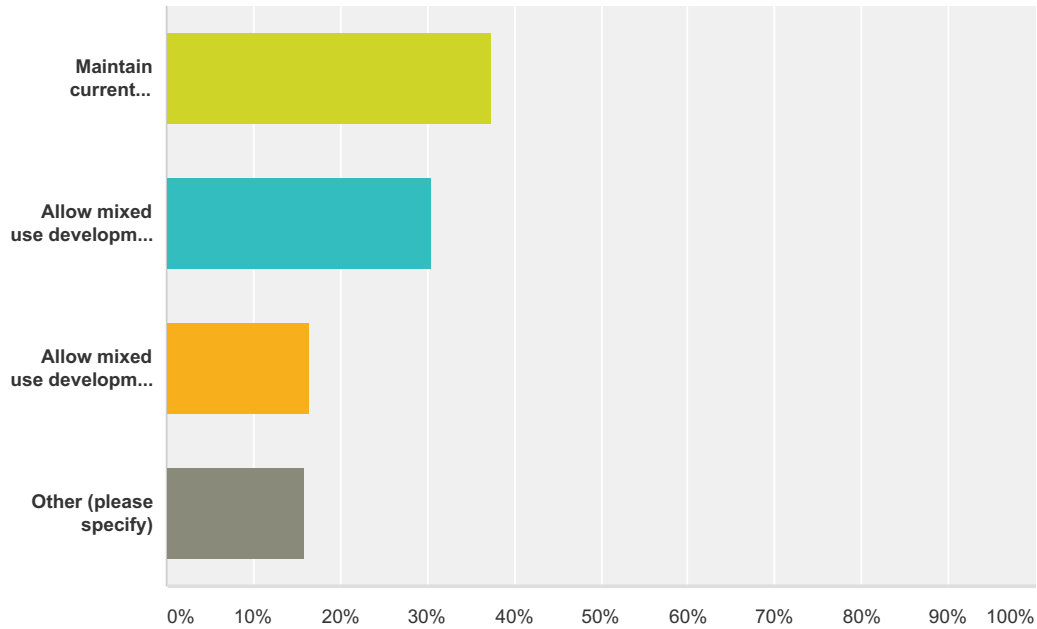
Answered: 38 Skipped: 345



Answer Choices	Responses	
Hotel/motel	5.26%	2
Condo	7.89%	3
Home/cottage	18.42%	7
Private, non-rental residence	18.42%	7
Not applicable	50.00%	19
Total		38

Q6 Which solution would you prefer as an option for the possible redevelopment of the Lumina Business (Wings/Robert's area), Harbor Island (Post Office area), Johnnie Mercer's Pier, and South End/Crystal Pier commercial areas?

Answered: 316 Skipped: 67



Answer Choices	Responses
Maintain current development pattern	37.34% 118
Allow mixed use development (Mixed use development is a tract of land or building or structure developed for two or more different uses such as, but not limited to, residential, office, retail, public, or entertainment)	30.38% 96
Allow mixed use development with increased height and/or other limiting requirements	16.46% 52
Other (please specify)	15.82% 50
Total	316

#	Other (please specify)	Date
1	Rezone to R2	6/27/2017 11:23 AM
2	Low impact development	5/22/2017 9:24 AM
3	Please no increase in height limitation	5/4/2017 12:11 PM
4	Maintain building height restrictions at 2016 levels 40 feet for all uses	4/21/2017 9:28 PM
5	Maintain current plan and Do not change height limitations ever!	4/17/2017 8:39 AM
6	Higher value and higher quality uses	4/8/2017 7:03 PM

Wrightsville Beach CAMA Land Use Plan Survey

7	Restaurants ok but no Bars	4/2/2017 1:27 PM
8	These three areas all need drastic improvements. Half of the commercial structures sit empty because the current zoning doesn't allow any improvements. Wrightsville Beach makes it way too hard on businesses.	3/29/2017 3:43 PM
9	no comment	3/25/2017 12:00 PM
10	No new development	3/24/2017 9:28 PM
11	Get rid of the bars in downtown and return to putt/putt and restaurants with our bars.	3/24/2017 4:23 PM
12	Mixed use only at Johnny Mercers	3/24/2017 12:53 PM
13	Mixed use, but severe reduction in liquor licensees	3/24/2017 12:03 PM
14	Maintain current development pattern with increased height and/or other limiting requirements	3/24/2017 11:31 AM
15	Mixed use is okay but we really need to keep height limitations to maintain character and beauty of our beach. There simply may not be enough vertical space to accommodate mixed use.	3/24/2017 11:30 AM
16	WB is known for its harsh anti-business views and regulations-WB needs to be more business friendly and maybe give incentives to the businesses you want on the island, increase natural/ park space in these areas as well	3/23/2017 11:44 AM
17	upscale dining and retail. Not mixed, that is just allowing people to profit and not committing to the area to improve and give people options to shop and eat	3/23/2017 9:01 AM
18	Get rid of Loggerheads Bar!	3/22/2017 3:38 PM
19	No parking at cul-de-sac across from Shell Island	3/21/2017 9:14 AM
20	Allow mixed use but limit entertainment or additional bars	3/20/2017 10:25 AM
21	Mixed use with limited increase height.	3/19/2017 7:38 PM
22	Increase parking with any new development, no increase in height or other limits	3/19/2017 6:51 PM
23	do not allow higher buildings under any circumstance	3/17/2017 8:32 PM
24	Change zoning and approvals to eliminate non restaurant associated bars	3/17/2017 7:02 PM
25	Keep present height limitations	3/16/2017 10:15 PM
26	I don't see how these specific locations can be grouped together. These are 3 very different areas of the beach, this beach is a small but precious area that deserves each specific location to be evaluated and appreciated for its current use first and foremost in any potential change in zoning etc. for whatever redevelopment may be allowed. Whatever is considered please tread cautiously with the eight	3/16/2017 8:34 PM
27	Do NOT increase height and other limiting requirements.	3/16/2017 2:09 PM
28	keep or reduce current height restrictions on all type of structures	3/15/2017 10:28 PM
29	It would be different by area based on the examples cited. They are each too unique for one of those 3 options to fit all.	3/15/2017 9:47 PM
30	Green area	3/15/2017 11:32 AM
31	Each commercial area is different. Mixed use and height adjustments may work some places but not others.	3/15/2017 11:06 AM
32	allow mixed use development with increased height only to max needed to compensate for increases flood elevation	3/15/2017 5:40 AM
33	Definitely no increased height on buildings.	3/14/2017 10:53 AM
34	Keep all buildings no more than 45'. Do not permit the loss of any more commercial spaces.	3/14/2017 10:21 AM
35	Single family homes	3/14/2017 9:00 AM
36	Keep the height restrictions. Would encourage more development near post office. Any development needs to include bike and pedestrian walkways.	3/14/2017 6:57 AM
37	build a parking deck to eliminate traffic jams by Mercer Pier	3/14/2017 6:47 AM
38	Allow mixed use with higher buildings, particularly in the center tracts/lots (vs shortline)	3/13/2017 11:51 AM
39	Buy out the BARS and make the property parks or parking.	3/13/2017 8:09 AM
40	I don't know what the current development plan is, but I can tell you that the beach has gotten overdeveloped as it is and I'm not in favor of more density at this point.	3/12/2017 12:23 PM

Wrightsville Beach CAMA Land Use Plan Survey

41	Rezone to R2	3/11/2017 7:44 PM
42	Maintain current pattern except for the Mercer's area where an appropriate mixed use project has been previously approved.	3/11/2017 2:38 PM
43	Town fully support the rehabilitation of existing buildings; Consider beautification plan that matches the Wynne Plaza (Trolley Stop area) brick pavers & plantings to be spread across WB commercial zones. Comprehensive beautification of public space within these districts.	3/10/2017 9:33 PM
44	Sorry Crab Shack not approved for Mercers	3/10/2017 9:17 PM
45	maintain current pattern, if it does not allow for increased height, mixed use with higher density involved	3/10/2017 8:11 PM
46	More parking	3/10/2017 6:00 PM
47	I am not familiar with the current plan, so cannot answer usefully. I do know that we need to maintain a balance between tourism and its income and what the island(s) can physically handle. I do object to increasing height, since that both obscures view and vertically increases footfall in a land area the struggles to manage the visiting population in the summer - as it is.	3/10/2017 5:47 PM
48	Allow mixed use, or stay with current model, limit any low end chains/franchises	3/10/2017 2:14 AM
49	Get rid of the BARS. Maybe have city buy property for parking.	3/9/2017 9:27 PM
50	maintain current development but allow commercial eateries to utilize roof space - i.e. a roof deck with food service above Tower 7 and Poes would allow spectacular views	3/1/2017 5:58 PM

Wrightsville Beach CAMA Land Use Plan Survey

Q7 Please list any specific areas in Wrightsville Beach where you believe redevelopment should be promoted, fostered, and encouraged.

Answered: 187 Skipped: 196

#	Responses	Date
1	Harbor Island (PO area)	6/27/2017 11:39 AM
2	Johnnie Mercer's Pier area	6/27/2017 11:37 AM
3	Middle of the island	6/27/2017 11:34 AM
4	Johnny Mercer Pier area	6/27/2017 11:30 AM
5	Old Middle Island area	6/27/2017 11:23 AM
6	Old Pizza Hut area	6/27/2017 11:21 AM
7	Encourage more restaurants and fewer bars in the Lumina Business District.	5/22/2017 10:18 AM
8	Elimination of center of island hangout/business for drinking, (drugs?) Better restaurants would be welcome	5/22/2017 9:24 AM
9	Jonny Mercer pier area has no restaurants	5/18/2017 3:30 PM
10	Why do you want more, you can't handle the traffic now.	5/11/2017 4:05 PM
11	Johnny Mercers pier is a ripe opportunity for a quality improvement.	5/11/2017 1:17 PM
12	It should be allowed for dilapidated housing to be taken down and replaced with buildings following code. No more high rise.	5/4/2017 12:11 PM
13	Johnnie Mercer	4/25/2017 1:10 PM
14	Any undeveloped areas available should be kept as green space (can be developed as parks/playgrounds)	4/17/2017 8:39 AM
15	Please have a height limit. It is the beach...not NYC! People come to look at the ocean and sunrise to sunset...please do not block our views!	4/11/2017 3:09 PM
16	Wings area. Some of the current businesses takeaway from the value of the loop.	4/8/2017 7:03 PM
17	I would not "promote" any - that will take care of itself. We need "smart" development - not increase density of housing, not increase crowding, and should be of high quality. To me that includes keeping the height at 40 ft max. If we allow a slight increase from 40 ft it should also include a roof pitch requirement. People are don't like the flat roofs that new builders are using to maximize their available height - I appreciate that. I would NOT allow more height and still have flat roofs. If we increase the height - their needs to be roof pitch minimum.	4/1/2017 2:03 PM
18	None It is time to stop this & the developers and outsiders coming into this beach who are trying to changing why we live here !!!	3/30/2017 4:48 PM
19	All the business districts. We have lost Wrightsville Beach Seafood, Scotchman Gas Station, Pizza Hut, Nathan Hotel, Middle of the Island Restaurant and a few next to Johnnie Mercer's Pier. The businesses in the downtown all need to be updated and given flexibility.	3/29/2017 3:43 PM
20	From what I understand there are restrictions on letting the business owners fix up their properties. They would look a lot better if WB allowed them to rehab the restaurants and bars. I live near the Oceanic and they cannot add any additional bathrooms? Common sense should prevail.	3/29/2017 3:35 PM
21	Johnnie Mercer pier! Please!	3/28/2017 1:11 PM
22	Johnnie Mercer's Pier needs to be a more compelling attraction. It attracts a very low end group of people. I have no problem with the beach bar area near Roberts. Wings has great potential.	3/28/2017 11:08 AM
23	The town should allow the building increase by a at least 3 feet	3/27/2017 10:43 AM
24	MOI restaurant area	3/27/2017 7:57 AM
25	the limited amount of commercial zoned land we have left	3/26/2017 7:33 AM

Wrightsville Beach CAMA Land Use Plan Survey

26	Post office area	3/25/2017 7:56 PM
27	Johnny Mercer's pier! Bring life back to this area of WB. North and south end both need more small businesses.	3/25/2017 6:00 PM
28	Salisbury Street property where gas station and convenience store was located	3/25/2017 1:14 PM
29	I think Wrightsville Beach's unique charm is that it is not over-developed, so I don't agree with any redevelopment plan. It is perfect as it is.	3/25/2017 12:00 PM
30	We need to retain businesses but allow for residential development over buildings that are for retail use.	3/25/2017 10:55 AM
31	Please consider a clean up of the buildings near Johnny Mercer Pier and the addition of a family friendly restaurant. Next is the unsightly building on Salisbury St - the building is graffiti ridden and had been vacant and in a state of decay for too long. Some type of exception to existing rules must be considered so that we do not retain this eyesore. Next, the downtown buildings need some beautification- maybe some flowers- it looks tacky with all the beach bars writing on their windows. A facelift for the area (paint, clean windows, flower boxes) could enhance the look of that part of town.	3/25/2017 10:21 AM
32	None. Leave as is.	3/24/2017 9:28 PM
33	Xxxxx	3/24/2017 4:48 PM
34	Just those listed in question 3	3/24/2017 4:42 PM
35	All commercial zones	3/24/2017 4:39 PM
36	The bar restaurant area and Johnny Mercers pier area.	3/24/2017 4:36 PM
37	You should be able to get rid of the bars or at least have them close earlier at midnight	3/24/2017 4:23 PM
38	None. Leave it alone.	3/24/2017 3:32 PM
39	East Salisbury, the former Scotchman site and the MOI properties.	3/24/2017 3:23 PM
40	If the FEMA 1st level minimum height has been increased, WB must allow a bit more overall height of structures. Ca. 5' more? Otherwise the number of floors and interior ceiling heights may not work for especially bus. uses.	3/24/2017 2:44 PM
41	Mercer's Pier Area	3/24/2017 1:27 PM
42	clean up downtown	3/24/2017 1:13 PM
43	The old Scotchman store area.	3/24/2017 1:10 PM
44	None, already too crowded on whole island	3/24/2017 1:07 PM
45	None. Too much development. Area too crowded.	3/24/2017 1:02 PM
46	Johnny Mercer's Pier!!!	3/24/2017 12:53 PM
47	Old MOI building, Corner of S. Lumina across from Oceanic.	3/24/2017 12:40 PM
48	No where on WB	3/24/2017 12:11 PM
49	Crystal pier, johnny mercer pier, main town at bridge on Wrightsville Beach	3/24/2017 12:09 PM
50	You should allow non-conforming structures to be improved or modified, fixed up. Too many buildings in disrepair because of strict permitting/guidelines. Residences would improve structures if they were allowed to add additions.	3/24/2017 12:07 PM
51	"Cleaning up" pier and Wings/Robert's areas with attractive mixed-use buildings having severely limited alcohol licensing would allow the town to better serve its resident owner population and reduce volume of bar patrons	3/24/2017 12:03 PM
52	Johnny Mercers	3/24/2017 11:54 AM
53	Johnnie Mercer's area	3/24/2017 11:46 AM
54	Former MOI Areas around icww bridge look very bad and make the entrance to towb uninviting. Garden Club b should be included in landscape improvements.	3/24/2017 11:40 AM
55	Johnnie Mercer's and Harbor Island Post Office area	3/24/2017 11:39 AM
56	Johnnie Mercer's area, post office area	3/24/2017 11:39 AM
57	Mercers Pier area, along W. Salisbury near closed gas station.	3/24/2017 11:34 AM
58	Old middle of the island.	3/24/2017 11:34 AM
59	Mercers pier area.... allow Joes Crab Shack or other national restaurant	3/24/2017 11:28 AM

Wrightsville Beach CAMA Land Use Plan Survey

60	The area at Johnnie Mercer's pier is most important and we need real courage to take on this area. Perhaps a dynamic park/ natural area- bought by the town to promote the community and tourism.	3/23/2017 11:44 AM
61	Lot at the Johnny Mercer Pier	3/23/2017 10:48 AM
62	Behind the pier where there is empty land should have upscale small local shopping stores.	3/23/2017 9:01 AM
63	Jonny Mercers pier area should be granted variance for mixed use development. That area is unique and would not set a precedent for other areas on the island.	3/22/2017 8:36 PM
64	Gas station on W. Salisbury St.	3/22/2017 1:31 PM
65	We need more pedestrian and bike friendly byways, any development should include those.	3/22/2017 12:41 PM
66	Prefer to maintain current 'beach lifestyle' in established areas. Open space that has become stagnant/dormant (MOI, for example) is an area that should be fostered but not to inhibit current establishments (Redix, Causeway Cafe, etc...)	3/21/2017 11:31 AM
67	All with exception to any areas that will diminish ocean views of current residences. Or impact congestion and excessive foot traffic to area around Shell Island area. Especially if this has any impact on the environment.	3/21/2017 9:14 AM
68	Johnny Mercer Area,	3/20/2017 9:06 PM
69	johnnie mercer pier circle area,	3/20/2017 6:05 PM
70	Around the Poe's tavern could offer some additional businesses, but there is a huge issue with the limits of the bridge and increased traffic during peak tourist season. Increase also proves challenging for us residents.	3/20/2017 9:14 AM
71	We need a parking deck for the visitors	3/20/2017 7:39 AM
72	Without a better parking plan it would be difficult to develop much beyond what there is now.	3/20/2017 2:51 AM
73	Vehicular access to the island needs to be taken into consideration as any change in use is considered. Existing vehicular patterns must be considered a limiting factor in increasing density and uses on the island. Otherwise, existing ownership will be negatively impacted.	3/19/2017 7:38 PM
74	Johnny Mercer Pier area	3/19/2017 9:56 AM
75	Area around Johnny Mercer's Pier	3/18/2017 8:21 PM
76	Johnnie Mercer's Pier	3/18/2017 8:21 PM
77	Sidewalks/bike paths	3/18/2017 4:07 PM
78	Vacant gas station and former MOI building	3/18/2017 3:11 PM
79	None.....	3/18/2017 10:26 AM
80	Marina district	3/18/2017 9:18 AM
81	MOI Building, Johnnie Mercers Pier	3/18/2017 8:25 AM
82	Fostered: buildings beside surf berry	3/17/2017 11:39 PM
83	The old Scotchman gas station. It has become such an eye sore. I think the right developer could make a great tourist restaurant or attraction out of that beautiful space.	3/17/2017 11:17 PM
84	all vacant lots and abandoned properties. Kings and Johnnie Mercers, the old gas station, empty lot across from the gas station, the abandoned building near the post office. They are all an eyesore and have the potential to modernize and be attractive businesses to the town	3/17/2017 9:16 PM
85	Shell Island	3/17/2017 4:56 PM
86	Where the old BP gas station was, should be used as a park or kayak/SUP launch.	3/17/2017 1:37 PM
87	Old Scotchman, Old MOI building, behind Johnny Mercers Pier	3/17/2017 12:29 PM
88	No where; let the marketplace operate freely according to current rules; no additional incentives are needed. Just look at current positive climate and results.	3/17/2017 10:58 AM
89	Johnnie Mercer pier	3/17/2017 7:37 AM
90	Harbor island	3/16/2017 10:15 PM
91	Can't think of any. Been coming here since 1984. Thought we died and went to Heaven. We are from the Midwest where Florida and the over developed, over crowded beaches are the norm. Don't take Wrightsville Beach for granted. Keep this in mind with any development considerations - keep the style, size and vernacular of Wrightsville's past in the front of your minds for future visitors and future homeowners to discover and fall in love with.	3/16/2017 8:34 PM

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92	Marina district	3/16/2017 5:49 PM
93	Commercialization should be discouraged. Maintaining a family oriented community should be fostered and encouraged.	3/16/2017 2:09 PM
94	All of the above	3/16/2017 2:00 PM
95	Downtown area needs help and could use other business options there. The Johnny Mercer's pier area should be developed for mixed use. Long overdue.	3/16/2017 12:43 PM
96	Redix area	3/16/2017 11:40 AM
97	All four areas listed above should be candidates for redevelopment, with the Lumina business and Johnnie Mercer's Pier being 1st and 2nd priorities. Limited commercial (restaurant/recreation shop/convenience) in the North end (Wrightsville Dunes for example) should be considered	3/16/2017 11:13 AM
98	Marina district height limits should be changed and special variances should be allowed as it is the first thing visitors to our beach see as they go over the drawbridge	3/16/2017 9:33 AM
99	Just prior to crossing bridge	3/16/2017 9:04 AM
100	Let those developers build that thing behind Johnny Mercer!!!	3/16/2017 8:27 AM
101	Mercers Pier area	3/16/2017 7:47 AM
102	Retail and dining development near post office and pelican drive area	3/16/2017 7:34 AM
103	none	3/15/2017 10:28 PM
104	Old MOI, Mercer's Pier	3/15/2017 9:47 PM
105	Johnnie Mercers Pier, Post Office area, Wings(replace).	3/15/2017 9:13 PM
106	redevelopement v protecting greenspace??? The old scotchman property is not only an eyesore but a perfect area for reclaiming open space. A small park/seating area alongside the creek would not infringe upon this privately owned valuable property.	3/15/2017 9:05 PM
107	Harbor Island and Johnnie Mercer's Pier are prime areas for new businesses / restaurants that would benefit both full and part time residents	3/15/2017 7:04 PM
108	There should be NO MORE DEVELOPMENT!! Too much already. Small island with way too many people	3/15/2017 5:37 PM
109	Johnny Mercer's area	3/15/2017 3:34 PM
110	downtown along the main street but continue to promote walkability	3/15/2017 3:07 PM
111	West of the ICW	3/15/2017 3:00 PM
112	Johnnie Mercer pier - add mid price range restaurant. Maintain building height standards. Add more sidewalks along Lumina to north end.	3/15/2017 1:52 PM
113	More restaurants anywhere. Love to see something similar to M.O.I.	3/15/2017 1:03 PM
114	none	3/15/2017 12:59 PM
115	Lumina Business...but not over 40 ft.	3/15/2017 12:38 PM
116	entrance to WB coming off of Bridge is a little uninspired	3/15/2017 12:26 PM
117	Johnnie Mercer's Pier	3/15/2017 11:59 AM
118	Downtown business area and post office area.	3/15/2017 11:06 AM
119	Johnnie Mercer Pier area. The town needs a family friendly restaurant in the location and elimination of the bars that attract noise and contribute to a low rent look.	3/15/2017 10:47 AM
120	No area should be redeveloped	3/15/2017 10:39 AM
121	Johnny Mercer Pier	3/15/2017 10:23 AM
122	Do something with/about the vacant Middle of the Island restaurant building. See if there is a better use of the Wings space. Spruce up Johnnie Mercer's Pier surrounding land with retail, restaurants or higher end condo/hotel.	3/15/2017 10:16 AM
123	Wings to Columbia Street and Mercer's Pier area	3/15/2017 5:40 AM
124	WINGS is a serious eyesore and detracts from the charm and ambiance that makes the "village" of Wrightsville unique and local. It sets a tone of commercial abandon - at the very least lets consider a new facade, awnings & lighting	3/14/2017 10:15 PM

