Town of Kure Beach, NC

2022 Comprehensive Land Use Plan

Adopted: November 21, 2022
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CAPE FEAR COUNCIL OF GOVERNMENTS

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ACKNOWLEDGEMENTS

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MATRIX OF REQUIRED ELEMENTS

Chapter 1: Introduction

Introduction to the Land Use Plan Process

The Town of Kure Beach, like most coastal communities in southeastern North Carolina and northeastern South Carolina, has seen steadily increasing growth and development in its jurisdiction over the last thirty years. This increase in development has been primarily attributed to increases in tourism and increases in the retiree population relocating to coastal areas. The desire to live in and visit coastal areas has inevitably led to certain types of development and land uses that place stress on those very characteristics that make the coast a desirable place to be. Land use planning can play an integral part in avoiding or mitigating some of the negative side effects of development by anticipating potential problems and establishing management goals and policies that align with the desires of the citizenry.

The U.S. Congress initiated the first structured form of coastal land use planning in the country with the passage of the Coastal Zone Management Act (CZMA) in 1972. CZMA encouraged coastal states to preserve their coasts by establishing programs to manage and protect coastal resources. North Carolina passed its Coastal Area Management Act, known as CAMA, in 1974. CAMA established the Coastal Resources Commission (CRC) to guide growth and development in the 20 coastal counties. CAMA also provided a program framework for regulating development activity in coastal areas and required local land use planning in the 20 coastal counties.

The Function and Utility of the Land Use Plan

There are four key functions of a land use plan. First, a land use plan provides a source of information for establishing public policy and making growth and development decisions. The planning process helps provide knowledge and understanding of the local area's population, demographics, economy, natural

environment, community capacity for growth, and overall development trends. Second, a plan's policies provide guidance for future decision-making on public and capital investment, as well as zoning and other development regulations. The third function of a plan is to provide a preview or predictor of future government action. The public, local government staff, and developers are better informed and able to understand and predict how a government will make decisions if a plan is in place and its policies are followed. The fourth function of a plan and the ongoing planning process is to provide the general public, the Planning & Zoning Commission, staff, and elected officials the opportunity to address and discuss issues important to the local area and to shape policies and regulations to best meet the goals of the community.

Kure Beach's Land Use Plan provides guidance to local decision-makers seeking to achieve the community's long-term vision. This process allows public officials, staff, and other stakeholders to be proactive rather than reactive in maintaining Kure Beach's status as one of the finest family oriented coastal communities on the East Coast of the United States. This plan builds on the five previous land use plans prepared by Kure Beach beginning in 1976 and most recently updated in 2007. It encompasses all geographic areas in the community; considering issues of future land use, development, and natural resource protection. The plan is long-range in nature and looks beyond current issues to address potential future land use and environmental issues over the next 10 to 15 years and beyond.

THE CAMA PERMIT PROCESS

The Coastal Area Management Act (CAMA) requires permits for any development in specially designated areas called Areas of Environmental Concern (AEC). In Kure Beach, AECs are generally those areas that are in close proximity to water (ocean, river, creeks, etc.) or marsh (wetlands). A CAMA permit must be acquired if a development project meets all of the following conditions:

- The project is located within one of the 20 coastal counties of North Carolina;
- The project is considered "development" under CAMA;
- The project is within, or affects, an Area of Environmental Concern established by the Coastal Resources Commission (CRC);
- The project does not qualify for an exemption.

WHAT QUALIFIES AS A CAMA REGULATED DEVELOPMENT PROJECT?

Besides construction of residential and commercial buildings in an Area of Environmental Concern, "development" also generally includes activities such as dredging or filling coastal wetlands or waters, and construction of marinas, piers, docks, bulkheads, oceanfront structures and roads. The Coastal Area Management Act (NCGS 113A-103(5)(a)) defines a development project as: "any activity in a duly designated area of environmental concern involving, requiring or consisting of the construction or enlargement of a structure; excavation; dredging; filling; dumping; removal of clay, silt, sand, gravel or minerals; bulkheading; driving of pilings; clearing or alteration of land as an adjunct of construction; alteration or removal of sand dunes; alteration of the shore, bank or bottom of the Atlantic Ocean or any sound, bay, river, creek, stream, lake or canal".

WHAT IS AN AREA OF ENVIRONMENTAL CONCERN (AEC)?

According to the Division of Coastal Management's (DCM) CAMA Handbook for Development in Coastal North Carolina, protecting and managing Areas of Environmental Concern is the basis for the CAMA permitting program. An AEC is generally an area of natural significance, which requires special management because it may be easily destroyed by erosion, flooding, or human activity; or it may have environmental, social, economic, or aesthetic value that make it a valuable resource. The CRC designates particular areas as AECs to protect them from unmanaged development, which may cause irreversible damage to property, public health, or the environment. AECs cover almost all 'navigable' coastal waters and about 3 percent of the land in the 20 coastal counties. As mentioned earlier, in Kure Beach the AECs are generally those areas that are in close proximity to water (ocean, river, creeks, etc.) or marsh (wetlands).

The Coastal Resources Commission has established the following categories of AECs:

- The Estuarine and Ocean System (coastal wetlands, public trust and estuary waters, and estuarine shoreline);
- The Ocean Hazard System (ocean erodible setback area, un-vegetated beach area, and inlet hazard area);
- Public Water Supplies (small surface water supply watershed and public water supply well-fields); and
- Natural and Cultural Resource Areas (coastal complex natural areas, coastal areas that sustain remnant species, unique coastal geologic formations, significant coastal archaeological resources and significant coastal historical archeological resources).

A development project is likely in an AEC if it is:

- in, or on the shore of, navigable waters within the 20 CAMA counties;
- on a marsh or wetland;
- within 75 feet of the normal high water line along an estuarine shoreline;
- near the ocean beach (e.g. within 60'-120');
- near an inlet;
- within 30 feet of the normal high water level of areas designated as inland fishing waters by the N.C. Marine Fisheries Commission and the N.C. Wildlife Resources Commission;
- near a public water supply; or
- within 575 feet of Outstanding Resource Waters defined by the Environmental Management Commission.

For more information on the CAMA Handbook for Development in Coastal North Carolina and for mitigating steps required during development, please visit the Division of Coastal Management website or contact the Kure Beach Building Inspections Department.

WHAT ARE THE TYPES OF CAMA PERMITS?

There are currently three types of development permits: major permits, general permits, and minor permits. The Division of Coastal Management (DCM) makes permit decisions after considering agency and public comments, and after determining whether a proposed project meets CRC rules and is consistent with the policies of the local government's land use plan.

The CAMA permit system is divided into major and minor permits based on the potential impacts and size of a development project.

Major permits are necessary for activities that require other state or federal permits (such as stormwater and sedimentation control), for projects that cover more than 20 acres, or for construction covering more than 60,000 square feet. Applications for major permits are reviewed by 10 state and 4 federal agencies before a decision is made.

Minor permits are required for projects, such as single-family houses, that do not require major permits or general permits. Permits are reviewed, issued and administered to CRC standards by local governments under contract with the Division of Coastal Management.

General permits are used for routine projects that usually have little or no threat to the environment.

Some development may be authorized by an exemption certificate. Section 103(5)(b) of the Coastal Area Management Act exempts the following activities from permitting requirements:

- road maintenance within a public right-of-way;
- utility maintenance on projects that already have CAMA permits;
- energy facilities covered by other laws or N.C. Utilities Commission rules;
- agricultural or forestry production that doesn't involve the excavation or filling of estuarine or navigable waters or coastal marshland (Note: these activities are not exempt from permitting requirements under the state's Dredge and Fill Law);
- agricultural or forestry ditches less than 6 feet wide and 4 feet deep;
- emergency maintenance and repairs when life and property are in danger; or
- the construction of an accessory building usually found with an existing structure, if no filling of estuarine or navigable waters or coastal marshland is involved.

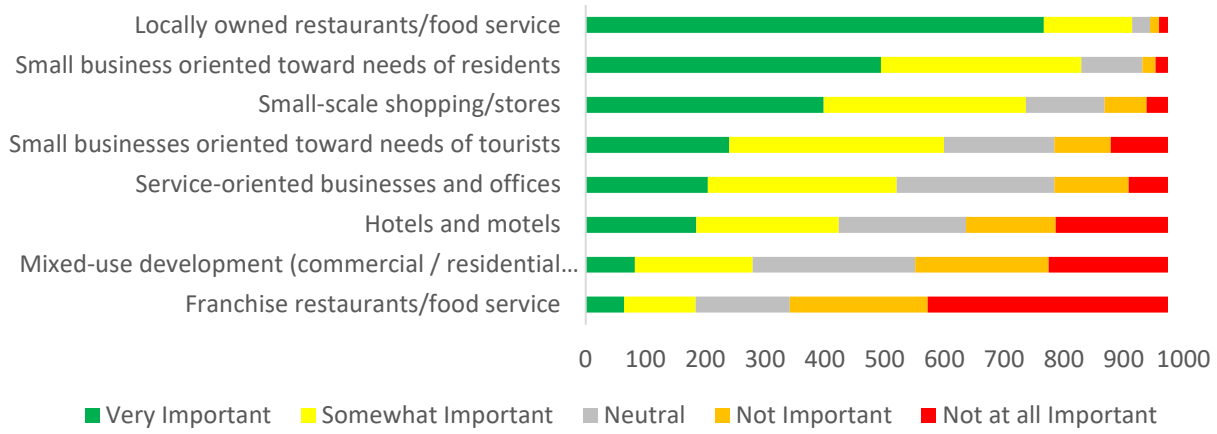
Public Involvement and Community Survey Results

Formulating policies based on community consensus covering a wide range of issues relies on adequate public involvement. In addition to providing the public an opportunity to provide their input regarding the future of the community, a land use plan is intended to inform the public on the importance of planning, the role their town government plays in managing development, the possible impacts of changes in land use, and the utility of preserving natural resources.

The most significant source of public input came as a result of the community survey. A total of nearly 975 respondents completed the survey, more than 90% of whom were property owners. The survey was available primarily online but was also available in hard copy format. The survey was designed to determine the most significant priorities for Kure Beach and to reaffirm public opinion regarding growth management and development.

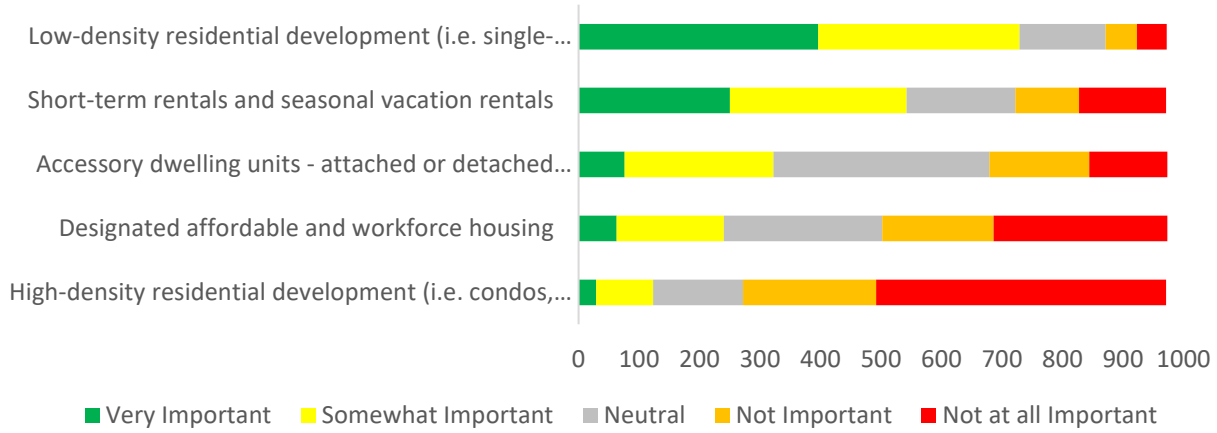
COMMUNITY SURVEY RESULTS

Question 1: How important are the following business and commercial activities to the future of Kure Beach?



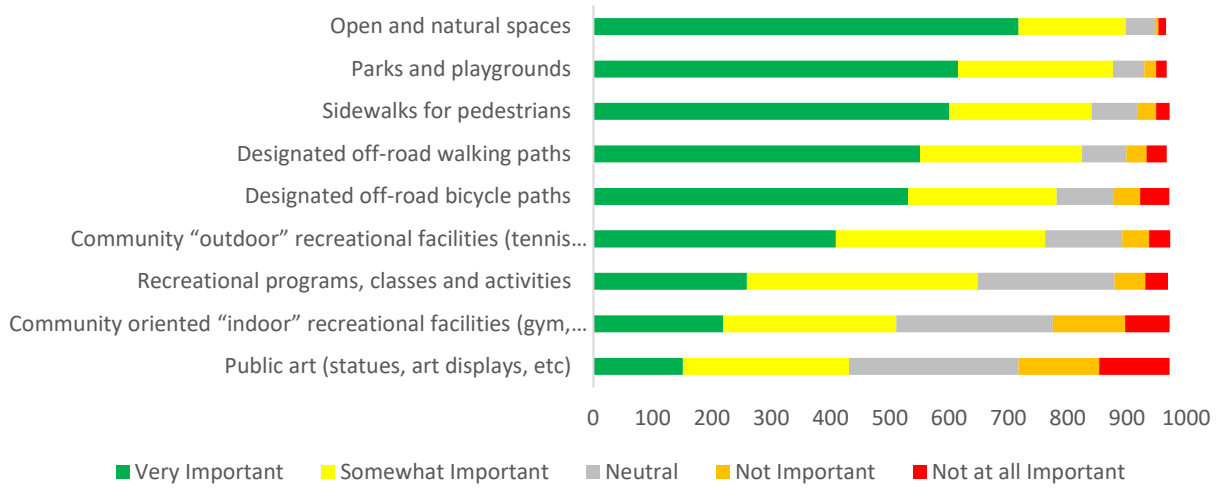
When asked how important certain business and commercial activities are to the future of Kure Beach, the majority of respondents selected locally owned restaurants, small business oriented towards residents' needs, and small-scale shopping as the most important. The least important option in the eyes of respondents was franchised food service.

Question 2: How important are the following residential development and housing types to the future of Kure Beach?



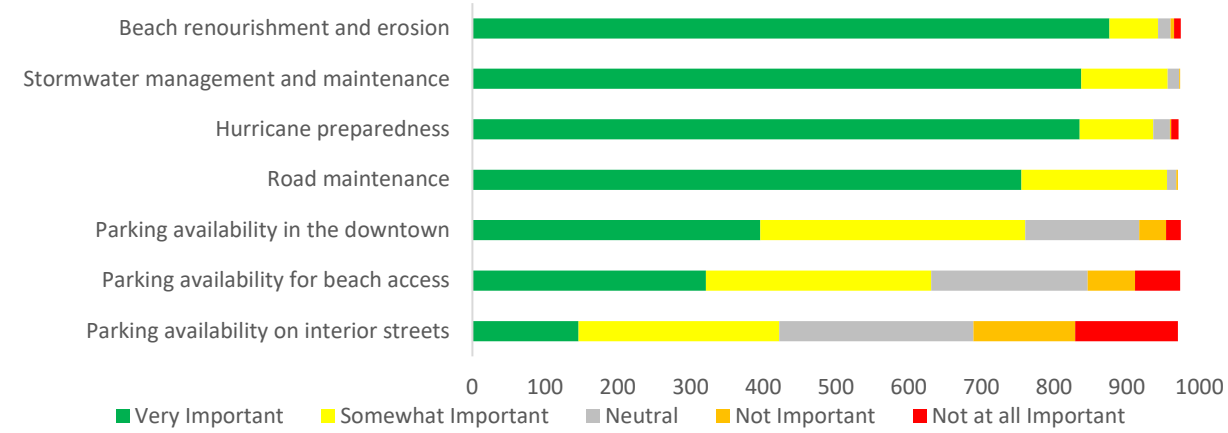
When asked how important certain types of residential development are to the future of Kure Beach, the majority of respondents chose low-density and short-term/seasonal vacation housing as the most important. The least important option in the eyes of respondents was high-density development such as condos and townhomes.

Question 3: How important are the following recreational activities to the future of Kure Beach?



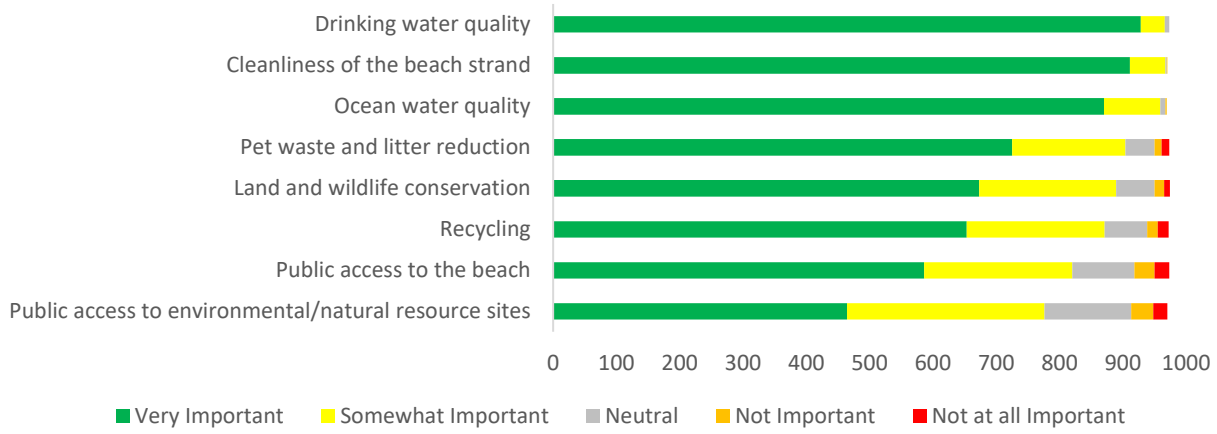
The three most important recreational activities to the future of the Town as identified by survey respondents are open and natural spaces, parks and playgrounds, as well as sidewalks for pedestrians. Overall, respondents do not find it important to have public art such as statues.

Question 4: How important are the following transportation and infrastructure issues to the future of Kure Beach?



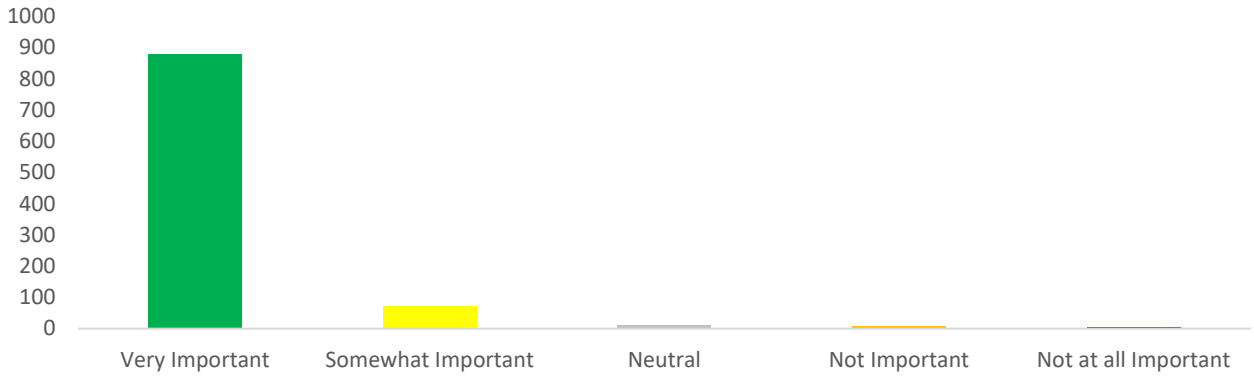
The survey asked respondents to select three of the most important transportation and infrastructure issues facing Kure Beach. Overall, results showed that three most important issues included beach renourishment, stormwater management, and hurricane preparedness. Parking availability on interior streets was ranked as being the least important.

Question 5: How important are the following environmental and natural resource issues to the future of Kure Beach?



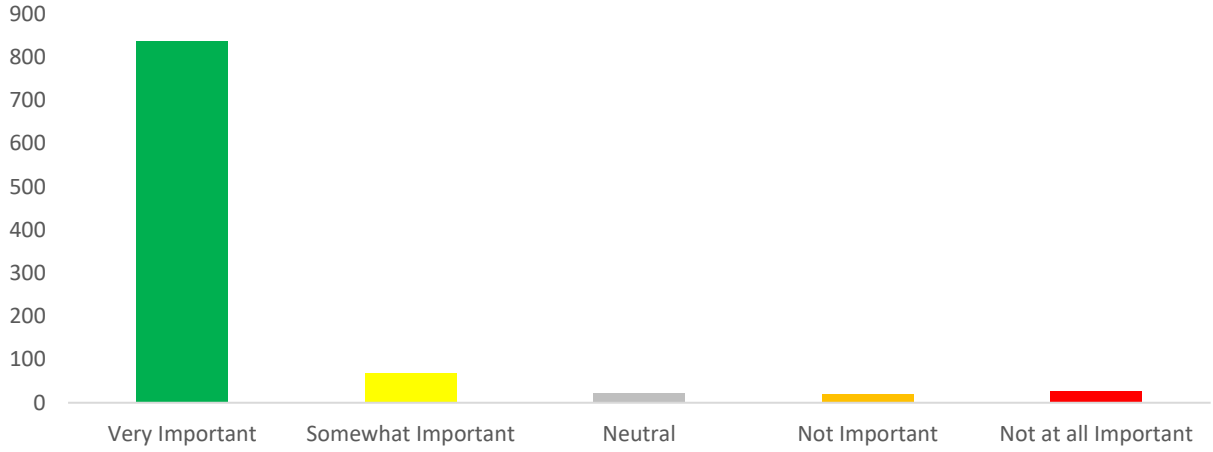
When asked how important certain environmental and natural resource issues are to the future of Kure Beach, respondents ranked drinking water quality, cleanliness of the beach strand, and ocean water quality as the most important. While the lowest-ranked option was public access to environmental and natural resource sites, every option for this question was identified as being important by most respondents. These responses validate an emphasis on preserving, enhancing, and providing access to environmental and natural resources in and around the Town.

Question 6: Kure Beach is often referred to as having a "small town" ambiance/feel. How important is it that Kure Beach retain this "small town" ambiance/feel in the future?



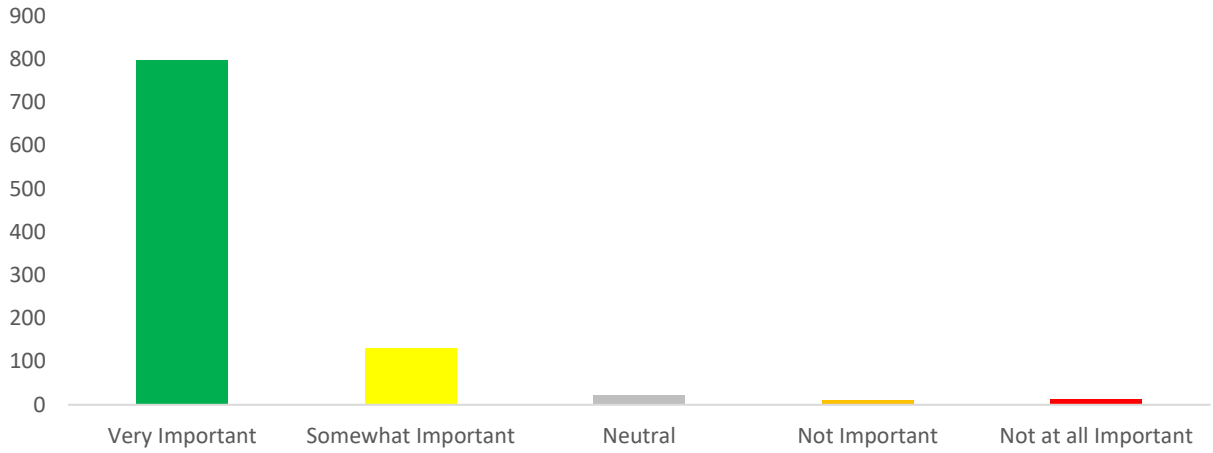
More than nine out of every ten respondents reported that they felt it to be very important for Kure Beach to retain its small-town ambiance into the future. This provides strong guidance for thoughtfully considering whether development regulations and proposals fit with the current character of the Town.

Question 7: How important is it that Kure Beach retain its current 35-foot height limit on development and buildings?



According to the survey results, more than 85% of respondents consider the Town's height limit to be very important. This reflects similar responses in other questions related to maintaining the small-town character of Kure Beach.

Question 8: In your opinion, how important are building and zoning regulations to establishing desirable development patterns in Kure Beach?



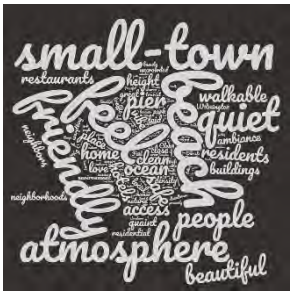
Survey respondents were asked about the importance of building and zoning regulations. More than 80% of individuals felt that such regulations are very important to establishing desirable development patterns in Kure Beach, supporting the value of planning efforts in the Town.

Question 9: Which statement best describes your relationship to the Town of Kure Beach?

Survey respondents were asked to best identify their relationship with the Town of Kure Beach. The majority of respondents, at over 90%, were made up of property owners consisting of second homeowners, year-round residents, and business owners. The largest group of property owners was year-round, who made up more than 60% of the overall respondents. The remainder of those that responded included seasonal visitors, future residents, and year-round renters.

Question 10: What is your favorite thing about Kure Beach?

The survey asked respondents to identify their favorite thing about Kure Beach in an open-ended question. The respondents indicated that their favorite things about Kure Beach included its quiet small-town family-friendly atmosphere and beautiful beach.



Question 11: If you could improve one thing about Kure Beach, what would it be?

Respondents were asked if they could improve one thing about Kure Beach, what would it be? Popular responses included improving bicycle and pedestrian infrastructure, free public parking, more public beach accesses, and more local businesses. Overall, respondents are generally pleased with the current trends in development in terms of maintaining its small-town family-friendly atmosphere.

Question 12: Please provide any other comments you may have.

Respondents were asked to provide any additional comments. Respondents generally used this question as an opportunity to emphasize their previous replies. Common themes included support for the 35-foot height limit for buildings in the Town as well as opposition to paid parking. Other responses included support for better traffic and parking enforcement, as well as some support for paid parking.

Public Input Meeting Results

A Public Input Meeting was held on July 29, 2021, with more than 15 citizens and public officials in attendance. The meeting was held to gather input about the public's concerns and aspirations for the future of Kure Beach. The participants were asked to identify relevant topics within three categories: assets, issues, and desires. These concepts were listed on posters which were posted on the walls around the meeting space. Next, participants received 9 stickers that were to be used to identify the three most important topics within each category.

The results of the facilitated discussion and prioritization process are provided below. The responses are sorted by the vote tally each received, starting with the responses receiving the highest number of votes.

Assets

- Small-Town Feel - 14
- Beach/Ocean - 13
- Town Government / Public Safety - 8
- Boardwalk - 4
- Parks & Open Space - 4
- People – Residents - 3
- Paid Parking - 2
- Proximity to Attractions - 1
- Limited Geography - 1
- Pier - 1

Citizens at the Public Input Meeting

Issues

- Beach Renourishment - 12
- Water Supply - 10
- Pedestrian Safety - 8
- Water Quality - 8
- Limit to Growth - 3
- Storm Water Drainage - 3
- Water Treatment/Sewage - 2
- Lack of Sidewalks - 2
- Road Maintenance - 2
- *(Lack of)* Input from Young Residents - 1

Desires

- Retain Small-Town Feel - 12
- Safe BikePed Paths - 11
- Keep Taxes Low - 9
- Attract More Small Business & Restaurants - 7
- Pave Roads - 7
- Attract Desirable Business - 2
- Low Emissions - 1
- More Citizen Involvement - 1

COMMUNITY CONCERNS AND ASPIRATIONS

In compliance with the 15A NCAC 7B requirements, the community concerns and aspirations are outlined below. Kure Beach's top five public input priorities were developed from the results of the public input meeting and community survey. It should be noted that these priorities are goals and intentions of the respondents and are to serve merely as a resource. These priorities are by no means a mandate for future funding or policy change. The priorities are listed in order of significance.

Top 5 Public Input Priorities

1. Preserve small-town character through a development pattern of low-density single-family homes and locally-owned small businesses.
2. Maintain environmental quality and clean water to preserve the coastal natural resources that contribute to the Town's quality of life.
3. Enhance bicycle and pedestrian facilities to provide safe options for non-motorized transportation.
4. Ensure the future resilience of the Town through coastal storm damage reduction and beach protection efforts.
5. Support recreational facilities and opportunities to maintain a high quality of life.

VISION STATEMENT

The Vision Statement of Kure Beach is intended to be a general and brief statement about the Town's main preferences for future growth. The Vision Statement should be based on a consensus of the views of community citizens and community representatives.

To maximize the utility and scope of the Vision Statement of Kure Beach, community priority issues, local citizen input, and the preferences of the local government were all considered during the statement creation process.

Town of Kure Beach Vision Statement:

Kure Beach shall maintain and enhance our community to ensure we remain one of the most desirable coastal destinations in North Carolina. Kure Beach is a community known for its family-oriented accommodations, small shops and restaurants, and for its peaceful residential and natural areas. To preserve our unique community for the enjoyment of current and future generations, we shall strive to protect our small town ambiance and family-friendly character while maintaining, and where possible, enhancing the quality of the natural and man-made environment.

How to Use this Plan

Kure Beach's Land Use Plan serves a variety of functions and the plan for the future contains a broad range of:

- Goals: Desired ends toward which policies and programs of the Land Use Plan are directed.
- Many of the goals reflect requirements set forth in the Division of Coastal Management's (DCM's) Coastal Resource Commission (CRC) guidelines;
- Objectives: More specific and measurable than the general goals and in some cases a goal has multiple objectives;
- Policies: A consistent set of principles or guidelines for making a variety of local decisions designed to accomplish the goals and objectives. These policies guide decisions by the Town Council, its appointed boards, and staff.
- Recommended Actions: Specific actions that can be taken to implement and advance the plan's policies. Many of these recommended actions are non-regulatory in nature and will be addressed through the Town's capital planning or through subsequent planning efforts.

Collectively, the goals, objectives, policies, and recommended actions provide a long range planning function but they also help guide day to day operations. The daily functions relate primarily to the decisions and actions of elected and appointed officials and the Town's administrative staff.

For the Town Council, the Land Use Plan contains Town policies and provides a guide when making decisions regarding future land use and development, public access, protecting the environment, mitigating natural and manmade hazards, or ensuring that the Town's infrastructure and services are adequate to serve its year-round population and the influx of seasonal visitors. While the Land Use Plan's policies do not have the same status as a local zoning ordinance, except in matters related to development or land uses within Areas of Environmental Concern (AECs), the policies and recommended actions and the future land use map help guide decisions on future ordinances and zoning decisions. Moreover, North Carolina General Statute 160D-604 requires the Planning & Zoning Commission to provide a recommendation on any zoning regulation amendment to Town Council. These recommendations must consider consistency with adopted plans. General Statute 160D-605 requires the Town Council to adopt a statement analyzing consistency with adopted plans when voting to approve or deny a change to zoning regulations. General Statute 160D-501 also requires the adoption and reasonable maintenance of a comprehensive plan or land use plan as a condition of adopting and applying zoning regulations. Amendments to this plan will be initiated and approved by the Town Council/Planning & Zoning Commission and plan amendments will require CRC's approval in accordance with its guidelines for land use plan amendments.

In addition to guiding development and zoning decisions, the Town Council may use the Land Use Plan's policies and recommended actions when making decisions on the Town's capital planning and its annual operating budgets. Other Town boards and committees will also use the Land Use Plan. The Town's Planning & Zoning Commission will use the plan and its policies to determine the consistency of project plans and development proposals with community goals and objectives. Its policies and recommendations will also guide decisions on whether to grant or deny requests for such things as ordinance and map amendments, special use permits, variance requests, or the approval of site plans.

Another important use of the Land Use Plan is for consistency determinations by the Division of Coastal Management (DCM) for major permits issued pursuant to CAMA regulations. Other state and federal agencies will use the plan to determine the consistency of their projects and programs with the policies contained in this plan.

Lastly, the plan is a useful tool for developers and property owners because it provides guidance on the types of land use and development that are desired within the community. The plan's policies and recommendations may help developers to craft proposals that are consistent with the Town's goals and objectives, thereby increasing the likelihood that these projects will be approved. The plan also provides information that will help owners and developers better understand the capabilities and limitations of their property or may assist community members in supporting or opposing projects within the community.

Map I.1: Regional Map

Major Airports
State Parks
Proximal Boundaries

Pitt-Greenville Airport
Greenville
Goose Creek
Goldsboro
Cliffs of the Neuse
Uwharrie National Forest
Charlotte
Carver's Creek
Fayetteville Regional Airport
Fayetteville
Coastal Carolina Regional Airport
Albert J Ellis Airport
Croatan National Forest
Jacksonville
Fort Macon
Hammocks Beach
Jones Lake
Bay Tree Lake
Singletary Lake
North Carolina
Lumber River
New Hanover International Airport
Wilmington
South Carolina
Lake Waccamaw
Florence
Carolina Beach
Fort Fisher
Kure Beach
Sumter
10mi
Myrtle Beach International Airport
Myrtle Beach
Long Bay
25mi
Long Bay
50mi
Francis Marion National Forest
Charleston
100mi

Kure Beach: 2022 Land Use Plan

0 5 10 20 30 40 Miles

NORTH

CHAPTER 2: COMMUNITY PROFILE

INTRODUCTION

This section of the Land Use Plan examines the community characteristics and related demographic and economic trends that should be considered when developing policies and long-term growth strategies.

In the following discussion, Kure Beach is compared with North Carolina, New Hanover County, and other coastal communities to better interpret the information. These trends include the population, housing, and economic characteristics of Kure Beach. This information will help inform Town officials and allow them to make growth management decisions based on knowledge of the Town's past, present, and future.

Permanent and seasonal population estimates can be used to help estimate development pressures that may impact coastal resources. Pressures from growth in population and development can also impact community infrastructure such as roads, sewers, stormwater, etc. This information may be used as a resource by Town staff and officials to make informed growth management decisions.

Note: Data and statistics in the following section come from a number of sources. Figures from beyond 2019 are estimations and projections. Statistics from 2019 are sourced from the US Census Bureau/ American Community Survey and the North Carolina Office of State Budget and Management (NCOSBM). The NCOSBM provides annual population figures for each municipality in the state. This number can often differ from those identified from the American Community Survey. Other statistics, facts, and figures related to age, housing, income, and employment are sourced from the US Census Bureau American Community Survey. Additional information is sourced from the Town of Kure Beach and the Cape Fear Council of Government where necessary.

POPULATION CHARACTERISTICS AND TRENDS

Permanent/Year-round Population

Coastal municipalities experience fluctuations in their population throughout a given year due to an influx of visitors and tourists during peak seasons such as summer. The impacts attributed to the changes in seasonal population can be difficult to determine due to the range of factors that must be considered in estimating the peak population. Since peak population can be difficult to estimate, the year-round population figures established by the state demographer and the US Census Bureau must be considered due to a lack of accurate and consistent methodology between municipalities to procure a seasonal population estimate. NOTE: The terms year-round population and permanent population are used interchangeably throughout the chapter.

In Kure Beach, the permanent population has increased each decade since 1990 (See Table 2.1). The population increased from 618 to 1,557 between 1990 and 2000 and from 1,557 to 2,012 between 2000 and 2010. Since 2010, the permanent population has increased to 2,261 according to the state demographer. Since 1980 the overall population has increased nearly threefold. Both Kure Beach and New Hanover County populations are expected to continue to increase as more people are attracted to the area and its unique coastal resources.

Table 2.1: Population Growth/Decline: 1980 – 2019
Source: NCOSBM

Year	Kure Beach	Absolute Increase/Decrease	Kure Beach	New Hanover County	Absolute Increase/Decrease	New Hanover County
1980	611		%	103,471		%
1990	618	7	1.15%	120,284	16,813	16.25%
2000	1,557	939	151.94%	160,315	40,031	33.28%
2010	2,012	455	29.22%	202,667	42,352	26.42%
2019	2,261	249	12.38%	233,062	30,395	15.00%
1980-2019		1,650	270.05%		129,591	125.24%

Overall, most of the coastal beach municipalities in NC have a growing year-round population (see Table 2.2). While some municipalities diverge from this trend, others have seen significant growth during this period. For example, Sunset Beach experienced significant growth largely due to additional residents gained through annexation. However, permanent population figures for coastal municipalities do not accurately convey development pressures as many housing units are built for seasonal, not year-round, use.

Table 2.2: NC Municipal Beach Population Growth
Source: NCOSBM

Municipality	1990 Population	2000 Population	2010 Population	2019 Population	Percent Change 1990-2019
Atlantic Beach	1,938	1,793	1,495	1,492	-23.0%
Bald Head Island	78	179	158	187	139.7%
Carolina Beach	3,631	5,112	5,706	6,152	69.4%
Caswell Beach	155	377	398	475	206.5%
Duck	N/A	450	369	405	-10.0%
Emerald Isle	2,434	3,485	3,655	3,822	57.0%
Holden Beach	642	787	575	675	5.1%
Indian Beach	146	95	112	129	-11.6%
Kill Devil Hills	4,288	5,910	6,683	7,378	72.1%
Kitty Hawk	1,937	2,997	3,272	3,619	86.8%
Kure Beach	***618***	***1,557***	***2,012***	***2,261***	265.9%
Nags Head	1,838	2,700	2,757	3,069	67.0%
North Topsail Beach	1,375	1,514	743	796	-42.1%
Oak Island	N/A	6,668	6,783	8,089	21.3%
Ocean Isle Beach	534	415	550	687	28.7%
Pine Knoll Shores	1,375	1,514	1,339	1,341	-2.5%
Southern Shores	1,447	2,218	2,714	3,059	111.4%
Sunset Beach	321	2,119	3,572	4,481	1,296.0%
Surf City	948	1,476	1,853	2,207	132.8%
Topsail Beach	362	473	368	418	15.5%
Wrightsville Beach	2,797	2,592	2,477	2,487	-11.1%
New Hanover County (2019)			233,062		
North Carolina (2019)			10,487,088		

Kure Beach is noted for having one of the highest population densities of any municipality in North Carolina. While true, this statistic does not tell the complete story as many coastal communities with a similar development pattern have portions of the Intracoastal Waterway within the boundaries of their jurisdictions, decreasing their overall density. In contrast, the town limits of Kure Beach do not include a comparable section of the Cape Fear River.

Population by Age

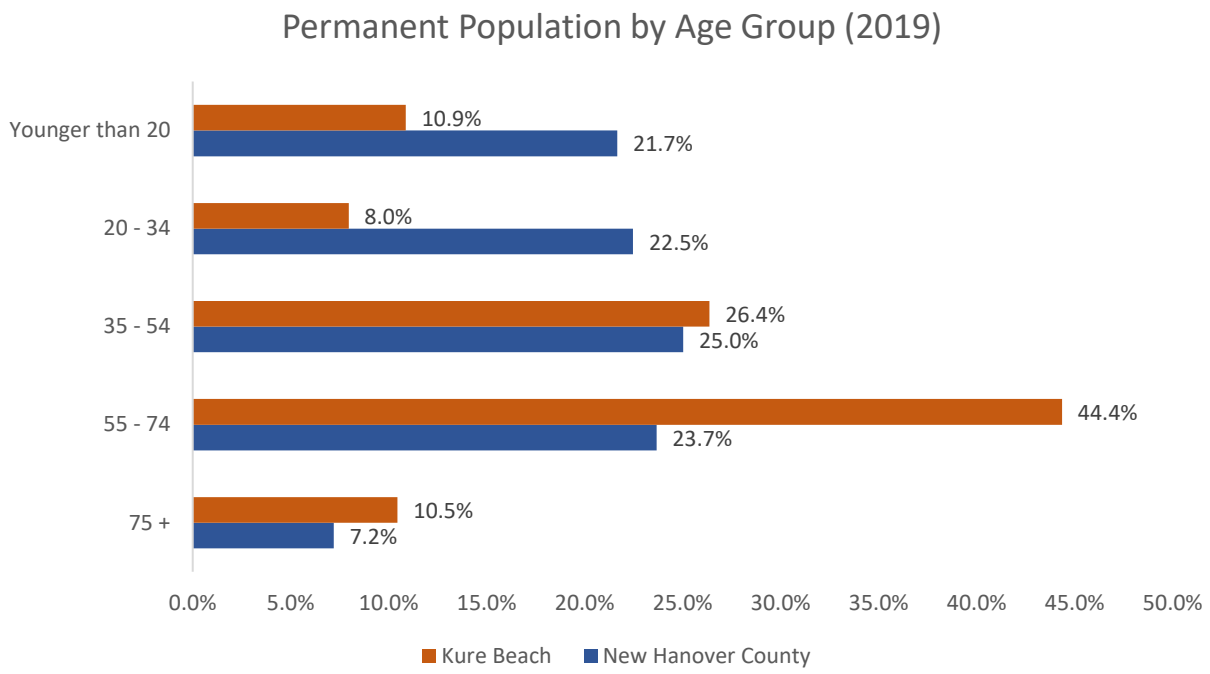
From 2000 to 2019, the median age of residents in Kure Beach has increased by roughly 20%, from 48.5 to 57.8 (See Table 2.3). These trends indicate the majority of people living in Kure Beach are of an aging demographic likely through in-migration by older individuals. Additionally, the 2019 median age of Kure Beach, 57.8, is higher than New Hanover County which is 40.1. Over the same period, neighboring Carolina Beach has seen its median age increase approximately 15% from 41.2 to 47.4.

Table 2.3: Permanent Population by Median Age 2000 & 2019
Source: U.S. Census Bureau 2000 Decennial Census and 2019 American Community Survey

	Kure Beach			Carolina Beach			New Hanover County		
	2000	2019	Percent Change	2000	2019	Percent Change	2000	2019	Percent Change
Median Age	48.5	57.8	19.18%	41.2	47.4	+15.05%	36.2	40.1	10.77%

The permanent population of Kure Beach consists mostly of individuals aged 55 and older. Accordingly, residents aged 55-74 account for the largest age group in Kure Beach (See Figure 2.1) as is similar for many coastal communities in North Carolina. This age group makes up approximately 44% of Kure Beach's permanent residents. As illustrated in Figure 2.1, roughly 20 percent of the population of Kure Beach is aged 34 and below. This is much lower than New Hanover County, but represents a relatively high proportion of the population when compared to more seasonal beach communities without access to a metropolitan area such as Wilmington. Younger residents may choose to live in other areas for reasons including school, work, and housing costs.

Figure 2.1: Kure Beach and New Hanover County Population by Age Group, 2019
Source: U.S. Census Bureau 2019 American Community Survey



Current Seasonal Population Estimates

When planning for infrastructure, housing, commerce, and recreation, it is important to consider the impact of vacationers, visitors, and temporary residents visiting the community on a seasonal basis. Typically, the seasonal population has the greatest impact on services and resources from Memorial Day to Labor Day.

Persons who reside in the Town limits for the majority of the year, or refer to it as their primary residence, make up the permanent population. In contrast, persons who temporarily vacation or visit for at least one night in the Town during the peak season comprise the seasonal population. The permanent population plus the seasonal population (including day-trippers) make up the peak population. The seasonal overnight population accounts for only the permanent and seasonal population and not day-trip visitors. Seasonal population estimates are difficult to calculate with any precision and require making assumptions based upon experience and an understanding of the underlying population demographics, seasonal tourism industry, and the habits of beach goers. While there is no standard method for tabulating seasonal population for a given jurisdiction, there are a few methods that can be used to estimate the population.

Seasonal Estimate by Housing & Vacation Unit

According to American Community Survey data, there were 1,121 vacant units categorized as seasonal use in the year 2019. To establish the seasonal overnight population, average household size or persons per unit must be incorporated. One common technique calculates the seasonal overnight estimate on the number of housing units by determining what a typical occupancy rate might be and how many people occupy a housing unit on average. For the purposes of this analysis, vacant housing is treated similarly to seasonal and recreational housing in terms of the assumptions made about the number of persons per unit. The peak seasonal overnight estimate is derived by assuming 95% occupancy of the vacant housing units. Again, this estimate should not be viewed as exact. Calculating seasonal population figures is an imperfect science at best. The peak overnight seasonal population is more likely to be experienced on peak season holidays such as Memorial Day, July 4th, and Labor Day.

Table 2.4: 2019 Peak Seasonal Overnight Population – Kure Beach

Source: NCOSBM, U.S. Census Bureau 2019 American Community Survey, and Cape Fear Council of Governments

2019 Peak Seasonal Overnight Population Estimate*		
Housing Units	**Persons per Unit**	**Total**
Permanently Occupied Housing (951)	2.38 + 2 guest per Unit	4,165**
Seasonal or Recreational Housing (1,121)	8	8,520
Other Vacant Housing (200)	8	1,520
Hotel Units (203)	2	406
Total		**14,611**

*For the estimate, the following assumptions were used to calculate the total number of persons: 2 guests per permanent housing unit on average; 95 percent occupancy rate for seasonal recreational housing; 95 percent occupancy for vacant housing; and 100 percent occupancy for hotel units.

**The permanent population and seasonal increase is based upon the NC OSBM population of 2,261 + 2 additional visiting persons per housing unit.

It is estimated that during the summer season, the peak seasonal overnight population in the Town of Kure Beach can reach 14,611 people. This is nearly 6.5 times higher than the permanent population of the Town. This number reflects popular holiday weekends such as Memorial Day, July 4th, as well as

Labor Day. On weekdays as well as weekends with less visitors, the seasonal overnight population is likely to be closer to 75% of the peak estimate. Based on this assumption, the seasonal overnight population may be closer to 10,958 more frequently. These estimates are important for the analysis to gauge the greatest potential impacts on Town services. This information can be used to plan for situations that may exceed the capacity for various Town services such as water, waste collections, sewer, law enforcement, or general Town services. In addition, it is important to account for day-trip visitors as well which will be discussed in the following section.

Day-Trip Visitors

Another consideration when gauging seasonal population impact on community infrastructure is the effect of day-trippers. Unlike estimates of overnight visitors, day-trippers travel for brief stays in the community, typically for recreation. Day-trippers impact parking availability, traffic congestion, community services, and local businesses, especially during peak visitation seasons. Importantly, these visitors may also provide an additional revenue boost for local business establishments and can be a vital factor for attracting future businesses to serve both residents and visitors. While there is no standard method for calculating day-trippers, one of the best indicators for the number of day-trip visitors is the number of parking spaces available. It is assumed, on a typical peak day during the summer, the majority of vehicles visiting the Town for day-trip purposes are mostly full, at four persons per vehicle and the utilization of all available parking spaces. Using data from the Town, the number of day-trippers is estimated as follows:

[1.5 shifts of parking x 632 permanent public parking spaces x 4 persons per vehicle = 3,792 day trip visitors per day]

One issue with estimating the peak number of visitors is the risk of double counting people as many daily visitors have possibly been accounted for in the assumptions used to estimate the seasonal population estimate. However, we do know that visitors will need a place to park. There are 632 public parking spaces on Kure Beach. Assuming there is an average of four people per car and there is an average of 1.5 cars occupying each parking space over the course of a day, it is estimated that an additional 3,792 daily visitors that travel by automobile may visit on any given summer weekend or peak season holiday (See Table 2.5).

Table 2.5: Day Trip Visitors – Town of Kure Beach

Source: Town of Kure Beach

Parking Spaces	Persons Per/Vehicle	Shifts of Parking	Total
632	4	1.5	3,792

Based on these figures, it is estimated that approximately 18,400 people visit, reside, or stay overnight within Town limits on a peak summer day.