Wrightsville Beach CAMA Land Use Plan Survey

125	Johnnie Mercer Pier, area next to Lighthouse Beer and Wine where MOI restaurant used to be, and area on Pelican Rd. next to SUP.	3/14/2017 8:44 PM
126	all residential	3/14/2017 7:24 PM
127	Robert's area - would be nice to see development in those vacant parking areas. I assume the parking is required by zoning but would be nice to see them developed instead.	3/14/2017 5:50 PM
128	Johnnie Mercer's Pier area, MOI and areas near the Bluewater Grill, "Downtown" area between Columbia St. and Causeway Dr.	3/14/2017 5:27 PM
129	johnny mercer's pier,	3/14/2017 11:14 AM
130	Johnny Mercer Pier needs a family oriented restaurant - a more family friendly use plan would enhance the appearance and open opportunities at the north end of the beach. As far as the downtown (Robert's,etc) - exterior enhancements to existing buildings would improve the look of the town. Understand that we must preserve the charm of our small town but also know that we must be able to provide quality, attractive and affordable options to our visitors -- please do some research into the old convenience store on the north end of the beach - what an eyesore.	3/14/2017 11:13 AM
131	This refers to commercial redevelopment? If so, no further areas for commercial redevelopment.	3/14/2017 10:53 AM
132	East Salisbury from the Kenan Creek bridge to Mercers Pier needs complete redevelopment.	3/14/2017 10:21 AM
133	Public park area	3/14/2017 7:53 AM
134	Middle of island area	3/14/2017 7:29 AM
135	Development needs to include price sensitive parking (higher at some peak times) that would pay for improved bike and pedestrian paths.	3/14/2017 6:57 AM
136	Johnny Mercer pier area	3/14/2017 6:47 AM
137	closed Scotsman store is an eyesore on a beautiful waterfront property	3/14/2017 5:09 AM
138	Harbor island, near north bridge-abandoned convenience store	3/14/2017 12:07 AM
139	Johnnie Mercer's Pier area because it is so distasteful now. Also, the Harbor Island (Post Office) area because the height of the buildings has less impact on folks in that area. Also, there is quite a bit of "under-developed" land.	3/13/2017 6:55 PM
140	Johnny Mercer's pier area	3/13/2017 2:41 PM
141	Allow redevelopment everywhere. Let the buyers and sellers decide	3/13/2017 11:51 AM
142	Perhaps a restaurant where the old waterfront Scotchman is.	3/13/2017 10:53 AM
143	Causeway Drive	3/13/2017 10:12 AM
144	BARS. People can't walk the loop with getting cat calls and other issues.	3/13/2017 8:09 AM
145	Lumina business area	3/13/2017 7:26 AM
146	bar area.	3/12/2017 5:22 PM
147	Parking prior to final crossing. Bus transportation...not free. Signage to inform weekend summer visitors when parking lots full. Human traffic direction on weekends at busiest intersections.	3/12/2017 3:22 PM
148	Nowhere	3/12/2017 12:23 PM
149	Add dog park. Designated bike lanes.	3/12/2017 11:09 AM
150	Bar district area downtown.	3/11/2017 7:44 PM
151	Johnny Mercer's Pier area and old Scotchman lot. Being the town lost 1/2 of its commercial acreage when it gave the Galleria property to Wilmington, these two areas are critical in providing needed commercial services and adding to the town's tax base. They must be developed with aesthetics and the environment in mind.	3/11/2017 2:38 PM
152	None	3/11/2017 2:23 PM
153	Along Lumina Avenue between Stone street and Salisbury and Causeway drive around the bridge.	3/11/2017 2:08 PM
154	None at this time.	3/11/2017 12:20 PM
155	None	3/11/2017 12:01 PM
156	Wing/Robert's Area, Harbor Island Post Office Area, and Johnnie Mercer Pier, Allow building height increase, limited NOT to exceed 50 feet measured from center crown of the nearest public access road	3/11/2017 11:08 AM

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157	See #3--- definitely Johnnie Mercer's area.	3/11/2017 10:53 AM
158	The old MOI building and the old gas station near Lee's Cut	3/11/2017 8:58 AM
159	We need more commercial amenities on the island as traffic congestion increases. We also need alternative paths (i.e. Pedestrian paths, Bike lanes) to reduce on island car traffic to these amenities.	3/11/2017 8:13 AM
160	PO area (MOI building), Johnnie Mercer empty lot	3/11/2017 3:32 AM
161	1) Johnnie Mercer's pier 2) Wings/Robert's 3) Abandoned gas station site W Salisbury St	3/11/2017 12:04 AM
162	Make sure sidewalks are cleared of plants. Lots of plants are growing into the sidewalks and people have to walk on the street to pass them.	3/10/2017 11:59 PM
163	Place power lines underground	3/10/2017 11:41 PM
164	Redevelopment of the C-2 / Mercer Pier area seems critical to the overall Town impression. Allowing 'something' would be nice. The developer should take control of the median at eastern edge of Salisbury and beach strand . . . beautify and maintain it - similar to what Landfall does with the median along Eastwood Road that is actually public property, but their community takes a vested interest in maintaining it none the less.	3/10/2017 9:33 PM
165	Middle of the Island property	3/10/2017 9:17 PM
166	This is too small of an island town to be taking advantage of builders' desires to increase height and/or high density development at Wrightsville Beach. Stay on the path of no more developments like Shell Island, or Holiday Inn. Promote good night spots for dinner and drinks like restaurants/bars which are providing a needed element here for locals and tourists.	3/10/2017 8:11 PM
167	Fine as is.	3/10/2017 7:33 PM
168	CBD, N Lumina Ave biz district, And Harbor Island Post office district	3/10/2017 6:15 PM
169	I feel that the town if wonderful as is. there are so many visitors to the island I don't feel,that additional development is warranted. One aspect I would like to see is devolpement of the beach accesses, it is difficult to walk on the ones that only have the sand, some are easier than others but, If we could add the removable matting used for building handicapped accessible paths, that would be amazing.	3/10/2017 6:04 PM
170	Cross walk @ Seapath Yacht Club to park	3/10/2017 6:00 PM
171	The only bit of redevelopment that I think is necessary are sidewalks both sides of the road. If nothing else was done, that would be very welcome.	3/10/2017 5:47 PM
172	The old gas station on Salisbury street.	3/10/2017 5:28 PM
173	More parking for business and employes. Public bathroom needs to be open in February because all the business are open and customers are complaining.	3/10/2017 12:23 PM
174	Avoid low end chains/franchises in Johnny Mercers area.	3/10/2017 2:14 AM
175	None. Traffic and parking is already a deterrent.	3/9/2017 10:00 PM
176	NONE	3/9/2017 4:00 PM
177	Johnny mercer pierr	3/9/2017 12:07 PM
178	Johnnie Mercer's pier	3/8/2017 6:04 PM
179	I agree with the list given in #3.	3/8/2017 5:54 PM
180	Johnnie Mercer's Pier, Harbor Island	3/8/2017 3:28 PM
181	Current commercial zones only for redevelopment	3/7/2017 6:55 PM

Wrightsville Beach CAMA Land Use Plan Survey

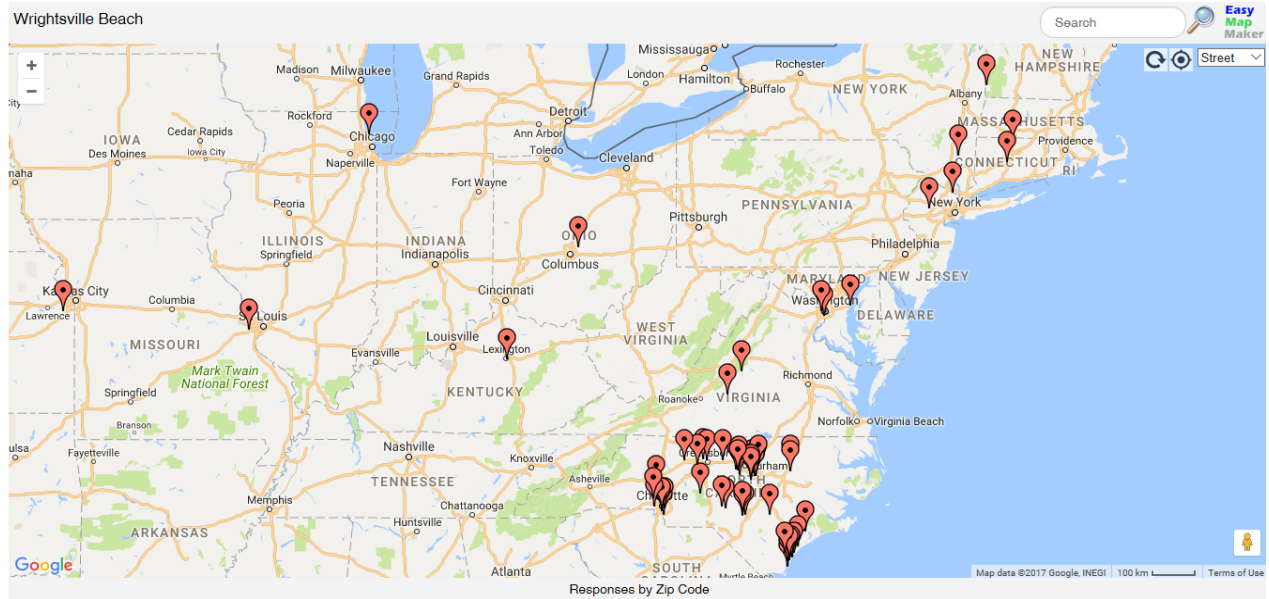
182	<p>Johnnie Mercer's Pier area. This part of the beach looks like a 3rd world country. On Saturday and Sunday afternoons, 1000's of people turn those public showers on (leave them on) and innumerable gallons of disgusting shower water and detritus run untreated into the street to the nearest drain 100 yards away in the middle of the horseshoe parking area. Since the King Store fire, the lot owner has left the land littered with broken glass, nails, downed sections of wire fence and shards of broken/charred wood remains of the condemned building. The Town has failed to improve the situation in 11 months' time. That fire happened on 4/29/16. The lot is still a safety hazard, an eyesore and a blight on Wrightsville Beach. The former Buddy's establishment remains half renovated with broken windows, piled up sandbags from Hurricane Matthew (a full 5 months ago- 10/9/16) and a For Rent sign in the window. In sum, the Mercer's Pier area is a total disgrace. Most importantly, it is a situation that could easily be remedied in both the short and long term. Unfortunately, the Town has either ignored the situation or refused to act. In either instance, the Town is negligent and has plainly failed its citizens. Specifically, in the short term, the lot owner should be required to clean the lot of all dangerous litter and rebuild a new fence. The town, in turn, should either remove the public showers or provide an adequate drainage system that meets code for the showers. At present, the situation is a public health danger and nuisance. In the long term, a cogent and responsible approach to development is needed for that area. Including reasonable adjustments to existing height ordinances in accordance to evolving federal standards. It is well past time that the Town of Wrightsville Beach take intelligent and prudent steps to fix what is, at present, a hideous blight on the town and a comprehensive municipal failure.</p>	3/7/2017 2:55 PM
183	JM Pier	3/7/2017 1:28 AM
184	Middle of is. restaurant needs to do something	3/6/2017 10:12 PM
185	all business districts which are currently listed as Commercial/multi-family/mixed us. We have less than ten percent of our area as commercial.	3/2/2017 9:25 AM
186	None	3/1/2017 8:09 PM
187	Mercers Pier, MOI, both eyesores that can be greatly improved	2/22/2017 11:00 PM

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Q8 What is the zip code for your primary residence?

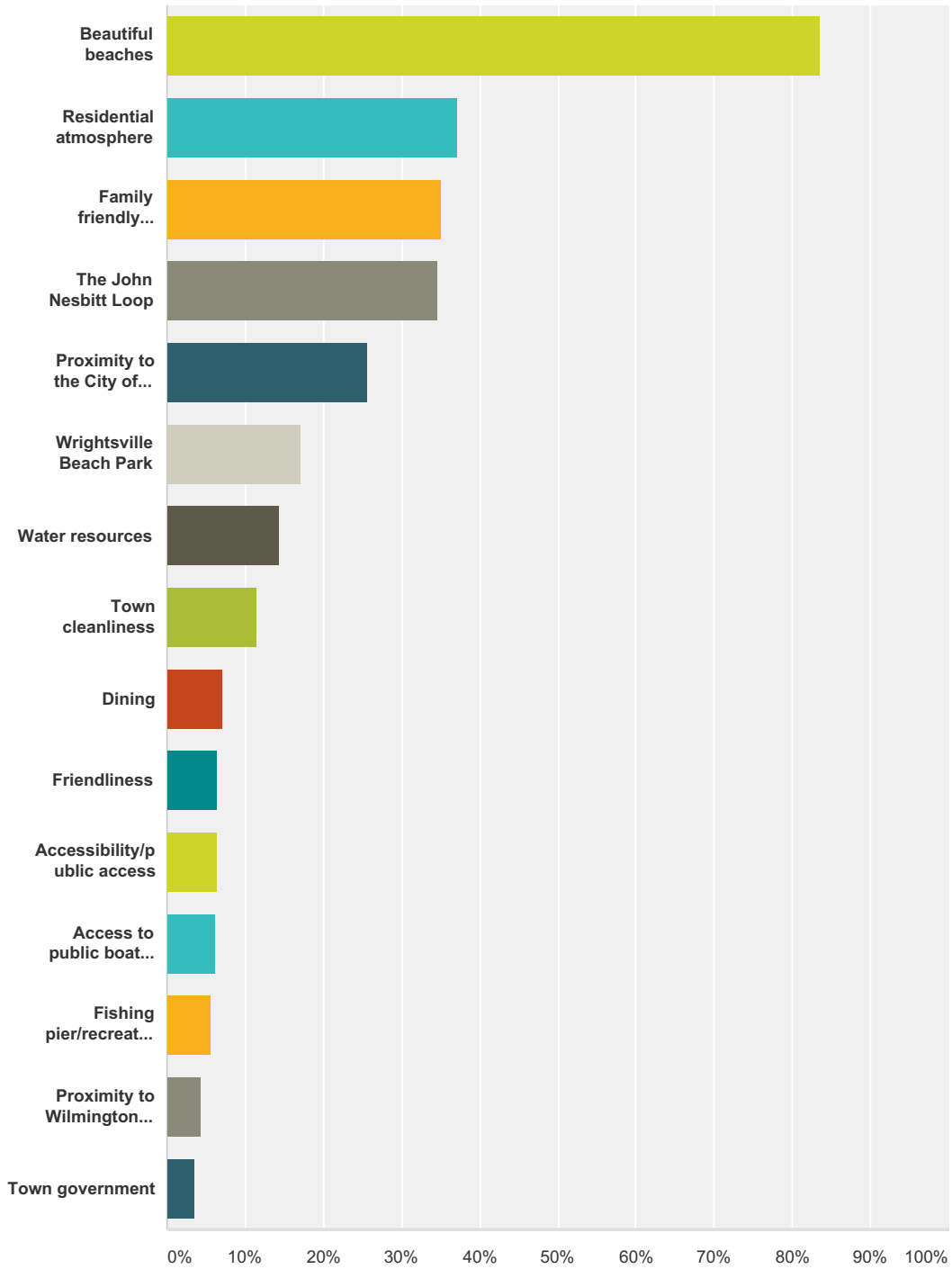
Answered: 340 Skipped: 43

Zip Code	# of Responses
05257	1
06037	1
06078	1
07645	1
07945	1
12601	1
21409	1
22207	2
22301	1
22967	1
24551	1
27104	2
27215	1
27265	1
27371	1
27408	7
27410	3
27510	1
27511	1
27513	1
27514	2
27515	1
27516	2
27517	3
27518	1
27587	1
27605	1
27607	3
27608	1
27612	2
27614	5
27615	6
27617	2
27619	1
27803	1
27804	3
28012	1
28209	1
28210	1
28211	3
28277	1
28303	1
28304	1
28305	2
28328	1
28374	1
28387	1
28401	6
28403	21
28405	10
28409	14
28411	19
28412	1
28428	1
28443	1
28480	181
28540	1
28673	1
40502	1
43054	1
60043	1
63021	1
66061	1



Q9 What would you consider to be Wrightsville Beach's top THREE (3) assets? Please select ONLY THREE.

Answered: 340 Skipped: 43



Answer Choices	Responses
Beautiful beaches	83.53% 284

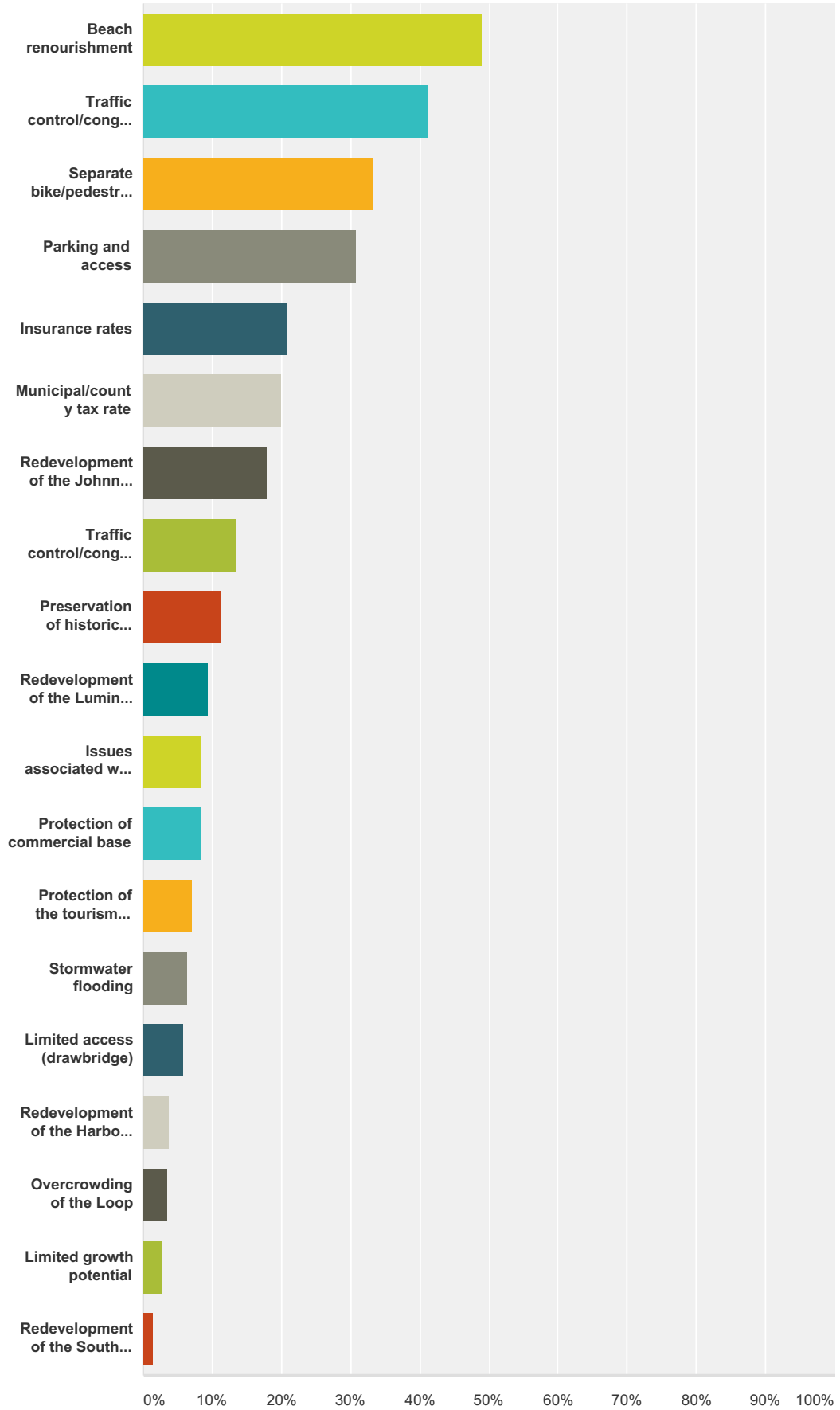
Wrightsville Beach CAMA Land Use Plan Survey

Residential atmosphere	37.06%	126
Family friendly environment	35.00%	119
The John Nesbitt Loop	34.71%	118
Proximity to the City of Wilmington	25.59%	87
Wrightsville Beach Park	17.06%	58
Water resources	14.41%	49
Town cleanliness	11.47%	39
Dining	7.06%	24
Friendliness	6.47%	22
Accessibility/public access	6.47%	22
Access to public boat ramp	6.18%	21
Fishing pier/recreational fishing opportunities	5.59%	19
Proximity to Wilmington International Airport	4.41%	15
Town government	3.53%	12
Total Respondents: 340		

**Q10 What would you consider the top
THREE (3) most significant issues/concerns
facing Wrightsville Beach? Please select
ONLY THREE.**

Answered: 339 Skipped: 44

Wrightsville Beach CAMA Land Use Plan Survey



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Answer Choices	Responses
Beach renourishment	48.97% 166
Traffic control/congestion (relating to general circulation)	41.30% 140
Separate bike/pedestrian traffic from motorized traffic	33.33% 113
Parking and access	30.97% 105
Insurance rates	20.94% 71
Municipal/county tax rate	20.06% 68
Redevelopment of the Johnnie Mercer's Pier business district	17.99% 61
Traffic control/congestion (relating to bridge closures)	13.57% 46
Preservation of historic structures	11.21% 38
Redevelopment of the Lumina business district	9.44% 32
Issues associated with the Lumina business district existing uses	8.26% 28
Protection of commercial base	8.26% 28
Protection of the tourism base	7.08% 24
Stormwater flooding	6.49% 22
Limited access (drawbridge)	5.90% 20
Redevelopment of the Harbor Island business district	3.83% 13
Overcrowding of the Loop	3.54% 12
Limited growth potential	2.65% 9
Redevelopment of the South End/Crystal Pier business district	1.47% 5
Total Respondents: 339	