Population Projections

Much like seasonal and peak population estimates, population projections can vary widely due to intervening factors such as the strength of the economy, availability of jobs, and housing prices. Population projections identify potential challenges and needs that may confront the community in the near future. Kure Beach is located in New Hanover County, which is one of the fastest growing counties in North Carolina. The county has also grown at more than twice the rate of the United States as a whole between 2010 and 2019 according to the US Census Bureau.

The state demographer's population growth estimate for New Hanover County indicates population increase will occur solely from migration into the county, while natural growth from births will be offset by the natural population decline from deaths. It is also assumed that this trend of all in-migration population growth will be the same for Kure Beach.

The Division of Coastal Management (DCM) recommends the use of the ratio approach to develop population projections for municipalities. The population projection for Kure Beach can be determined by utilizing the NC Office of State Budget and Management (NCOSBM) population projections for New Hanover County. In 2019, Kure Beach accounted for 0.97% of the population of New Hanover County. The Division of Coastal Management requires that population projections be calculated for a 30-year horizon. However, for infrastructure planning and other calculations based upon these projections, it is wise to use only a twenty-year projection. The NCOSBM provides estimates through 2050.

Table 2.6: 30-Year Population Projection – Kure Beach
Source: NCOSBM

Year	2019	2020	2025	2030	2035	2040	2049
Kure Beach	2,261	2,282	2,433	2,593	2,753	2,914	3,202
New Hanover County	233,062	235,231	250,814	267,340	283,865	300,389	330,134
Share (2019)	0.97%	0.97%	0.97%	0.97%	0.97%	0.97%	0.97%

The ratio method assumes that Kure Beach will always account for 0.97% of the population of New Hanover County. Therefore, by using the equation below, the population projection for the Town can be calculated for any given year.

Population of Kure Beach = 0.97% × Population of New Hanover County

In the year 2049:

3,202 (2049 pop.) = 0.97% (pop. ratio) × 330,134 (New Hanover Co. pop.)

In 2035, the permanent population of Kure Beach is projected to be 2,753 people. This is an increase of nearly 500 people or more than 20%. In 2049, the permanent population is expected to be 3,202 people. Assuming this projection is accurate, the permanent population will increase by more than 40% over the next thirty years. It is important to note that such a substantial increase would only result from a significant amount of seasonal housing unit conversion to permanent/year-round use. If a significant increase in permanent residents occurred, it could have an impact on occupancy tax revenues received by the Town. Given the expanse of software technology for online travel agencies such as AirBNB and VRBO, real estate investors have been pursuing short-term vacation rental properties as an additional asset class in their portfolios. This new phenomenon may reduce the number of available housing units for future permanent residents, in turn slowing permanent resident population growth and therefore limiting the impact on occupancy tax revenues. In addition, the Town has acknowledged the likelihood of future offshore wind turbines along the coast. Based on the current proposal for offshore wind infrastructure, the Town believes it will bear no impact to the desirability of Kure Beach for residents, visitors, and property owners.

From 2010 to 2019, 249 new permanent residents were added to the Town's population (see Table 2.1) which equates to the addition of around 28 new permanent residents a year. If the population projections were calculated based upon the addition of 28 new residents a year, then the permanent population in 2049 would be 3,101. However, basing the population projection on growth from 2010 to 2019 may be misleading as 2010 through most of 2013 were characterized by lower than normal growth as a result of the economic downturn. Utilizing either population projection method, it is expected that the population will increase by approximately 900 residents over the next 30 years.

Housing Characteristics and Trends

Understanding the current housing stock and how it has grown can help community members, elected officials, and planners get an overall picture of the range of housing opportunities available or needed in the Town. Other housing attributes such as the building year of the structure, owner versus renter occupation, and value, provide insight into the nature of the existing housing stock.

Housing Units by Type

From 2000 to 2019, the number of housing units in Kure Beach increased by approximately 45% or 703 units (see Table 2.7). According to Census data, 692 new single-family units were constructed between 2000 and 2019. The Town of Kure Beach will continue to be predominantly occupied by single-family housing units. Compared with New Hanover County, Kure Beach experienced a slightly higher growth rate to the county in total housing units from 2000 to 2019.

Table 2.7: Housing Units by Type – Kure Beach and New Hanover County
Source: U.S. Census Bureau 2000 Decennial Census and 2019 American Community Survey

	Kure Beach			New Hanover County		
Housing Units	**2000**	**2019**	**Percent Change**	**2000**	**2019**	**Percent Change**
Total Housing Units	1,569	2,272	44.81%	79,616	111,031	39.46%
Single-Family Units	1,168	1,860	59.25%	57,801	78,765	36.27%
Multi-Family Units (2 or More Units)	401	412	2.74%	21,766	32,241	48.13%
Other	0	0	0%	49	25	-49.0%

Housing Tenure

In 2019, approximately 42% of the housing units in Kure Beach were occupied on a year-round basis. The occupancy rate of the Town is much lower compared to New Hanover County which has an occupancy rate of over 86% as of 2019. The Town's occupancy rate is consistent with other coastal communities that have a large portion of seasonal/vacation homes.

In 2000, vacant/seasonal housing in Kure Beach accounted for almost 54% of units and rose slightly to around 58% in 2019. This indicates a small decrease in the share of permanently occupied housing units. The largest change was seen in seasonal vacation homes, a 99% increase (See Table 2.8). It is likely that the percentage of vacant housing units will decrease due to a steady increase in permanent residents as well the conversion of seasonal units to full-time use. The share of housing units dedicated to seasonal use will continue to be greater than the share of units occupied year-round for the foreseeable future.

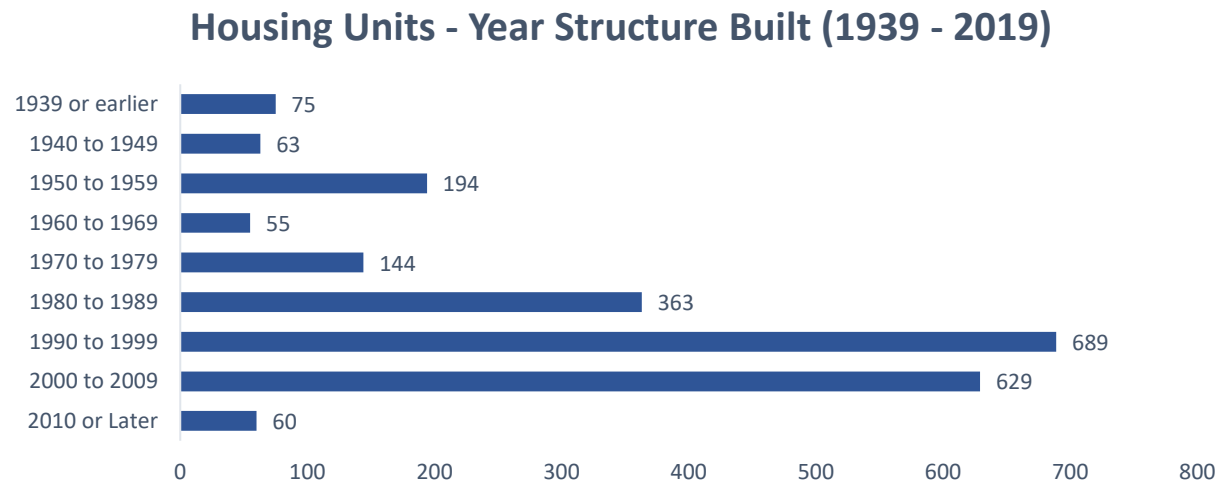
Table 2.8: Housing Tenure – Kure Beach & New Hanover County
Source: U.S. Census Bureau 2000 Decennial Census and 2019 American Community Survey

	Kure Beach			New Hanover County		
Housing Units	**2000**	**2019**	**% Change**	**2000**	**2019**	**% Change**
Total Housing Units	1,569	2,272	44.81%	79,616	111,031	39.46%
Occupied	722	951	31.72%	68,183	95,638	40.27%
Owner Occupied	533	703	31.90%	44,115	55,525	25.86%
Renter Occupied	189	248	31.22%	24,068	40,113	66.67%
Vacant	847	1,321	55.96%	11,433	15,393	34.64%
Seasonal, recreational & occasional use	564	1,121	98.76%	4,689	8,165	74.13%
All other vacant	283	200	(-29.33%)	6,744	7,228	7.18%

Housing Unit Trends

Kure Beach experienced the greatest overall increase in housing units in the 1990s and 2000s compared to other periods (see Figure 2.2). During those periods, Kure Beach saw 1,318 housing units built. From 1990 to 1999 there were 689 housing units built, with 629 built from 2000 to 2009. Kure Beach saw a decrease in structures built after 2009 as there were only 60 housing units built from 2010 to 2019. This may be the result of the economic downturn at the beginning of the decade in addition to a decreasing supply of developable land. However, this data is also likely incomplete due to a lag between the construction of a housing unit and the appearance of that unit in Census data.

Figure 2.2: Kure Beach Housing Units – Year Structure Built
Source: U.S. Census Bureau 2019 American Community Survey



Housing Value

According to US Census Bureau data from 2019, 703 of the 951 occupied housing units in Kure Beach are owner-occupied. The median value of owner-occupied housing in Kure Beach is $453,500 (See Figure 2.4). Nearly half of the owner-occupied housing is valued between $300,000 to $499,999, and 39.6% of housing is valued at half a million dollars or above (See Table 2.9). In the neighboring Town of Carolina Beach, slightly less than half of the owner-occupied housing is valued between $300,000 to $499,999. Only 17.6% of the homes in Carolina Beach are valued above $500,000, which is a smaller proportion than in Kure Beach. Only 12.6% of owner-occupied housing in New Hanover County is valued at $500,000 or more.

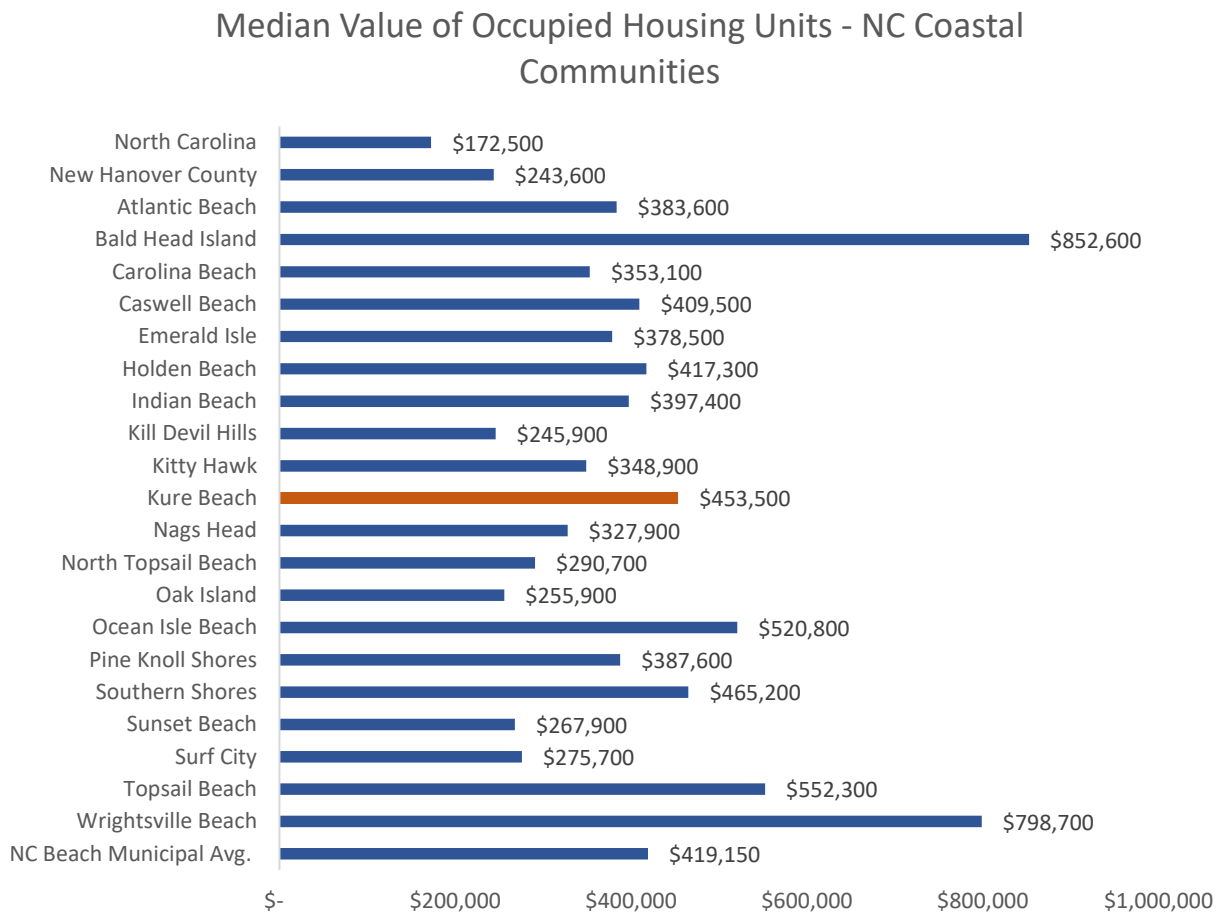
Table 2.9: Owner Occupied Housing Value –Kure Beach, Carolina Beach and Wrightsville Beach

Source: U.S. Census Bureau 2019 American Community Survey

	Kure Beach		Carolina Beach		Wrightsville Beach	
Housing Value	2019	Percent Total	2019	Percent Total	2019	Percent Total
Less than $50,000	9	1.3%	17	0.9%	25	3.1%
$50,000 to $99,999	0	0.0%	36	1.9%	0	0.0%
$100,000 to $149,000	0	0.0%	114	6.1%	6	0.7%
$150,000 to $199,999	26	3.7%	37	2.0%	0	0.0%
$200,000 to $299,999	64	9.1%	451	24.1%	29	3.6%
$300,000 to $499,999	326	46.4%	884	47.3%	113	14.0%
$500,000 to $999,999	257	36.6%	256	13.7%	385	47.5%
$1,000,000 or more	21	3.0%	73	3.9%	252	31.1%
Total	703	100%	1,868	100%	810	100%

Compared with the other 20 North Carolina coastal municipalities, owner-occupied housing values are the sixth highest in Kure Beach. The coastal municipalities with a higher median value for owner occupied housing, from highest to lowest, include Bald Head Island, Wrightsville Beach, Topsail Beach, Ocean Isle Beach, and Southern Shores (see Figure 2.3).

Figure 2.3: Median Value of Occupied Housing Units – NC Coastal Municipalities
Source: U.S. Census Bureau 2019 American Community Survey



ECONOMIC INDICATORS

Income

In the Town of Kure Beach, the median household income for occupied households is around 30% higher than New Hanover County. Around 467 households, or 49.1% of total households, have a combined income above $75,000 (See Table 2.10). Comparatively, New Hanover County has just 37% of its households within this category. In addition, the median family income of Kure Beach is $19,405 higher than in New Hanover County and the per capita income is $18,275 higher than New Hanover County.

Table 2.10: Household Income as of 2019

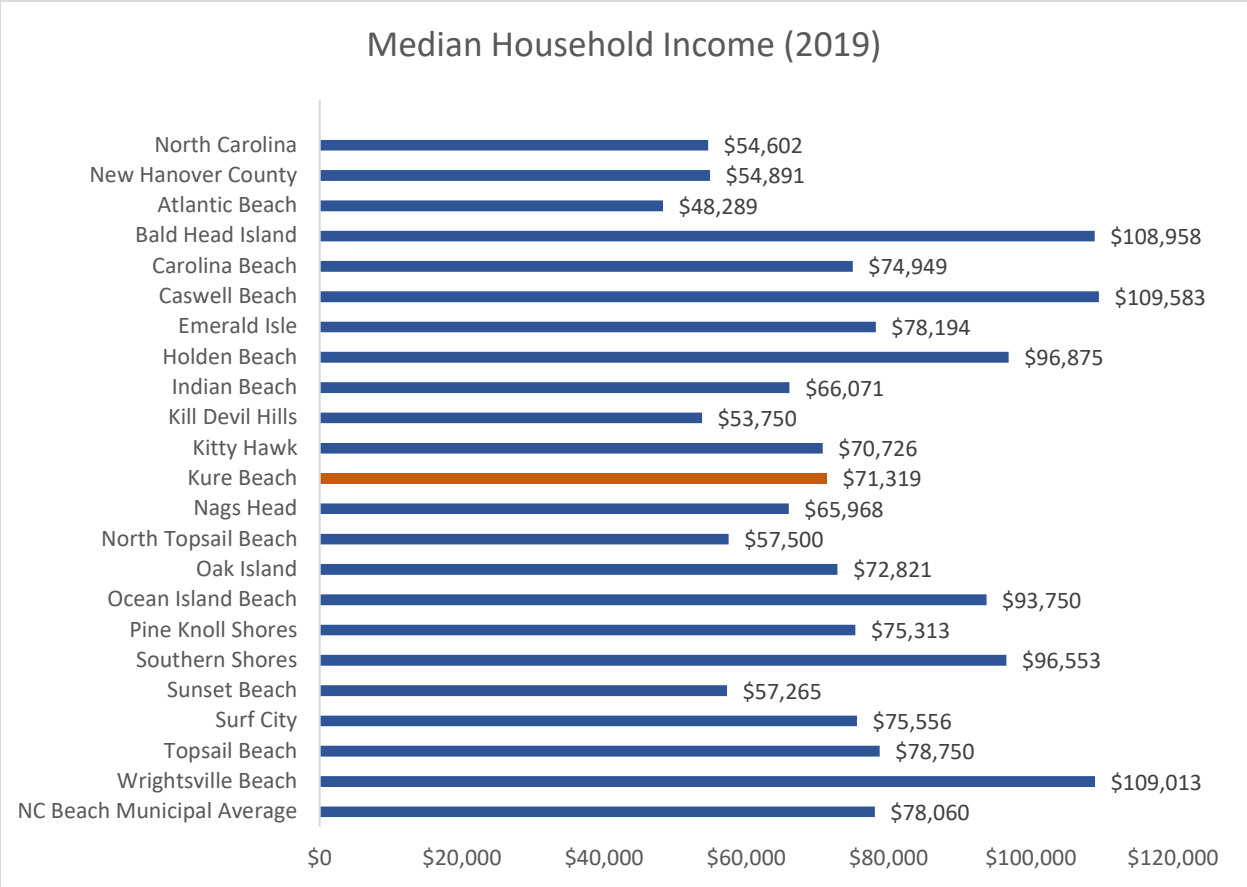
Source: U.S. Census Bureau 2019 American Community Survey

	Kure Beach		New Hanover County	
Income Range	Number	Percent	Number	Percent
Less than $10,000	35	3.7%	7,794	8.1%
$10,000 to $14,999	19	2.0%	4,688	4.9%
$15,000 to $24,999	56	5.9%	9,404	9.8%
$25,000 to $34,999	74	7.8%	9,156	9.6%
$35,000 to $49,999	82	8.6%	12,597	13.2%
$50,000 to $74,999	218	22.9%	16,651	17.4%
$75,000 to $99,999	118	12.4%	11,431	12.0%
$100,000 to $149,999	145	15.2%	12,691	13.3%
$150,000 or more	204	21.4%	11,226	11.7%
Total	951	99.9%*	95,638	100.0%
Median Household Income	$71,319		$54,891	
Median Family Income	$96,141		$76,736	
Per capita income	$52,563		$34,288	

*This data does not add up to 100% due to rounding.

Among other coastal municipalities in North Carolina, Kure Beach's median household income is the thirteenth highest (see Figure 2.4). The Town's median household income of $71,319 is approximately 30% higher than that of the state overall. This indicates the presence of discretionary income that can support a limited number of retail and commercial enterprises and allow for leisure activities.

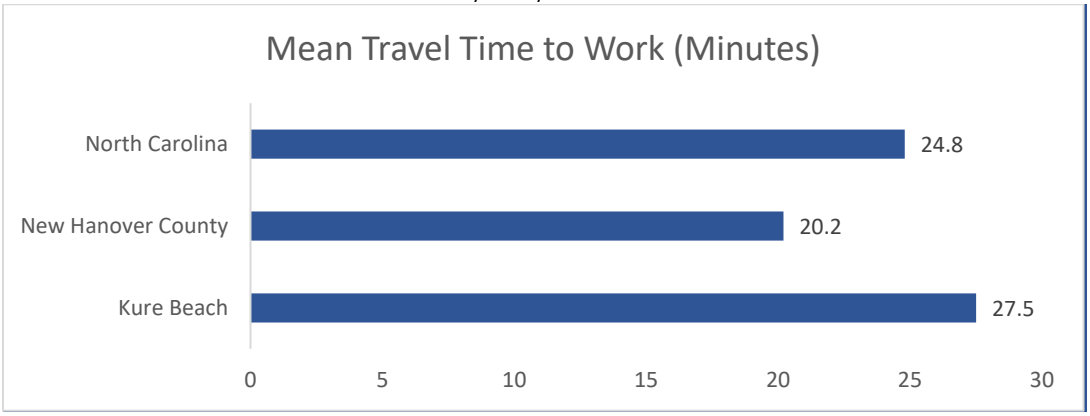
Figure 2.4: Median Household Income – NC Coastal Communities
Source: U.S. Census Bureau 2019 American Community Survey



Employment

Kure Beach workers travel more than 27 minutes to reach their place of employment on average. Compared with North Carolina and New Hanover County as a whole, Kure Beach has the highest travel time to work (See Figure 2.5). This longer travel time may be due to the distance between Kure Beach and employment hubs in the City of Wilmington.

Figure 2.5: Mean Travel Time to Work
Source: U.S. Census Bureau 2019 American Community Survey



The majority of Kure beach's labor force is employed inside of the County. According to Census data, 94.2% of the Town's workers do not travel to another county for employment compared to 90.6% of New Hanover County workers and 71.1% of North Carolina workers (see Table 2.11). Additionally, only 4.3% of workers in Kure Beach work in another county and only 1.5% work out of state. This data highlights the Town's proximity to employment opportunities within its own county.

Table 2.11: Commuting Patterns, 2019
Source: U.S. Census Bureau 2019 American Community Survey

Place of Work	Kure Beach	New Hanover County	North Carolina
	% of Total	% of Total	% of Total
Worked in county of residence	94.2%	90.6%	71.1%
Worked outside county of residence	4.3%	8.2%	26.3%
Worked outside state of residence	1.5%	1.2%	2.6%
Total	100%	100%	100%

Similar to the county and state overall, the vast majority of workers in Kure Beach drove alone to their place of employment in 2019 (See Table 2.12). Where Kure Beach does differ from the state and county is in the number of people who work from home, which is 17.6% of the Town's workforce compared with only 7.6% in New Hanover County and 5.8% across North Carolina. It should be noted that commuting patterns were likely impacted by the 2019 novel coronavirus outbreak, which did not have noticeable impacts on the United States until 2020. The reaction to the virus included a transition to working from home, though the long-term implications of this transition on commuting patterns remain unknown.

Table 2.12: Means of Transportation to Work, 2019
Source: U.S. Census Bureau 2019 American Community Survey

Transportation Mode	Kure Beach	New Hanover County	North Carolina
Drove Alone	74.3%	81.3%	80.9%
Car Pooled	6.3%	7.3%	9.2%
Public Transportation	0.6%	0.5%	1.0%
Walked	0.6%	1.9%	1.8%
Bicycle	0.0%	0.6%	0.2%
Other Means	0.5%	0.8%	1.1%
Worked at Home	17.6%	7.6%	5.8%

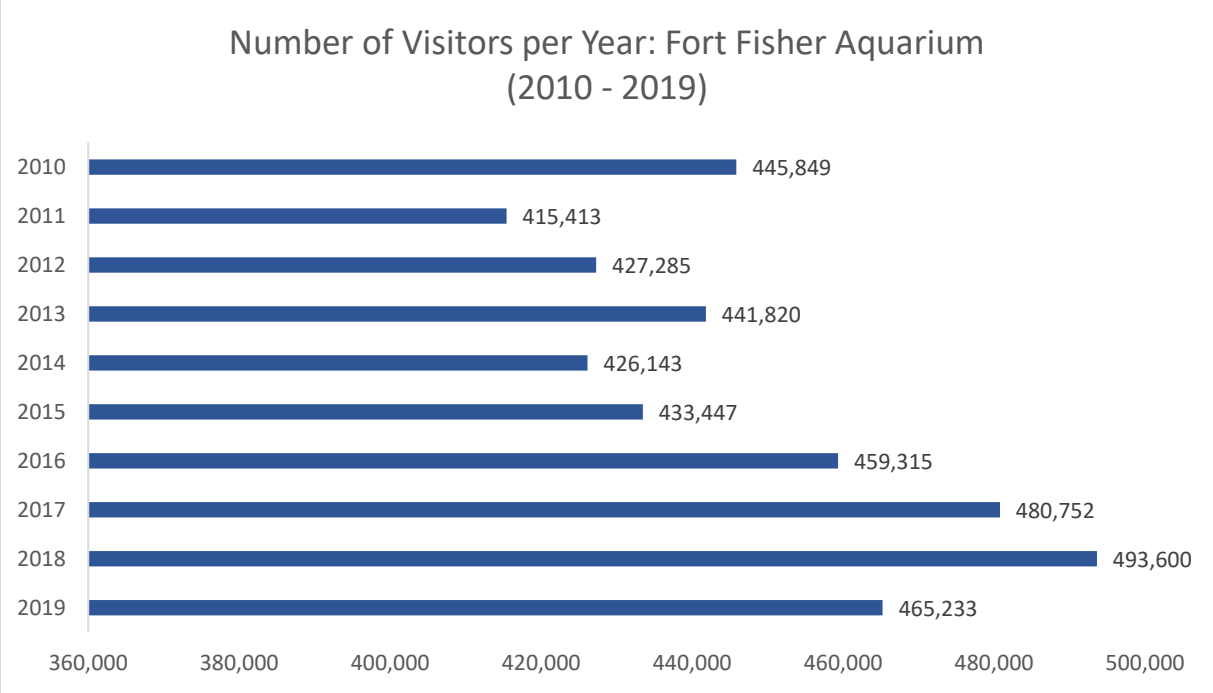
Attractions

Though not within the corporate limits of Kure Beach, the ferry, aquarium, and historic site at Fort Fisher provide an attractor for visitors to the southern tip of New Hanover County.

The volume of visitors each year can be influenced by a number of factors including the economy and natural disasters. Coastal North Carolina experiences frequent hurricane activity which can disrupt a community for days, weeks, or months. Recently two significant hurricanes impacted the North Carolina coast. Hurricane Matthew made landfall in October of 2016 and Hurricane Florence hit in September of 2018. These two hurricanes caused significant impacts to the region and it could be anticipated that the yearly count of visitors during these years would decrease. However, visitation data from the North

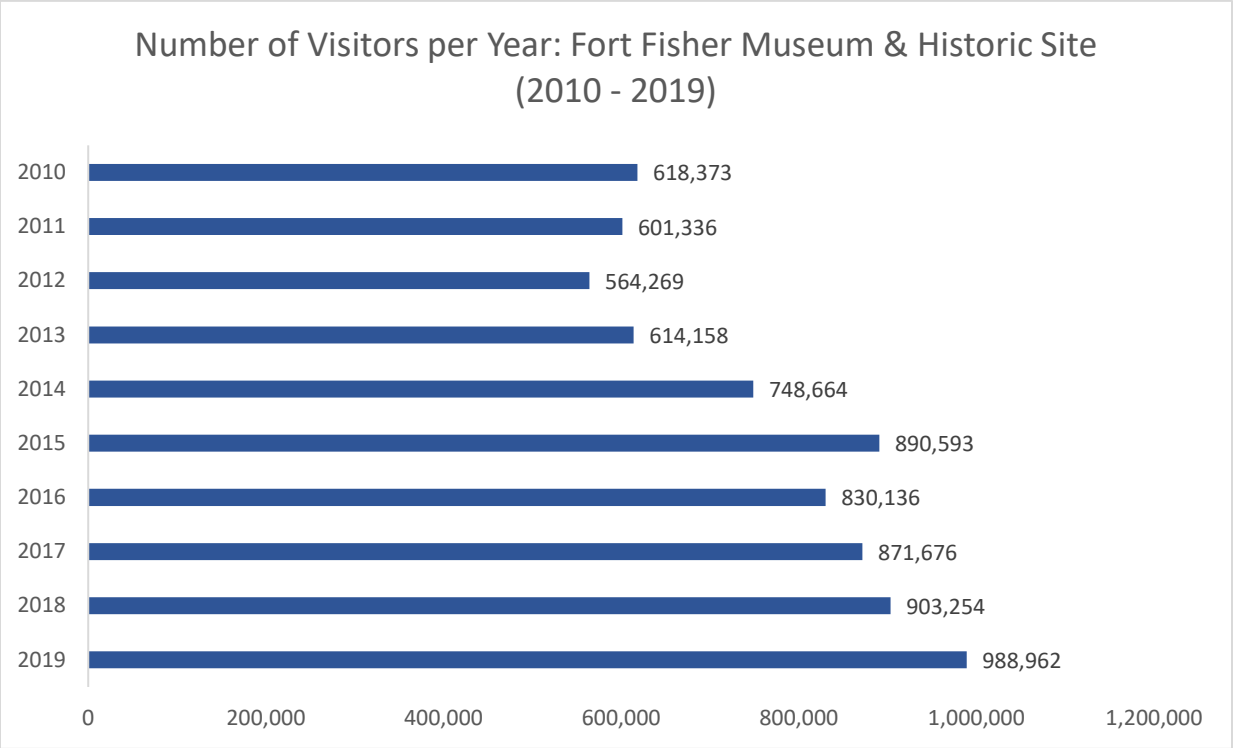
Carolina Aquarium at Fort Fisher indicated the highest annual rate of attendance of the decade during 2018 and the fourth highest during 2016 (See Figure 2.6). This may be in part because both hurricanes impacted the area after the height of tourist season.

Figure 2.6: Number of Visitors by Calendar Year to the NC Aquarium at Fort Fisher, 2010 – 2019
Source: Joana Zazzali - NC Aquarium at Fort Fisher



The Fort Fisher Museum and Historic Site also has experienced increased visitation rates from 2010 to 2019 (See Figure 2.7). Disruptions in yearly attendance trends to the site occurred in 2012 and 2016. Overall, the general trend of visitor attendance to the Fort Fisher Museum and Historic Site seems to be steadily increasing, with the annual number of visitors approaching one million individuals.

Figure 2.7: Number of Visitors per Year to Fort Fisher Museum & Historic Site, 2010 – 2019
Source: Si Lawrence, Information & Communication Specialist II / Special Events – NC Department of Natural and Cultural Resources



Additionally, the Fort Fisher State Recreation Area estimates their number of visitors based on the number of cars entering the park (See Table 2.13). As of 2018, visitation estimates were based on an average of three people per vehicle. Prior to 2018, it was estimated that there were four people per vehicle.

Table 2.13: Fort Fisher State Recreation Area Estimated Number of Visitors 2015-2019
Source: Katie Hall, Public Information Officer - NC Division of Parks and Recreation

Year	Number of Visitors
2015	963,158
2016	890,151
2017	792,584
2018	780,355
2019	952,558
5 Year Average = 875,761	

The Fort Fisher area is also home to a ferry service that provides transportation across the Cape Fear River between the small coastal city of Southport in Brunswick County and the southern tip of New Hanover County at Fort Fisher. If this service was unavailable, travelers would need to drive over an hour from Southport to experience the Fort Fisher area, and vice versa. The estimated number of vehicles using the ferry service varies each year but the number of vehicles with a North Carolina license plate has averaged above 100,000 between 2010 and 2019 (See Table 2.14). While the number of North Carolina vehicles using the ferry system seems to be decreasing each year, the number of out of state vehicles appears to be increasing.

Table 2.14: Fort Fisher Ferry Traffic Totals by Year
Source: Mary Willis, Business Officer II - NC Department of Transportation, Ferry Division

Year	NC Vehicles	Out of State Vehicles	Total Vehicles	Number of Passengers Carried
2010	154,650	18,970	173,620	471,858
2011	163,837	10,641	174,478	475,877
2012	130,696	51,600	182,296	481,268
2013	127,234	61,466	188,301	493,221
2014	127,232	61,069	188,301	493,221
2015	132,435	64,265	196,700	516,665
2016	137,120	66,041	203,161	527,391
2017	138,731	67,543	206,274	540,238
2018	157,846	40,457	198,302	488,357
2019	114,354	55,770	170,124	450,717

SUMMARY

Based on the statistics contained within this chapter, and the comparative data provided in Table 2.15, the Town of Kure Beach is clearly a vibrant and desirable coastal community. As with New Hanover County, the Town will continue to experience population growth over the next thirty years as the coast of North Carolina continues to be a huge draw for retirees and those seeking the lifestyle offered by the area. This data will be used for planning purposes such as guiding development and determining future infrastructure needs. This data can be used for planning purposes to help meet future service and infrastructure needs in the Town.

- In Kure Beach, the permanent population increased from 611 to 2,261 residents from 1980 to 2019. This is an increase of around 270%.
- The median age in Kure Beach is 57.8 years old.
- It is estimated that approximately 18,400 people visit, reside, or stay overnight within Town limits on a peak summer day.
- In 2049, the permanent population of Kure Beach is projected to be between 3,101 and 3,202 people. This is an increase of approximately 900 people or 40%.
- As of 2019, approximately 42% of the housing units in Kure Beach were occupied year-round.
- Kure Beach has the 6th highest owner-occupied home values compared to other coastal towns.

Table 2.15: Demographic Characteristics of Selected North Carolina Beach Communities
Source: U.S. Census Bureau 2019 American Community Survey and NCOSBM

Municipality	Median Age	% Housing Units Occupied All Year	% in Labor Force, Ages 16 years & Older	Median Household Income	Median Family Income	Per Capita Income	Percent Total Housing in 1-unit Detached	Median Value of Owner Occupied Housing
North Carolina	38.7	85.7%	62.4%	$54,602	$68,435	$30,783	65.1%	$172,500
New Hanover County	39.1	86.1%	62.2%	$54,891	$76,736	$34,288	61.5%	$243,600
Atlantic Beach	56.6	19.3%	53.5%	$48,289	$81,181	$45,147	35.7%	$383,600
Bald Head Island	69.0	11.7%	29.1%	$108,958	$115,625	$121,449	92.7%	$852,600
Carolina Beach	47.4	47.9%	65.2%	$74,949	$98,696	$42,185	40.3%	$353,100
Caswell Beach	64.9	30.7%	39.2%	$109,583	$123,750	$69,190	50.8%	$409,500
Emerald Isle	55.2	25.7%	53.6%	$78,194	$91,358	$53,089	56.5%	$378,500
Holden Beach	57.6	17.9%	47.4%	$96,875	$105,893	$60,977	85.8%	$417,300
Indian Beach	64.8	5.3%	38.1%	$66,071	$69,375	$47,375	7.1%	$397,400
Kill Devil Hills	41.7	47.9%	71.9%	$53,750	$64,208	$30,885	78.1%	$245,900
Kitty Hawk	49.2	44.1%	69.9%	$70,726	$75,980	$39,607	70.2%	$348,900
Kure Beach	**57.8**	**41.9%**	**51.0%**	**$71,319**	**$96,141**	**$52,563**	**68.1%**	**$453,500**
Nags Head	49.6	26.9%	66.0%	$65,968	$86,806	$37,785	86.5%	$327,900
North Topsail Beach	57.2	19.0%	50.4%	$57,500	$62,917	$53,522	45.7%	$290,700
Oak Island	59.8	38.9%	50.1%	$72,821	$85,607	$44,029	80.5%	$255,900
Ocean Isle Beach	64.9	10.6%	37.8%	$93,750	$102,083	$66,360	70.5%	$520,800
Pine Knoll Shores	63.9	31.8%	38.4%	$75,313	$90,347	$50,762	54.2%	$387,600
Southern Shores	58.2	51.7%	50.1%	$96,553	$111,914	$60,117	97.7%	$465,200
Sunset Beach	65.2	37.9%	25.1%	$57,265	$73,194	$39,628	57.4%	$267,900
Surf City	37.3	31.6%	63.4%	$75,556	$84,868	$37,098	63.2%	$275,700
Topsail Beach	58.8	15.4%	56.8%	$78,750	$106,607	$66,853	83.2%	$552,300
Wrightsville Beach	43.7	40.8%	63.1%	$109,013	$145,673	$76,496	42.8%	$798,700
NC Beach Municipal Average	55.7	31.1%	50.9%	$77,488	$92,392	$54,325	62.9%	$415,840
Kure Beach Rank	**10th Highest**	**6th Highest**	**10th Lowest**	**8th Lowest**	**9th Highest**	**10th Highest**	**10th Highest**	**6th Highest**

CHAPTER 3: NATURAL SYSTEMS ANALYSIS

Protecting and enhancing Kure Beach's natural systems are critical to the quality of life of residents and visitors. Natural features also play a key role in supporting the established local economy. Previous land use plans demonstrate a strong commitment to preserving the Town's beautiful and abundant natural resources. Accordingly, any residential, commercial, or other development activities permitted by the Town of Kure Beach shall be compatible and consistent with current regulations, development patterns, Areas of Environmental Concern (AEC) and wetlands requirements. This section of the Land Use Plan describes and analyzes the natural features and environmental conditions within the Town of Kure Beach and its immediate vicinity.

One of the basic purposes of North Carolina's Coastal Area Management Act (CAMA) is to establish provisions capable of the rational and coordinated management of coastal resources. Development of local land use plans and the designation and regulation of AECs provide the foundation for North Carolina's coastal resource management program. In combination, these mechanisms allow state and local governments to preserve and enhance the state's coastal resources. State guidelines have been adopted to ensure uniformity and consistency in land use plans and in the regulation of AECs; local governments, however, are granted significant flexibility when developing policies and taking actions to protect them. As a result, an important component of the Land Use Plan is to identify those AECs present within the Town of Kure Beach.

AREAS OF ENVIRONMENTAL CONCERN

The State Guidelines for Areas of Environmental Concern (15A NCAC 7H, the regulations governing development for AECs) require that local land use plans give special attention to the protection of appropriate AECs. CAMA charges the Coastal Resources Commission (CRC) with the responsibility for identifying the areas—water and land—in which uncontrolled or incompatible development might result in irreversible damage. CAMA further instructs the CRC to determine what development activities are appropriate in such areas – local governments are required to give special attention to these areas when developing land use plans. An AEC is an area of natural importance designated by the CRC. An AEC may be easily destroyed by erosion or flooding. It may also have environmental, social, economic, or aesthetic values worthy of protection. AECs have also been designated for protection from uncontrolled development that causes irreversible damage to property, public health, or the environment.

To limit detrimental impacts on AECs, CAMA established a permitting program. The intent of the permitting program is not to stop development, but rather to ensure the compatibility of development with continued productivity and value of critical land, waters, and natural resources. Responsibility for the permitting program is shared between the CRC and local governments. Local governments permit "Minor" development activities while "Major" development activities require permits from the CRC (Division of Coastal Management (DCM) personnel are the staff representatives of the CRC).

The CRC established four categories of AECs:

- Estuarine and Ocean Systems
- Ocean Hazard Systems
- Public Water Supplies
- Natural and Cultural Resource Areas

Two categories of AECs are not present within the Town of Kure Beach, public water supplies and natural and cultural resource areas. The two categories found within the Town's jurisdiction are Estuarine and Ocean Systems and Ocean Hazard Systems. As a result, only these two categories of AECs will be discussed in this chapter.

Estuarine and Ocean System

The estuarine and ocean system AEC is a broad category including the following components:

- Estuarine waters;
- Estuarine shorelines;
- Coastal wetlands; and,
- Public trust areas.

ESTUARINE WATER

Estuarine waters include all waters of the Atlantic Ocean within the boundary of North Carolina and all waters of the bays, sounds, rivers and tributaries seaward of the dividing line between coastal fishing waters and inland fishing waters (*NCGS 113A-113(b)(2)*). Kure Beach's extraterritorial jurisdiction is adjacent to a portion of the Cape Fear River which is designated as coastal fishing waters. Estuaries are extremely productive natural systems**.**

While the Town has no estuarine waters within its planning jurisdiction that are not otherwise classified as another type of AEC (e.g., public trust areas), Kure Beach has and will take steps to maintain and improve water quality to the area watershed and basin by implementing the Town's Stormwater Management Plan to retrofit and improve existing stormwater infrastructure, as well as National Pollution Discharge Elimination System (NPDES) Phase II stormwater regulations to control stormwater runoff.

Estuarine waters adjacent to the planning jurisdiction of Kure Beach provide important habitat for a diverse range of shellfish, birds and other forms of marine wildlife. Important habitat features of an estuarine system include its mud and sand flats, eel grass beds, salt marshes, submerged vegetation flats and clam and oyster beds. They provide nursery areas and serve as habitat for a variety of marine and benthic species. Generally speaking, development activities which are water dependent and require water access and cannot function elsewhere (e.g. simple access structures, structures to prevent erosion, boat docks, marinas, wharves and mooring piling) may be allowed within this AEC when consistent with the policies and regulations of Military Ocean Terminal Sunny Point (MOTSU), which is the largest military munitions terminal in the world. This facility is based on the western side of the Cape Fear River, though land associated with the facility is within the Town's extraterritorial jurisdiction.

ESTUARINE SHORELINE

The estuarine shoreline is the non-ocean shoreline, extending from the normal high water level or normal water level along the estuarine waters, estuaries, sounds, bays, fresh and brackish waters, and public areas (15NCAC 7H.0209). For non-Outstanding Resource Waters (ORW), the estuarine shoreline is defined as 75 feet landward from mean high water line (MHWL). For ORW waters, the distance is 575 feet. However, there are no ORW waters within Kure Beach. CAMA permits control development within the shoreline areas. Generally, development in this area may not weaken natural barriers to erosion, must have limited hard surfaces, and must take steps to prevent pollution of the estuary by sedimentation and runoff.

The Town of Kure Beach has estuarine shoreline system AECs within the extraterritorial area of the Town's jurisdiction, adjacent to the Cape Fear River.

COASTAL WETLANDS

The U.S. Army Corps of Engineers (COE) defines wetlands as those areas inundated and saturated by surface or ground water at a frequency and duration to support a prevalence of vegetation typically adapted for life in saturated soil conditions. Wetlands have significant values that support the unique lifestyle and quality of life enjoyed by Kure Beach residents and visitors. These values include:

- ***Water Storage***: wetlands are able to store heavy rain, surface runoff, and flood waters, thereby reducing downstream flooding.
- ***Shoreline Stabilization***: ground cover and roots of wetland plants help hold soil in place and prevent sedimentation and nutrient transport.
- ***Water Quality***: wetlands plants can enhance water quality by removing pollutants from surface water runoff.
- ***Wildlife and Aquatic Habitat***: the variety of plants, hydrologic and soil conditions associated with wetlands provide abundant food and cover for animal populations and support a number of endangered species and other rare plants and animals.
- ***Recreation and Education***: the rich array of plants and animals supported by wetlands provide significant consumptive and non-consumptive use values such as hunting, fishing, bird watching, kayaking, etc.

CAMA defines coastal wetlands as any salt marsh or other marsh subject to regular or occasional flooding by tides and contains some, but not necessarily all of the following marsh plant species: Cord Grass, Black Needlerush, Glasswort, Salt Grass, Sea Lavender, Bulrush, Saw Grass, Cat-tail, Salt Meadow Grass, and Salt Reed Grass. This definition does not include flooding by tides associated with hurricanes, tropical storms, or severe weather events (15A NCAC 07H.0206).

According to mapping developed by the DCM, Kure Beach has coastal wetlands of the brackish saltwater variety. There are more than 380 acres of wetlands within the Town’s planning jurisdiction. Throughout the corporate limits, approximately 75 acres are considered non-coastal wetlands while there are no coastal wetlands present within the Town. The extraterritorial jurisdiction contains almost 40 acres of coastal wetlands, consisting of salt water marsh, while more than 300 acres of non-coastal wetlands are present in the ETJ. Coastal wetlands are considered to be unsuitable for all non-water dependent development activities and other land uses that alter their natural functions.

Public Trust Areas

Public trust areas include coastal waters and the submerged tidal lands below the mean high water line. The water and submerged tidal lands are held in trust for the public to use through such activities as fishing, swimming, and boating. These areas will often overlap with estuarine waters, but they also include many inland fishing waters. As general guidance, the following lands and waters are considered to be public trust areas:

- All waters of the Atlantic Ocean and the lands underneath, from the MHWL seaward to the state's official boundary three miles offshore;
- All tidally influenced waters below and associated submerged lands below the MHWL;
- All navigable natural water bodies and the lands underneath from the normal high water line seaward (Navigable waters include anything you can float a canoe in). This does not include privately owned lakes where the public doesn't have access rights;
- All water 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 (CAMA Handbook for Development in Coastal North Carolina).

Accordingly, public trust waters in or adjacent to the Town of Kure Beach's planning jurisdiction include the Cape Fear River and the Atlantic Ocean. Since the submerged tidal waters are held in trust for the public, the state's policy is to ensure that the public is able to maintain access to these waters. All development, structures, and land uses that interfere with the public's right to the access and use of these waters is inconsistent with state policy. Conversely, navigation channels, piers, marinas, and bulkheads to control erosion are examples of uses that are frequently considered to enhance the public's use of these public trust areas. Such uses may be appropriate within the Town's jurisdiction when consistent with the policies and regulations of MOTSU.

Ocean Hazard System

Ocean Hazard AECs are areas where potential erosion and the adverse impact of sand, wind and water make uncontrolled or incompatible development unreasonable and hazardous to life and property. The Ocean Hazard category at Kure Beach includes three areas:

- Ocean erodible area;
- Inlet hazard area; and
- Unvegetated beach area.

Ocean Erodible Area

Ocean erodible areas are located along the beach strand where there is significant risk of excessive beach erosion and significant shoreline fluctuation due to natural processes such as hurricanes and tropical storms (15 NCAC 07H.0304). The seaward boundary of this area is the mean low water line (MLWL).

The ocean erodible area is defined on a lot-by-lot basis due to the significant variation in the first line of stable natural vegetation. The extent of the AEC is determined by multiplying the long-term annual erosion rate by 60 (15 NCAC 7H.0304). The first line of stable natural vegetation and/or the static vegetation line are utilized to determine the required CAMA oceanfront setback for structures.

DCM has found that erosion rates vary along the oceanfront in Kure Beach, ranging from 1.87 feet of accretion per year to 5.02 feet of erosion per year, with the most significant rates found near the southern Town limits.

Inlet Hazard Area

Inlet hazard areas are locations that are especially vulnerable to erosion, flooding and other adverse effects of sand, wind, and water because of their proximity to dynamic ocean inlets. There are no inlet hazard areas in the planning jurisdiction of the Town of Kure Beach.

Unvegetated Beach Area

The final ocean hazard system AEC is the unvegetated beach area. This is defined as land within the ocean hazard system where no stable natural vegetation is present. This area is subject to rapid and unpredictable landform change from wind and wave action. Currently, there is no unvegetated beach area within the Kure Beach planning jurisdiction.

Soil Characteristics

Soils found on Kure Beach have limited development potential for onsite sewage disposal systems (OSDS) due to poor filtration or being wet with poor filter. However, these soil conditions are of limited importance because Kure Beach is served by a central sewer system. Soils found in the Town's corporate limits include Leon Sand, consisting of minimally sloping, poorly drained sands; and Newhan Fine Sand, consisting of gently sloping, excessively drained sands. These soils are located around the edges of the most developed centrally located portions of the Town, which are classified as Urban Land due to the soils being altered or obscured by urban works and structures. Kureb Sand, which is gently sloping and excessively drained sand, makes up the plurality of soils in the extraterritorial jurisdiction.