#	Comments:	Date
1	Don't want the Lumina Business District replaced with only condos. Love having access to a grocery, restaurants, and bars.	6/27/2017 11:31 AM
2	Parking fees are high. Still shocked that going to the park costs. This was where I broke out of obesity, but now cannot afford paying it.	6/19/2017 10:25 AM
3	I have seen NO evidence that we need a commercial base	5/24/2017 1:50 PM
4	Wrightsville is getting away from the quaint, family-oriented beach that it has maintained over the years with the influx of traffic congestion, and public drunkenness in the Lumina Business District. Wrightsville does not need high-rise buildings or more multi-family housing (condominiums). The historic beach cottages should be preserved, if possible. However, the traffic congestion attributable to the influx of more people (day trippers) is the number one issue facing WB, in my opinion. Investing in a park and ride with Trolleys or Shuttles that accommodate beachgoers should be seriously considered. It seems it would be easier for beachgoers to not have to walk so far and haul so much beach paraphernalia in the heat while easing traffic flow.	5/22/2017 10:47 AM
5	Speed and increased traffic are a significant problem. Traffic lights are needed just to cross the road to the recreation center which is a major asset for entertainment, sports and other gatherings.	5/22/2017 9:25 AM
6	Stormwater needs to be included with sewer. Too much contamination of swimming areas.	5/4/2017 12:14 PM
7	I would pay more taxes to FIX land use issues. IE: maintaining height restrictions for all use at 40ft., converting some business to public use ie parks	4/21/2017 9:42 PM
8	The draw bridge needs railings along walkways. I saw someone step into the roadway from the walkway today and they almost got hit by an approaching car.	4/2/2017 1:41 PM

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9	We do not need more development - we need to keep upgrading the quality of existing development.	4/1/2017 2:06 PM
10	Shutting down Joe's Crab Shak last year was a perfect example of the towns short sightedness. Look at what Johnnie Mercer's Pier area looks like now.	3/29/2017 3:51 PM
11	Too many large second homes = no locals and off-season business growth	3/28/2017 1:13 PM
12	We moved to WB last fall and we love it. Not only is it surrounded by all of this natural beauty but it is a charming small town. There are wonderful resources for our family particularly the Parks and Rec services including performance club, various sports coaching, park and after school care. Additionally everything is well maintained, clean and safe. My biggest concern would be over development which would result in WB losing some of its well known charm.	3/28/2017 11:55 AM
13	We need another drawbridge until then the Pedestrian cross walk is the dumbest thing ever put there. Then you turn on Waynick and the Blockade Runner puts out there pedestrian stop sign .	3/27/2017 6:24 AM
14	Traffic in the summer is a nightmare, largely due to lack of parking. It is very time consuming as a resident to get on and off the island due to congestion, lack of separate bike lanes, and people stopping/searching for parking (or walking in the road!)	3/25/2017 6:03 PM
15	There are no more beautiful beaches in the world than what we have. Let's keep it that way.	3/25/2017 12:03 PM
16	Parking has become a problem for property owners in older homes as there is no parking under houses and parking on the street is very limited.	3/24/2017 4:25 PM
17	It is NOT bike friendly over the bridges or on the busy streets.	3/24/2017 3:34 PM
18	Seems that NH Co. receives more in taxes from WB Property ownersthan we receive in return	3/24/2017 2:48 PM
19	Water Quality issues	3/24/2017 1:16 PM
20	2. Overcrowding in general; traffic, too many tourists, too much growth on west side of bridge (city of Wilmington), less and less of an off-season overtaxing town employees/resources. 3. Terrible drinking water quality	3/24/2017 1:14 PM
21	Too many parking spaces resulting in overcrowded beaches	3/24/2017 1:08 PM
22	Overcrowding. Too much parking.	3/24/2017 1:07 PM
23	Insurance rates may drive us out of the place we love.	3/24/2017 12:56 PM
24	My favorite thing about WB is all the activity...loop, beach.. people are so active.	3/24/2017 12:22 PM
25	They need to give the businesses the flexibility to expand and operate so they can be profitable. All of the commercial buildings on the beach are shameful. The fact that they won't let the Oceanic add additional restrooms is a perfect example of shortsightedness of one of the busiest restaurants on the island. Tower 7 had sewer issue half of last summer. 22 North, Loggerheads, Jerry Allens, Wings, etc should all be allowed to remodel/rebuild as needed to improve.	3/24/2017 12:15 PM
26	I believe that focus on an atmosphere and regulations that enhance the lives of permanent residents, particularly resident owners, should be the focus of town government. If those are deemed detrimental by transient beach visitors, I find that acceptable	3/24/2017 12:08 PM
27	Need more public restrooms including facilities at the boat ramp!	3/24/2017 11:48 AM
28	Declining water quality with increased swimming advisories is a major issue for residents, visitors, and businesses,	3/24/2017 11:37 AM
29	Our family (and other full time residents) enjoy the availability of bikeable and walkable options for shopping and dining and entertainment. However, this commercial activity must be subject to reasonable restrictions so as not to compromise the character of the town.	3/24/2017 11:35 AM
30	It wasn't an option but the decline of family friendly atmostphere is a concern- it's becoming a rough crowd downtown! Too much drinking, not enough enforcement	3/23/2017 3:24 PM
31	Home owner yearly parking pass at yearly fee would be great	3/23/2017 10:50 AM
32	There needs to be more area to Quality shops and quality dining places.	3/23/2017 9:05 AM
33	Losing family/friendly environment!! Becoming too loud and crowded on beach and streets. To much public parking.	3/22/2017 3:47 PM
34	Because parking is limited, care must be taken when considering where additional parking is being suggested. Financial vs. successfully planning is a challenge however long term is paramount.	3/21/2017 9:28 AM
35	With the ease of getting to Wilmington/Wrightsville Beach day traffic is now an amount too much for the island but not sure what the solution is to control.	3/20/2017 10:28 AM
36	Parking revenue should be set to fully fund all tourist erlated town expenses and extra infrastructure cost	3/19/2017 6:51 PM

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37	Curb side recycling is a must. Weekly rentals would recycle more	3/18/2017 3:14 PM
38	We need new development ideas and life brought into the town; It is old and stale. There needs to be a way to promote those business districts listed with a mix of old ideals and new life. If it takes raising property taxes a few dollars on a million dollar second home to do so, then so be it..	3/17/2017 9:20 PM
39	Increase Parking Revenue to Offset Seasonal Cost of water sewer, police, fire and town services	3/17/2017 8:35 PM
40	Do not use the Kimley-horn traffic circle plan	3/17/2017 7:05 PM
41	WB offers a great balance of commercial, residential and hotel mix. The short trip to more options and ammenities is ideal. Protect the nostalgic charm	3/17/2017 4:52 PM
42	The boat ramp is extremely over crowded, many of the public access points either have dangerous stairs that are not well maintained, or most recently have been filled completely with large cement rocks that provide no access whatsoever without extreme danger.	3/17/2017 1:39 PM
43	residence at 17 augusta is now landlocked due to town refusing private parking.Drive for parking revenues created an unbearable position for this tax payer	3/16/2017 4:56 PM
44	Strongly opposed to increased commercialization.	3/16/2017 2:17 PM
45	Water quality	3/16/2017 12:44 PM
46	My family and I come from Connecticut for the beautiful beaches where people aren't packed in like sardines. Don't want additional parking. If it gets crowded we will go elsewhere.	3/16/2017 11:35 AM
47	Wrightsville beach are getting too crowded. No more parking is needed or it will become Carolina Beach. People pay more for Wrightsville property and current parking because they don't want to be on top of each other.	3/16/2017 9:08 AM
48	Please connect the bike path to the North emd	3/16/2017 8:28 AM
49	#1 should be public safety for every but especially permanent residents!	3/15/2017 9:51 PM
50	Main issue is the need for an additional boat launch location.	3/15/2017 4:23 PM
51	WB needs no increase in density, business or residential	3/15/2017 3:02 PM
52	Enforcing existing speed limit should be on this list!	3/15/2017 12:04 PM
53	Need mainland parking and shuttle options during the busy season.	3/15/2017 11:10 AM
54	The town is in desperate needs of public transportation improvements and pedestrian/cycle lane priority.	3/15/2017 11:08 AM
55	Benches on beach should look natural and should not look like the fish bench on South end. This will begin to look like Carolina beach. TERRIBLE. That bench should be replaced.	3/15/2017 10:43 AM
56	I believe parking should be rolled back to \$2.00 per hour, Re-entry decals rolled back to \$5.00 each and Residential hang tags either rolled back to \$20.00 or allowed in all parking zones and lots.	3/14/2017 10:27 AM
57	How will we deal with climate change/sea level rise.	3/14/2017 7:34 AM
58	Redevelopment is also important along with guidelines about how it should look to keep with the nature of WB. I've noticed modern box like structures going up recently and it will be important that any redevelopment is done well and beautifully to preserve the character of the town.	3/14/2017 7:00 AM
59	Water quality is my biggest issue	3/14/2017 6:54 AM
60	need more parking to eliminate traffic congestion	3/14/2017 6:49 AM
61	Parking is too expensive. Commercial business's need access to parking passes for employees.	3/13/2017 1:43 PM
62	Get rid of the BARS	3/13/2017 8:09 AM
63	The summer weekends, becoming more crowded and gridlocked at places like Oceanic, create frustration, hostility and potential safety concerns for visitors and residents.	3/12/2017 3:25 PM
64	Flood insurance insane. Too much drug activity in bar district.	3/12/2017 9:32 AM
65	Vehicles and traffic is a serious problem in high tourist months, on the beach and just over the draw bridge, and new development in the county will add to the burden.	3/11/2017 7:52 PM
66	Water quality/infrastructure issues pertaining to potable water = my #1 concern	3/11/2017 6:48 PM
67	too bad the option is only three	3/11/2017 2:11 PM
68	Water quality and quantity is a serious issue.	3/11/2017 12:04 AM

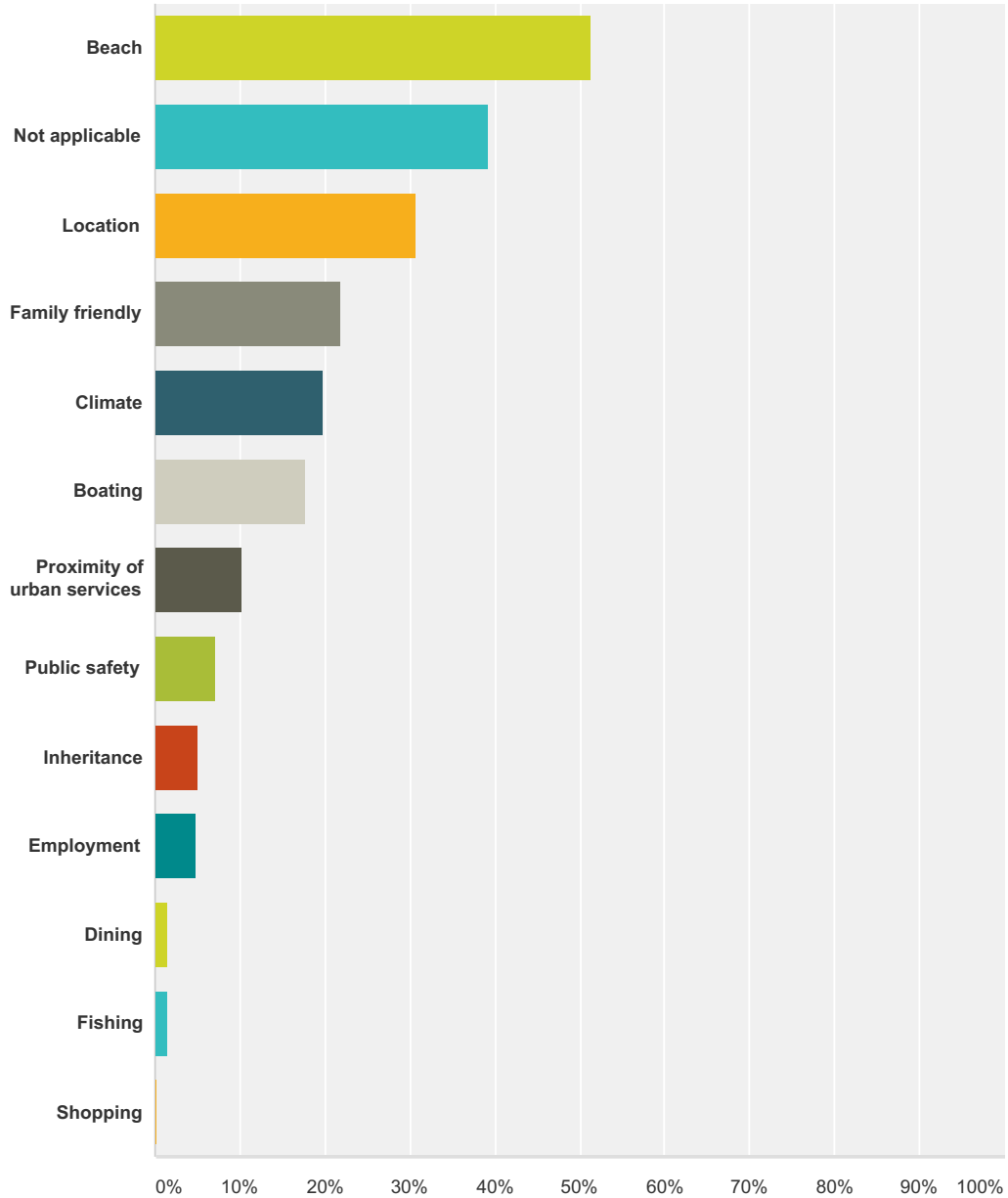
Wrightsville Beach CAMA Land Use Plan Survey

69	Would appreciate removal of the \$25.00 fee for yard clippings.	3/10/2017 9:28 PM
70	of concern the increasing height of residential structures due to the way measuring is being done, and the size of these homes	3/10/2017 6:18 PM
71	Our current water pipes need replacement	3/10/2017 6:08 PM
72	A bike lane is needed	3/10/2017 6:02 PM
73	Keep development DOWN!	3/10/2017 2:18 PM
74	There is only so much parking available. Many weekends during the summer N. Lumina looks more like a parking lot than road. As manager of a private condominium building, we are having more trespassing issues - both walk-through and illegal parking.	3/10/2017 10:27 AM
75	should make as much money (within reason) off of parking during peak tourism months/weekends as possible.	3/10/2017 2:23 AM
76	We should do something to encourage restaurant growth Current actions are generic and unhealthy	3/9/2017 10:06 PM
77	I prefer a traffic light to the apparently proposed traffic circle solution for the beach entrance at the draw bridge.	3/9/2017 9:30 PM
78	Be nice if you could catch the wave bus to the beach.	3/8/2017 5:51 PM
79	The Crosswalk light by the school is the dumbest idea ever..On a busy weekend every10 seconds it stops traffic leading to backups past military cutoff...It should be removed.	3/8/2017 4:47 PM
80	Restrict motor vehicle access by restricting parking. Raise parking rates. Improve Bike and Pedestrian access. As a resident, I bike commute to work every day. Since the Cross City Trail was added and bike access improved, more and more local Wilmingtonians are biking to the beach. WB should incentivize biking/walking and disincentivize car travel.	3/7/2017 3:44 PM

Wrightsville Beach CAMA Land Use Plan Survey

Q11 Why did you choose Wrightsville Beach for permanent residence? Please select ONLY THREE.

Answered: 339 Skipped: 44



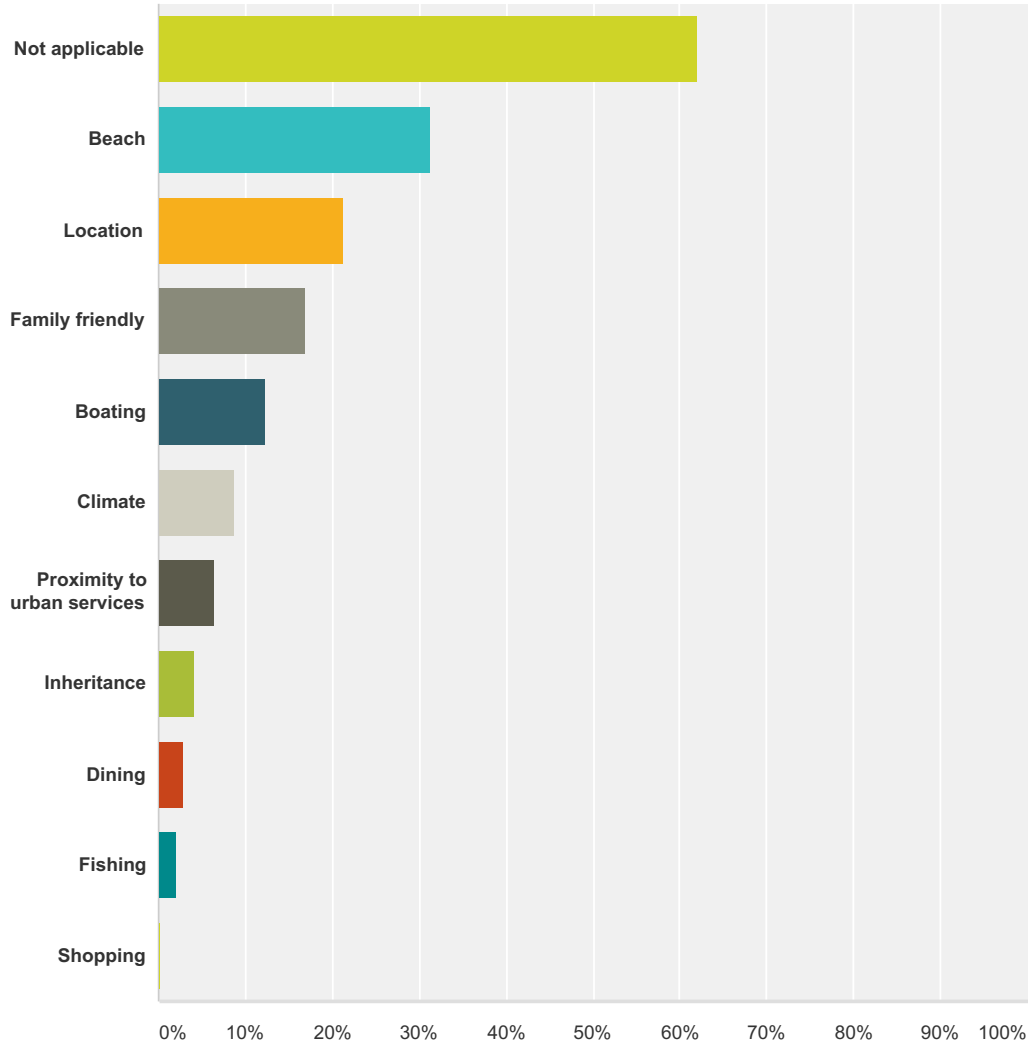
Answer Choices	Responses
Beach	51.33% 174
Not applicable	39.23% 133
Location	30.68% 104
Family friendly	21.83% 74
Climate	19.76% 67

Wrightsville Beach CAMA Land Use Plan Survey

Boating	17.70%	60
Proximity of urban services	10.32%	35
Public safety	7.08%	24
Inheritance	5.01%	17
Employment	4.72%	16
Dining	1.47%	5
Fishing	1.47%	5
Shopping	0.29%	1
Total Respondents: 339		

Q12 Why did you choose Wrightsville Beach for a second home? Please select ONLY THREE.

Answered: 339 Skipped: 44



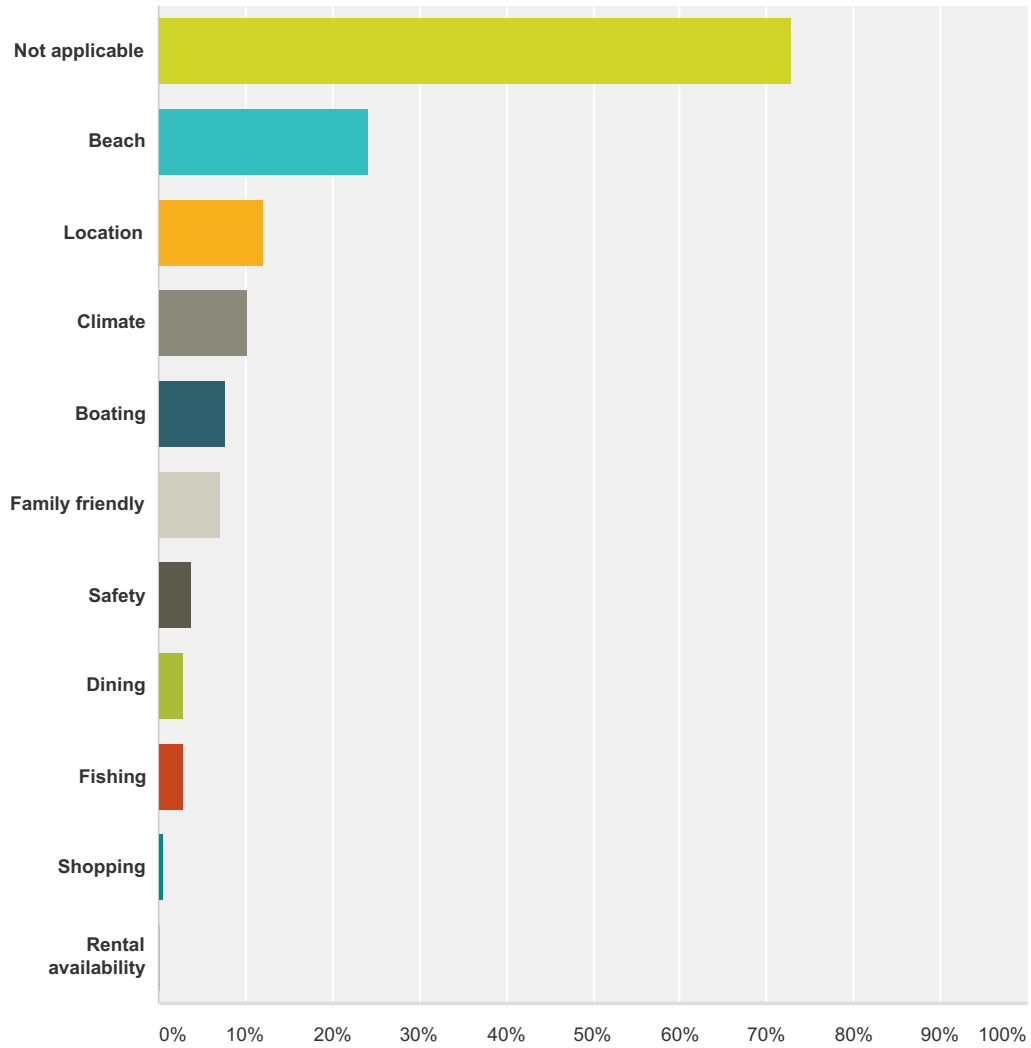
Answer Choices	Responses	Count
Not applicable	61.95%	210
Beach	31.27%	106
Location	21.24%	72
Family friendly	16.81%	57
Boating	12.39%	42
Climate	8.85%	30
Proximity to urban services	6.49%	22
Inheritance	4.13%	14

Wrightsville Beach CAMA Land Use Plan Survey

Dining	2.95%	10
Fishing	2.06%	7
Shopping	0.29%	1
Total Respondents: 339		

Q13 Why did you choose Wrightsville Beach for a place to visit? Please select ONLY THREE.

Answered: 339 Skipped: 44



Answer Choices	Responses
Not applicable	72.86% 247
Beach	24.19% 82
Location	12.09% 41
Climate	10.32% 35
Boating	7.67% 26
Family friendly	7.08% 24
Safety	3.83% 13
Dining	2.95% 10

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Fishing	2.95%	10
Shopping	0.59%	2
Rental availability	0.29%	1
Total Respondents: 339		

Wrightsville Beach CAMA Land Use Plan Survey

Q15 Please list things you feel the Town of Wrightsville Beach could do to improve the experience/quality of life for residents, visitors, and business owners.

Answered: 290 Skipped: 93

#	Responses	Date
1	Maintain and reduce building heights and the density of buildings in both commercial and residential zoning areas.	6/27/2017 11:45 AM
2	Cleaner sidewalks in business district, less turmoil in business district on weekends, more quality restaurants and shopping	6/27/2017 11:38 AM
3	Reduce taxes	6/27/2017 11:35 AM
4	Better parking; less congestion	6/27/2017 11:34 AM
5	Maintain a healthy balance between locals and tourists.	6/27/2017 11:32 AM
6	Reduce bar areas; improve traffic	6/27/2017 11:29 AM
7	We love it as it is!	6/27/2017 11:22 AM
8	As mentioned, the price for parking at the actual park is unusual. It seemed to not be a problem in the past to park there and enjoy the courts, activities, and Loop, which helped me get back in shape. I visited in the morning or afternoon (near evening) hours, generally a few times per week. Unfortunately, I cannot visit many areas anymore due to the high parking costs. Thanks for the opportunity, though, I enjoyed the motivation to be active.	6/19/2017 10:31 AM
9	Share your good fortune and not make it so tough for the regular joes to enjoy the natural beauty of the place. Beaches are public resources and it costs a fortune to sit on sand there if you bring your family or out of town guests.	6/13/2017 11:23 AM
10	Minimize traffic congestion from the number of cars coming onto the island. Consider a park and ride (trolleys, shuttles for beachgoers) The traffic congestion is inhibiting the quality of life. It is not only in the summers now. The influx of people into NC is a contributing factor and needs to be addressed at how to best handle all of the people (probably at the State level) but for now WB can deal with it by considering a park and ride for day trippers. Work with Wilmington/New Hanover County to keep Eastwood Rd. from being congested with too much development that will only further traffic problems. Limit the number of high-rise complexes and preserve the beach cottages. Create a safe bike lane and slow the traffic down on Causeway Drive. Reduce the speed on Causeway Drive. Keep the number of bars to a minimum, reduce public drunkenness and try to attract family style restaurants. Continue to protect water quality and deal with the flooding through low impact development.	5/22/2017 11:50 AM
11	Park and Ride access for day trip visitors. Enforce speed limit Traffic light at Wrightsville Beach Park Maintain safety on beach and entire island More/better restaurants Reduce pollution. Place recycle containers on site of large facilities Auto battery charge stations in public areas Separate bike lanes with buffer zone of plants/trees More family friendly events in the park and transportation to Airlie events.	5/22/2017 9:44 AM
12	see number 14. Do not fund projects that conflict with improving the quality of life in the town.	5/21/2017 7:00 PM
13	less police presence, its very intimidating and you never go on or off the island without seeing police	5/18/2017 3:34 PM
14	Offer a shuttle to the beach from a parking area, such as the empty lot in Wrightsville Avenue between the ABC and hardware store, to cut down on traffic.	5/18/2017 8:06 AM
15	Maintain current height of buildings. It is such a joy that the majority of buildings are two story. Don't be like Myrtle Beach or other urban beach communities.	5/12/2017 9:01 AM
16	Double the parking price	5/11/2017 4:12 PM
17	Significant improvement to Johnny Mercers pier area. Area is unattractive and attracts a strange crowd.	5/11/2017 1:22 PM
18	Clean up storm water so it stops polluting swimming areas.	5/4/2017 12:17 PM
19	Better traffic flow through the business district and more clearly defined biking/walking lanes	4/29/2017 3:34 PM
20	Reduce traffic. Install round about. Clean up Johnnie Mercer Pier area.	4/25/2017 1:17 PM

Wrightsville Beach CAMA Land Use Plan Survey

21	Have the Town Council request DOT fix safety issues on drawbridge sidewalks. Actively work with DOT to FIX pedestrian cross walk issues related to crossing Causeway Drive in area between the drawbridge and the end of the park. (There are no crosswalks and no sidewalks in some areas) Work with DOT to slow traffic on Causeway Drive.	4/21/2017 9:45 PM
22	Put power lines below ground.	4/17/2017 8:45 AM
23	Stop up charging every service to residents. We pay the taxes.	4/12/2017 10:50 AM
24	Create walking/bike lanes from Shell Island to the pier. Renourish where needed...Garbage cans at all beach accesses (ie: between Scotch Bonnet Lane and Cowrie - there used to be a trash can there!!!)	4/11/2017 3:20 PM
25	28480 is the most expensive zip code in N.C.. Yet, we are dealing with business uses that are inconsistent with that. Many current uses detract from property values and high value tourism of the beach, loop and sound.	4/8/2017 7:11 PM
26	Draw Bridge needs railings on walkways for driver and pedestrian safety. Traffic pattern in front of town hall needs a rework to include park, town hall, condos, homes and marina across the street.	4/2/2017 1:45 PM
27	Don't get swayed by developers. I'm a business person and respect other's right to develop their property, but not at the expense of the quality of life of the rest of us living in WB. Keep the 40ft max height and keep the density reasonable. As I said earlier, if you need to increase the height limit A LITTLE, include a roof pitch requirement - otherwise we will just have taller flat roof building/homes. Not too much to ask!	4/1/2017 2:12 PM
28	We have many issues but there is a reason wre live here..We are unique!!	3/30/2017 5:12 PM
29	Develop remote parking and shuttle service for day visitors. Control the late night noise and irresponsible behavior particularly on the weekends.	3/30/2017 12:13 PM
30	Widen the loop and have the businesses clean up the downtown area every morning. Let businesses and homeowners improve their properties without all the stiff regulations.	3/29/2017 3:56 PM
31	Allow for businesses to fix up their buildings. I am looking to purchase a house that should be torn down and really don't understand the 40' restriction especially after the changes made increasing the height of the first floor and changing the measurement from the top of the fire hydrant. We have lost more than 3ft with these adjustments and that footage should be added back. Allow 3 ft more on new construction or remodeling.	3/29/2017 3:42 PM
32	-Enforce maintaining view-ways on public access points. Overgrowth prevents access. -Erect signage at entry point of town describing likely time to find parking on barrier island. (Cut down unnecessary traffic congestion.)	3/28/2017 3:35 PM
33	provide recycling, provide parking off-island and trolley transport for visitors	3/28/2017 2:20 PM
34	I know lack of parking is a problem BUT if the town were to close down the U shaped street in front of Johnnie Mercer pier, that could become an excellent promenade/business district right next to the beach and the pier. The parking area east of the traffic light is a nightmare anyway - closing it off to vehicles and using that space for pedestrians/benches/vendors/music/etc would be a huge improvement and a big draw for business and tourists.	3/28/2017 1:18 PM
35	I think a better recycling program would be great. Curbside recycling would be very helpful.	3/28/2017 11:58 AM
36	Make Johnnie Mercer a better quality destination area. Limit the demolition of classic beach houses in favor of mega homes overbuilt on lots. Need a public ramp on Banks Channel. No way to get a small sailboat (sunfish) there from current launch area. Keep the small town beach feel. all my friends from NYC LOVE IT!	3/28/2017 11:18 AM
37	Do not (over)charge for yard waste!!	3/27/2017 8:46 PM
38	I think there needs to be more access to recycling for visitors. I personally go to the recycling center but I'm sure the majority of visitors do not or are not aware where it is located. We could offer more spots to recycle near beach accesses and along Lumina where the restaurants and bars are.	3/27/2017 12:09 PM
39	do NOT put parking at circle on north end !!!	3/27/2017 11:58 AM
40	Parking, traffic, clean up downtown area	3/27/2017 10:47 AM
41	Keep it a family beach. Wrightsville is unique in that way now. If you want commercial just go across the bridge!! Making the loop wider would help. Don't give in to developers.	3/27/2017 10:00 AM
42	Do away with the Pedestrian light at Harbor Island the dumbest thing they have ever done. Dogs owners not cleaning up behind them.	3/27/2017 6:31 AM
43	bike path, better cross walks in downtown, preserve our commercial business district	3/26/2017 7:38 AM
44	More perks for permanent residents	3/25/2017 8:00 PM
45	I like police presence but I think when anyone gets stopped for a violation it looks like a major disaster there are usually three or more police cars! The metered parking should only be May through October.	3/25/2017 6:44 PM

Wrightsville Beach CAMA Land Use Plan Survey

46	Separate bike lanes would improve flow of traffic or help residents get around by bike easier. A better grocery store or convenience store on island would help. Tax and insurance rates cannot go up.	3/25/2017 6:08 PM
47	Less police presence. Less parking to decrease crowd. Lower taxes.	3/25/2017 1:46 PM
48	Traffic control in the summer, bicycle safety, crime control, downtown area better controlled during and after bar hours	3/25/2017 1:22 PM
49	I think Wrightsville does a great job already. In the Lumina area, I am concerned about bars like Red Dog that draw a bad crowd that are not family friendly, and I am concerned that there is no dress code for the beach, that is, women wear thongs are almost thongs freely. This makes it much less family friendly, and, had I young children, I would head to a more isolated beach to avoid this.	3/25/2017 11:04 AM
50	Increase trash cans, recycling on beach and in residences. Require businesses to maintain a clean area	3/25/2017 10:26 AM
51	Underground Utilities	3/25/2017 6:15 AM
52	control traffic	3/24/2017 10:51 PM
53	Keep as is. Raise parking rates. Enforce drinking on beach. Keep day trippers and rowdy party crowds at minimum. I know we need tourist dollars, but not from them. Promote family beach.	3/24/2017 9:37 PM
54	Close Loggerheads, no motor cycles, allow alcoholic drinks on the beach, keep height restrictions on buildings	3/24/2017 8:14 PM
55	Better control of rowdy bar patrons in residential neighborhoods, control speeding and loud traffic, better control of rental property, support of the recycle center instead of curbside pick-up, better control of animals and animal waste. Much of the quality of life of the homeowner could be improved by prevention instead of reaction.	3/24/2017 5:37 PM
56	Keeping Pelican for residents only. Cleaning up the bars on the beach, making it more family friendly. Lights at pedestrian crosswalk from Pelican to Salisbury, as it is hard to cross.	3/24/2017 5:27 PM
57	Make the area more friendly for pedestrians. Improve vehicle access on and off Town with second bridge, tunnel, etc., continue to maintain good government with reasonable tax rate, improve quality of commercial establishments to minimize need for large expensive law enforcement, limit town access when population reaches unsafe numbers i.e. July 4, etc.	3/24/2017 5:06 PM
58	No answer	3/24/2017 4:48 PM
59	Make sure the water lines and working properly. Many of the rules and restrictions when it comes to building codes are over the top. If someone is 2 inches over the line on a 30+ year old building and the neighbor is fine with you adding an addition you should be able to get a variance. 43 ft should not be an issue on building heights.	3/24/2017 4:45 PM
60	Think the bar district is a disgrace for visitors and especially for the visitors with young children.,,It smells of stale beer and cigarette smoke. If a visitor happens to walk by when one of these bars is open he can expect bad language. Think the city should be embarrassed for tourists or loopers to pass by these bars. Often the bar patrons are drunk when they leave the bars. This leads to shouting profanities and property damage to property owners in their paths.	3/24/2017 4:36 PM
61	Bike path	3/24/2017 4:09 PM
62	Keep as much business as possible west of the drawbridge	3/24/2017 3:53 PM
63	Bike lanes, dog park, make business district more appealing visually, have curbside recycling, clean up water accesses on North Channel Drive and make them all user friendly.	3/24/2017 3:42 PM
64	Strict enforcement of traffic, parking, noise and trespass laws.	3/24/2017 3:36 PM
65	Clean up Salisbury Street. Don't allow any more monstrosities like One Auditorium. Allow residential hashtag patrons the ability to park in the Shell Island public lots and at Mercers Pier.	3/24/2017 3:29 PM
66	Our total of property taxes and insurance have doubled since 1996. WB should Secede from NH Co. before many long term residents can no longer afford to live here. Then all of your questions asked of us are moot and you must ask those questions of a whole new crowd of folks. If the US Gov't cannot maintain the AIWW because of lack of commercial traffic, then charge all of the 2 X year pleasure boaters from Up North a Toll at the Drawbridge.	3/24/2017 3:00 PM
67	The corner area of wings and the parking lot of king neptunes look so trashy. I wish this town would become more green. Use of permeable parking lots with incorporation of trees would be fantastic	3/24/2017 2:15 PM
68	Get rid of the excessive added on price for yard waste pick up!!!!!! Stop raising cost of excessive add ons to water trash and sewer rates.	3/24/2017 1:23 PM
69	Do more to keep and recruit quality employees (higher pay and better benefits)and treat them with more respect. We are losing valuable employees to other towns who are less affluent. I would be willing to pay higher town taxes for this. Also consider extending pay parking to handle ever increasing off season crowds.	3/24/2017 1:22 PM

Wrightsville Beach CAMA Land Use Plan Survey

70	Reduce parking. Beach is overcrowded at times. In the past few years more parking has been added contributing to road and beach crowding. The residence seem to be overlooked.	3/24/2017 1:21 PM
71	Water Quality, More bike lanes, ped lanes.	3/24/2017 1:18 PM
72	Keep cars (other than residents) off island (by signage on bridge) if parking spaces are all taken	3/24/2017 1:18 PM
73	Tear down the condos at Babies Hospital ;-) Encourage businesses.	3/24/2017 1:02 PM
74	Control the "serious" bikers that take up entire lanes of traffic, don't stop for lights, and don't make any attempts to move over for traffic. This is getting to be extremely frustrating for year-round residents. The day-trippers on their rental bikes or locals on beach cruisers tend to be polite and obey traffic and move over but the "serious" bikers are obnoxious. Also, take down the darn crossing light at Channel Drive that no one realizes that you can resume driving once people have passed and the solid red has turned to flashing. No one understands how that light is intended to operate. Coordination of the School Zone flashing lights to actually be flashing at the correct times would be nice. Ensure that there are blue barrels for trash at every access - all of the year-round.	3/24/2017 12:53 PM
75	Limit further development	3/24/2017 12:24 PM
76	Parking on mainland with train service to beaches. Bring back the train! Need better bridge access. Notify visitors parking is full. Up the price of parking on beach so other areas more attractive. Provide continal trolley service from parking to beach.	3/24/2017 12:23 PM
77	Allow residents more flexibility in making home improvements and allow commercial businesses even more flexibility....Raise the height limits to 43 feet so houses can have a full third story.	3/24/2017 12:21 PM
78	For residents, higher class of retail establishments - Wings, Lagerheads and Red Dogs are a blight on the community. For residents and visitors, a significant reduction in traffic would improve quality of life greatly. Use significantly higher meter pricing to reduce flow.	3/24/2017 12:19 PM
79	I'd like to see less development. I'd like to see more respect for the civil servants.	3/24/2017 12:15 PM
80	late night party goers spill into our neighborhood	3/24/2017 12:08 PM
81	public utilities; storm water drainage, water quality, issues with town water supply as far as pressure and trash in water	3/24/2017 11:54 AM
82	Clean up bridge areas. Mostly drawbridge but all four bridge areas are overgrown, dirty, unattractive. As more original levels walk and jog it is more noticeable. Everything the Garden Club has done looks great. And what towb has concentrated on looks great. But they ignore the bridges. Another area that needs focus is the area around the WB Historical buildings.	3/24/2017 11:47 AM
83	Efforts of Town seem to be working well.	3/24/2017 11:47 AM
84	Speed bumps on Parmele Blvd. Traffic is too fast on that road and it endangers our children. Tennis court lights at the park.	3/24/2017 11:47 AM
85	Allow alcohol on the beach	3/24/2017 11:43 AM
86	Control traffic	3/24/2017 11:38 AM
87	I think the pedestrian/bike/car issue is one of the largest. At the Wings intersection pedestrian traffic is constantly crossing when vehicles have the green light. This creates a dangerous situation as pedestrians just walk out thinking traffic is stopped in their favor when it really isn't. It also tends to back up traffic at that intersection towards the Blockade Runner. In addition, bicycles are constantly running that light through traffic without stopping. The HAWK light needs a LOT more public education. Cars consistently remain stopped at that light when it's blinking red with no pedestrians left in the crosswalk.	3/24/2017 11:36 AM
88	Hurry up and finish the pedestrian underpass at the draw-bridge! Provide better beach services such as more bathrooms, more showers and sand-capable wheel chairs at more beach access locations.	3/23/2017 6:18 PM
89	The crowd downtown is becoming rough. Our teenage daughter has to be escorted to go get an ice cream because of the drunk cat calls and lewd comments she gets. Our kids can't ride their bikes down to Trolley Stop because we don't trust some of the drivers who seem to be drinking. I'd say the increase of the downtown crowd issues has risen with the increase of Masonboro Island as a party spot. It's drawn a new, bigger crowd of partiers whose main purpose is to drink all day, which leads to a much less family-friendly and safe community	3/23/2017 3:29 PM
90	build off island parking deck/ free trolley system to limit cars, develop Johnnie Mercer pier area and other areas with park/ natural space, provide walking and biking safe paths to promote less driving, deal with energy and water independence to be a progressive town, provide electric cars parking/ plug in	3/23/2017 11:57 AM
91	Improve bike access keep small town feel	3/23/2017 10:53 AM
92	Have a central place for the people to shop and meet and eat that is high quality	3/23/2017 9:11 AM

Wrightsville Beach CAMA Land Use Plan Survey

93	Close the bars and make it more family friendly. Too much traffic and overcrowding especially on holidays.	3/22/2017 3:54 PM
94	Insure Police, Fire Department and emergency services benefits are high enough to attract quality employees.	3/22/2017 1:41 PM
95	Reduce vehicular traffic, have less cars	3/22/2017 12:44 PM
96	Continue to monitor congestive 'day' parking of vehicles. Much improved over last several years.	3/21/2017 11:44 AM
97	Water smell	3/21/2017 11:37 AM
98	Increase shopping/dining options Improve loop (widen) Decrease student rentals	3/21/2017 5:39 AM
99	Curbside recycling would be great!! Decreasing traffic congestion.	3/20/2017 9:09 PM
100	Allow dogs early and/or late on the beach for the six months not allowed.	3/20/2017 8:46 PM
101	Stop the overcrowding of the entire area, particularly vehicular traffic.	3/20/2017 5:11 PM
102	traffic congestion, enforce laws relating to noisy motorcycles, keep bikes off the loop	3/20/2017 4:00 PM
103	If WINGS must remain the "cornerstone" of our village, it must be toned down and maintained. The awnings, peeling exterior paint , filthy windows and fluorescent pollution really send the wrong message in terms of our surf town charm and pride.	3/20/2017 3:45 PM
104	Bike paths, Speed control More Pedestrian friendly	3/20/2017 10:37 AM
105	Address traffic congestion	3/20/2017 10:35 AM
106	Try to control visitor population during the high season and limit additional bars	3/20/2017 10:33 AM
107	Have another boat ramp	3/20/2017 10:32 AM
108	Create a separate bike line so walkers can use the trail and bikers can use the road. Consider the residents who live year round on Wrightsville more than just the tourists. We are the ones who make Wrightsville beautiful everyday and create the environment people want to visit. Our homes, privacy and safety should not be compromised in any way to grow. Creating gated communities on Harbor Island for the neighborhoods where possible would alleviate tourists from parking all over our streets where they should not be taking up spots. Also, reducing the speed limit from 35 to 25 on all roads on the island would be great! There are too many permanent residents who need to cross main roads that have no crosswalks. People are way too distracted and drive too fast and does not evoke a pedestrian friendly environment. It would also be great if more crosswalks were added so we can cross over to Poe's, post office, etc.	3/20/2017 9:28 AM
109	Provide more parking	3/20/2017 7:44 AM
110	Provide on island opportunity for additional restaurants and service business to support residences.	3/19/2017 7:51 PM
111	Parking enforcement is a bit over the top for resident owners.	3/19/2017 7:46 PM
112	Set parking rates and other fees to fully fund services and cost associated with non-resident expenses(non-property owner) and capital cost.	3/19/2017 7:10 PM
113	Work to get the drugs out of here.	3/19/2017 10:10 AM
114	Noise control, traffic control	3/18/2017 8:49 PM
115	Providing better tasting water without odor, either by finding another source or introducing more filtration	3/18/2017 8:36 PM
116	Improvement of water supply; purifying to remove unpleasant smell and unpleasant taste	3/18/2017 8:36 PM
117	Continue its efforts to come to a reasonable compromise to manage the mix of commercial and residential zones.	3/18/2017 4:24 PM
118	Lower rates for residents of wilmington to park. Expand access, it continues to be more residential than public access. Safety enhancements- paths.	3/18/2017 4:14 PM
119	Curb side recycling then use recycling containers area for more parking spots.	3/18/2017 3:17 PM
120	Dogs of residents should be allowed on the beach all months, and allowed off-leash during off-season months Traffic during the tourist season makes commuting difficult	3/18/2017 3:11 PM
121	Traffic congestion, bike lanes and business friendly government	3/18/2017 11:59 AM
122	More public park Perhaps a deck	3/18/2017 11:16 AM
123	Don't allow any more commercial development	3/18/2017 10:39 AM
124	I don't know what the solution is to the horrible summer traffic...another bridge? Shuttles from Mayfaire? Better bus options for tourists and publicizing them?	3/18/2017 10:10 AM