Hazards

The Town of Kure Beach is located near the southern tip of New Hanover County, bordered by the Atlantic Ocean and the Cape Fear River. Due to its geographic location, the Town is susceptible to a variety of natural and manmade hazards such as flooding, hurricanes, nor'easters, severe thunderstorms, tornadoes, and urban fires. These hazards are summarized in the following sections.

Flood Hazard Areas

The 100-year flood plain is the accepted benchmark for defining flood hazard areas. Portions of Kure Beach adjacent to the Atlantic Ocean and Cape Fear River lie within the 100-year flood plain [See Special Flood Hazard Areas Map 3.1]. The flood plain in Kure Beach is mapped including:

- ***AE zones***: Special flood hazard areas inundated by the 100-year flood (one percent chance of a hundred year flood event); base flood elevations are determined;
- ***VE zones***: Special flood hazard areas inundated by the 100-year flood (one percent chance of a hundred year flood event); coastal floods with velocity hazards (wave action); base flood elevations are determined.

Most of the Town's oceanfront lots/structures are at least partially within VE zones, as are most areas adjacent to the Cape Fear River (See Table 3.1). A smaller number of properties in town are in the AE zone. There are some areas of Kure Beach that are not considered part of the 100-year floodplain but are still identified as having elevated flood risk. These areas are considered within the 500-year floodplain and are depicted in yellow on Map 3.2. For a coastal community, a high proportion of the Town is not within a flood zone. In fact, less than 40% of structures within the Town are in a Special Flood Hazard Area. As a result, a proportionally lower number of flood insurance claims have been paid relative to other beach towns. This is in part due to the distance between the most developed parts of Town and the Cape Fear River, as the sound side of barrier islands often receive significant impacts from storm surge.

The Town is required to periodically adopt updated flood maps prepared by the federal government to maintain membership in the National Flood Insurance Program. These updated maps may modify the elevation and design standards for new, repaired, and improved structures within the Town's planning jurisdiction. The flood maps for Kure Beach were last updated in 2018.

It is important to note that portions of the AE Zone are potentially vulnerable to wave action at a 1-percent-annual-chance flood event. This area is referred to as the Limit of Moderate Wave Action (LiMWA) and identifies the seaward side of the A Zone that is potentially vulnerable. Typically land located within a LiMWA zone is subject to VE Zone construction standards. Currently, there has not been a LiMWA identified within the corporate limits of Kure Beach, though a LiMWA has been established along the Cape Fear River through a significant portion of the extraterritorial jurisdiction.

Table 3.1: Structures within a Special Flood Hazard Area
Source: Cape Fear Council of Governments GIS; New Hanover County GIS, NC Flood Maps.

Special Flood Hazard Areas	Incorporated	ETJ	Total Planning Jurisdiction	
	Structures	Structures	Structures in Flood Hazard	Percentage of Total Flood Structures
500-year Floodplain	636	36	672	81.4%
AE	13	0	13	1.6%
VE	140	0	140	17.0%
Total	789	36	825	100%

Table 3.2: Jurisdictional Exposure to Flood Hazard
Source: Cape Fear Council of Governments GIS; New Hanover County GIS, NC Flood Maps.

Jurisdiction	Structures in Special Flood Hazard Area	Total Structures	Percentage of Total Structures in SFHA
Incorporated	789	1993	39.6%
ETJ	36	107	33.6%
Total	825	2,100	39.3%

FEMA Flood Insurance

According to the Federal Emergency Management Agency (FEMA), there are 4,983,598 flood insurance policies in force across the United States. Flood insurance is available in 22,531 participating communities nationwide including Kure Beach, where 965 policies are in force valued at $283,863,300. Since 1978, there have been 590 documented losses with payments exceeding $17,736,000.

One way to help minimize these losses and lower flood insurance premiums is to participate in the National Flood Insurance Program's (NFIP) Community Rating System (CRS). The CRS is a voluntary incentive program that recognizes and encourages community floodplain management activities that exceed the minimum NFIP requirements. As a result, flood insurance premiums are discounted to reflect the reduced flood risk resulting from the community actions meeting the three goals of the CRS: (1) reduce flood losses; (2) facilitate accurate insurance rating; and (3) promote the awareness of flood insurance.

For CRS participating communities, flood insurance premiums are discounted in increments of five percent. A Class 1 community receives a 45 percent premium discount, while a Class 9 community gets a five percent discount (a Class 10 is not participating in the CRS and receives no discount). The CRS classifications for local communities are based on 18 creditable activities, organized under four categories: (i) public information; (ii) mapping and regulations; (iii) flood damage reduction; and (iv) flood preparedness. Nationwide, there are more than 1,500 communities receiving flood insurance premium discounts based on their implementation of local mitigation, outreach, and educational activities that go beyond minimum NFIP requirements. While premium discounts are one benefit of participating in the CRS, the real benefit is that these activities help save lives and reduce property damage. Kure Beach participates in the CRS; the Town is a Class 8, which allows property owners to receive a 10 percent savings on their flood insurance policy.

Table 3.3: Flood Insurance Policies (As of July 2, 2021)
Source: NC Department of Public Safety

	Policies In-Force	Insurance In-Force
Kure Beach	965	$283,863,300
North Carolina	139,671	$37,488,175,100

Table 3.4: Loss Statistics for Kure Beach, Carolina Beach, Wrightsville Beach and North Carolina (1978 – July 2, 2021)
Source: NC Department of Public Safety

	Total Losses	Total Payment
Kure Beach	590	$17,736,713
Carolina Beach	2,866	$35,378,343
Wrightsville Beach	3,564	$52,223,442
North Carolina	104,762	$1,972,253,498

Hurricanes

One of the main flooding threats is from hurricanes. A hurricane is a cyclonic storm that originates in tropical ocean waters. As a hurricane develops, barometric pressure at its center falls while its winds increase. Winds at or exceeding 39 miles per hour result in a named tropical storm that is closely monitored by the National Oceanic and Atmospheric Administration's (NOAA's) National Hurricane Center. When winds exceed 74 miles per hour, it becomes a hurricane.

Hurricanes are judged by their power according to the Saffir-Simpson Scale. This measure of the power of a hurricane classifies hurricanes according to a sliding scale from 1 to 5 (with category 5 storms as the most severe) [Table 3.5]. Since hurricanes derive their strength from warm ocean waters, they generally deteriorate in intensity when they make landfall. The forward momentum at the time of landfall can range from just a few miles per hour to upwards of 40 miles per hour. The forward motion, combined with the counterclockwise surface flow make the front right quadrant of the hurricane the most dangerous in terms of damaging winds and storm surge.

In the past few years, the Town of Kure Beach has been impacted by several hurricanes including Matthew, Michael, Florence, and Isaias. Each storm had the potential to cause catastrophic damage from wind and flooding. However, while property near the ocean is often thought of as having the most hurricane-related risks, the most substantial damage from recent storms has occurred to inland communities some fifty miles from the coast.

Table 3.5: Hurricanes and the Saffir-Simpson Scale
Source: National Hurricane Center
https://www.nhc.noaa.gov/aboutsshws.php

Category	Wind Speed (mph)	Types of Damage
1	74-95	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.
2	96-110	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.
3	111-130	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.
4	131-155	Catastrophic damage will occur: Well-built framed homes can sustain severe damage with loss of most of the roof structure and/or some 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.
5	>155	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.

According to the National Weather Service, storm surge-induced flooding has killed more people in the United States in hurricanes than all other hurricane-related threats combined since 1900. Despite attempts to quantify potential storm surge impacts by hurricane category, threats vary greatly based on local geographic factors as discussed in the following section.

Storm Surge Areas

Areas in the 100-year floodplain are particularly vulnerable to storm surges and corresponding erosion, wave action, flooding, high winds, and beach washover associated with hurricanes. Storm surge is water pushed toward the shore by the force of winds swirling around the hurricane or low- pressure meteorological system. The advancing surge combines with the normal tides to create the hurricane storm tide otherwise known as the storm surge. As a result, the MHWL can rise by 15 feet or more. The rise in water level causes severe flooding in coastal areas, particularly when a storm surge coincides with high tide. Wind and wave action is then superimposed on this storm surge water level.

Waves and currents associated with the storm surge may cause extensive damage. Water weighs approximately 1,700 pounds per cubic yard; periods of prolonged wave action can demolish any structure not specifically designed to withstand such forces. Areas of the Town most likely to be impacted by storm surge are located in the VE Flood Zone as shown on Map 3.1.

Nor'easters

Another type of storm event with the potential for damage and severe beach erosion is what is known as a nor'easter. Unlike hurricanes, these storms are extra-tropical, deriving their strength from horizontal gradients in temperature. Although nor'easters are more diffuse and less intense than hurricanes, they occur more frequently, cover much larger stretches of shoreline, and can last much longer. As a result, they can cause coastal flooding, wind damage, and severe beach erosion. A number of nor'easters have impacted North Carolina in recent decades. These storm events have been known to cause erosion along the beach within the Town.

Tornadoes/Waterspouts

The National Weather Service defines a tornado as a violently rotating column of air in contact with the ground and extending from the base of a thunderstorm. Although tornadoes can occur throughout the year, most occur during the spring months of March (13 percent), April (11 percent), May (22 percent), and June (14 percent). The Enhanced Fujita Scale replaced the now-obsolete Fujita scale as the United States' tornado rating system in 2007. The scale was revised to reflect better examinations of tornado damage surveys, so as to align wind speeds more closely with associated storm damage. "EF" categories associated with the Enhanced Fujita Scale are listed in Table 3.6.

Tornadic waterspouts are tornadoes that form over water, or move from land to water. They have the same characteristics as a land tornado. They are associated with severe thunderstorms, and are often accompanied by high winds and seas, large hail, and frequent dangerous lightning. If a waterspout moves onshore, the National Weather Service issues a tornado warning, as some of them can cause significant damage and injuries to people.

Table 3.6: Operational Enhanced Fujita Tornado Scale
Source: NOAA, Enhanced F Scale for Tornado Damage: http://www.spc.noaa.gov/faq/tornado/ef-scale.html

EF-Scale	Winds (mph)
EF 0	65-85
EF 1	86-110
EF 2	111-135
EF 3	136-165
EF 4	166-200
EF 5	>200

Urban Fires

Urban fires are a manmade hazard. They occur in populated areas and usually involve buildings, structures, or outside areas. The potential for the spread of urban fires depends upon surface and fuel characteristics, recent climatic conditions, and current meteorological conditions, particularly wind. The likelihood of an urban fire in Kure Beach is not much different than other Towns. However, the likelihood of an urban fire spreading rapidly is high given the limited setbacks and the large number of structures with wooden patio style sundecks, which can act as fuel to spread urban fires. Other combustible items such as landscaping materials, stairs, lattices, HVAC mounting structures, fences, and cars located in setbacks can further increase the likelihood of a fire spreading to adjacent structures. Moreover, if a fire starts to spread, the fact that many houses are located on dead end streets that are not easily accessible can hinder or delay rescue and firefighting efforts.

WATER QUALITY

Surface waters should contain a balanced amount of nutrients and have normal fluctuations in salinity and temperature. They should also have plenty of oxygen and little suspended sediment so that marine life can breathe and receive enough sunlight to grow. Monitoring changes in North Carolina's water quality is important. Data collected helps scientists evaluate changing water quality conditions. Factors affecting water quality include:

- ***Nutrients***: While essential for plants and animals, they can be harmful if there is an overabundance;
- ***Sediments***: Can cloud the water and hamper the growth or even kill aquatic plants;
- ***Water temperature***: Changes in normal water temperatures can affect when animal and plants feed, reproduce and migrate;
- ***Salinity***: Changes in salinity can adversely affect a wide range of marine life;
- ***Dissolved oxygen***: Is essential for animals living within the estuary. Reduced levels of dissolved oxygen (e.g., due to an algae bloom or eutrophic conditions) can adversely affect marine life;
- ***Contaminants and other pollutants***: There are a variety of other contaminants and pollutants that can adversely affect the growth, survival, and reproduction of marine and benthic organisms.

As a strategy for the management of North Carolina's waters, the NC Department of Environment Quality's (DEQ) Division of Water Resources (DWR) assigns classifications to water bodies [See Map 3.2]. The primary classifications are:

- ***SC:*** All tidal salt waters protected for secondary recreation such as fishing, boating, and other activities involving minimal skin contact; fish and noncommercial shellfish consumption; aquatic life propagation and survival; and wildlife.
- ***SB***: Tidal salt waters protected for all SC uses in addition to primary recreation. Primary recreational activities include swimming, skin diving, water skiing, and similar uses involving human body contact with water where such activities take place in an organized manner or on a frequent basis.
- ***SA***: Tidal salt waters that are used for commercial shellfishing or marketing purposes and are also protected for all Class SC and Class SB uses. All SA waters are also High Quality Waters (HQW) by supplemental classification.

Additional water quality classifications include:

- ***High Quality Waters (HQW)***: Supplemental classification intended to protect waters which are rated excellent based on biological and physical/chemical characteristics through Division monitoring or special studies, primary nursery areas designated by the Marine Fisheries Commission, and other functional nursery areas designated by the Marine Fisheries Commission.
- ***Outstanding Resource Waters (ORW)***: All outstanding resource waters are a subset of High Quality Waters. This supplemental classification is intended to protect unique and special waters having excellent water quality and being of exceptional state or national ecological or recreational significance. No ORW are located in Kure Beach's jurisdiction.
- ***Swamp Waters (SW)***: Supplemental classification intended to recognize those waters which have low velocities and other natural characteristics which are different from adjacent streams.
- ***Nutrient Sensitive Waters (NSW)***: Supplemental classification intended for waters needing additional nutrient management due to being subject to excessive growth of microscopic or macroscopic vegetation.

See Map 3.2 displaying the surface water classifications.

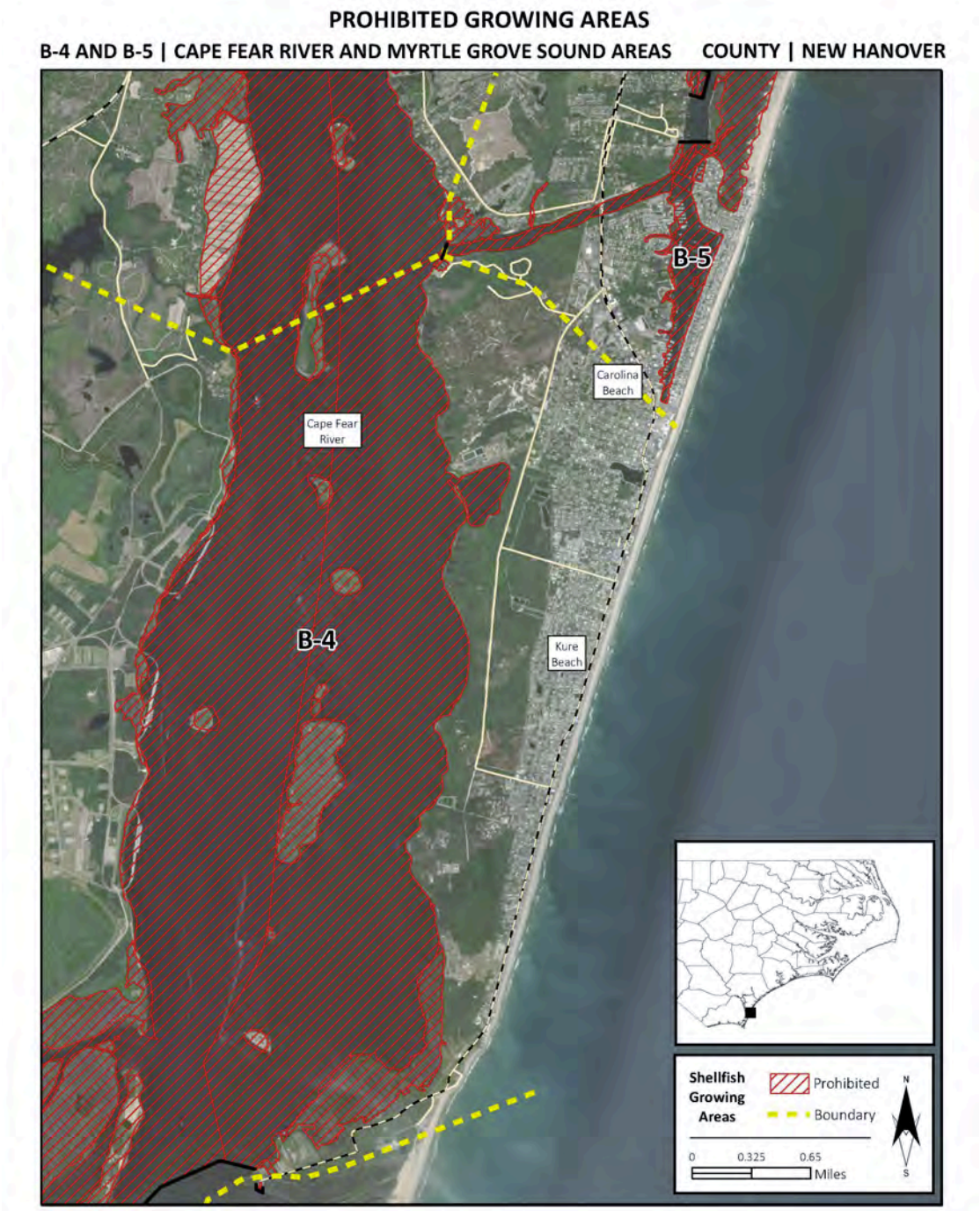
There are no areas within the jurisdiction of Kure Beach known to have chronic waste treatment malfunctions. This is due to the centralized sewage treatment system. The system has no chronic malfunctions and operates within its NPDES permit conditions.

The waters of the Cape Fear River adjacent to Kure Beach's planning jurisdiction are classified as SC – tidal salt waters protected for secondary recreation involving minimal skin contact. The ocean side of Kure Beach is classified as SB which is typical of coastal shoreline. This classification designates that the area is suitable for uses that involve body contact with the water in activities such as swimming.

Shellfishing and Primary Nursery Areas

The Cape Fear River adjacent to the Town of Kure Beach is permanently closed to shellfishing. This area is illustrated graphically (shown with red hatching) on the figure below as well as on the NCDEQ Division of Marine Fisheries website. This closure is due partially to stormwater runoff and other nonpoint sources of pollution from surrounding populated areas and employment centers, as well as other areas located further up along the Cape Fear River.

Figure 3.1: Kure Beach Area Shellfish Closures
Source: North Carolina Division of Environmental Quality Shellfish Maps



Salt marshes and estuaries along the North Carolina coast also serve as nursery grounds for 90 percent of fish species. North Carolina was the first state to protect these fragile ecosystems. The nursery system in North Carolina contains three categories:

- Primary nursery areas;
- Secondary nursery areas; and,
- Special secondary nursery areas.

Primary nursery areas are not found within or near the Town's corporate limits. There are some primary nursery areas located south of the town towards the mouth of the Cape Fear River and in the upper parts of Walden Creek. Primary nursery areas are generally located in the upper portions of creeks and bays. These areas are usually shallow with soft, muddy bottoms and are surrounded by marshes and wetlands [See Map 3.4]. Low salinity levels and abundance of food make these areas ideal for young fish and shellfish. To protect juveniles, many commercial fishing activities are prohibited in primary nursery areas including the use of trawl nets, seine nets, dredges, or any mechanical devices used to harvest clams and oysters. Violators face substantial penalties. There are no primary nursery areas within the Town of Kure Beach.

Permanent Secondary nursery areas are located in the lower portions of creek and bays. Young fish and shellfish (primarily blue crabs and shrimp) move into these waters as they grow and develop. Trawling is not allowed in secondary nursery areas. There are no permanent secondary nursery areas within the Town of Kure Beach.

Special secondary nursery areas are located adjacent to secondary nursery areas but are closer to open waters of sounds and the ocean. When juvenile species are abundant, these waters are closed to trawling for a majority of the year. There are no special secondary nursery areas within the planning jurisdiction of the Town of Kure Beach. However, the entire Cape Fear River area abutting the extraterritorial (ETJ) boundary is classified as a special secondary nursery area.

NON-COASTAL WETLANDS

Section 404 of the Federal Water Pollution Control Act ("the Clean Water Act") defines wetlands as "areas that are inundated or saturated by surface water or ground water at a frequency and duration sufficient to support, and that under normal circumstances do support, a prevalence of vegetation adapted to life in saturated soil conditions."

"Any person, firm, or agency (including Federal, state, and local government agencies) planning to work in navigable waters of the United States, or discharge (dump, place, deposit) dredged or fill material in waters of the United States, including wetlands, must first obtain a permit from the Army Corps of Engineers (ACOE)." If an activity requires an ACOE '404' permit, the state of North Carolina requires that a '401' water quality certification be obtained as well. The '401' certification is basically a verification by the state that a given project will not degrade waters of the State or otherwise violate water quality standards.

Within the planning jurisdiction of the Town of Kure Beach, there are approximately 400 acres of non-coastal wetlands. The largest type of non-coastal wetland is managed pineland, which makes up approximately 55% of the total non-coastal wetlands. The percentages and acreage of all wetlands in the planning jurisdiction of Kure Beach, in addition to a breakdown of wetlands in the corporate limits and extraterritorial jurisdiction, can be found in Table 3.7.

A description of the types of non-coastal wetlands found in the planning jurisdiction is below. The locations of these wetlands can be seen on Map 3.4.

Decompressional Swamp Forest – Very poorly drained non-riverine forested or occasionally scrub/shrub communities that are semi-permanently or temporarily flooded. Typical species include cypress, black gum, water tupelo, green ash and red maple.

Hardwood Flat – Poorly drained interstream flats not associated with rivers or estuaries. Seasonally saturated by a high water table or poor drainage. Species vary greatly but often include sweet gum and red maple.

Human Impacted – Areas of human impact have physically disturbed the wetland, but the area is still a wetland. Impoundments and some cutovers are included in this category, as well as other disturbed areas such as power lines.

Managed Pineland – Seasonally saturated, managed pine forests occurring on hydric soils. This wetland category may also contain non-managed pine forests occurring on hydric soils. Generally these are areas that were not shown on National Wetland Inventory maps. These areas may or may not be jurisdictional wetlands.

Pine Flat – Palustrine (non-tidal), seasonally saturated pine habitats on hydric (saturated) soils that may become dry for part of the year, generally on flat or nearly flat areas that are not associated with a river or stream system. This category does not include managed pine systems.

Pocosin – Palustrine scrub/shrub communities dominated by evergreen shrubs, often mixed with pond or loblolly pines. Typically occur on saturated, acid, nutrient poor, sandy or peaty soils; usually removed from large streams; and subject to periodic burning.

Table 3.7: Types of Non-Coastal Wetlands in Kure Beach
Source: NCDEQ, National Wetlands Inventory.

Types	Incorporated	ETJ	Total Planning Jurisdiction	
	Acres	Acres	Acres	Percentage of Total Non-Coastal Wetland Acres
Decompressional Swamp Forest	0	13.55	13.55	3.52%
Hardwood Flat	0	47.13	47.13	12.25%
Human Impacted	0	1.83	1.83	0.48%
Managed Pineland	33.86	188.05	221.91	57.66%
Pine Flat	42.99	49.81	92.8	24.11%
Pocosin	0	7.66	7.66	1.99%
Total	76.85	308.03	384.88	100.00%

Water Supply and Wellhead Protection Areas

There are no surface water supply waters in the vicinity of Kure Beach. Drinking water is supplied by two ground water aquifers: the Pee Dee and Castle Hayne. See Chapter 4 for a discussion of the water supply.

Environmentally Fragile Areas

Fragile areas are defined as sensitive areas that are easily destroyed by inappropriate or poorly planned development. Fragile areas include: AECs; coastal wetlands; non-coastal wetlands; sand dunes; ocean beaches and shorelines; estuarine waters; estuarine shorelines; public trust waters; complex natural areas; prime wildlife habitats; areas that sustain remnant species; areas with unique geologic formations; natural areas identified by the North Carolina Natural Heritage Program; and archeological and historical resources as well as other sensitive areas not currently protected under existing rules. Given its location, almost all of Kure Beach is located within or adjacent to fragile areas. Many of these areas have previously been discussed. This section describes natural heritage areas and the areas containing endangered species.

Natural Heritage Areas

The North Carolina Natural Heritage Program inventories, catalogues, and facilitates protection of the rarest and most outstanding elements of the natural diversity of our state. This includes plants and animals that are rare, or natural communities that merit special consideration as land use decisions are made. The information generated by this program supports informed evaluations of the trade-offs between biological diversity and development projects before plans are finalized. The information also facilitates the establishment of priorities for protecting North Carolina's most significant natural areas.

There are three natural areas identified within the planning jurisdiction of Kure Beach. The Fort Fisher Coquina Outcrop is at the southeastern corner of the Town's corporate limits. Both the MOTSU Buffer Zone Natural Area and the Lower Cape Fear River Aquatic Habitat are located in the Town's extraterritorial jurisdiction adjacent to the Cape Fear River. [See Map 3.5].

Areas Containing Endangered Species

Endangered species describe plant or animal species in danger of extinction within the foreseeable future throughout a significant portion of its range. The term "threatened species" is used when a plant or animal is deemed likely to become endangered within the foreseeable future throughout all or a significant portion of its range. Areas that contain, or are likely to contain, endangered species in the Town of Kure Beach's planning jurisdiction include the dry sand areas of the oceanfront beach, dunes, and undeveloped areas near the Cape Fear River. Endangered animals identified on Kure Beach include various types of birds including the piping plover, a variety of sea turtles, and other transitory wildlife. In order to help preserve endangered wildlife, turtle nesting areas are marked each year to protect the nests. It is important to keep in close contact with state and local agencies charged with protecting endangered species and sightings of rare and endangered plants and animals should be reported.

GOALS, OBJECTIVES, AND POLICIES

INTRODUCTION

The Town has established a set of land use and development related policies to act as guidelines during any official decision making process. These policies and goals provide citizens, property owners, and developers with a predictability of official actions. Town policies in this chapter relate to natural systems. Two CAMA management topics are covered in the policy section herein: Water Quality and Natural Hazard Areas.

It should be noted that these topic areas are developed as part of the Division of Coastal Management's 7B Land Use Planning Guidelines.

Refer to Appendix A for Definitions of actions words contained within the policy section.

NATURAL HAZARD AREAS

Goal 3.1: Conserve, and maintain barrier dunes, beaches, flood plains, and other coastal features for their natural storm protection functions and their natural resources giving recognition to public health, safety, and welfare issues.

Objective 3.1: Protect Against Damage from Hurricanes, Severe Weather or Other Hazards: The Town shall be proactive in its efforts to minimize damage and threats to public health and safety associated with hurricanes, severe weather, and other hazards and work to implement the *Southeastern NC Regional Hazard Mitigation Plan (2021)*.

Policy 3.1.A: Participation in the National Flood Insurance Program: The Town shall continue to be a member in good standing of the National Flood Insurance Program (administered by the Federal Emergency Management Agency) and to continue to allow Federal Flood Insurance to be available to residents.

Recommended Action 3.1.A.1: To the extent practical, continue to maintain the Town's Community Rating System level to preserve reductions in Flood Insurance Premiums within the community and enhance resilience to coastal flood damage and storms.

Policy 3.1.B: Permitted Development in Special Flood Hazard Areas: Town policy is to permit development to take place in Special Flood Hazard Areas as defined by the Federal Emergency Management Agency, and according to Kure Beach's Flood Damage Prevention Ordinance.

Policy 3.1.C: Protection and Nourishment of the Public Beach: The Town strenuously supports participation in the continued funding of coastal storm damage reduction activities. The Town of Kure Beach is committed to the idea of coastal storm damage reduction activities as the best method of dealing with the threat of erosion. The Town of Kure Beach strongly supports all federal, state, and local government efforts to assist beach communities with the funding assistance which makes coastal storm damage reduction activities possible.

Recommended Action 3.1.C.1: Consider continuing to advocate for financial support for coastal storm damage reduction activities with federal, state, and county officials.

Recommended Action 3.1.C.2: Consider developing a strategy for sustainable, long-term sources of funding for ongoing coastal storm damage reduction in the event that federal or state funding for coastal storm damage reduction projects is reduced.

Policy 3.1.D: Public Utilities in Hazardous Areas: Town policy is that the placement of public utilities in areas subject to flood may be unavoidable; however, placement of these utilities should be done only in a carefully planned manner with contingency plans made for the protection of resources and with alternative measures considered as a means of providing service during a time (such as in following a flood) where utility system damage may have caused a disruption of service.

Policy 3.1.E: Replacing or Relocating Damaged Utilities: Where possible, the Town shall replace or relocate public utilities which have sustained major damage due to a hurricane storm event away from hurricane hazard areas or strengthen their construction.

Policy 3.1.F: Underground Utilities: The Town shall encourage the placement of utilities underground for all new development where appropriate.

Recommended Action 3.1.F.1: Consider updating language in Kure Beach development regulations to clarify when underground utilities are required.

Policy 3.1.G: Responsibility for Private Roads: The Town shall not undertake public expenditure of funds for the repair or reconstruction of any private road or vehicular easement which is damaged or destroyed as a result of an intense storm event, except in conjunction with the repair of Town utilities. Private roads shall be the responsibility of individual property owners.

Policy 3.1.H: Opposing Environmentally Incompatible Development: The Town opposes hazardous and noxious or dangerous facilities which may wish to locate within the planning jurisdiction of the Town of Kure Beach due to the prevalence of environmentally sensitive features throughout and surrounding the community.

Policy 3.1.I: Discouraging Hazardous Development: The Town discourages high intensity uses and large structures from being constructed within the 100-year flood plain, erosion prone areas, and other areas susceptible to hurricane and other storm event flooding.

Recommended Action 3.1.I.1: Consider amending Town ordinances to provide additional regulatory standards defining and managing uses and structures that are inappropriate for construction within the 100-year flood plain, erosion prone areas, and other areas susceptible to hurricane and other storm event flooding.

Policy 3.1.J: Development Moratoria: The Town shall consider the need for a development moratorium following storm events where allowed by North Carolina General Statute.

Policy 3.1.K: Post-Storm Construction: The Town supports reconstruction of structures demolished by natural disaster in conformance with effective federal, state, and local regulations.

Policy 3.1.L: Regional Hazard Mitigation Planning: The Town supports the New Hanover County Emergency Management Department's emergency planning efforts, including implementation of the *Southeastern NC Regional Hazard Mitigation Plan (2021)* and related policies.

Recommended Action 3.1.L.1: Consider developing specific and timely recommendations for implementing hazard mitigation measures contained in the *Southeastern NC Regional Hazard Mitigation Plan (2021)* following a state or federally declared natural disaster.

Recommended Action 3.1.L.2: Consider applying for funding from the Hazard Mitigation Grant Program (HMGP) for priority projects in the event that the President declares Kure Beach a disaster area.

Policy 3.1.M: Resilience to Natural Hazards: The Town supports efforts to improve the ability of coastal communities to withstand and recover from natural disasters

Recommended Action 3.1.M.1: Consider opportunities to update development regulation and undertake projects that would increase the Town's resilience to natural hazards.

Policy 3.1.N: Land Acquisition: The Town may consider purchasing parcels located within hazard areas or rendered unbuildable by storms or other events for public purposes, including recreation.

Policy 3.1.O: Building Code: The Town shall continue to enforce the effective NC Building Code, particularly those provisions which require construction standards to meet wind resistive factors (i.e., design, wind velocity).

Policy 3.1.P: Native Vegetative Cover: The Town supports maintenance or replanting of native vegetative cover on vacant land within the municipality. Municipal property shall set a standard for beautification and planting which homeowners will wish to emulate. It is the policy of Kure Beach to maintain or re-plant native vegetative cover for the dune system within the municipality.

Recommended Action 3.1.P.1: Consider amending development regulations to require the use of native vegetation in landscaping for new construction and/or redevelopment.

Policy 3.1.Q: Protection of the Dune System: Town of Kure Beach policy is to enhance, support, and protect our barrier dunes and the barrier dune system. Additionally, the Town supports protection of natural features such as dunes and sea oats or other fragile grasses from destruction through overuse.

WATER QUALITY AND NATURAL ENVIRONMENT

Goal 3.2: Maintain, protect, and where possible enhance the natural environment and water quality in the Atlantic Ocean, the Cape Fear River, all coastal wetlands, creeks, streams, and estuaries.

Objective 3.2: Protect the Natural Environment of Kure Beach: The Town shall take actions designed to protect, and where possible enhance and restore, the sensitive natural resources located in and adjacent to the Town of Kure Beach.

Policy 3.2.A: Stormwater Impacts: The Town supports efforts to ensure that new construction will minimize stormwater impacts for established residents.

Recommended Action 3.2.A.1: Consider amending Town ordinances to enhance regulations addressing the use of fill dirt in development activities.

Policy 3.2.B: Pervious Surfaces Requirement for Residential Uses: The Town encourages the construction of driveway and parking areas with pervious materials.

Recommended Action 3.2.B.1: Consider amending Town ordinances to include provisions incentivizing and/or requiring pervious parking materials for certain development activities.

Policy 3.2.C.: Ocean Stormwater Outfalls: New oceanfront stormwater outfalls shall not be permitted in the Town.

Policy 3.2.D: Preservation and Enhancement of Water Quality: The Town supports work to preserve water quality in the area through compliance with state and federal regulations and enacting appropriate local regulations.

Recommended Action 3.2.D.1: Consider exploring opportunities for constructing infrastructure such as rain gardens and providing education to residents regarding best practices – such as the redirection of downspouts from the storm drain system – that protect water quality.

Recommended Action 3.2.D.2: Consider pursuing state funding for planning and facilities projects which will improve area water quality.

Policy 3.2.E: State Water Quality Programs: The Town supports and encourages the North Carolina Division of Water Quality (DWQ) and Division of Coastal Management in their efforts to educate the public on water quality issues.

Policy 3.2.F: Watershed Restoration: Where practicable, the Town shall encourage protection and enhancement of surface water quality through implementation of Watershed Restoration Plans.

Recommended Action 3.2.F.1: Consider pursuing grant funds to assist in developing a Watershed Restoration Plan. Pursuant to Section 205(j)/604(b) of the Clean Water Act, the Division of Water Resources will award grant funds to Regional Commissions and Councils of Government for to carry out water quality management and planning projects, including, but not limited to:

- Identifying most cost effective and locally acceptable facility and non-point source measures to meet and maintain water quality standards;

- Developing an implementation plan to obtain state and local financial and regulatory commitments to implement measures developed to meet water quality standards; and
- Determining the nature, extent, and cause of water quality problems in various areas of the state.

Recommended Action 3.2.F.2: Consider ensuring that the Watershed Restoration Plan contains the nine minimum elements required to receive EPA Section 319 funds for implementation of capital improvements projects

Policy 3.2.G: Joint Efforts to Protect Water Quality: The Town supports efforts to bring all area waters up to the highest quality use rating possible.

Policy 3.2.H: Diminish Stormwater Effects: The Town supports diminishing the amount of stormwater runoff draining directly into the Atlantic Ocean and the Cape Fear River. The Town supports the regulation of land development adjacent to water bodies as a means of maintaining and improving current water quality levels.

Policy 3.2.I: Pollution from Wastewater Sources: The Town supports efforts to minimize surface water pollution from wastewater sources.

Policy 3.2.J: Protection of Public Trust Rights: The Town supports public trust uses on the oceanfront and on the Cape Fear River shoreline, where compatible with MOTSU policy.

Policy 3.2.K: Protection of Wetlands: The Town shall cooperate with other permitting agencies including the NC Division of Coastal Management and the U.S. Army Corps of Engineers, to restrict and regulate development in freshwater wetlands, coastal wetlands, estuarine waters, and public trust areas. Land uses in these areas which are not consistent with local regulations and/or State and federal environmental protection regulations, shall not be permitted in Kure Beach.

Policy 3.2.L: Areas of Environmental Concern: The Town supports the North Carolina Division of Coastal Management and their enforcement of the regulations governing development activity in Areas of Environmental Concern (AECs) that require local land use plans give special attention to the protection and appropriate development of AECs.

Recommended Action 3.2.L.1: Consider seeking funds from the Clean Water Management Trust Fund and other sources to identify and to fix identified stormwater problems.

Recommended Action 3.2.L.2: Consider making the appropriate efforts to identify and eliminate stormwater discharges resulting from the Town's municipal activities.

Policy 3.2.M: Water Quality & Transportation Projects: The Town supports prioritizing environmental concerns, in particular water quality, when considering the construction and maintenance of transportation facilities.

Policy 3.2.N: Minimizing Waste Impacts: The Town shall consider opportunities for addressing litter and pet waste, which have a negative impact on water quality and the natural environment.

Map 3 - I : Flood Hazard Areas

Legend

- Corporate Limits
- ETJ Boundary
- Parcels
- Waterbody
- MOTSU Property

2020 Flood Hazard Areas

- 0.2% Annual Chance
- AE
- VE
- LiMWA

DOW
OCEAN
ALABAMA
H
K
RIVERFRONT
DAVIS
SEVENTH
SIXTH
FIFTH
FOURTH
THIRD
LARGO
ANCHOR
KURE DUNES
SEAWATCH
SETTLERS
GULF STREAM
SAILOR
SLOOP POINTE
SELANE
MYRTLE
OCEAN VIEW
HANBY
FORT FISHER
ATLANTIC
SPOT
SEARAY
PINFISH
MACKEREL
BONITO
SWORDFISH
SEA SHELL
GENERAL WHITING
WATER OAK
SAND DOLLAR
PELICAN

Kure Beach: 2022 Land Use Plan

TOWN OF KURE BEACH · NORTH CAROLINA ·

Atlantic Ocean

0 0.25 0.5 1 1.5 2 Miles

NORTH

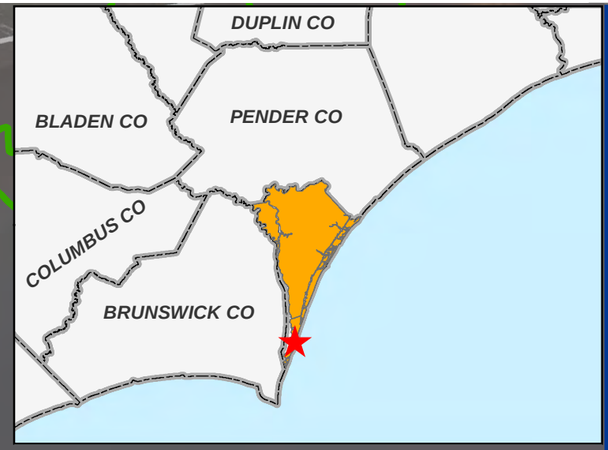
Map 3-2: Surface Water Classifications

Legend

- Corporate Limits
- ETJ Boundary
- Parcels
- MOTSU Property

Surface Water Classifications

- SB
- SC



Cape Fear River

Atlantic Ocean

DOW

OCEAN

ALABAMA

RIVERFRONT

DAVIS

H

K

SEVENTH

SIXTH

FIFTH

FOURTH

THIRD

SEA SHELL

GENERAL WHITING

WATER OAK

SAND DOLLAR

PELICAN

ATLANTIC

LARGO

ANCHOR

KURE DUNES

SEAWATCH

SELANE

SLOOP POINTE

SAILOR

GULF STREAM

SETTLERS

MYRTLE

OCEAN VIEW

HANBY

FORT FISHER

SPOT

SEARAY

PINFISH

MACKEREL

421

Kure Beach: 2022 Land Use Plan

TOWN OF KURE BEACH · NORTH CAROLINA ·

0 0.25 0.5 1 1.5 2 Miles

NORTH

Map 3 - 3: Wetlands

Legend

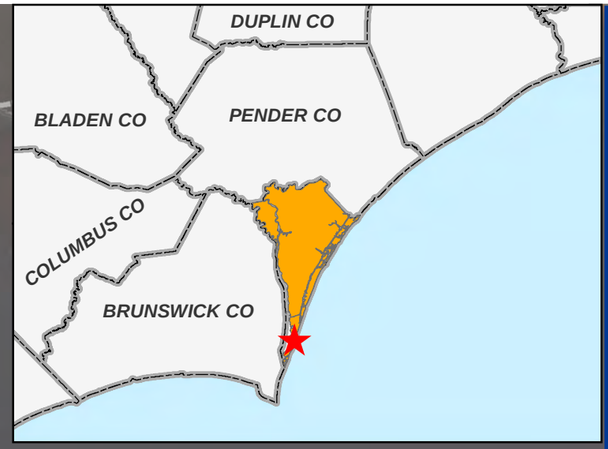
- Corporate Limits
- ETJ Boundary
- Parcels
- MOTSU Property

Coastal Wetlands

- Salt/Brackish Marsh

Non-Coastal Wetlands

- Depressional Swamp Forest
- Pine Flat
- Hardwood Flat
- Human Impacted
- Managed Pineland
- Pocosin



Cape Fear River

CAPE FEAR RIVER

RIVERFRONT
DAVIS
H
K
SEVENTH
SIXTH
FIFTH
FOURTH
THIRD
SEA SHELL
GENERAL WHITING
WATER OAK
SAND DOLLAR
PELICAN
Atlantic Ocean
ATLANTIC
FORT FISHER
LARGO
ANCHOR
KURE DUNES
SEAWATCH
SELANE
SLOOP POINTE
SAILOR
GULF STREAM
SETTLERS
MYRTLE
OCEAN VIEW
HANBY
DOW
ALABAMA
OCEAN
SPOT
SEARAY
BONITO

Kure Beach: 2022 Land Use Plan

TOWN OF KURE BEACH · NORTH CAROLINA ·

Atlantic Ocean

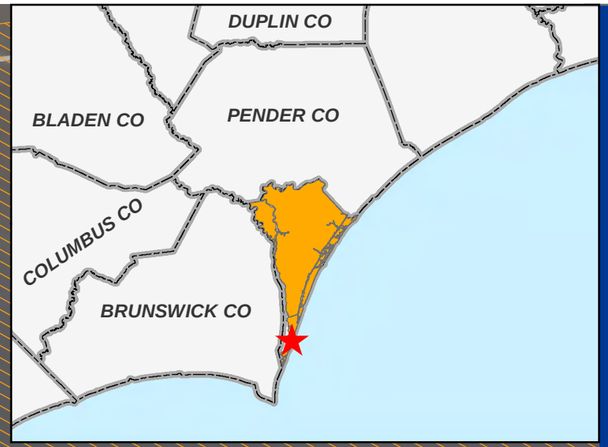
0 0.25 0.5 1 1.5 2 Miles

NORTH

Map 3-4: Nursery Areas SNHA

Legend

- Corporate Limits
- ETJ Boundary
- Parcels
- LCF River Aquatic Habitat
- Fort Fisher Coquina Outcrop
- MOTSU Buffer Zone Natural Area
- Special Secondary Nursery Areas



Cape Fear River

RIVERFRONT
DAVIS
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SETTLERS
GULF STREAM
SAILOR
LARGO
ANCHOR
SLOOP POINTE
SEAWATCH
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SWORDFISH
SNAPPER
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WATER OAK
SAND DOLLAR
PELICAN
ATLANTIC
FORT FISHER

Atlantic Ocean

0 0.25 0.5 1 1.5 2 Miles

NORTH

Kure Beach: 2022 Land Use Plan

TOWN OF KURE BEACH · NORTH CAROLINA ·

CHAPTER 4: ANALYSIS OF COMMUNITY FACILITIES

The Coastal Area Management Act (CAMA) planning guidelines encourage coastal communities to evaluate the location and adequacy of community facilities that protect important environmental factors and that attract land development in the coastal area. The facilities and services typically found in coastal communities include:

- water supply systems;
- wastewater systems;
- stormwater systems;
- transportation systems;
- fire and EMS services; and
- recreational opportunities & public access facilities.

This chapter provides analysis and information pertaining to each item listed above.

WATER SUPPLY SYSTEM STATUS AND TRENDS

Water Supply System

In Kure Beach, the water supply system sources water from the Pee Dee and Castle Hayne aquifers. As of 2020, the Town had 2,301 residential connections and 49 commercial connections. The finished storage capacity of the Town's water system is 0.600 million gallons across two elevated storage tanks. The system's capacity to supply water regular well production capacity is slightly greater than storage capacity, at 0.637 million gallons per day (MGD). In total, there are approximately 10 miles of water lines serving the Town, ranging in diameter from six to ten inches.

Figure 4.1: Town Water System
Source: Town of Kure Beach

Water Demand Status and Trends

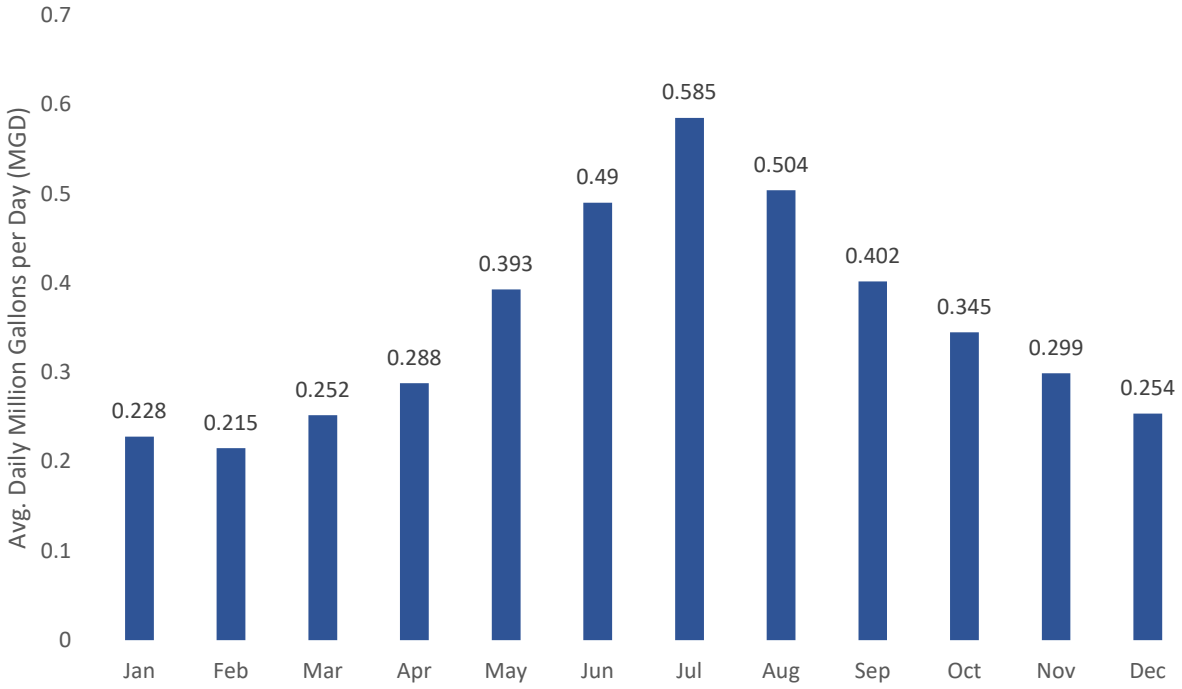
Community water systems need to provide an adequate and reliable source of treated water for consumption and commercial use. In addition, water must be made available for structural fire suppression and for other emergencies. Per FEMA guidelines, water demand "needs to be provided during all periods of each day, day of the week and week of the year for consumer use plus the capability to meet required fire flows when a serious fire erupts in a community." Fire suppression capacity is of particular importance for beach communities because, as mentioned in Chapter 3, the typical beach community development pattern of limited setbacks and wooden patio style sundecks provides a conducive environment for fires to spread rapidly.