Wrightsville Beach CAMA Land Use Plan Survey

125	Less traffic, keep small town feel, keep resident concerns as main focus	3/18/2017 9:22 AM
126	Work to clean up undeveloped areas. Pizza Hut lot, old scotchman, moi area, pier area.	3/18/2017 8:30 AM
127	Bring in small local businesses in areas where buildings are abandoned.	3/17/2017 11:44 PM
128	Increase parking options. Tear down old scotchman gas station and replace with family friendly restaurant/tourist attraction.	3/17/2017 11:24 PM
129	Develop a modern parking plan that is inviting to summer visitors and meets the needs of residents.	3/17/2017 9:24 PM
130	lower speed limits sometimes I feel like there are too many large events that affect traffic for extended periods	3/17/2017 8:09 PM
131	This survey is poorly designed and should not be used in determining any valid input concerning the land use plan.	3/17/2017 7:29 PM
132	Slow down traffic Traffic light for park entrance Move bike traffic off of the streets Wider walk ways around the loop Stop smoking on the beach (and alcohol)	3/17/2017 7:13 PM
133	Allow for the trolley to bring people to the beach.	3/17/2017 4:59 PM
134	protect the charm of what we have. Examples of unmanaged and unplanned communities exist up and down the coast	3/17/2017 4:55 PM
135	Do not overdevelop the island Traffic/parking control during summer months	3/17/2017 2:06 PM
136	Parking and traffic	3/17/2017 1:57 PM
137	More public access points, better parking options on the beach, not off site-what would people do with kayaks, etc. if you didn't have parking options for visitors?	3/17/2017 1:51 PM
138	The thought of making parking even more limited for visitors by building a parking deck is heartbreaking. This would be horrific for visitors that visit WB with their SUP, kayaks, surf boards, etc. it would be total chaos trying to manage bringing those on a shuttle. The public access points need to be either repaired (broken stairs) or improved, one access recently was completely filled with giant cement rocks near the CYC that makes the access completely inaccessible. WB benefits tremendously from tourism, especially from local Wilmington residents. The energy has always been that WB only cares about WB residents and the lack of access and poor parking conditions only support that. I would love to see higher quality biking lanes that make it easy and safe to bike to the beach, the current conditions especially to go to the South End do not support that environment. If you are considering limited parking even more, people are only going to try and reach the beach through other outlets like biking and there needs to be a safer straight shot to the beach for bikers to do that coming from Wilmington.	3/17/2017 1:46 PM
139	Have paid parking lots instead of on street parking	3/17/2017 12:47 PM
140	Protect the rights and enjoyment of the year round residents before visitors and make more bike safety lanes	3/17/2017 12:36 PM
141	Provide free vegetation pick-up days for seasonal residents in June or August, as current times are during fall or early spring when only permanent residents are in town. Not fair!	3/17/2017 11:07 AM
142	Parking	3/17/2017 7:46 AM
143	Control commercial growth Limit parking thoroughfares Maintain green space	3/16/2017 10:20 PM
144	Ensure good water supply Limit # of new bars	3/16/2017 9:45 PM
145	Financial and regulatory assistance for any property owner - residential or business who needs help with improvement of existing structures in keeping with the Wrightsville Beach Style -meaning a business which has become part of everyday life here or a homeowner who may need help as long as they are willing to keep their property within the existing vernacular. A partnership of local government/zoning/building and the owners who want to keep what they have now. Minimize those who have sell for a teardown. Look to the county for the tax base offset before any more of this community is lost...	3/16/2017 9:01 PM
146	parking, the loop,	3/16/2017 6:16 PM
147	Public transportation from Wilmington.	3/16/2017 6:05 PM
148	Less congestion , more resident friendly	3/16/2017 5:55 PM
149	Restrict the number and size of new residences. Build a sidewalk into the southern side of Causeway Drive.	3/16/2017 5:21 PM
150	Create shuttle parking hereby giving residents/property owners with private parking issues a break	3/16/2017 5:02 PM
151	If possible, the bar hours should be adjusted. Too many patrons from multiple bars are in the street at closing time. Could the bar closing hours be staggered? Is it possible to regulate the hours that the bars are open?	3/16/2017 2:34 PM

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152	create a transportation system that would allow for golf carts on the island(s) - both Harbor Island and Wrightsville Beach proper. This could enhance the experience, slow down traffic, improve parking, weed out some riff raff and create a more desirable beach overall.	3/16/2017 2:10 PM
153	Fix the flood zones for insurance	3/16/2017 1:25 PM
154	more parking options like a trolley more bathroom options for beach goers more options for development in downtown WB	3/16/2017 12:45 PM
155	More dog friendly More recycling friendly	3/16/2017 11:48 AM
156	Control traffic	3/16/2017 11:38 AM
157	Improve Lumina Business District (and secondarily Johnnie Mercer pier area) - types of businesses, walking/biking access along Lumina	3/16/2017 11:20 AM
158	WB could be more flexible in the height restriction and commercial development because without things to do, shop, eat, play, WB would not be what it is today. The town needs more parking and the best way to do that would be to have parking decks and a public trolley system like downtown Wilmington.	3/16/2017 9:50 AM
159	- control traffic better - stop adding parking unless there is a way to add a downtown parking area to support those businesses - better enforcement of smoking, dogs and littering	3/16/2017 9:19 AM
160	Allow the development of the building behind Johnny mercer pier, protect the business district with property tax breaks.	3/16/2017 8:31 AM
161	Town does a fairly good job	3/16/2017 7:59 AM
162	Separate biking/ pedestrian lanes. Encourage small local businesses. Encourage home owners to increase curb appeal of residences.	3/16/2017 7:38 AM
163	Address the broken water system. Needs major repairs. Come up with a plan to replace it.	3/16/2017 7:37 AM
164	curtail the construction of the huge mega-cottages	3/15/2017 10:36 PM
165	Allow dogs year round, decrease parking fees for county residents	3/15/2017 10:12 PM
166	#1 Adequate and properly compensated public safety officials and staff #2 Aesthetic improvements in commercial and common areas (huge gains made in recent years) #3 More protection for foot/bike traffic from auto traffic. Sensible bike policies (take down the ridiculous "no bikes on the sidewalk" signs heading to south end on Lumina. Let's focus on the families that make this place so great!	3/15/2017 10:00 PM
167	Traffic and parking during the summer is a major problem. I can't see to get out of my street and turn onto Lumina without taking my like in my hands.	3/15/2017 9:27 PM
168	that which brings all residents and visitors to the beach is that which is most valuable...the beach! We have to somehow reduce the volume of trash left in the water and on the land: overuse and abuse is a real concern around highly populated areas like johnny mercer's and we need to do a better job of policing both pier areas to crack down on polluting offenders	3/15/2017 9:14 PM
169	Make the downtown area more attractive with shopping and restaurants; not bars.	3/15/2017 8:23 PM
170	reduce speed of cars along Waynick Blvd to make more pedestrian/bike friendly	3/15/2017 8:22 PM
171	Well thought out development of the Harbor Island and Johnnie Mercer's Pier areas. There is too much abandoned / open land that could be put to good use and would benefit both part time and full time residents.	3/15/2017 7:15 PM
172	Preserve commercial districts (restaurants and shopping), so that WB doesn't become just upscale vacation housing. Provide more flexibility in building codes to prevent all new structures from being identical "cubes" with identical heights and identical setbacks. Improve development of Johnny Mercer's pier area to more upscale dining and shopping. Preserve, protect, and promote John Nesbitt Loop.	3/15/2017 5:47 PM
173	Remember the folks that were born and raised here. We never wanted any of this growth. Stop catering to tourists and folks that have no respect for our home. Primary Residents should always come first.	3/15/2017 5:46 PM
174	Build a parking deck.	3/15/2017 4:27 PM
175	Officers out of cars moving traffic in the summer; especially when the bridge closes. FEWER runs, walks, marathons. A way to contact police other than through 911. Tougher policing of drug,drinking areas.	3/15/2017 3:51 PM
176	limit parking for non-resident	3/15/2017 3:33 PM
177	More parking for ease and convenience; more retail uses/restaurants, lower property taxes and add the ability to vote in local elections - taxes and representation!	3/15/2017 3:22 PM

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178	Improve the congestion getting off the beach : drawbridge, Sunday afternoon during season, etc	3/15/2017 3:09 PM
179	Do not allow multi residences on single home lots. Duplexes and quadruplexes, are being built where there once was a single family home Don't let the old MOI building get turned into a parking lot for one business Replace or repair water lines to improve water quality	3/15/2017 2:53 PM
180	planned limitations on growth (building size, density), vehicles	3/15/2017 2:02 PM
181	More benches on beach near access areas. Sidewalks going to north end of beach - walking (and biking) is currently dangerous due to parking and traffic. Generate more revenue from increased parking fees for visitors. Ticket for vehicle noise levels.	3/15/2017 2:01 PM
182	Have the bars close at midnight. My grandmother used to say "There's nothing good going on after midnight", and she was right. How much extra does the town have to pay in extra police presence between the hours of 12:00 and 2:00AM? What percentage of crime happens during those hours? And what percentage of the patrons are tax paying citizens? A very small percentage I bet. Maybe then I wouldn't have to pick my mailbox up from the street in the morning as often.	3/15/2017 1:22 PM
183	Reduce speed limit to 25mph on Waynick Blvd. It is dangerous and noisy now and takes forever to cross as a pedestrian. The rest of the Beach proper is 25 mph. Find a way to close the bars earlier to reduce noise and vandalism. Do something to curtail the noise from the outdoor music at Blockade Runner and Oceanic. It makes sitting on one's porch in the "quiet" evening very unpleasant. It serves only the businesses to the detriment of the residents.	3/15/2017 1:19 PM
184	Maintain status quo as to height restrictions, density, etc. Keep dogs OFF beach.	3/15/2017 12:51 PM
185	limit bridge openings to scheduled times except for emergency, onus on boaters to abide to bridge schedule, not vice versa	3/15/2017 12:33 PM
186	Enforce speed limit on Causeway Drive and Salisbury Street; scale back maximum permitted square footage (i.e. new monstrosity on Auditorium Drive); continue blocking bus access to TOWB; create a bike route parallel to the Loop; permit leashed dogs on the beach year-round - summer hours 7 pm - 8 am.	3/15/2017 12:20 PM
187	--Don't be overly aggressive with zoning modifications. Less has proven to be better! --Recognize that it is impossible to accommodate increased vehicular traffic. --Pursue mainland parking and shuttle options. --Recognize that a second bridge is not a good option. --Encourage more access and use of Masonboro Island while mindful of environmental concerns.	3/15/2017 11:25 AM
188	Less traffic, more cycling and walking paths, public transportation system such as tram or buses that bring people onto the island and off so everyone does not need to park right at the beach all the time.	3/15/2017 11:13 AM
189	Put utilities underground. Remove power lines and poles. Enforce dog poop laws.	3/15/2017 10:59 AM
190	Summer weekends have traffic problems. Cars waiting to get in parking lots block road. It's hard for me to get out of my driveway. Need to keep sitting cars from blocking road way.	3/15/2017 10:54 AM
191	Keep as is. No more commercial businesses on WB. Keep building as is; no height increase over 40' including businesses	3/15/2017 10:47 AM
192	be more appreciative of, and friendly to, owners curbside recycling more annual town events- perhaps with an environmental emphasis more bathroom/shower facilities for day trippers don't threaten to fine owners if they don't bring their trash cans back from street w/i 24 hours- I come for the weekend and can't always do it need to do everything you can to keep and expand the commercial areas- they make the beach fun and different from other beaches like Figure 8 change the surf zone so that it moves up and down the beach like it used to and isn't always in front of one area such as the 300 block of South Lumina	3/15/2017 10:42 AM
193	Beach shuttle service to reduce the traffic and parking woes during high tourism summer days/weekends	3/15/2017 10:24 AM
194	Minimize bridge openings Implement a fine program to force PROPERTY owners of business and residents to clean up their property Bike lanes on Causeway Drive	3/15/2017 5:49 AM
195	traffic flow on and off main island	3/14/2017 7:33 PM
196	Dedicated biking and walking lanes if at all possible. Also, traffic in the summer is horrendous on the weekends - not sure if there's anything to do about that though.	3/14/2017 5:57 PM
197	Allow more flexible height standards in commercial districts to encourage economically viable development; more effective traffic management during the season; encourage more recreational opportunities for visitors.	3/14/2017 5:43 PM
198	Not sure; traffic control would be great but difficult, otherwise great	3/14/2017 4:28 PM
199	Allow development or encourage development of Harbor Island area	3/14/2017 1:41 PM

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200	Physical enhancement of the downtown district; develop Johnny Mercer pier area, clean up trashy homes.	3/14/2017 11:20 AM
201	clean up around bars every night, storm drains near Asheville st., more parking near restaurants	3/14/2017 11:18 AM
202	Bike lanes.	3/14/2017 10:59 AM
203	Roll back public parking to \$2.00 per hour. Clean up Salisbury Street from Kenan Creek to Mercer's Pier. Roll back price on re-entry decals to \$5.00. Roll back Residential hang tag price to \$20.00 and allow them to be used in all parking areas and lots. Install off lead dog park and skate park at WB Park area.	3/14/2017 10:45 AM
204	A dog park in the loop area would be nice and curb side recycling would result in more recycling.	3/14/2017 8:37 AM
205	Revamping the WB park Parking Lighting in the Harbor Way Gardens	3/14/2017 8:02 AM
206	Need to encourage owners to renovate and repair older structures,rather than tearing them all down. Existing structures should be allowed to be raised past the building height limit, if necessary to bring them into compliance with new flood elevation rules.	3/14/2017 7:41 AM
207	No question that the Johnny Mercer's pier area needs to be redeveloped. More attention to pedestrian crossing and biking is critical and for structure for the development and growth plans. The same attention is needed for redevelopment as has been given to how lovely the entrance looks now to the beach. Redevelopment needs to be done intelligently so that we do not end up with the Carolina beach, Coney Island feeling. We also need to do a better job to educate visitors about the Casa between nourishment lifeguards etc. so they understand parking fees	3/14/2017 7:05 AM
208	Improve the water quality.	3/14/2017 6:57 AM
209	build a parking deck and put retail/restaurant /community service on the top.	3/14/2017 6:55 AM
210	safe route for skateboarders & bicycles in lieu of using the street along N Lumina Av between Stone St & Salisbury St	3/14/2017 5:30 AM
211	New bridge, limit traffic on busy beach days, provide safer bike trails to north and south ends, monitor trash cans left out for days, monitor illegal parking on dide streets.	3/14/2017 1:21 AM
212	Trash cans near all beach exits, foot wash	3/14/2017 12:16 AM
213	There needs to be a more encouraging policy to allow the Johnnie Mercer's Pier area to be upgraded. It doesn't need to be extravagant, but what we HAVE now and what the present code ALLOWS now, may keep it from ever being developed in a tasteful way that will be an asset to the Town.	3/13/2017 7:13 PM
214	Some sort of public transport to beach, at least on weekends , to alleviate traffic congestion.	3/13/2017 5:26 PM
215	ban cigarettes, ban plastic bags, provide more recycling containers on beach, create bike only lanes, slow down speeders on N Lumina, widen the Loop with permeable materials; more trash containers on N Lumina	3/13/2017 2:49 PM
216	Visitors are frustrated with the parking. Commercial business's need access to parking for employees. Why are seasonal parking passes not available for businesses? Why can't employees park in Wrightsville Beach park and walk over the bridge to work?	3/13/2017 1:48 PM
217	shuttle service for beach goers	3/13/2017 12:52 PM
218	Do nothing. I feel the small town feel is what makes Wrightsville Beach so appealing. Developing the island's business will commercialize the town and that would be a negative to what is already existing.	3/13/2017 12:26 PM
219	Allow access stuctures (wooden walkways, for example) over the dunes out to the beach, to prevent the erosion of the dunes from foot traffic	3/13/2017 12:06 PM
220	traffic control	3/13/2017 11:32 AM
221	Put pressure on city of Wilmington to stop approving multi family projects on the other side of the bridge. The roads can NOT handle what is here now. The quality of life will continue to erode as they keep approving retail/condos. If the Galleria gets condos, retail, hotel, etc... It could ruin things here.	3/13/2017 11:05 AM
222	Work on Traffic flow if possible, create a Dog Park, more trash cans on the beach, more trash pickup in high season	3/13/2017 10:32 AM
223	More open town council with a better more positive approach to modern planning	3/13/2017 10:15 AM
224	Traffic control & overcrowding.	3/13/2017 9:17 AM
225	There needs to be a railing along the drawbridge walkways for safety Monitor and stop drug traffic and trade in the park Long term traffic plan should have a signal light at the drawbridge area and not a traffic circle. The consultant proposed a traffic circle as a go to for many of their engagements. Bet they have never installed one with a drawbridge. We shouldnot be the first and just shouldn't have one.	3/13/2017 8:11 AM
226	curfew for the bar scene.	3/12/2017 5:26 PM

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227	Better traffic control/direction on weekends in summer. Better control of traffic seeking to enter parking lots, both public and business, such as Oceanic. (Currently, a free-for all every weekend and when college days at beach.) Better protection of dunes, thru better signage and enforcement of regulations. Fewer signs on beach itself near piers. One on each side is enough for legal Town protection!!, Better beach entrance signage. Better enforcement of no trespass regulations. Better drug and speeding enforcement.	3/12/2017 3:34 PM
228	Wrightsville Beach is already way too crowded. I think there should be a moratorium on further development. Also a cease and desist order on all the over the top McMansion building. Wrightsville Beach is losing its charm and has become a place for the super rich---regular people need not apply.	3/12/2017 12:31 PM
229	Bike racks at each beach access, Curbside recycling, enforce leash laws, Bike paths, Keep sidewalks clear of vegetation, Keep bathrooms open year round, Dog park, enforcing no smoking on beaches,	3/12/2017 11:24 AM
230	Keep bathrooms open year round. Keep sidewalks clear of vegetation overgrowth. Have places to lock bikes at all public beach access points. Enforce dogs on leash on beach and enforce no smoking on beach. Have curbside recycling. Open lifeguard spots for parking off season and perhaps at night.	3/12/2017 11:13 AM
231	Open bathrooms February 1. More parking. Parking passes for commercial property owners. More general parking.	3/12/2017 10:36 AM
232	Fight new flood insurance Control drinking/drug issues	3/12/2017 9:32 AM
233	Continue to keep the quality of life on a high standard in Wrightsville Beach by maintaining our good government, maintaining moderate taxes, safety, and a family friendly atmosphere. The Town has provided fair facilities for pedestrian traffic, but more needs to be done, ie perhaps do more to promote pedestrian traffic with more crosswalks, more hawk lights, and give pedestrians right of way over vehicles. Develop an apt to indicate where parking spots are available during peak beach months and make it available to visitors.	3/11/2017 8:12 PM
234	Water quality for potable water most important to me	3/11/2017 6:52 PM
235	As a walkable / biking community we need to link all sidewalks from the south end to the north end and we need to provide bike paths from the drawbridge to the beach. A good possibility for improve bike safety would be implementing bike paths on Causeway Drive when NCDOT next repaves and restripes the area. Also, protecting the commercial areas. One of the charms of WB is the inviting small town atmosphere where you can park your car and walk to restaurants etc. Last, support the smoking ban on the beach that residents voted for via referendum.	3/11/2017 3:05 PM
236	Maintain beaches and residential environment	3/11/2017 2:29 PM
237	ENFORCE your ordinances and laws that are already on the books. Traffic flow is really a problem here from about April to October.	3/11/2017 2:16 PM
238	None - perfect!	3/11/2017 12:03 PM
239	Retrofit Causeway Drive and Harbor Island (Old South Hammocks) to eliminate all overhead electrical, voice data and CTV utilities to be underground; "YET" allowing necessary transformers to be pole elevated out of the flood zones. Driving down Causeway with all the drooping overhead heads looks like tacky cloth lines (Embarrassing). Not to mention having local utility companies (DUKE Power) hacking large clear ways in Live Oak trees that the town tried so hard to place and grow in past fourth (+) years off the Causeway, Salisbury and ninth(+) years on Harbor Island (Live Oak Drive)	3/11/2017 11:40 AM
240	Enforce ALL ordinances currently on the books, i.e., noise, trash, dogs unleashed on the beach, dog poop not picked up ,illegal parking, speeding ,etc.	3/11/2017 11:03 AM
241	Control traffic better, less speeding, beautify the town, better landscaping, get rid of or hide unsightly newspaper and magazine metal boxes at Mercer's Pier parking lot	3/11/2017 10:09 AM
242	Identify a limited number of parcels (i.e. Johnny Mercer's area, around the post office, etc.) conducive for commercial and work with developers to design facilities that would provide more on Island amenities even if it means increasing height. Provide more wide shoulders similar to Salisbury St. for safe biking/walking i.e. along Causeway and the north end of island around Holiday Inn.	3/11/2017 8:23 AM
243	Safe bike paths, traffic control, safer ability to leave South Harbor Island during times of high traffic	3/11/2017 3:46 AM
244	Parking (for beach and businesses) Traffic (motorized, pedestrian & bicycles) More public restrooms & shower access	3/11/2017 1:43 AM
245	Allow flexibility in redevelopment of older commercial structures/settings to maintain dining/retail/office uses on the island. Having walkable restaurants, shopping, etc. is a top three reason I like living at Wrightsville.	3/11/2017 12:27 AM
246	RECYCLING Keep sidewalks clear of vegetation so people can utilize them. Keep public bathrooms open year round. Make more bike paths. More restaurants. Dog water stations.	3/11/2017 12:15 AM
247	Limit bars Find a way to limit parking chaos in summer. Consider counting parking spaces then restrict access when they are 110% full	3/10/2017 11:56 PM