In North Carolina, every governmental, regional, or private agency that provides water service to the public is responsible for preparing a Local Water Supply Plan. The Water Supply Plan is reviewed by the North Carolina Division of Water Resources to ensure adequate supplies are provided to avoid shortages and to be available during emergencies.

According to the 2020 Local Water Supply Plan, February accounted for the lowest monthly water demand at 0.215 Million Gallons Daily (MGD) and July, the greatest, at 0.585 MGD. Figure 4.2 displays water consumption figures for 2020. Peaks and valleys in demand coincide with seasonal visitation and irrigation patterns.

For planning purposes, the Town must also account for peak day usage. In 2020, the peak day usage occurred in August, with a total flow of 0.787 million gallons – approximately 124% of total production capacity. Despite occasional peaks in demand, capacity is not typically an issue as the average daily usage for 2020 was 0.390 MGD – less than 60% of total capacity.

Figure 4.2: Water Consumption – Kure Beach (2020)
Source: NC Division of Water Resources, Town of Kure Beach, Cape Fear Council of Governments
https://www.ncwater.org/WUDC/app/LWSP/report.php?pwsid=04-65-025



According to the 2020 Local Water Supply Plan, Kure Beach has the capacity to meet anticipated demand through the year 2070 for all its existing and future customers – including visitors. In 2020, the town was using 56% of their total water supply. This calculation includes estimated population projections for seasonal and permanent residents, but is based only on the annual average daily usage. The Water Supply Plan anticipates that by the year 2070, future water demand will account for 58% of available production capacity. It should be noted that this estimate is based upon the annual average daily demand and does not account for the peak day usage or additional burden a significant fire might bring to the system. As noted above, highest peak daily demand already exceeds supply.

As discussed in Chapter 2, there is an estimated peak overnight population of 14,611. This figure can be used to determine the peak demand for gallons per capita per day during the peak seasonal months of June, July, and August. In June 2020, the peak day demand equates to 33.80 gallons per capita per day (max daily usage / seasonal population = gallons per capita per day). If gallons per capita per day remains unchanged (33.80) and the seasonal overnight population increases to 20,000, there will be a peak day demand of 0.676 MGD, which will exceed the Town's current 0.637 MGD capacity. Kure Beach has installed two emergency wells that could be used to accommodate an increase in peak population. The first well, which can produce 0.034 MGD, is at Assembly Avenue and could be used at any time to meet future supply needs. There is also a well at N Avenue that can produce 0.216 MGD which could be used for a longer-term emergency after being sampled. This would give the Town a total capacity of 0.887 MGD which is enough to provide water for a seasonal overnight population of 20,000 people. These wells also play a key role in addressing current and future fire prevention needs.

It should be noted that population growth is expected to continue over the next 30 years, which would lead to increases in both residential and commercial demand for water and wastewater capacity.

Figure 4.3: Town Wastewater System
Source: Town of Kure Beach

Wastewater System Status and Trends

Wastewater System

The Town of Kure Beach wastewater collection and treatment system extends to all developed areas within Town limits. All residents and businesses are required to connect to the system, which currently has 2,269 connections. No areas within Kure Beach are experiencing chronic wastewater treatment system malfunctions, and there are no system failures known to be affecting the quality of water within the vicinity of the Town.

There are no private wastewater systems operating within the Town of Kure Beach. Connection to the public system is now required of all residents and businesses within the Town.

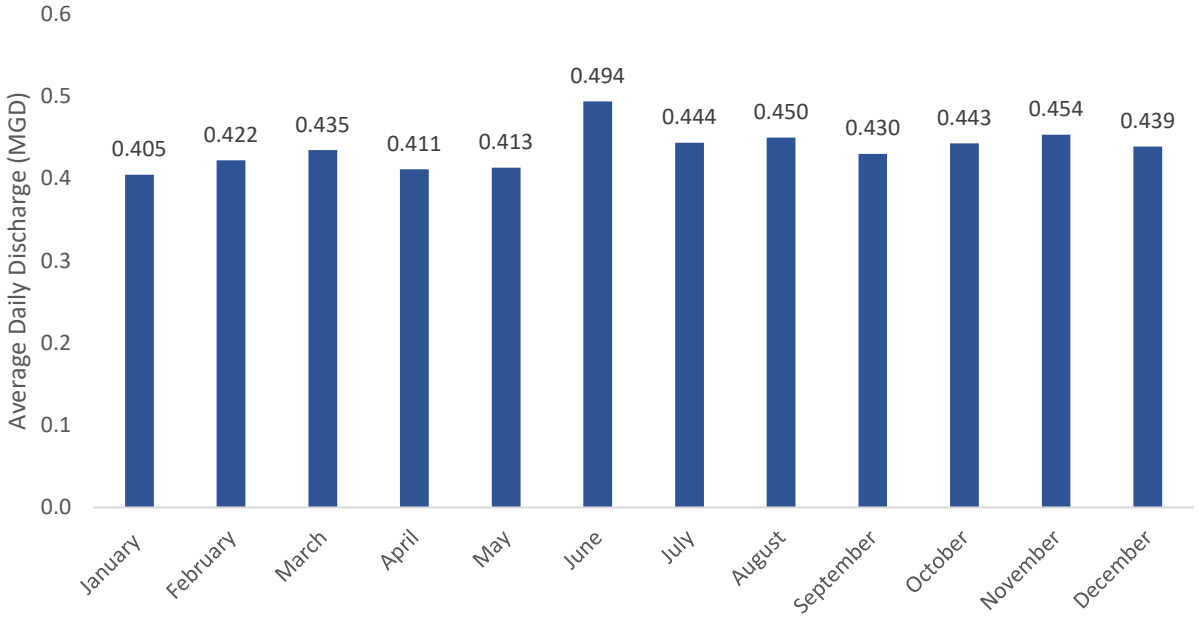
A portion of Kure Beach's wastewater is sent to a treatment plant in the Military Ocean Terminal Sunny Point (MOTSU) buffer zone, and the Town also has an agreement with the Town of Carolina Beach to send wastewater flow to the Carolina Beach Wastewater Treatment Plant (WWTP), which is jointly owned by Kure Beach and the Town of Carolina Beach. Kure Beach's facility is permitted to treat 0.285 MGD and in 2020 treated an average annual daily discharge of 0.199 MGD. On average, an additional 0.238 MGD is discharged to Carolina Beach. Kure Beach may discharge up to 0.728 MGD via this interconnection according to the 2020 Carolina Beach Water Supply Plan.

In June of 2020, the Town's average daily wastewater flow (0.494 MGD) was less than half of total permitted capacity including interconnection. Figure 4.4 shows the amount of wastewater discharged per month and average discharge per day for Kure Beach in 2020. In 2020, the date of the peak day daily flow for the Town was in June, during which approximately 0.711 million gallons of wastewater was discharged. The system's total permitted capacity, including the interconnection with the Carolina Beach WWTP is 1.013 MGD. Despite occasional peaks in demand, capacity is not typically an issue as the average daily usage for 2020 was 0.437 MGD – less than 45% of total capacity. However, expansion of facility capacity may be needed as Kure Beach continues to grow.

Table 4.1: Kure Beach Wastewater Treatment Facilities
Source: NC Division of Water Resources and Kure Beach Public Works Department

Facility	Capacity	Annual Average Daily Discharge (2020)
Kure Beach WWTP	0.285 MGD	0.199 MGD
Carolina Beach Interconnection	0.728 MGD	0.238 MGD
Total	1.013 MGD	0.437 MGD

Figure 4.4: Kure Beach Wastewater Discharge (2020)
Source: NC Division of Water Resources, Town of Kure Beach



Currently, planned wastewater infrastructure capital expenses are limited to maintaining the current system with no major projects anticipated in the near future.

STORMWATER SYSTEM

The Town's Universal Storm Water Ordinance became effective in September of 2007. The stormwater ordinance was adopted to protect, maintain, and enhance the environment, public health, safety, and general welfare of the citizens of Kure Beach by controlling the adverse effects of increased post-construction runoff and illicit discharges. The purpose of the local ordinance is to provide greater protection than offered through state regulations and to retain stormwater on individual lots to ensure new development does not adversely impact adjacent properties.

The existing stormwater collection system includes a network of ditches, pipes, culverts, and curb and gutter. Kure Beach topography is such that there is a slight ridge that runs from the northeast to the southwest. The Kure Beach drainage area east of 4th Street drains toward the Atlantic Ocean while the area west of 4th Street drains to the Cape Fear River.

Several stormwater projects have been completed to date. Between 2005 and 2007, the Town collaborated with both N.C. State University and N.C. Department of Transportation (NCDOT) to develop and install infiltration systems in dune areas to capture the first one-half inch of rain and use sand to filter pollutants before the water discharges to the ocean. Monitoring of these systems has shown them to work as expected.

Since 2017, the Town has been working to study the feasibility of installing more infiltration systems on beach accesses south of the pier to improve water quality. Additionally, the Town is coordinating with MOTSU to ensure the continued functionality of ditches, which convey stormwater from the community across federally owned property to the Cape Fear River, via an agreement allowing Kure Beach to engage in inspections and maintenance of the ditches. These ditches are depicted in Figure 4.5.

Figure 4.5: Western Stormwater Ditches
Source: Town of Kure Beach, Cape Fear Council of Governments

As discussed in Chapter 3, pursuing a Watershed Restoration Plan may be an opportunity for the Town to identify projects that would improve the quality of stormwater runoff and pursue EPA Section 319 funds to implement associated capital improvements.

TRANSPORTATION SYSTEMS

Snow's Cut Bridge, located in Carolina Beach, and the ferry connecting Southport to Fort Fisher are the only means of ingress and egress to the Town of Kure Beach, though vehicles may take Lake Park/Fort Fisher Boulevard or Dow Road from Carolina Beach to Kure Beach. Accordingly, traffic on the bridge during summer months is common as it is at major intersections in and adjacent to the Town. Snow's Cut Bridge, ferry service, and roadway design capacity are discussed in the following sections.

Snow's Cut Bridge

Snow's Cut Bridge is operated and maintained by NCDOT. The concrete bridge was constructed in 1963 to replace a previously existing swing bridge as the only roadway connection between the southern portion of New Hanover County and the mainland. In 2019, the average annual daily traffic (AADT) measured a quarter of a mile north of the bridge was 31,000. In 2011, an AADT of 29,000 was measured at the same location suggesting relatively steady traffic volumes over the past decade. The bridge may be closed when sustained wind speeds reach 45 mph, which limits access to the mainland in the event of a storm. Current regional transportation planning documents call for a replacement bridge for the Snow's Cut Bridge in 2040.

Traffic Counts

The AADT is the number of vehicles passing in both directions over a single point on a roadway over the course of a year divided by the 365 days in a year. For example, if 50,000 vehicles pass a single point on the road in a year, the AADT is 137 vehicles per day (50,000 / 365 = 137). It must be noted that these annual traffic counts are averages, and certain peak season days produce traffic counts well in excess of the AADT count. Seasonal traffic counts are of particular concern in Kure Beach. However, in 2008, the NCDOT Traffic Survey Group suspended standalone seasonal traffic counts. As a result, only AADT counts are available. Peak volumes are included in the AADT but are not available separately for comparison purposes.

To evaluate transportation and roadway deficiencies, AADTs are typically compared to a road's design capacity. Traffic on key segments of various roadways is counted and calculated annually and compared to a standard road design capacity based on that roadway's individual type. For example, a two-lane roadway has a different design capacity than a roadway that has two lanes and a center turn lane.

In Kure Beach, the highest AADT counts are found on Fort Fisher Boulevard North near Carolina Beach, which the NCDOT reports has an AADT of 7,500 as of 2019. The next highest counts are found on Fort Fisher Boulevard South near K Avenue, which has an AADT of 5,100. See Map 4.1 for more information.

None of the roadways within Kure Beach have an AADT which exceeds the current capacity. However, if accounting for seasonal increases in population and traffic, then both Fort Fisher Boulevard and Dow Road may exceed capacity or approach it during the summer months. It should be noted that NCDOT designs roadways for AADT, not peak traffic counts.

2045 Metropolitan Transportation Plan

Kure Beach is a member of the Wilmington Metropolitan Planning Organization (WMPO), which coordinates transportation planning for the Wilmington, NC UZA (Urbanized Area). The WMPO is responsible for the development of the area's Metropolitan Transportation Plan (MTP) and the identification and ranking of projects for funding through an adopted Transportation Improvement Program (TIP). The WMPO planning area includes all of New Hanover County and its incorporated municipalities, portions of southern and eastern Pender County, and portions of eastern Brunswick County including the Towns of Belville, Leland, and Navassa.

The development of the WMPO MTP coincides with and complements NCDOT's prioritization process. The Strategic Transportation Investments (STI) law created a process to determine how NCDOT, in partnership with local governments, will fund and prioritize transportation projects in the state of North Carolina. Under STI, all modes compete for the same funding. This means that roadway projects compete with ferry projects which will compete with public transportation projects, bicycle/pedestrian, aviation, and rail.

The Strategic Prioritization Office of Transportation (SPOT) develops quantitative scores for all projects. Only the highest scoring projects are selected to be included in the NCDOT Statewide Transportation Improvement Plan (STIP). The STIP, which identifies the transportation projects that will receive funding during a 10-year period, is a state and federal requirement. Federal law requires it to be updated at least every four years. NCDOT, however, generally updates it every two years. Although Kure Beach does not have any projects included in the 2020-2029 STIP, two transportation projects in the Town are recommended in the WMPO 2045 MTP. These projects are described in Table 4.2.

Table 4.2: Kure Beach WMPO 2045 Metropolitan Transportation Plan Project Recommendations
Source: WMPO 2045 Metropolitan Transportation Plan

Roadway	Description	Improvement	Cost Estimate
K Ave. & Fort Fisher Blvd.*	Install curb ramps and pedestrian signals, and paint crosswalks	Crosswalk improvement	$110,000 (2040)
Fort Fisher Blvd.	New trolly route from Carolina Beach Town Hall to the Aquarium requiring additional capital and operation costs	New trolly line	$1,705,332 (2040)

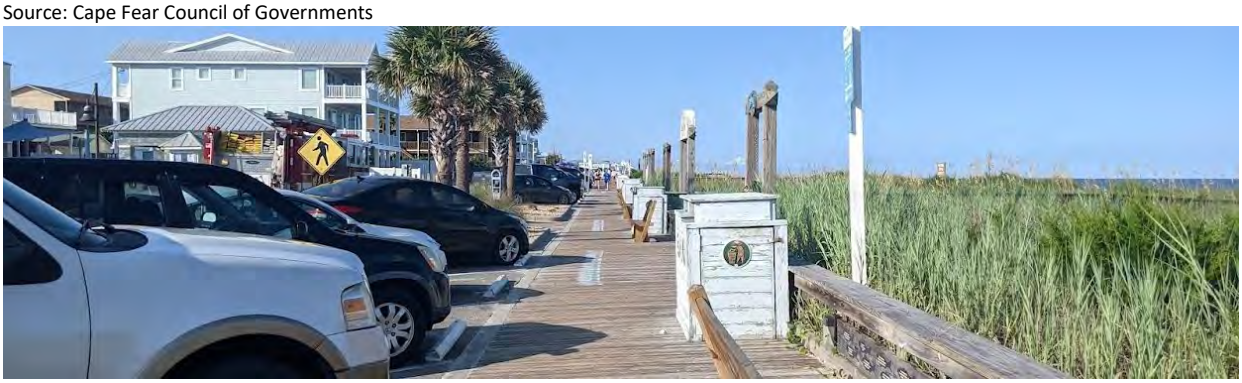
*In 2021, the WMPO approved a grant to move this project forward with a ten-year completion deadline.

Non-Motorized Transportation

Non-motorized transportation is increasingly important nationwide and particularly for tourist destinations such as Kure Beach. Non-motorized transportation refers to alternative travel choices such as cycling or walking. While non-motorized transportation is often considered a leisure travel mode, it can also be utilized to travel from point A to B for utilitarian purposes. Residents have expressed interest in expanding options for cycling and pedestrian travel in the Town.

Currently, the Town's planning jurisdiction includes nearly three miles of pedestrian infrastructure in the form of sidewalks. Most of this infrastructure is found along K Avenue and Fort Fisher Boulevard through the center of Kure Beach, though some neighborhoods have sidewalks as well. These facilities make portions of the community walkable year-round which reduces traffic related congestion and increases pedestrian safety. See Map 4.2 for more information.

Figure 4.6 Pedestrian Infrastructure – Atlantic Avenue & K Avenue
Source: Cape Fear Council of Governments



The Island Greenway provides off-street bicycle and pedestrian connectivity in neighboring Carolina Beach. Kure Beach plans to pave a short path on Town property to allow the Island Greenway connectivity with Spot Lane. As Kure Beach is working with the WMPO on a specific plan dedicated to analyzing Town bicycle and pedestrian infrastructure, the recommendations from that plan may be utilized to provide additional information on the feasibility and desirability of further extending the Island Greenway, as well as opportunities for continuing to enhance the safety and convenience of infrastructure supporting non-motorized transportation throughout the Town.

Ferry Service from Southport to Fort Fisher

As discussed in Chapter 2, a ferry service operated by the NCDOT Ferry Division connects Southport to the Fort Fisher area south of Kure Beach. This service has the capacity to transport cars, which supports a substantial influx of visitors in each direction. The ferry service transported more than 450,000 passengers per year from 2010 to 2019, with most visitors passing through during the summer months.

To maintain current levels of service, NCDOT has recently completed maintenance projects on vessels and docks associated with the route and dredging is scheduled to take place in the near future. While there are plans under consideration to expand the number of vessels associated with the route, funding has not been committed at this time.

Fire and EMS Services

The Kure Beach Fire Department provides firefighting and other emergency services and is located at 608 K Avenue. The Department has volunteer, part-time, and full-time firefighters as well as seasonal ocean rescue personnel. Like many communities, Kure Beach has adjusted to a diminishing pool of volunteers with additional full-time staff members. Vehicles owned by the Department include a 1,500 GPM (Gallons Per Minute) fire engine, 1,250 GPM fire engine, an International Service truck, a Brush Truck, a squad truck, a 17-foot Carolina Skiff, several all-terrain vehicles, and a small four-wheel drive vehicle. A third-party test of fire hydrants throughout the Town conducted in 2020 indicated that the Town meets the state's minimum fire flow requirements for water pressure.

Emergency Medical Services (EMS) are provided to the Town by New Hanover Regional EMS, which provides service to the whole county.

Recreational Opportunities, Public Access, and Boating Access

CAMA considers public access facilities to be one of the key components of a coastal community's infrastructure. This section of the Land Use Plan inventories public access facilities and identifies potential public access sites so that the Town may discuss and establish policies and objectives to further the goal of maximizing and maintaining public access.

Parks and Recreation

Ocean Front Park and Pavilion

Kure Beach's Ocean Front Park and Pavilion is located at 105 Atlantic Avenue. The park hosts concerts, open air markets, and other entertainment. This Park includes an open-air pavilion with a stage for concerts, weddings and events, public restrooms, a walking path, and a play area for children and swings. Additionally, the park also offers a public beach access and is located next to the Kure Beach Pier.

Figure 4.7 Ocean Front Park
Source: Town of Kure Beach

Joe Eakes Park

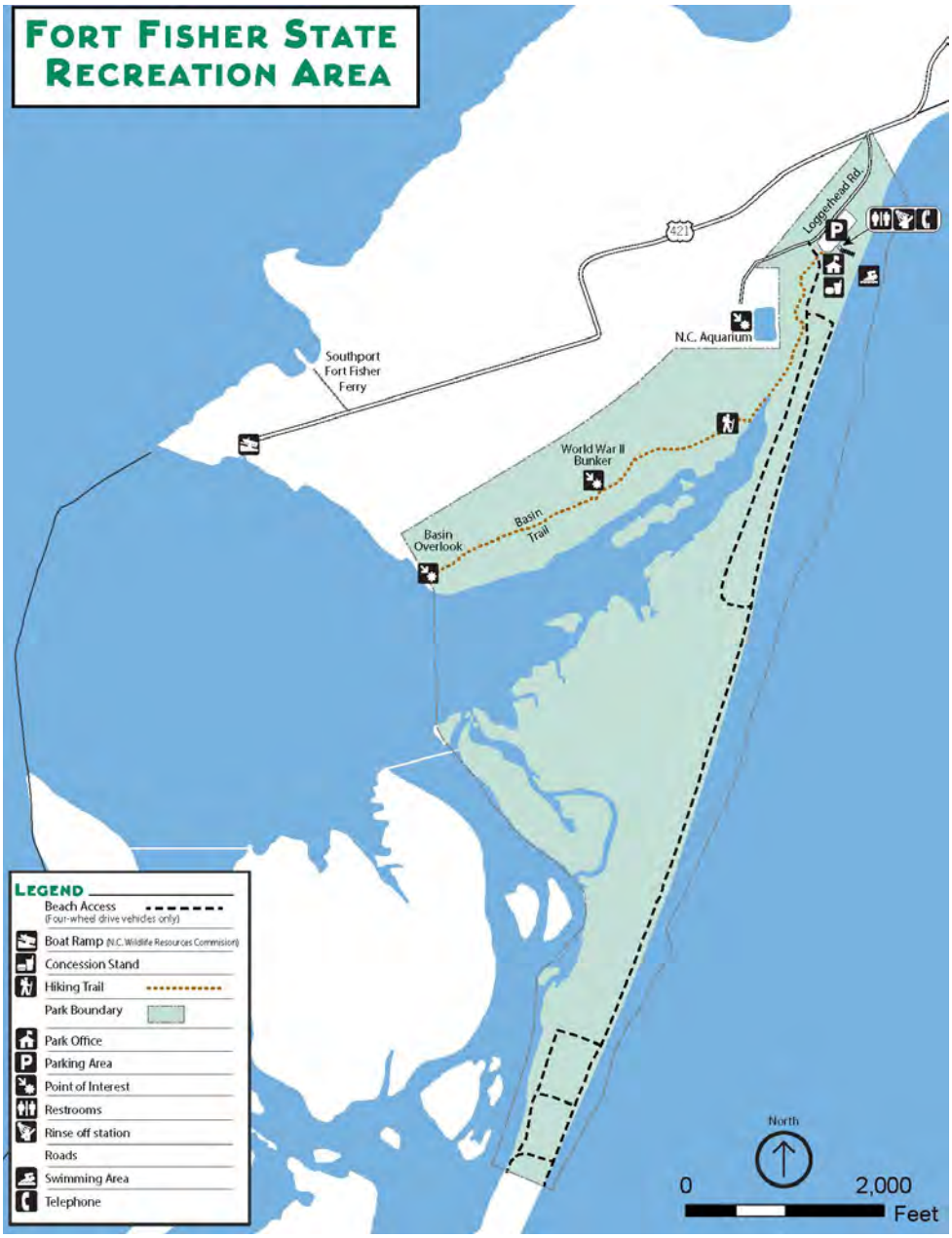
Joe Eakes Park is located at the corner of K Avenue and 7th Avenue. The park includes a children's playground, a picnic area, a full basketball court, a regulation baseball field, two bocce ball courts, two tennis courts with a practice backboard, five pickleball courts (lines painted on the basketball and tennis courts), and an 18-hole disc golf course. The park also includes the Gurney Hood Barking Lot (dog park) where dogs are allowed off leash.

Figure 4.8 Joe Eakes Park
Source: New Hanover County GIS

Fort Fisher State Recreation Area

Fort Fisher State Recreation Area is located south of the Town of Kure Beach nestled between the Atlantic Ocean and the Cape Fear River. As discussed in Chapter 2, approximately 875,000 people are estimated to visit each year. The recreation area includes a park office and exhibit hall, changing area and showers, as well as 23 shaded picnic tables with grills. Four-wheel drive vehicles are allowed seasonally with required permits and provides lifeguard service in the designated swim area from Memorial Day through Labor Day. The swimming area has 200 associated parking spaces. Additionally, the 1.1 mile one-way Basin Trail meanders through areas of marsh and maritime forest to an overlook of the Cape Fear River and Zeke's Island.