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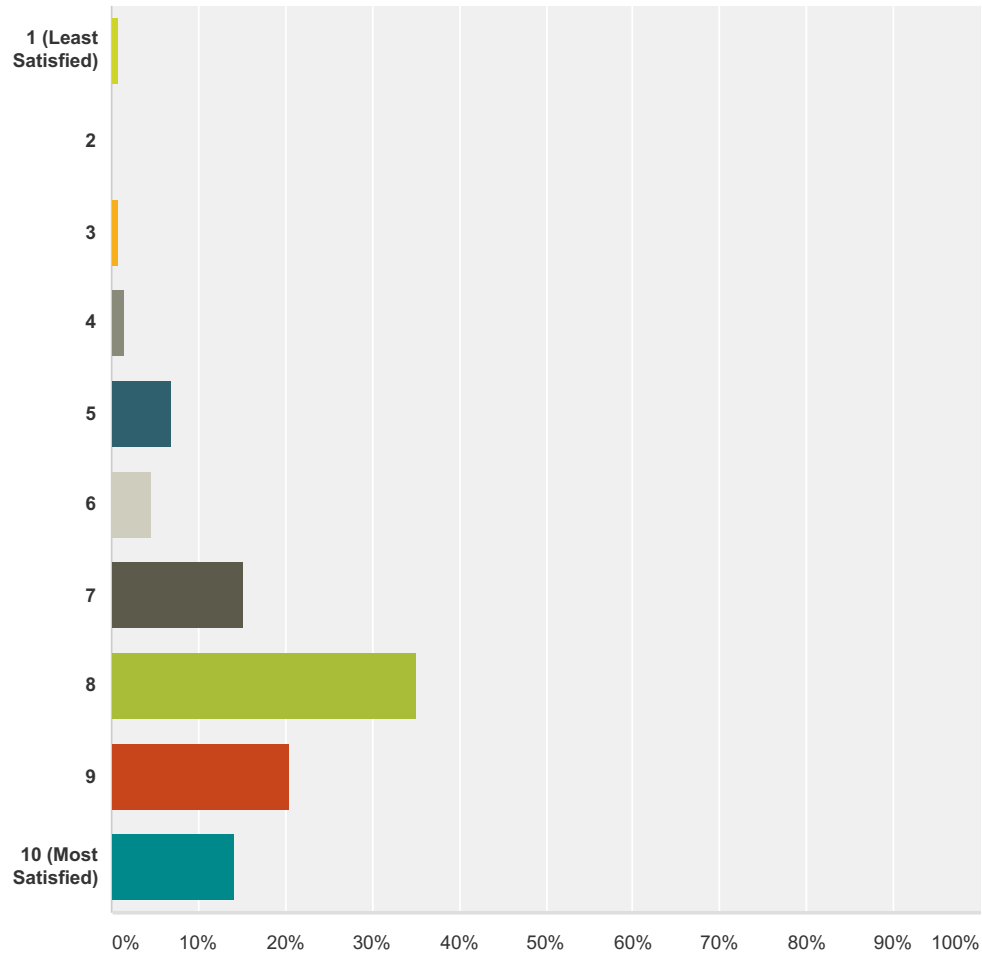
248	Stop raising meter parking costs. Allow more free parking for WB residents.	3/10/2017 10:36 PM
249	The Town should consider really looking at what was created/implemented around the Trolley Stop / Wing's business area (call is C-1-A) . . . that same look would be ideal throughout all the business districts to help create and define some level of uniformity. The brick pavers and planters and plantings are relatively low maintenance and are proving to stand up to a relentless environment of tourism, etc.	3/10/2017 9:49 PM
250	I feel like I have quality of life. I have lived here since 1967 and know of no place I would rather live. My challenge is maintaining what I have with the increases that keep coming along with taxes and water bill fees.	3/10/2017 9:45 PM
251	Bike lanes extending and down the south end of roads along the way. Clearly marked lanes and crosswalks, especially when crossing the n and s bridges onto the beachfront island area Ideally one day, we should prohibit large and loud trucks and 4-wheel drives; they do not reflect our atmosphere , nor are environmentally friendly and only over-ride the roads, and parking; and we would surely all prefer golf carts, let them park on the land-side.	3/10/2017 8:21 PM
252	Access to banks channel with steps at the end of every street.	3/10/2017 7:43 PM
253	Don't nickel and dime property owners for parking passes and vehicle stickers.	3/10/2017 6:34 PM
254	We need mandatory curbside recycling. Ease up on regs for family-friendly businesses esp. on parking requirements for legitimate businesses (not bars), we should have not lost Joe's Crab Shack. Never again allow commercial to residential down zoning. Keep heights low, maintain historic cottage feel, introduce architectural elements requirements. No more bars. Better drinking water. Seriously consider a round-a-bout coming onto beach at 74/76, KEEPING our trees.	3/10/2017 6:33 PM
255	The mobile mats for the beach access, we are a town of all ages who enjoy the beach, the mats that make them handicapped accessible will help everyone. Also we have a lot of residents that are aging, it would be nice to have some sort of support group that people would be able to contact in case additional support is needed in their lives. It could be a volunteering group if needed, but one that family members would be able to reach out to.	3/10/2017 6:24 PM
256	More public parking	3/10/2017 6:04 PM
257	Sidewalks. Wings is a depressingly huge use of space to sell beach junk. I prefer smaller home spun shops/cafes/restaurants - like the new coffee shop that sells sharks teeth, Tower 7, Roberts, Loops, Trolley Stop etc.	3/10/2017 5:54 PM
258	beach nourishment	3/10/2017 5:39 PM
259	Stop speeders and drunk drivers, limit growth and development, continue to maintain the parks and loop.	3/10/2017 5:36 PM
260	traffic flow of people circling residential areas looking for parking (less parking), trash and smoking on the beach, better restaurants	3/10/2017 5:33 PM
261	employee parking lot / parking pass	3/10/2017 3:56 PM
262	preserve commercial we have	3/10/2017 2:20 PM
263	More access to parking for employes.	3/10/2017 12:29 PM
264	Work on ways to limit traffic coming on to the beach during peak weekends, especially holiday weekends. That would be a rather daunting task and I have no idea how/if it could even be done. There are just too many people on the island and there is nowhere for them to go once they get here.	3/10/2017 10:34 AM
265	Continued upfitting of infrastructure such as lighting. Possibly a few new pieces added to the workout area in the park	3/10/2017 2:33 AM
266	Parking!	3/9/2017 10:10 PM
267	Separate bike and auto traffic for safety. Remove BARS from Wings area.	3/9/2017 9:33 PM
268	Greater sensitivity to the preservation of the beach in it's natural state.	3/9/2017 4:06 PM
269	Better and more parking	3/9/2017 12:29 PM
270	Reduce visitors, manage parking off the parking more acutely, develop a bus program on and off the island for day trippers.	3/8/2017 11:18 PM
271	I would like to see garbage cans pulled back & off the street. Many cans are left on the street all the time.	3/8/2017 6:16 PM
272	With the preponderance of short term rentals during the Summer months, Garbage pick-up should be more often by charging a little more per month for the service the cans can be pulled to the street and put back by the garbage men.	3/8/2017 6:07 PM
273	Have a police dispatcher instead of calling 911. Response time much quicker.	3/8/2017 6:01 PM
274	Enforce the no smoking on the beach, less bars and restaurants and more shops.	3/8/2017 5:57 PM

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275	I think Wilmington Wave should come to WB. The water fountains at the loop need major improvement. There also needs to be better lighting for night looping. Parking fee should not start until April 1. Some benches along the loop route are in disrepair. Would love to have additional exercise equip along the loop like there was before there were taken down.	3/8/2017 5:56 PM
276	More parking access and a way to help traffic congestion	3/8/2017 5:40 PM
277	More parking	3/8/2017 5:32 PM
278	parking, parking, parking	3/8/2017 4:57 PM
279	Get rid of the stupid crosswalk signal at the school area. and enforce the one way law in front of the southend surf shop intersection. it is ridiculous an accident waiting to happen.	3/8/2017 4:50 PM
280	Traffic congestion, unrealistic parking expectations (people constantly circling looking for parking), closing half the parking during busy times (only allowing parking on one side of the road), public bathroom access	3/8/2017 3:31 PM
281	Enforcement of existing laws. No Smoking on beach Leash & No Dogs on beach rules Enforcement of noise & late night behavior issues. We need a number of high visibility crosswalks.	3/7/2017 7:05 PM
282	Drastically restrict motorized vehicle traffic that destroys our environment, gridlocks our town and endangers the safety/well being of our citizens. Discernibly improve and incentivize bike, pedestrian and public transportation options for residents and visitors.	3/7/2017 3:44 PM
283	Create safer bike lanes! Residents and visitors should be able to safely bike EVERYWHERE in our small town, and that is not the case. More police presence in the Salisbury to Stone Street during post bar closure hours.	3/6/2017 4:54 PM
284	Deal with congestion	3/2/2017 3:58 PM
285	reconstruction of our business districts, equal application of rules regarding businesses... ie regular inspections by town, county health etc., restructuring of traffic patterns, off island transportation hub to eliminate the need to bring cars onto the beach.	3/2/2017 9:37 AM
286	Don't change much just keep it a family beach. Look after walkers and bicycles. Keep crosswalks marked and educate drivers as to who has the right of way in Heavily marked cross walks. The loop needs to be widened badly.	3/1/2017 8:28 PM
287	- Ban smoking in public and on the beaches - More public dock space at dining outlets - Offer fee-based slips/moorings/launch service for transients/vacationers and ban boats from dropping anchor anywhere in the channel and staying for days on end with no regard for residents	3/1/2017 6:05 PM
288	More parking infrastructure and beach shuttles; more bike and pedestrian-friendly lanes and pathways.	2/23/2017 2:31 PM
289	Restaurants - bring in / encourage / attract better restaurants! Create parking opportunities before people try to go over the bridge to park on Lumina. There is very limited parking once over the bridge and the traffic is ridiculous with people searching for parking.	2/23/2017 12:46 PM
290	more/better restaurants. there is a severe lack of decent dining establishments, more bars than we need yet, little family friendly dining.	2/22/2017 11:04 PM

Q16 How would you rate the Town's efforts at maintaining a clean, safe, and family-friendly beach environment on a scale of 1 to 10, with 1 being least satisfied and 10 being most satisfied?

Answered: 322 Skipped: 61



Answer Choices	Responses
1 (Least Satisfied)	0.93% 3
2	0.00% 0
3	0.93% 3
4	1.55% 5
5	6.83% 22
6	4.66% 15
7	15.22% 49
8	35.09% 113

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9	20.50%	66
10 (Most Satisfied)	14.29%	46
Total		322

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Q17 Please provide a brief explanation for your answer to the previous question.

Answered: 243 Skipped: 140

#	Responses	Date
1	Better maintenance of beach garbage and street trash cans, especially on weekends. Normally on weekends during the summer, the trash receptacles are overflowing with trash. Also the parks and sidewalks need to be better monitored on weekends. One North Lumina Avenue area sidewalks and surrounding areas (from Wings to Johnnie Mercer Pier) needs to be monitored and cleaned by the businesses and/or Town of Wrightsville Beach. Continue to provide landscaping at Wrightsville Beach to provide a more park atmosphere.	6/27/2017 11:45 AM
2	Good job!	6/27/2017 11:36 AM
3	Not enough trash cans on the beach during winter.	6/27/2017 11:35 AM
4	I love the Town. It is a safe, clean, family-friendly place. Thankful for the bird sanctuaries and protection of larger head turtles.	6/27/2017 11:32 AM
5	Strong BOA; great Mayor and Town Manager with great staff; tax rate good and maintained. Concerns: impact of increasing population in surrounding area; impact of student population; traffic, traffic, traffic	6/27/2017 11:29 AM
6	I enjoy Wrightsville Beach. Again, rising parking prices have shunned away the family-friendliness, resulting in little to no visits during parking season.	6/19/2017 10:31 AM
7	After looking at the meetings and feedback to date this looks like a gigantic exercise to garner preferential zoning to a few commercial property owners. The ZONING is what it is. Owners, especially the commercial owners, know the zoning when they purchase a property. It would be a gigantic mistake to change height restrictions.	5/24/2017 1:57 PM
8	The Town has done a great job with WB park with the gazebo structure, movies in the park, band concerts, fitness classes, US Coast Guard classes, and all of the outdoor sports it offers and promotes through clinics or introductory talks (i.e. SUP/Kayak talk by a local outfitter). The traffic congestion is inhibiting the quality of life. It is not only in the summers now. The influx of people into NC is a contributing factor and needs to be addressed at how to best handle all of the people (probably at the State level) but for now WB can deal with it by considering a park and ride for day trippers. Work with Wilmington/New Hanover County to keep Eastwood Rd. from being congested with too much development that will only further traffic problems. Install bike and pedestrian lanes/paths. Reduce the speed on Causeway Drive to help keep pedestrians safe. Protect water quality from the stormwater runoff and reduce flooding. (I think the LID features the town implemented are great!) Encouraging family-style restaurants and limiting the number of bars will help keep WB a family-friendly community. All of the first responders do a great job which helps make Wrightsville a safe place. They are vital to our community.	5/22/2017 11:50 AM
9	Increase in traffic and speed are creating a less safe environment as well as increased air pollution. Water quality is a major concern Decrease energy usage - GO GREEN!	5/22/2017 9:44 AM
10	The board of aldermen also wanted more information from the Wilmington and Beaches Convention & Visitors Bureau before approving the 2017-2018 Wrightsville Beach Marketing Advisory Committee budget of \$575,920 budget is a 12 percent increase over the prior budget. This from the Lumina News With traffic as a gigantic issue why would you advertise for more????????? This is a budget item that should be completely eliminated. If a business (or group of businesses) wants to advertise great, but the general taxpayer funds SHOULD NOT subsidize or fund this. It conflicts with many of the issues facing the town. In the towns current financial situation this is basically a kickback to business and residential rental at the expense of residents. Please stop it NOW!	5/21/2017 7:00 PM
11	They make good rules then don't enforce them, people always with dogs on beach, smoking and drinking	5/18/2017 3:34 PM
12	I would have given a 10 score but I have witnessed many instances of public intoxication that I felt was over the line. The town does a very good job keeping the beach clean and safe.	5/12/2017 9:01 AM
13	The only thing the Town wants is to increase traffic	5/11/2017 4:12 PM
14	I think they do a good job. I can't think of a negative.	5/11/2017 1:22 PM
15	Everything fine except stormwater. Please do not allow increase in height required its for new construction. No more high rise.	5/4/2017 12:17 PM
16	Too many drugs, drunks, traffic. Dont pass laws you cant enforce.	4/25/2017 1:17 PM

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17	Parking rates should compensate town and residents for the issues associated with transient use of the beach. Put parking meters in the park. Increase parking rates. Reduce commercial use and commercial zoning on the island. Maintain building height requirement for ALL new construction. Redevelopment of current commercial areas does not equal abandonment of beach centric zoning or allowing uses that will increase issues we fact like traffic and crime. Redevelopment does not equal giving developers free reign at the expense of town residents.	4/21/2017 9:45 PM
18	Am satisfied with what I see re: question #13.	4/17/2017 8:45 AM
19	Current administration down plays any crime issue, i.e. Drug use and sales, bar closing time,	4/12/2017 10:50 AM
20	The only reason I gave a 7 is I've noticed since they've taken away our trash can on the beach, I have had to pick up a lot of trash that people have thrown in the natural area! Other than that, I would have given a 10! :)	4/11/2017 3:20 PM
21	See number 12	4/8/2017 7:11 PM
22	Over crowding is a growing issue for residents who are paying the bills. Parking rates and fees for transient use should be raised to fund the full cost associated with transient services. Parking rates should be adjusted to move traffic to the desired areas. WB should look for ways to partner with other county beaches to encourage traffic to all area beaches and not just here. I am concerned that the Kimley-Horn traffic circle proposal will not be really workable with a drawbridge and probably will not improve our current situation.	4/2/2017 1:45 PM
23	So far the Alderman have fended off the developers. The Planning Commission - not so much! The Planning Dept recommended against the latest Salisbury/Johnnie Mercer's development, the Planning Commission voted (unanimously?) to approve it and then the Alderman voted it down. Makes me very concerned about the perspective and objectivity of the Planning Commission!	4/1/2017 2:12 PM
24	Those of us who live here year round love our community..Big money has come here & trying to change the beach They came in to enjoy this area and hell bent to change it.. Take a look around, the million dollar homes are not full residences and couldnt care about this beach!!! We need to maintain what we have always cherished and resist the big outside money and the developers Thanks to the Mayor & BOA for protecting our little beach!!	3/30/2017 5:12 PM
25	Over crowding is the biggest problem. Otherwise things are good.	3/30/2017 12:13 PM
26	Overall they do a great job. A lot of litter on weekends in the downtown district every morning from the late night The Trolley Stop, Vito's pizza and beer cans. Not saying to punish the businesses but they should be more prudent in cleaning those areas in the morning.	3/29/2017 3:56 PM
27	I am very satisfied.	3/29/2017 3:42 PM
28	Traffic seeking parking when there is none creates frustration and leads to danger for cyclists and pedestrians.	3/28/2017 3:35 PM
29	while we do have a clean, safe, beautiful environment	3/28/2017 2:20 PM
30	Everything seems very clean - no complaints.	3/28/2017 11:58 AM
31	No complaints. see my points above.	3/28/2017 11:18 AM
32	Residents are not informed of all the crime occurring on the beach. Gives a false sense of security	3/27/2017 8:46 PM
33	I think providing more access to recycling could help further the cleanliness of the town and the beach. Maybe Wrightsville Beach police could be more strict on enforcing littering citations. I run the Loop on a weekly basis and have noticed a few street lights are out, which is a safety issue for walkers/runners after the sun goes down. The town could be more efficient at replacing street lights when they go out. Overall though I do believe the town is very family friendly and is a safe environment.	3/27/2017 12:09 PM
34	clean beach great police	3/27/2017 11:58 AM
35	I think more can be done to make sure the downtown area is safe, especially during weekends	3/27/2017 10:47 AM
36	You are doing a good job now. Wrightsville could be more predestrain and bike friendly. One simple thing wyou be to restripe all crosswalks and educate the public about NC laws regarding crosswalks.	3/27/2017 10:00 AM
37	overall a great place to live, always room for improvement	3/26/2017 7:38 AM
38	Do a good job	3/25/2017 8:00 PM
39	Should always have room for improvement!	3/25/2017 6:44 PM
40	Bike lanes would help with safety and so would lights around the loop. It would feel safer if the loop were lighted.	3/25/2017 6:08 PM
41	Curbside recycling would help, Traffic control, and bars crowd control would help	3/25/2017 1:22 PM
42	As mentioned, public drinking and near public nudity on the beaches takes away from the family atmosphere. In fact, I would not necessarily call it a family beach anymore but one more like Myrtle Beach, with a fair amount of public drunkenness and immodest dress.	3/25/2017 11:04 AM

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43	The lack of trash receptacles on the beach and in town and the frequency of their emptying of them create an eyesore in the town Consider a new strategy for pet waste - the problem is worsening and unhealthy and unsanitary	3/25/2017 10:26 AM
44	Step up police patrols of rowdy kids and drinking on beach.	3/24/2017 9:37 PM
45	We have a home on Columbia Street, in the late day and evenings as the downtown area fills with folks, the party atmosphere can get pretty intense, We expected this, and have even enjoyed participating in the 17 years since we bought our house....but it has grown old and we look forward to it becoming more family friendly.	3/24/2017 8:14 PM
46	I live in a high traffic area with few positive improvements.	3/24/2017 5:37 PM
47	Overall a good job. I requested a lighted crossing from Pelican to Salisbury. It is very dangerous crossing there. We have 5 children and use that crossing frequently. Speeders and it also being in a curve makes that crossing extremely dangerous. I was told it was to expensive and not in the budget.	3/24/2017 5:27 PM
48	Excellent government, reasonable tax rate, excellent police and fire, great Public Works.	3/24/2017 5:06 PM
49	It's the best! Always has been and hopefully always will be!	3/24/2017 4:48 PM
50	I think the town does a great job overall.	3/24/2017 4:45 PM
51	BARS.....There has to be something that could be done to eliminate them.....they smell, are ugly and a problem for anyone close by and for anyone that is in the path of bar patrons....They steal and urinate on private property.	3/24/2017 4:36 PM
52	People Still littering the beach	3/24/2017 4:09 PM
53	The beach and the waterways themselves are very nice. During the summer months in particular, the town could do more trash patrol and encouragement of recycling. I am sure that tourists would recycle more if given bins, verses taking them to the municipal park. It would also be nice to give business/building owners incentive to beautify their businesses with awnings, paint, artistic bike racks and more public art in general.	3/24/2017 3:42 PM
54	The bar scene in the early morning can get out of control.	3/24/2017 3:29 PM
55	Enforce the pet laws especially the pickup ordinance. More fecal coliform is reaching the sounds because of slack pet owners and lack of enforcement. There are more pets (and squirrels) on Harbor Is. than any time during the past (40) years.	3/24/2017 3:00 PM
56	I think it's safe and family friendly, but it could be a bit cleaner. We are not green, there is lot of concrete and no curbside recycling. I feel like we are behind a bit and need the charm back.	3/24/2017 2:15 PM
57	Never see a police car on our street.they dont really patrol like they used to.Start giving out real tickets instead of warnings. Try cleaning up the downtown area and get better controll of the drunks!!	3/24/2017 1:23 PM
58	Recruiting and keeping quality employees will improve safety and cleanliness.	3/24/2017 1:22 PM
59	The Town does a very good job but the mass of tourist at times causes problems for locals. We do not like folks throwing trash on the beach and street, cars parking on our property and dogs pooping on our lawns. We need to limit the number of tourist. When the beach is too crowded everyone suffers.	3/24/2017 1:21 PM
60	The town needs to improve the traffic congestion, especially on holiday weekends; keep the cars from driving around for hours looking for parking spaces that do not exists	3/24/2017 1:18 PM
61	I think the town employees do a stellar job as well as the police and fire and ocean rescue. Always room for improvement but overall we love where we live.	3/24/2017 12:53 PM
62	Beach is always clean. I feel safe. Lifeguards are tops.	3/24/2017 12:24 PM
63	Traffic pedestrian traffic around Crystal Pier. Surfers should have their boards inpounded when breaking surfing areas. I t can be VERY DANGEROUS to swimmers!!!	3/24/2017 12:23 PM
64	It's a great place with a ton of positives. Safe, clean, great restaurants and very active island. Encourage the races, surfing and fishing tournaments, vendors in the park and expand the loop. The tide lifts all boats....	3/24/2017 12:21 PM
65	I feel that TOWB has focused too little on improving the quality of life of permanent residents and far too much on attracting transient visitors. (1) much higher meter pricing and a reduction in the number of parking spaces to reduce flow, and (2) eliminating establishments that attract low-class visitors (Wings, Lagerheads, Red Dogs) would greatly improve the experience of those of us who LIVE HERE AND PAY THE MAJORITY OF TAXES! There seems to be no recognition on the part of town officials and BOA that we are the ones who elect them, while they tend to ignore the voters' interests.	3/24/2017 12:19 PM
66	The town of WB does an excellent job for the most part. I think some political correctness at time and financial influence keep them from attaining a 10 level though.	3/24/2017 12:15 PM
67	It is family friendly which we love	3/24/2017 12:08 PM

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68	Garbage cans should be brought back behind the house line after pick-up. Numerous rental houses are junky with belongings in the yard, garbage cans left on the street constantly, beer cans, etc. thrown in the yards. This really makes a negative impression when driving down streets.	3/24/2017 11:56 AM
69	There is always room for improvement	3/24/2017 11:54 AM
70	What towb does, they do well. But when things are not on their agenda, those things get short shrift. Thank you for asking!	3/24/2017 11:47 AM
71	Always room for new ideas and improvements but feel that the Town is doing a good job of maintaining the quality of living at Wrightsville Beach.	3/24/2017 11:47 AM
72	Things get a little crazy in the summer. People have gotten more brazen about blaring music on the beach. I recently saw people with a large amplifier on the beach blasting music. Things like that compromise the character of the town. It's almost as if people are setting up DJ booths on the beach. At the very least, there should be a noise ordinance enforced on the beach strand.	3/24/2017 11:47 AM
73	The town does a great job managing many diverse interests	3/24/2017 11:38 AM
74	visible public safety presence by lifeguards and police is very satisfactory.	3/23/2017 6:18 PM
75	WB has maintained its family friendly feeling but has also limited business success by not being practical which then limits what products/ services are offered at the beach to both residents and visitors	3/23/2017 11:57 AM
76	Town does good job and police keep it safe needs to continue with growth.	3/23/2017 10:53 AM
77	The issue of Human waste violations is a major issue. We have people right outside our door going to the bathroom. There needs to be more signs near the beach entry points and awareness to the violation.	3/23/2017 9:11 AM
78	It feels like it used to be much higher. I think they do the best they can on keeping it clean, but it is seeming less safe and less family friendly over the last few years at night. tHere does seem to be less drunkenness on the beach, but still so overcrowded.	3/22/2017 3:54 PM
79	The town works hard with the residents and community to provide a clean safe orderly community.	3/22/2017 1:41 PM
80	A great beach, but too many cars.	3/22/2017 12:44 PM
81	During our visits, areas are clean & free of debris. Appreciate the new parking rules to keep vehicles off shoulders.	3/21/2017 11:44 AM
82	The police do not seem approachable, they sit in their cars and appear that they are just ready to give a ticket. Get out walk more and smile.	3/21/2017 11:37 AM
83	The bars detract from the "family-friendly" experience	3/21/2017 5:39 AM
84	I still feel very safe here. Police presence important to maintain after recent neighborhood break-ins and drug issues. Happy with town's response to a serious situation.	3/20/2017 8:46 PM
85	The town's pride in it's beach is evident everywhere you go, and the police are very present yet not overbearing.	3/20/2017 5:11 PM
86	I firmly believe the beach trash barrels should be emptied twice daily during the high season Perhaps starting this on weekends initially: it is very discouraging & unsightly to see overflowing barrels, not to mention the liter on the ground migrates to other areas such as towards the dunes and/the waters.	3/20/2017 3:45 PM
87	The town seems to have focused current resources well. The challenge is to keep up.	3/20/2017 10:35 AM
88	I feel the town does a good job of keeping Wrightsville Beach clean and family friendly considering the number of people that visit the beach in the summer time but again, it has reached a point of exceeding capacity in my opinion so does make it difficult to visit and get around during the summer months.	3/20/2017 10:33 AM
89	The town is doing a great job. It gets crowded sometimes but it's beyond my imagination to have a solution.	3/20/2017 10:32 AM
90	We are new to Wrightsville. Our experience so far has been one of a clean environment, friendly and some what safe (but need a bike lane and more speed traps as people drive way too fast). It concerns me a bit that our growth can overshadow the beauty and quaintness that draws so many people to the island. I think updating and cleaning up the business area would be a great start. The businesses look old, dirty and do not represent well the feeling that most people have on the island. The appearance of a location is what will draw people in. We don't need more, we need to clean up and enhance what we have. There are so many great things about the island that get lost when you see concrete buildings and store fronts that look like they are out of business, etc. It is great to see police out, as safety is a big concern. We want people to feel they have come to a unique and exiting place when visiting, that will bring them back....regardless of how many stores we have lining the streets.	3/20/2017 9:28 AM
91	I believe their needs to be more bar/restaurant choices for the town.	3/20/2017 7:44 AM
92	Generally I think the town staff police and fire do an excellent job.	3/19/2017 7:46 PM

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93	Redevelopment plans should provide adequate parking and sidewalk space. Stop smoking and drinking on the beach Promote full service restaurants not just bars To make the loop work the sections thru the Robert's area need to be improved and the sidewalks widened. Maybe eliminate the street parking on the loop side. Vary parking rates by area to balance daily visitor demand with parking supply. There is a clear limit to the beach resource beyond which everyone's enjoyment is diminished. The town should work with other area beaches to encourage tourist to visit those areas and not just Wrightsville beach that could balance the capital needs facing Wrightsville beach Redevelopment should pay enough in fees to fully offset the capital cost incurred by the town Finally, parking and other fees should be set to fully cover the towns cost incurred beyond those needed to support the property owner and business base.	3/19/2017 7:10 PM
94	Seems to be a clean environment and our new park equipment has been a great addition for families. Also, the concerts in the park are fun for all.	3/19/2017 10:10 AM
95	The family friendly beach environment is the thing that attracted us and kept us returning until we made this our home.	3/18/2017 8:49 PM
96	The beach is very pleasant during the off season, but crowding during the season makes the beach less clean and safe.	3/18/2017 8:36 PM
97	Wrightsville is a delight, but overcrowding is a significant problem during peak times. It is fragile and crowds must be limited. The ecosystem of the Island must be guarded and protected.	3/18/2017 8:36 PM
98	Wrightsville beach has the most unique combination of resource access and positive attitude towards its residents and users	3/18/2017 4:24 PM
99	See #12 Increased times and cost of parking without regard to public/visitors just to cover your expenses/taxes :(It is a beautiful beach, and you get to live there; please help others enjoy it as well	3/18/2017 4:14 PM
100	Great place to raise a family.	3/18/2017 3:17 PM
101	traffic congestion, lack of bike lanes and safety for biking and pedestrians.	3/18/2017 11:59 AM
102	The trash cans and signs near beach entrances	3/18/2017 11:16 AM
103	I have been very impressed with the cleanliness of the beaches and the town and park. The recycling center is excellent.	3/18/2017 10:39 AM
104	I think prohibiting an adult from enjoying a cold beer on the beach is insane. You punish responsible people because drunks don't pick up their trash or drink in moderation. Punish those offenders, not someone just quietly eating their lunch on the beach.	3/18/2017 10:10 AM
105	Family friendly	3/18/2017 9:22 AM
106	Plastic is an issue. Straws, plastic bags, other plastics are still allowed on the island.	3/17/2017 11:44 PM
107	Wrightsville Beach has consistently been one the cleanest beaches I've ever been to. It is also very safe, and has a great community atmosphere. Once you go to Wrightsville, you'll never want to go to Carolina Beach or Topsail again. You guys have done an incredible job of maintaining the integrity of the island. Keep up the good work.	3/17/2017 11:24 PM
108	The employees seem to be doing a good job, but there is only so much that can be done until the town and the voters want to make a change from the place WB has always been to the place it has the potential to become.	3/17/2017 9:24 PM
109	Comparing now to 15 years ago: crime is higher traffic is worse development plan has placed too much emphasis on increasing commercial and retail development	3/17/2017 7:13 PM
110	I believe that if you allow the trolley to bring people to the beach, you will have cleaner, happier visitors.	3/17/2017 4:59 PM
111	committed but attention to detail and repair is required	3/17/2017 4:55 PM
112	It is one of the cleanest beaches on the east coast that I've visited. I think the parking restrictions actually keep it less crowded and trashy than other beaches. I also appreciate the no alcohol on the beach.	3/17/2017 2:06 PM
113	Many of the public access are dangerous, poor care of stairs and lack of care for the public actually being able to use the public access (example-south end access that was recently filled with cement stones making it inaccessible).	3/17/2017 1:51 PM
114	I believe the beach stays relatively clean, but the public accesses are not safe as noted above by their maintenance. Personally, I ended up in the emergency room from falling on a broken step at one of the public accesses and they are very challenging to really give access to those that use it most (kayakers, SUP's, etc.) with having the stairs at many access points. Now for the accesses without steps that are full of cement rocks the situation is even more dangerous. I have lived at WB and grown up coming here all of my life, I would love to see it provide friendly and safer access points to all, versus only those that live full-time in their own property on the beach continuously benefit.	3/17/2017 1:46 PM
115	Great place	3/17/2017 12:47 PM

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116	I feel less safe after dark in the Lumina bar/restaurant area and should not have to worry about people being drunk and disorderly leaving the beach in the summer in the middle of the day. Enforce the current laws of alcohol consumption on the beach strand and reel in the night time conduct.	3/17/2017 12:36 PM
117	Compared to other beaches visited with similar number of visitors, WB actually over-achieves with this metric.	3/17/2017 11:07 AM
118	Maintaining main park	3/16/2017 10:20 PM
119	I feel safe living in WB, there are lots of green spaces, neighbors care, town services are exceptional.	3/16/2017 9:45 PM
120	Police protection is evident. Beach is clean - Smoking has been outlawed. Street Sweeper and clean streets.	3/16/2017 9:01 PM
121	its good but could be improved	3/16/2017 6:16 PM
122	Good government, police, fire, services.	3/16/2017 6:05 PM
123	Clean beach, great public safety coverage	3/16/2017 5:55 PM
124	The town does an incredible job preserving the area, but the overcrowding and development is beyond the capacity of the islands. It is threatening the charm and the sustainability of the area.	3/16/2017 5:21 PM
125	Massive increase in public parking has destroyed the family atmosphere. In other words the insatiable desire for revenue has overtaken the desire for a family beach. With this, the residents now pick up the dirty diapers and thrash, watch beach patrons urinating and defecating in their yards. You get the message.....and then receiving the tax notices.	3/16/2017 5:02 PM
126	I am particularly pleased with the Wrightsville Beach Police Department. They have consistently provided exceptional service for which I am most appreciative.	3/16/2017 2:34 PM
127	I think they are doing a good job but feel there is always room for improvement!	3/16/2017 2:10 PM
128	It's well managed	3/16/2017 1:25 PM
129	No significant concerns. Drinking water quality should always be a top priority and an issue we have had concerns with over the years.	3/16/2017 11:48 AM
130	Need to control traffic. Don't need more crowds or more parking	3/16/2017 11:38 AM
131	Overall, quite good. Lumina business district (and Johnnie Mercer's pier) could be made more desirable through increased walking/biking access along Lumina and types of businesses	3/16/2017 11:20 AM
132	The beach is clean and the town does a good job of maintaining the parks and other public facilities	3/16/2017 9:50 AM
133	Traffic is a nightmare because cars stop traffic by not pulling to the sides while waiting to get in lots and while waiting to get into spots. Police on bikes should monitor this better. More parking only aggravates this. Find another way to generate revenue or we will lose what makes Wrightsville Beach special and devalue all property.	3/16/2017 9:19 AM
134	Wrightsville Beach is a wonderful place to live and also seems to be a wonderful place for people to visit and enjoy	3/16/2017 7:59 AM
135	Need to address water quality/repair issues. Otherwise, the town is doing a good job on safety, cleanliness, and livability issues for beach residents.	3/16/2017 7:37 AM
136	overall town does a good job of keeping all things under control---in a tough social environment---i'm generally satisfied	3/15/2017 10:36 PM
137	Harbor Island residential areas need stepped up police presence (north and south). Maybe it is everywhere but that is where we live. Residents need to be Moreno supportive of our police force. How can we work together better?	3/15/2017 10:00 PM
138	Overall very satisfied. Would like to see parking spaces reduced for better visibility. Would like Pier area cleaned up and developed with quality restaurants and shops.	3/15/2017 9:27 PM
139	police presence is important in maintaining safety.	3/15/2017 8:22 PM
140	Parts of the Island are virtual college dorms for UNCW and sometimes detracts from the overall, otherwise wonderful Wrightsville Beach experience.	3/15/2017 7:15 PM
141	None of these have ever been an issue for me.	3/15/2017 5:47 PM
142	All you have to do is look at other NC beach municipalities to see the answer!	3/15/2017 4:27 PM
143	Area around station one does not feel safe at night. If bars are can not improve, they need to be closed. We don't need them! Late night drinkers walk wherever and damage mail boxes, etc. Policing should be tougher. Although prohibited by ordinance, there are balcony and pier lights; not enforced.	3/15/2017 3:51 PM
144	great services. well controlled environment for safety	3/15/2017 3:33 PM
145	I think the island(s) are clean and well kept.	3/15/2017 3:22 PM

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146	#13 is non functioning . My answer to it is a 7. Wooden boardwalks from Lumina Ave thru the dunes would protect that sensitive area from increasing pedestrian foot traffic.	3/15/2017 3:09 PM
147	The employees of the town do an outstanding job	3/15/2017 2:53 PM
148	very clean, very safe. i don't have young kids but still don't love the amount of drinking and bar atmosphere late at night (noise, crime - not serious but DUI, public intoxication, etc.)	3/15/2017 2:02 PM
149	Safety on North lumina needs to be improved for walkers and bikers.	3/15/2017 2:01 PM
150	Have the bars close at midnight and I'll give you a 10.	3/15/2017 1:22 PM
151	I think the police department does a very good job dealing with the various issues that arise at a beach community. Also, Tony Wilson and his department do a good job in maintaining the integrity of the building code and zoning issues.	3/15/2017 12:51 PM
152	Trash on the beach and the public accesses continues to be an issue, not enough trash cans	3/15/2017 12:33 PM
153	Wrightsville Beach is clean, safe (unless you're riding your bike on Causeway), and family-friendly; however, permitting the building of massive structures (hard to call them "homes") is changing the feel of residential areas. And, if changes are permitted in commercial areas (Lumina business, Harbor Island, Johnnie Mercer's and Crystal Pier), these changes should be financed by the incoming businesses and developers, not by the tax payers.	3/15/2017 12:20 PM
154	Wrightsville Beach has been very fortunate over the years to have residents and business owners who have been very active in controlling the town's growth in a manner that has maintained a good family atmosphere while maximizing public access and facilities. Issues related to the increase in day traffic to the island would seem to be our greatest planning concern.	3/15/2017 11:25 AM
155	There is a lot of traffic that is usually circulating just to find a parking spot during the summer months. A better option would be to increase parking in certain spots, maybe off island and increase the use of public transport or pedestrian walk ways, so visitors can access all parts of the town without using their own vehicle.	3/15/2017 11:13 AM
156	There are too many people leaving dog poop everywhere! Enforce the law. Tag dogs and require a DNA sample like some other semi closed communities to identify abusers. Spot check for dog licenses and fine on the spot. Use the fees to fund the DNA program and heavily fine abusers. The word will get out and the problem will solve itself.	3/15/2017 10:59 AM
157	It is not safe for children or families to have the traffic bsituation I described on N Lumina.	3/15/2017 10:54 AM
158	Beaches are kept clean. Beach patrol and police patrol are very good. Need to enforce open container laws and smoking more diligently. Oceanic trash at road is very offensive smelling.	3/15/2017 10:47 AM
159	Doing a good job with litter on streets and beach	3/15/2017 10:42 AM
160	Traffic enforcement and ticketing overkill. A New Year's eve license stop at 7 pm is ridiculous and frankly emblematic of the "got ya" attitude of our police force which reduces respect for the dedicated force.	3/15/2017 10:24 AM
161	Town staff needs to walk every street and recognize the quantity of trash and junk stored on properties not only business but residential. Due to number of rentals in the Town, massive amounts of junk piled under and around homes. PROPERTY owners need to be fined (not the tenant), Many areas look like a third world country.	3/15/2017 5:49 AM
162	the town has done a good job on the beach but he accesses are not as good as they should be. some are over grown with cactus plants on both sides encroaching.	3/14/2017 7:33 PM
163	I think the Town does a really great job, especially Parks and Rec and the police. It's a truly wonderful place to live. I wish that alcohol was allowed on the beaches again. It's nice to be able to enjoy a beer or glass of wine on the beach without thinking you are going to get "caught" as an adult year-round resident. I've had visitors say that they were caught and it was embarrassing. But, people just want to enjoy themselves sometimes with an alcoholic beverage on the beach. I understand it is because tourists weren't picking up after themselves but surely there is another solution than penalizing everyone.	3/14/2017 5:57 PM
164	With the exception of more effective litter enforcement the Town does and excellent job of ensuring the safety and "rich folks."	3/14/2017 5:43 PM
165	small town feeling; adequate police and fire protection; good public services	3/14/2017 4:28 PM
166	The Town is torn between retaining the old charm and wanting to grow. It is time for the CAMA to develop a plan that incorporates and retains the charm but allows for more business opportunities other than restaurants. There are many coastal towns in NC that have been able to balance charm and growth (New Bern, Southport). We need some forward thinking to develop a long term plan that will allow for both.	3/14/2017 11:20 AM
167	We could do better cleaning up litter.	3/14/2017 11:18 AM
168	Cleaning up the beaches, providing trash cans. Given the number of beach goers the beach is quite clean.	3/14/2017 10:59 AM

Wrightsville Beach CAMA Land Use Plan Survey

169	Shame on the town for charging residents to haul off lawn debris.	3/14/2017 10:45 AM
170	They are doing a good job. We don't want Wrightsville to turn into another Myrtle Beach!	3/14/2017 8:37 AM
171	I think we are allowing to many large events that disrup traffic.	3/14/2017 7:41 AM
172	Overall the areas kept pretty clean. There is a greater need for pedestrian crossings and several areas where there are a lot of families crossing Lumina or crossing from the loop to shopping areas. There are a lot of cigarette butts around the pier, which needs to be improved.	3/14/2017 7:05 AM
173	It seems like there is always an effort to keep WB tip top. The only problem is the quality of the water.	3/14/2017 6:57 AM
174	due to lack of parking the town is often over-run with aggravate people looking to park and go to the beach Street side parking contribute to traffic , pollution, litter environmental degradation and and is an unsafe way of accommodating the people coming to the town	3/14/2017 6:55 AM
175	qudos to our public works crew for a great job on cleanliness. when you (a female) feel totally safe to run the loop in the dark at 5:00am, there are not that many places on the Wilmington side of the bridge that I would feel as safe as I do here. Family friendly-the various offerings at town center, concerts,movies in the park, the loop, enforced no smoking, drinking on the beach all add to the family friendly atmosphere	3/14/2017 5:30 AM
176	It is not clean, safe and family friendly on busy weekend and holiday beach days. You can't get home in 30 minutes when excess cars are looking for non-existent parking spaces. Cars park in driveways and on non-parking streets and block access to get to or from our homes. With limited bridge access, don't allow marathon type events that attract more people, cars, etc. Limit access to town hall areas to residents on busy days so we can get to tennis courts, playgrounds, etc. that we pay for (or charge non-residents a parking fee).	3/14/2017 1:21 AM
177	I believe we have a responsible town management and staff. I believe the BOA and various volunteer committee members give freely of their time, keep their finger on the pulse of what is going on, and ultimately do what THEY BELIEVE is best. One possible problem is that the desires of the majority of stakeholders aren't necessarily known to the decision makers, so this sort of survey is very important in terms of keeping everyone informed and on the same page.	3/13/2017 7:13 PM
178	Limited no of high rises down on beach so it is not over crowded and sun is not blocked. Police protection and visibility. some rest rooms available.	3/13/2017 5:26 PM
179	no need to be so stringent about drinking beer on beach strand, just keep it reasonable	3/13/2017 2:49 PM
180	Once again, not business friendly, parking too expensive, rest room facilities dirty and closed at times before the official season opens.	3/13/2017 1:48 PM
181	We need more trash cans and dog bags. We find trash and dog waste in our yard. Also the bar scene creates a negative. Too many intoxicated people walk up our street and are very loud. Also many people have been seen coming from the beach and urinating wherever they feel: on the street, in bushes and behind homes.	3/13/2017 12:26 PM
182	No complaints or suggestions, just a fan of constant improvement so	3/13/2017 12:06 PM
183	I think they are doing a good job. What eventually gets approved by Johnie Mercer's pier will be very important to keeping things family friendly.	3/13/2017 11:05 AM
184	there is just so much the town can do when there is such an influx of people on a daily basis in season. Maintaining cleanliness is most important	3/13/2017 10:32 AM
185	Too much police presence via speed traps and not enough on the ground foot/bike and community policing.	3/13/2017 10:15 AM
186	We applaud the efforts. However we feel the rate of growth happening immediately around us (over the bridge) is proving hard to keep up with.	3/13/2017 9:17 AM
187	Monitor and stop drug deals in the park Monitor drunks walking down the streets leaving the BARS	3/13/2017 8:11 AM
188	As City and Town has become more crowded, more loss of quality of life issues. Need to pay police better and demand more sophisticated enforcement of items mentioned above. Augment with on foot or bicycle enforcement.	3/12/2017 3:34 PM
189	The beach patrol is a little uptight. I would like to see them relax a little, especially in regards to allowing dogs (off leash) during the winter months.	3/12/2017 12:31 PM
190	Some trash on the beach including cigarette butts.	3/12/2017 11:24 AM
191	They are doing a great job but there is room for improvement.	3/12/2017 11:13 AM
192	Would prefer more family-oriented, less nightlife atmosphere	3/12/2017 9:32 AM
193	Continue with good government, keep taxes moderate, maintain good quality of life, maintain safety, and improve our family friendly atmosphere for all.	3/11/2017 8:12 PM

Wrightsville Beach CAMA Land Use Plan Survey

194	I think Wrightsville Beach is one of the best beaches in the world for families to visit because it is so beautiful, clean and safe for all.	3/11/2017 6:52 PM
195	The town needs to do its best to support the beach strand smoking ban. WB is the only community in the state whose residents supported a ban via referendum. Cigarette butt receptacles and the signage created by WBES students needs to be placed at all beach accesses. The town also needs to empty the receptacles. Reinstating the beach ambassador program would go a long way in educating beach goers about the ban, especially since every summer brings thousands for new visitors to our beach. The lack of an effort by the town to support this ban is disappointing in light of the fact that the referendum passed by a 2 to 1 margin with over 1,000 votes FOR! Finally, we need bike paths and improved sidewalk connectivity for the safety of residents and visitors.	3/11/2017 3:05 PM
196	Great job but there's always room for improvement.	3/11/2017 2:29 PM
197	Trash and animal waste seems to be an ongoing problem that nobody, except for Mr. Slocum, wants to deal with it. This is a small town and for certain employees to consider certain task not their job is inexcusable. We also need some kind of remedy for the traffic issue.	3/11/2017 2:16 PM
198	Have always enjoyed Wrightsville Beach. Keep up the great work.	3/11/2017 12:25 PM
199	Stellar job	3/11/2017 12:03 PM
200	Personal pride being raised and living on Harbor Island for sixty years. (Places of residence: Island Drive, Causeway (Ole Harbor Inn Hotel, family owned) Pelican Drive, and presently Live Oak Drive	3/11/2017 11:40 AM
201	See #12 above	3/11/2017 11:03 AM
202	Could do better at beautifying area. It often seems town staff could care less. It's like pulling teeth to get any movement out of staff. We need to pay the police better and in general recruit more proactive staff members who care more about how the town looks and who take pride in doing their jobs very well.	3/11/2017 10:09 AM
203	The downtown area is disgusting. Both town and business/property owners need to work together to improve this very visible area. Also, vacant buildings like the old Scotchman and MOI should not be allowed to stay in disrepair.	3/11/2017 8:23 AM
204	Area around JM pier still questionable..	3/11/2017 2:22 AM
205	Wrightsville Beach is the safest place I have ever lived. The family atmosphere makes it a truly idyllic setting for anyone. Although there are many demographics residing on the island I believe the majority of residents want what's best for the beach, their neighbors, & themselves. Truly a remarkable town. One area for improvement would be the Board taking better care of the existing businesses and maintaining an open mind regarding growth for new businesses in the area. The shabby chic beach town look is beginning to look worn out.	3/11/2017 1:43 AM
206	Public areas appear relatively clean though some dog owners on loop need 're-education.' Feel quite safe with police presence and to some degree effect of the drawbridge one access point. No real opinion on family friendly efforts. Under objections of families near the downtown bars but they (the bars) do not dominate the atmosphere like in downtown Wilmington or some other towns.	3/11/2017 12:27 AM
207	I would give an 8 or 9 but one time I called the police and they took 20 minutes to respond to my call. There are lots of dogs that I have seen off a leash even though there is a rule for dogs to be on a leash. There is lots of dog poop around even though I think there are plenty of dog bag stations.	3/11/2017 12:15 AM
208	I think the town does a great job of keeping the facilities streets etc in good shape	3/10/2017 11:56 PM
209	The town is making it impossible for families to enjoy the beach or even support the local restaurants and shops with the crazy parking rules and regulations. More money for less time.	3/10/2017 10:36 PM
210	In baseball (3) out of (10) is doing really well . . . so I give the town about a (7) out of (10). Clean -- we do about the best we can to be good stewards of the ocean & sound waters. The trash crew does a great job at picking up 'macro' trash that is obvious and in plain site. The businesses need to step it up here and the town could potentially help them. The business owners are too focused on turning a buck (not all, but many) . . . and do not train their staff to go outside to pick up 'micro' litter/trash . . . Josh Vach at Tower 7 is a great example of an owner that pushes his staff to get outside with trash tongs and pick up . . . Generally speaking the biz owners will say 'its not my trash, why should i pick it up' . . . what a terrible attitude. Safe -- I give a (10) out of (10) for safety on this beach. Between (fire) - (ocean rescue) - (police) . . . i wouldn't change a thing. All of these public servants are stellar. Family Friendly -- It is tough with WB becoming more and more of an 'urban' beach. There are so many different user groups interacting down here on a daily basis. Overall we certainly are family friendly. As the Town does a better job educating folks on how to park, where to use public restrooms, etc . . . We become a better family friendly beach. I've seen so many families drive all day or night to get to this beach. Once they are here, they do no know what to do or where to go. The businesses play a vital role in being the field service/direction providers for many families. All in all, the internet is very helpful now that most folks visiting WB are doing a little research before they pack the van and head our way during the summer.	3/10/2017 9:49 PM

Wrightsville Beach CAMA Land Use Plan Survey

211	Atmosphere on the beach has improved in the past couple years so far as vulgar language, smoking and behavior of those drinking. This is good for families with young children. Please keep it up.	3/10/2017 9:45 PM
212	The Board and citizens of W. B. are dedicated to protecting our land, estuaries, and not in favor of raising roof limits, and adding chain-restaurants being acceptable. We are dedicated to of course, providing what our tourist industry needs to be successful, yet the beach and town are our jewels in this eastern N. C. segment, where water is often clear enough when the Gulf Stream pushes water ashore, our estuaries are obviously being protected, more turtle nests are here, and after all- isn't this what a beautiful beach town should always maintain?	3/10/2017 8:21 PM
213	People smoke on the beach even though prohibited.	3/10/2017 7:43 PM
214	Would nice if you actual enforced penalties for owners not cleaning up after dogs around the loop.	3/10/2017 6:34 PM
215	You can always improve! Too hard to open a business. The new police officers are still pretty green. Sanitation does and excellent job. Boardwalk into marsh proposal off town hall complex would be a good addition. Water coming from faucets is horrible.	3/10/2017 6:33 PM
216	We live on the south end of the island, definitely family orientated. My grandson goes to Wrightsville Beach Elementary and goes to the park and rec center three times a week for after school care. It is a perfect old fashioned atmosphere. I know people complain about the college students and the downtown, but we do go downtown on the weekends to eat and listen to music. Yes there is rowdiness there occasionally but the police presence usually holds it down. This is to be expected at any beach town and I feel our police force handles it well.	3/10/2017 6:24 PM
217	Great impression wherever you are.	3/10/2017 6:04 PM
218	Sidewalks.	3/10/2017 5:54 PM
219	It's a clean, beautiful beach!	3/10/2017 5:39 PM
220	too many speeders on Lumina especially. I would be happy to sit on my deck with a speed gun if you want to deputize me.	3/10/2017 5:36 PM
221	I think the amount of college kids and bar rowdiness, trash on the beach, VERY noisy parties and constant circling on residential streets of people looking for parking is causing the summers in WB to be very unpleasant for permanent residents	3/10/2017 5:33 PM
222	Geat place	3/10/2017 2:20 PM
223	Needs improvement.	3/10/2017 12:29 PM
224	I think the Town does a great job with the number of people we have here - residents, tourists, day trippers.	3/10/2017 10:34 AM
225	I had a hard time answering any of the previous questions because I find myself nothing but satisfied when at Wrightsville Beach.	3/10/2017 2:33 AM
226	See number 12	3/9/2017 9:33 PM
227	The bar scene is not family friendly. I visited Rio, Brazil months ago and the beach is full of areas to work out, and public workout classes. It makes the whole beach more attractive and more open, there is also a dedicated bike lane because biking and reduced emissions is preferred! This would be awesome in Wrightsville, and those tourists here without a bike can park off the island and take a bus in. Less cars, more family friendly traffic, this sounds like a safer beach that's better for the environment too!	3/8/2017 11:18 PM
228	Garbage cans, & some houses are junky looking. Police/fire are great. Feel the height limit should be 60 feet to accommodate cama regulations. Hard to build mixed use & improve a location without this leeway.	3/8/2017 6:16 PM
229	I think the beach is well kept and well patrolled.	3/8/2017 6:07 PM
230	Being able to contact the police directly instead of calling 911 would really help. When WB had a dispatcher, the response time was faster.	3/8/2017 6:01 PM
231	During the summer our beaches suffer from party time and the selfish and irresponsible smokers and drinkers who leave their trash everywhere.	3/8/2017 5:57 PM
232	Wrightsville Beach is beautiful even with the amount of traffic that comes on and off the island.	3/8/2017 5:32 PM
233	Cleanliness is hard in the summer, but some more receptacles and RECYCLING would be great.	3/8/2017 4:57 PM
234	Cops do a great job!	3/8/2017 4:50 PM
235	Smoking & cigarette butts increasing on the beach. Lare night bar behaviir spills into the resudentual areas...every night. Along with beer cans etc.	3/7/2017 7:05 PM

Wrightsville Beach CAMA Land Use Plan Survey

236	The WBPD and FD are excellent. The Ocean Rescue team does a similarly outstanding job. The Parks and Recreation Department provides excellent and meaningful services. The Mayor and Alderman need to improve in the following areas: 1. Raise parking rates/increase parking revenue/restrict motor vehicle access to the town 2. Incentivize bike/ped/public transportation options 3. Allow for responsible mixed use development in key areas (Mercer's/Middle of the Island/Scotchman/Pizza Hut lots) 4. Provide curbside recycling	3/7/2017 3:44 PM
237	responsible consumption of alcohol on beach strand should be permitted	3/6/2017 10:23 PM
238	The town seems to be trying to maintain the beach environment, but maintaining is not enough. We need to improve. I don't understand why we don't look to other coastal towns more often to see what is successful in other areas. There are so many coastal towns along the eastern seaboard just like ours that we could learn from. Traffic, parking, beach maintenance, tourists- none of these issues are unique to WB.	3/6/2017 4:54 PM
239	We have need for better beautification and clean up in some public areas but over all our town does a great job.	3/2/2017 9:37 AM
240	Please don't change from a nice family beach to too much development. Development can stay west of the bridge. Thank you for allowing property owners to have a say!	3/1/2017 8:28 PM
241	The town is extremely safe and pleasant and has not become overpopulated or too much of a bar scene.	3/1/2017 6:05 PM
242	The Town of Wrightsville Beach puts in a great deal of effort to maintain a clean and safe beach environment. I would give a perfect score if it weren't for the necessity for redevelopment in certain areas like Mercer's Pier.	2/23/2017 2:31 PM
243	town/beach is very well kept	2/22/2017 11:04 PM

**TOWN OF WRIGHTSVILLE BEACH
2017 CAMA LAND USE PLAN UPDATE
CITIZEN PARTICIPATION PLAN**

Introduction

The Town of Wrightsville Beach has initiated the preparation of an updated CAMA Land Use Plan for the Wrightsville Beach planning jurisdiction. The final document will serve as land use plan for future public investment to achieve the community's overall vision. The intent of this project is to draft a plan that will maintain the positive attributes of the existing Plan, while identifying new and strategic development goals and policies, and also new and strategic public initiatives supported by the community.

Recognizing that a collaborative effort with the public is essential, the initial step in the planning process is the adoption of this Citizen Participation Plan (CPP) by the Wrightsville Beach Board of Aldermen. Approval of the CPP was accomplished on November 10, 2016.

CAMA Land Use Plan Steering Committee

A CAMA Land Use Plan Steering Committee is established by the adoption of this plan. This committee will:

- Supervise the preparation of a draft CAMA Land Use Plan for presentation to the Wrightsville Beach Planning Board. (Upon recommendation of the Planning Board, the Plan will be presented to the Wrightsville Beach Board of Aldermen);
- Act in an advisory capacity to the Town staff, Consultant, Planning Board, and Board of Aldermen during the preparation of the draft CAMA Land Use Plan;
- Adhere to the terms of the scope of work included in the contract for consulting services with Holland Consulting Planners, Inc., dated October 13, 2016. Deviations from the scope of work will not be allowed without the express consent of the Wrightsville Beach Board of Aldermen.
- Review and comment on all sections of the draft plan throughout its preparation;
- End its responsibilities with the recommendation of a draft plan to the Town of Wrightsville Beach Planning Board.

The committee is composed of twelve (12) members representing diverse interests, and includes the following members appointed by the Wrightsville Beach Board of Aldermen:

- | | |
|------------------|-----------------------------|
| 1. Jim Busby | 7. Robert A. O'Quinn |
| 2. Susan Collins | 8. William E. Sisson, Jr. |
| 3. David Culp | 9. James C. Smith |
| 4. Jeff DeGroote | 10. Frank Smith, Jr. |
| 5. Pat Koballa | 11. Calvin Wells |
| 6. Darryl Mills | 12. Allen Rippy (alternate) |

Meetings

All Steering Committee meetings will be conducted in an open format which will encourage public involvement/engagement. The Steering Committee will conduct up to seven (7) work sessions, including one (1) with the Board of Aldermen, to prepare the draft CAMA Land Use Plan. All meetings of the Steering Committee will be advertised, posted on the project and Town websites, and open to the public. At a minimum, the following meetings will be conducted throughout the plan preparation process:

- Up to six (6) 1-1/2 hour work sessions of the Steering Committee and one (1) work session with the Board of Aldermen (total of seven [7] work sessions) will be conducted. At each Steering Committee meeting, the location, date, and time of the succeeding meeting will be determined. All meetings will be advertised, posted on the project and Town websites, and open to the public.
- A mid-project public review meeting to report overall project status and to obtain public input on progress to date. This meeting will be scheduled approximately six (6) months into the project, and will provide a summary of all data and issues identification obtained to date in the process.
- Submittal of draft plan to the Steering Committee by the consultant. Following approval of a draft plan by the Steering Committee, one (1) open house meeting for public review will be conducted to allow the public to question and comment on the draft plan.
- A meeting with the Town Planning Board for presentation of the plan.
- Submittal of plan to the Board of Aldermen for consideration.
- Presentation of the final plan at a public hearing.

Rules of Conduct

The Steering Committee will adopt specific rules of procedure for its conduct. These rules should define at a minimum:

- Advertising of committee meetings.
- Designation of Chairperson/Vice-Chairperson.
- Controlled opportunities for public input/comments at meetings.
- Meeting locations.
- Steering Committee meeting schedule objectives.
- Decision-making procedures/guidelines.

Public Notification

To ensure that the public is informed of meeting times and has access to the draft CAMA Land Use Plan throughout this process, the following steps will be taken:

- Notices of all public meetings will be advertised in a non-legal advertisement section of The Lumina News newspaper, in addition to being placed in the Town Municipal Building.
- Notices of all public meetings will be e-mailed to civic groups and other interested groups (to be determined by Town staff).
- The project team will create and maintain an interactive project-dedicated website to both collect and disseminate information regarding the project. The draft plan (as well as all notices) will be posted on this CAMA Land Use Plan website so that citizens may either review the document online or print it out. Information regarding the project website will be posted in The Lumina News newspaper, Town Municipal Building, and on the Town's official website.
- Notices of all meetings will be posted on the project website, The Lumina News, and the Town's official website at <http://www.townofwrightsvillebeach.com/>.

Dissemination of Information

The following procedures will be utilized to ensure the availability of information:

- Copies of the draft plan will be placed at the Municipal Building for citizen review, as well as being available at all meetings to ensure that the citizens in attendance can review items being discussed.
- The draft Plan will be posted on the Town of Wrightsville Beach CAMA Land Use Plan website as it is developed for online review or printing. Information regarding the location of the document online will be included in all published notices of Steering Committee meetings.
- Sections of the proposed plan will be provided to the Steering Committee prior to any meetings at which the draft plan section(s) will be discussed.
- Copies of the draft plan or sections of the draft plan may be obtained from the Municipal Building.

Public Comment

Throughout the process, the public will have the following opportunities for input:

- At each Steering Committee meeting, time will be allocated for public comments and/or questions.
- At any time during the preparation of the draft Plan, the public may obtain information and/or offer comments via e-mail.
- A citizen (including absentee property owners) survey for widespread distribution and posting on project website will be developed and will be open for 60 days from the date of initial distribution.
- The town-wide mid-project status meeting/public input session, Steering Committee work sessions, open house, and public hearing will all provide additional opportunities for public input and questions.
- Sign-up sheets will be placed in the Wrightsville Beach Municipal Building. Individuals who place their names on this list will be mailed or e-mailed notices announcing meeting times for review of the CAMA Land Use Plan.
- Social media will be utilized on an as-needed basis.

Schedule

The CAMA Land Use Plan planning process will utilize the following schedule:

<u>Project Task</u>	<u>Timeframe</u>
Issue Notice to Proceed	October 2016
Project Initiation	October-November 2016
Research and Analysis	November 2016-January 2017
Plan Format/Development	November 2015-March 2017
Open House	April 2017
Public Hearing	May 2017

NOTE: This schedule may be subject to change as project milestones are achieved and depending upon the length of time required to receive CAMA review comments.

U.S. Fish & Wildlife Service

Endangered Species, Threatened Species, Federal Species of Concern, and Candidate Species,

New Hanover County, North Carolina



Note: Marine Threatened and Endangered Species information can be found at the [National Marine Fisheries Service \(NMFS\) Endangered and Threatened Species website](#)

Updated: 4-2-2015

Critical Habitat Designations:

Piping plover - *Charadrius melodus* - See the Federal Register for a description of the primary constituent elements essential for the conservation of wintering piping plovers within the designated units. This document also contains a map and a description of each designated unit.

Federal Register Reference: July 10, 2001, Federal Register, 66: 36038-36136.

Loggerhead Sea Turtle - *Caretta caretta* - See the Federal Register for a description of the primary constituent elements essential for the conservation of nesting Loggerhead sea turtles within the designated units. This document also contains a map and a description of each designated unit.

Federal Register Reference: July 10, 2014, Federal Register, 79:51264-51266

Common Name	Scientific name	Federal Status	Record Status
Vertebrate:			
American alligator	<i>Alligator mississippiensis</i>	T (S/A)	Current
American eel	<i>Anguilla rostrata</i>	FSC	Current
Carolina gopher frog	<i>Rana capito capito</i>	FSC	Current
Eastern painted bunting	<i>Passerina ciris ciris</i>	FSC	Current
Green sea turtle	<i>Chelonia mydas</i>	T	Current
Hawksbill (=carey) sea turtle	<i>Eretmochelys imbricata</i>	E	Historic
Kemp's (=Atlantic) ridley sea turtle	<i>Lepidochelys kempii</i>	E	Current
Leatherback sea turtle	<i>Dermochelys coriacea</i>	E	Current
Loggerhead sea turtle	<i>Caretta caretta</i>	T	Current

Mimic glass lizard	<i>Ophisaurus mimicus</i>	FSC	Historic
Northern long-eared bat	<i>Myotis septentrionalis</i>	T	Current
Northern pine snake	<i>Pituophis melanoleucus melanoleucus</i>	FSC	Current
Piping plover	<i>Charadrius melodus</i>	T	Current
Rafinesque's big-eared bat	<i>Corynorhinus rafinesquii</i>	FSC	Current
Red-cockaded woodpecker	<i>Picoides borealis</i>	E	Current
Red knot	<i>Calidris canutus rufa</i>	T	Current
Southeastern myotis	<i>Myotis austroriparius</i>	FSC	Current
Southern hognose snake	<i>Heterodon simus</i>	FSC	Current
West Indian manatee	<i>Trichechus manatus</i>	E	Current
Invertebrate:			
Buchholz's dart moth	<i>Agrotis buchholzi</i>	FSC	Current
Cape Fear threetooth	<i>Triodopsis soelneri</i>	FSC	Current
Eastern beard grass skipper	<i>Atrytone arogos arogos</i>	FSC	Obscure
Greenfield rams-horn	<i>Helisoma eucosmium</i>	FSC	Historic
Loammi skipper	<i>Atrytonopsis loammi</i>	FSC	Obscure
Magnificent rams-horn	<i>Planorbella magnifica</i>	FSC	Historic
Rare skipper	<i>Problema bulenta</i>	FSC	Current
Vascular Plant:			
Bog St. John's-wort	<i>Hypericum adpressum</i>	FSC	Historic
Carolina bishopweed	<i>Ptilimnium ahlesii</i>	FSC	Current
Carolina lead-plant	<i>Amorpha georgiana</i> var. <i>confusa</i>	FSC	Historic
Coastal beaksedge	<i>Rhynchospora pleiantha</i>	FSC	Current
Coastal goldenrod	<i>Solidago villosicarpa</i>	FSC	Historic
Cooley's meadowrue	<i>Thalictrum cooleyi</i>	E	Current
Dune blue curls	<i>Trichostema</i> sp. 1	FSC	Current
False coco	<i>Pteroglossaspis ecristata</i>	FSC	Historic
Golden sedge	<i>Carex lutea</i>	E	Probable/Potential
Grassleaf arrowhead	<i>Sagittaria weatherbiana</i>	FSC	Current
Pickering's dawnflower	<i>Stylisma pickeringii</i> var. <i>pickeringii</i>	FSC	Current
Pondspice	<i>Litsea aestivalis</i>	FSC	Current
Raven's boxseed	<i>Ludwigia ravenii</i>	FSC	Historic
Rough-leaved loosestrife	<i>Lysimachia asperulaefolia</i>	E	Current
Sandhills milk-vetch	<i>Astragalus michauxii</i>	FSC	Historic
Seabeach amaranth	<i>Amaranthus pumilus</i>	T	Current
Small-leaved meadow-rue	<i>Thalictrum macrostylum</i>	FSC	Current
Spring-flowering goldenrod	<i>Solidago verna</i>	FSC	Current
Tough bumelia	<i>Sideroxylon tenax</i>	FSC	Historic
Venus' fly-trap	<i>Dionaea muscipula</i>	FSC	Current

Nonvascular Plant:**Lichen:****Definitions of Federal Status Codes:**

E = endangered. A taxon "in danger of extinction throughout all or a significant portion of its range."

T = threatened. A taxon "likely to become endangered within the foreseeable future throughout all or a significant portion of its range."

C = candidate. A taxon under consideration for official listing for which there is sufficient information to support listing. (Formerly "C1" candidate species.)

BGPA = Bald and Golden Eagle Protection Act. See below.

FSC = Federal Species of Concern. FSC is an informal term. It is not defined in the federal Endangered Species Act. In North Carolina, the Asheville and Raleigh Field Offices of the US Fish and Wildlife Service (Service) define Federal Species of Concern as those species that appear to be in decline or otherwise in need of conservation and are under consideration for listing or for which there is insufficient information to support listing at this time. Subsumed under the term "FSC" are all species petitioned by outside parties and other selected focal species identified in Service strategic plans, State Wildlife Action Plans, or Natural Heritage Program Lists.

T(S/A) = threatened due to similarity of appearance. A taxon that is threatened due to similarity of appearance with another listed species and is listed for its protection. Taxa listed as T(S/A) are not biologically endangered or threatened and are not subject to Section 7 consultation. See below.

EXP = experimental population. A taxon listed as experimental (either essential or nonessential). Experimental, nonessential populations of endangered species (e.g., red wolf) are treated as threatened species on public land, for consultation purposes, and as species proposed for listing on private land.

P = proposed. Taxa proposed for official listing as endangered or threatened will be noted as "PE" or "PT", respectively.

Bald and Golden Eagle Protection Act (BGPA):

In the July 9, 2007 Federal Register (72:37346-37372), the bald eagle was declared recovered, and removed (delisted) from the Federal List of Threatened and Endangered wildlife. This delisting took effect August 8, 2007. After delisting, the Bald and Golden Eagle Protection Act (Eagle Act) (16 U.S.C. 668-668d) becomes the primary law protecting bald eagles. The Eagle Act prohibits take of bald and golden eagles and provides a statutory definition of "take" that includes "disturb". The USFWS has developed National Bald Eagle Management Guidelines to provide guidance to land managers, landowners, and others as to how to avoid disturbing bald eagles. For more information, visit <http://www.fws.gov/migratorybirds/baldeagle.htm>

Threatened due to similarity of appearance(T(S/A)):

In the November 4, 1997 Federal Register (55822-55825), the northern population of the bog turtle (from New York south to Maryland) was listed as T (threatened), and the southern population (from Virginia south to Georgia) was listed as T(S/A) (threatened due to similarity of appearance). The T(S/A) designation bans the collection and interstate and international commercial trade of bog turtles from the southern population. The T(S/A) designation has no effect on land management activities by private landowners in North Carolina, part of the southern population of the species. In addition to its official status as T(S/A), the U.S. Fish and Wildlife Service considers the southern population of the bog turtle as a Federal species of concern due to habitat loss.

Definitions of Record Status:

Current - the species has been observed in the county within the last 50 years.

Historic - the species was last observed in the county more than 50 years ago.

Obscure - the date and/or location of observation is uncertain.

Incidental/migrant - the species was observed outside of its normal range or habitat.

Probable/potential - the species is considered likely to occur in this county based on the proximity of known records (in adjacent counties), the presence of potentially suitable habitat, or both.