Figure 4.9 Fort Fisher State Recreation Area
Source: North Carolina Division of Parks and Recreation



Existing Public Access Sites

There are 24 existing DCM public access sites along the approximately three miles of oceanfront beach in the Town equating to one access site every 800 feet. These sites are primarily located along both North and South Fort Fisher Blvd. The majority of the public access sites in the Town are dune crossovers. See Table 4.3 and Map 4.3 for more information.

Table 4.3 CAMA Public Beach Access Locations
Source: North Carolina Division of Coastal Management, Town of Kure Beach

Location	Address	Comment
End of Ocean View Ave.	1006 Fort Fisher Blvd. N.	No parking available
LaQue North	632 Fort Fisher Blvd. N.	No parking available
LaQue South	460 Fort Fisher Blvd. N.	No parking available
N Avenue	343 Atlantic Ave.	11 parking spaces available, w/ 2 golf cart spaces and 1 ADA (Americans with Disabilities Act) space
Atlantic Avenue North	318 Atlantic Ave.	No parking available
M Avenue	242 Atlantic Ave.	No parking available
Atlantic Avenue South	222 Atlantic Ave.	No parking available
L Avenue	202 Atlantic Ave.	3 parking spaces available
K Avenue (Ocean Walk)*	101 Atlantic Ave.	133 parking spaces available w/ 5 ADA spaces
J Avenue	135 Fort Fisher Blvd. S.	8 parking spaces available w/ 2 ADA spaces
I Avenue	227 Fort Fisher Blvd. S.	16 parking spaces available w/ 2 golf cart spaces and 1 ADA space
H Avenue	343 Fort Fisher Blvd. S.	5 parking spaces available w/ 1 ADA space
G Avenue	443 Fort Fisher Blvd. S.	4 parking spaces available w/ 6 golf cart spaces and 1 ADA space
F Avenue	541 Fort Fisher Blvd. S.	4 parking spaces w/ 1 ADA space
E Avenue	643 Fort Fisher Blvd. S.	15 parking spaces w/ 2 ADA spaces
Davis Road	Fort Fisher Blvd. S. and Davis Rd.	No parking available
Riverfront Road	1045 Fort Fisher Blvd. S.	No parking available
Stormy Petrel	Fort Fisher Blvd. S. and Stormy Petrel Ct.	No parking available
Assembly Avenue	Fort Fisher Blvd. S and Assembly Ave.	No parking available
Surfrider Court	1347 Fort Fisher Blvd. S.	9 parking spaces available

*Several individual accesses at this location.

Boating Access Facilities

There is one formally designated public boating access site near Kure Beach, south of the Town. Federal Point Boat Launch is located near the Fort Fisher-Southport ferry terminal. This site, featuring a boat ramp and floating dock, is maintained by the North Carolina Wildlife Resources Commission (WRC).

Figure 4.10 Kure Beach CAMA Access Sign
Source: Town of Kure Beach

The Town continues to actively consider additional opportunities for parks and recreation facilities.

Film Industry

Television and movie productions have become increasingly relevant to the provision of Town services and facilities, as Kure Beach Recreation Department staff process requests from film studios to record scenes on public property. These productions bring financial benefits to the community in the form of direct expenditures and additional tourism but may result in temporary closures of parking, streets, beaches, and other locations. Recent productions that have filmed scenes in Kure Beach include *Florida Man* and *Along for the Ride*.

GOALS, OBJECTIVES, AND POLICIES

INTRODUCTION

The Town has established a set of land use and development related policies to act as guidelines during any official decision-making process. These policies and goals provide citizens, property owners, and developers with a predictability of official actions. Town policies in this chapter relate to infrastructure and community facilities. Two CAMA management topics are covered in the policy section herein: Infrastructure Carrying Capacity and Public Access and Recreation.

It should be noted that these topic areas are developed as part of the Division of Coastal Management's 7B Land Use Planning Guidelines.

Refer to Appendix A for Definitions of actions words contained within the policy section.

INFRASTRUCTURE CARRYING CAPACITY

Goal 4.1: To ensure that public infrastructure systems are appropriately sized, located, and managed to serve the Town's population while ensuring that the quality and productivity of AECs and other fragile areas are protected and restored.

Objective 4.1: Ensure that the location and capacity of public infrastructure is consistent with the Town's growth and development goals.

Policy 4.1.A: Protecting Groundwater Source Areas: The Town supports Division of Water Quality's (DWQ) rules regarding development activity near groundwater source areas as well as efforts to enforce violations and offer assistance to those persons or entities interested in construction and development activity which has a potential to effect groundwater resources. The Town shall enhance the protection of these areas and provide for groundwater recharge areas consistent with NC DWQ's rules. The Town shall also support and report any violation of those rules designed by the NC DWQ to protect this resource and work with other area local governments and agencies to conserve and protect the best sources of area groundwater.

Policy 4.1.B: Water Conservation: The Town supports water conservation efforts. Municipal water users are encouraged to conserve and re-use water resources whenever possible.

Recommended Action 4.1.B.1: Consider expanding the use of the Town's website, newsletters, and occasional mail inserts to educate, inform, and encourage residents and visitors to recycle water, through the use of catches, for such purposes as watering the lawn.

Recommended Action 4.1.B.2: Consider opportunities for encouraging the use of xeric landscaping to minimize the amount of water required for irrigation purposes.

Policy 4.1.C: Water Quality: The Town shall work to maintain excellent water quality for human consumption.

Recommended Action 4.1.C.1: Consider developing strategies for preventing saltwater intrusion and preparing a contingency plan for the Town in the event of saltwater intrusion.

Policy 4.1.D: Water and Sewer Connections: The Town supports the continued use of MOTSU buffer area for utility infrastructure and shall coordinate with appropriate agencies to maintain the current arrangement. All new residential and commercial development shall be required to connect to the municipal water and sewer systems.

Recommended Action 4.1.D.1: Consider preparing water and wastewater supply master plans to identify and prepare for future capital investments.

Recommended Action 4.1.D.2: Consider opportunities to continue utilizing and refining tiered water and sewer fees.

Policy 4.1.E: Fire Flow: The Town shall maintain a plentiful supply of available water in the municipal system to enhance and improve fire protection capabilities.

Recommended Action 4.1.E.1: Consider opportunities for continuing to ensure regular testing for fire suppression sufficiency and engaging in maintenance or improvements recommended as a result of the testing.

Policy 4.1.F: Roadway Drainage Systems: The Town supports drainage improvements to state system roads in Kure Beach, including additional infiltration projects.

Policy 4.1.G: Main Roadways: The Town supports the work of the WMPO and NCDOT to ensure Dow Road and U.S. Highway 421 receive appropriate improvements in response to current and emerging transportation demands.

Policy 4.1.H: Road Maintenance: The Town shall continue to maintain the roads which are a part of the municipal road system.

Policy 4.1.I: Compatible Transportation Improvements: The Town supports local transportation improvements to enhance access to homes, businesses, and the public beach that are compatible with Kure Beach's small-town atmosphere.

Policy 4.1.J: Collaboration with Transportation Agencies: The Town shall work with the WMPO and NCDOT on road improvement projects which shall improve the accessibility and safety of transportation systems serving the Town of Kure Beach.

Policy 4.1.K: Fort Fisher Ferry: The Town recognizes the value of the Southport-Fort Fisher Ferry to the region's transportation infrastructure and economy. The Town supports efforts to maintain and enhance the ferry's operations.

Policy 4.1.L: Non-Motorized Transportation Options: The Town supports the work of state, federal, and local area governments on the provision of appropriate bicycle and pedestrian facilities to support alternative options for recreation and transportation.

Recommended Action 4.1.L.1: Consider opportunities to install and maintain pedestrian and bicycle infrastructure, such as crosswalks and pedestrian ramps, in accord with the Town's bicycle and pedestrian plan and where a need for such infrastructure is identified. On NCDOT streets, such infrastructure must be in accordance with relevant state policies.

Recommended Action 4.1.L.2: Consider opportunities to implement the analysis and recommendations of the forthcoming bicycle and pedestrian plan to be prepared in collaboration with the WMPO.

Policy 4.1.M: Recycling: The Town supports the recycling of solid waste.
Policy 4.1.N: Future Development: To the extent permitted by statute, the Town shall ensure that the impacts and costs of future development to public infrastructure and services shall be borne by the entities undertaking development activity, while minimizing impact on existing residents.

Recommended Action 4.1.N.1: Continue to monitor and evaluate system development fees in accordance with statute.

Policy 4.1.O: Channel Maintenance: The Town supports maintenance of the Carolina Beach Inlet and Intracoastal Waterway to support commercial and recreational fishing as well as pleasure boating.

Policy 4.1.P: Collaboration with Neighboring Service Providers: In times of emergency, the Town shall assist neighboring jurisdictions and provide, where possible, support for police, fire, and emergency services, as well as municipal water supply.

Recommended Action 4.1.P.1: Consider opportunities to review and update the Town's mutual aid agreements with other communities.

Policy 4.1.Q: Provision of Services: The Town supports the work of the Kure Beach Public Works department, which is responsible for the maintenance of Town water, wastewater, stormwater, road, and park infrastructure in addition to garbage pickup.

Policy 4.1.R: Responsive Infrastructure Investments: To the extent possible, the Town shall provide and support timely, cost-effective, and efficient capital facilities and community infrastructure services based on anticipated growth and demand.

Public Access and Recreation

Goal 4.2: Maximize public access to the beaches and public trust waters of the Town of Kure Beach and maximize recreational opportunities for residents and visitors.

Objective 4.2: Access for All Segments of the Community: Implement policies and recommendations that assure satisfactory access to all segments of the community including persons with disabilities and provide recreational opportunities for residents and visitors alike.

Policy 4.2.A: Existing Access Facilities: The Town supports public access to the oceanfront and other waterways and shall maintain and improve existing public access facilities where feasible. The Town may seek funding from federal, state, and county sources to fund these improvements.

> **Recommended Action 4.2.A.1:** As feasible, continue to identify ways to improve existing access sites and improve handicapped access.

Policy 4.2.B: Conservation of Private Land: The Town supports donations of private property to land trusts or other conservation organizations. The operation and maintenance of game preserves is consistent with Town policy.

> **Recommended Action 4.2.B.1:** Consider establishing criteria for the acceptance of donated property for future purposes, such as recreational, municipal, or community uses.

Policy 4.2.C: Support for Access Enhancement Projects: The Town supports beach and estuarine water access projects in Kure Beach, within New Hanover County, and throughout coastal North Carolina.

Policy 4.2.D: Public Access for Recreation: The Town supports the Coastal Resources Commission's public access program and recognizes the need to plan for all types of recreational facilities in appropriately sited locations.

Policy 4.2.E: Enhancement of Public Access: The Town shall continue to maintain, and consider opportunities for improvements to, existing public beach access facilities.

> **Recommended Action 4.2.E.1:** Consider opportunities to enhance access to public trust waters through the acquisition, development, and redevelopment of beach access areas and parks.

Policy 4.2.F: Maintenance of Public Access: The Town shall effectively maintain the municipal system of public beach access areas in such a way as to provide neighboring residents with a clean and safe, nuisance free, municipal neighbor. Noise, trash or other debris, junk, and rotting or dangerous or unsightly facilities shall be promptly addressed by the municipality.

Policy 4.2.G: Shoreline Access Planning: The Town supports the long-range Shoreline Access Plan created by the Town to identify and address the shoreline access needs of Town residents and visitors. The Town may refer to this plan in considering actions pertaining to public shoreline access where practicable.

Policy 4.2.H: Public Access Frequency: The Town shall continue to follow applicable guidelines relating to the frequency of public accesses and associated parking.

Policy 4.2.I: Public Access Parking: The Town shall provide adequate parking for residents and visitors in locations convenient to public access site visitors.

Recommended Action 4.1.I.1: Consider opportunities to improve the management of off-street parking on municipal roads.

Policy 4.2.K: Pervious Parking: The Town supports the use of pervious materials for the construction of residential driveways and public access parking areas.

Policy 4.2.L: No Driving on the Beach: The Town shall prohibit driving on the beach except in emergency situations by emergency vehicles.

Policy 4.2.M: Off-Road Vehicle Use: The Town shall not allow any off-road vehicle use that would cause erosion or substantial damage to land forms. This policy does not apply to public works projects or emergency vehicles.

Policy 4.2.N: Dune Walk-Overs: The Town encourages the construction of individual dune walk-over structures at every private access point to prevent disturbance of the dunes.

Policy 4.2.O: Identification and Preservation of Public Access: The Town shall clearly identify the location and extent of all public access areas. These access areas are to be maintained free of encroachment by neighboring property owners and signs shall be installed at all public access areas designating these properties as public beach accesses.

Policy 4.2.P: Informational Signage: To the extent practicable, the Town shall provide directional and informational signage at public beach access locations.

Recommended Action 4.2.P.1: Consider opportunities to provide additional educational signage for residents and visitors on topics such as: sea turtles, littering, and dune protection.

Policy 4.2.Q: ADA Access: The Town shall consider opportunities to improve ADA access to the public's beaches in coordination with the Town's ADA transition plan.

Policy 4.2.R: Tourism: The Town strongly supports an enhanced environment for tourism for the purpose of supporting the local economy, particularly small businesses. Public access to the beach is a core asset that supports the tourism economy in Kure Beach.

Policy 4.2.S: Regional Collaboration: The Town supports the efforts of regional partners to grow and enhance the tourism and film industries in southeastern North Carolina.

Recommended Action 4.2.S.1: Consider opportunities to improve processes for reviewing requests to film on public property.

Policy 4.2.T: Special Events: The Town encourages festivals and events which support a family, small-town feel to the community.

Policy 4.2.U: Recreational Opportunities: Where possible, the Town shall work to improve recreational opportunities for residents, seasonal visitors, and tourists.

Recommended Action 4.2.U.1: Consider engaging in a process to develop a Parks and Recreation Master Plan, including a capital planning component.

Recommended Action 4.2.U.2: Consider opportunities to continue supporting the collaborative relationship between the Town's Public Works and Recreation departments, which are responsible for facility maintenance and programming respectively.

Map 4-I: Annual Average Daily Traffic (AADT)

Legend

- Corporate Limits
- ETJ Boundary
- Parcels
- Waterbody
- MOTSU Property

2019 NCDOT Traffic Data

- 0 - 499
- 500 - 1,999
- 2,000 - 4,999
- 5,000 - 9,999
- 10,000 - 20,000

Cape Fear River

Atlantic Ocean

RIVERFRONT
DAVIS
H
K
3100
ALABAMA
OCEAN
SEVENTH
SIXTH
FIFTH
FOURTH
THIRD
SEA SHELL
GENERAL WHITING
WATER OAK
SAND DOLLAR
PELICAN
ATLANTIC
DOW
SETTLERS
GULF STREAM
SAILOR
LARGO
ANCHOR
SLOOP POINTE
SEAWATCH
SELANE
KURE DUNES
MYRTLE
OCEAN VIEW
HANBY
FORT FISHER
SPOT
SEARAY
PINFISH
MACKEREL
BONITO
SWORDFISH
2000
4000
5100
4000
7500
4100
421

Kure Beach: 2022 Land Use Plan

TOWN OF KURE BEACH · NORTH CAROLINA ·

0 0.25 0.5 1 1.5 2 Miles

NORTH

Map 4-2: Bike and Pedestrian Facilities

Legend

- Shared Use Path
- Bike Lane
- Sidewalk
- Corporate Limits
- ETJ Boundary
- Parcels
- Waterbody
- MOTSU Property

Cape Fear River

DOW

OCEAN

ALABAMA

RIVERFRONT

DAVIS

H

K

SETTLERS

GULF STREAM

SAILOR

SLOOP POINTE

SELANE

SEAWATCH

ANCHOR

LARGO

KURE DUNES

SEVENTH

SIXTH

FIFTH

FOURTH

THIRD

SEA SHELL

GENERAL WHITING

WATER OAK

SAND DOLLAR

PELICAN

ATLANTIC

FORT FISHER

MYRTLE

OCEAN VIEW

HANEY

SPOT

SEARAY

PINFISH

MACKEREL

BONITO

SWORDFISH

421

Kure Beach:
2022 Land Use Plan

TOWN OF KURE BEACH · NORTH CAROLINA ·

Atlantic Ocean

0 0.25 0.5 1 1.5 2 Miles

NORTH

Map 4-3: Recreation Facilities

Legend

- Corporate Limits
- ETJ Boundary
- Parcels
- Waterbody
- MOTSU Property
- Beach Access

Cape Fear River

Joe Eakes Park

Ocean Front Park and Pavilion

Atlantic Ocean

RIVERFRONT
DAVIS
SEA SHELL
GENERAL WHITING
WATER OAK
FIFTH
FOURTH
THIRD
421
DOW
ALABAMA
OCEAN
CROAKER
SPOT
SEARAY
PINFISH
SETTLERS
GULF STREAM
SAILOR
SLOOP POINTE
SELANE
LARGO
ANCHOR
SEAWATCH
KURE DUNES
MYRTLE
OCEAN VIEW
HANBY
FORT FISHER

Kure Beach: 2022 Land Use Plan

TOWN OF KURE BEACH · NORTH CAROLINA ·

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NORTH

Chapter 5: Land Use and Growth Management

This chapter outlines existing development patterns in the Town of Kure Beach planning jurisdiction and further classifies what is on the ground today. In addition, the chapter provides a brief build-out analysis and delineation of available vacant land. To conclude, the future land use map and narrative outline desired development patterns and guidance for land use decisions over the next ten to twenty years. Goals, policies, and recommended actions are provided relating to land use and development at the end of the chapter.

Existing Land Use Analysis

This section provides local elected officials, appointed boards, citizens, and staff with a snapshot of the existing land use patterns in the Town's planning jurisdiction. An assessment of these patterns, and the identification of available areas for development, can help forecasting where, what type, and how much development may occur in the future.

This section will also assist in identifying current and potential land use conflicts, such as residential uses near environmentally sensitive areas or commercial areas. In addition, vacant land where new development is expected and areas where in-fill or redevelopment is feasible and/or desirable will be identified. The information in this section will also assist in establishing the Town's Future Land Use Map.

Source of Existing Land Use Analysis and Map

The Existing Land Use Map (Map 5-1) and tables were created by the Cape Fear Council of Governments using New Hanover County Tax Records updated in 2021 as well as full color orthophotos (map quality aerial photos) taken in 2021. A review of the previous land use plan also provided data and support for the existing land use analysis.

Land Uses Identified in the Planning Jurisdiction

The existing land uses in the planning jurisdiction include:

- Multi-Family Residential (more than 3 units in a structure)
- Civic/Institutional (includes churches, government facilities, and utilities)
- Commercial, e.g.:
    1. Retail shops/stores
    2. Restaurants (all food service)
    3. Hotels
- Two-Family Dwelling (Duplex)
- Manufactured Residential
- Private Common Areas
- Recreation
- One-Family Dwelling
- Vacant (undeveloped land)

Existing Land Use in the Planning Jurisdiction

The Existing Land Use Table (Table 5.1) provides a breakdown of the planning jurisdiction by each particular land use category. The land use classifications are summarized by the total number of parcels and respective acreage found within the Town of Kure Beach. The existing land use categories are also classified throughout the entire planning jurisdiction.

Table 5.1: Existing Land Use
Source: Cape Fear Council of Governments GIS, New Hanover County Tax Records

Land Use Type by Area	Parcel Count	Acres	Percent of Total Acreage
Civic/Institutional	27	2,144.0	86.0%
Commercial	37	7.9	0.3%
Two-Family Dwelling (Duplex)	277	21.3	0.9%
Manufactured Home	38	5.5	0.2%
Multi-Family	66	23.8	1.0%
Private Common Area	55	25.7	1.0%
Recreation	2	25.8	1.0%
Single-Family Dwelling	1,445	217.5	8.7%
Vacant	197	22.6	0.9%
Total	2,221	2,494.1	100.0%

According to the existing land use analysis, the largest land use category within the planning jurisdiction is civic/institutional due to the Town's high proportion of federally utilized land located in MOTSU. Single-family dwellings account for the second largest use of land within the Town planning jurisdiction. Throughout the planning jurisdiction there are approximately 197 vacant parcels consisting of roughly 23 acres of land. Commercial development and manufactured homes make up the smallest proportion of Town land, accounting for around 1% of the Town's planning jurisdiction combined.

Build-Out Analysis

Based on an analysis of vacant land by zoning district, it is possible that within the Town's planning jurisdiction an additional 197 dwelling units could be constructed at build-out with the Town's current regulations. It should be noted that a build-out analysis calculation is typically based upon the total vacant acreage and the assumption that it will be dedicated solely to residential uses. While this analysis assumes development will be generally residential, it offers a more reasonable estimation by examining parcels that have already been subdivided as well as parcels that may or may not be suitable for subdivision. Few large tracts remain that are suitable for further subdivision. Current zoning rules permit standalone residential uses within all of the Town's commercial zoning districts with the exception of the B-1 Business District. As such, it is feasible that much of the commercially zoned land will be developed for residential purposes. As stated previously, the vast majority of privately owned land within the planning jurisdiction of the Town has been developed for residential purposes.

Table 5.2: Vacant Land by Zoning District
Source: Cape Fear Council of Governments GIS, New Hanover County Tax Records

Zoning District	Parcels	Acres	Potential Dwelling Units***
B-1 – Business District	7	1.0	-
B-2 – Neighborhood Business District*	2	0.2	2
B-4 – Residential / Laboratory District*	25	3.7	25
RA-1A – Residential District**	39	4.4	39
RA-2 – Residential District**	34	3.9	34
RA-2A – Residential District**	20	1.7	20
RA-2T – Residential Trailer District**	18	2.3	18
RA-3 – Residential District**	26	2.6	26
RA-4 – Residential District**	15	1.8	15
RB-1 – Residential Business District*/**	7	0.8	7
Total	273	22.6	197

* This assumes vacant commercially zoned land will be occupied by residential development
** Additional dwelling units may be accommodated if a portion of the vacant lots were developed for two- or multi-family purposes.
***Parcels of less than half an acre in size are presumed to be developed as one dwelling unit.

Within the Town, there are approximately 23 acres of vacant land – the majority of which is zoned primarily for single-family and two-family residential uses (RA-1A and RA-2) [See Map 5-2]. If all the vacant land were developed for single-family residential purposes, then an additional 197 residential units could be built. This would equate to an additional 1,576 persons – during the summer months – based upon an occupancy of 8 persons per unit. When added to the current peak seasonal overnight population (14,611), the total estimated peak seasonal overnight population at build-out is 16,187. This estimate does not include day visitors.

Identification of Land Use Conflicts

This subsection identifies future land uses that may conflict with environmentally sensitive areas or regulatory constraints. Identifying potential conflict areas is done by comparing the vacant land uses identified in this section with CAMA Areas of Environmental Concern (AEC) and coastal wetlands in Chapter 3. As stated in Chapter 3, wetlands serve important and useful functions. Wetlands mitigate stormwater, maintain water quality by filtering pollutants and sediments, prevent erosion and flooding from plant root systems that hold soils in place, and provide wildlife habitat and scenic areas that increase property values and quality of life. The CAMA 75' Estuarine AEC serves to limit impervious surfaces adjacent to sensitive natural areas such as coastal wetlands and marshes.

Within the Town of Kure Beach, there are limited potential environmental land use conflicts with vacant land. Vacant lots found adjacent to the Atlantic Ocean are the primary conflict areas. For more information, refer to Map 5-2. Future development of these lots may pose environmental and federal/state regulatory constraints.

Existing conditions minimize potential land use conflicts with the operations of the Military Ocean Terminal Sunny Point (MOTSU). While MOTSU has established an Inhabited Building Distance (IBD), which is a minimum safe distance between the facility and habitable buildings, no privately-owned property in the Town's jurisdiction is within the IBD. While the entirety of the Town is within a MOTSU hazard zone where the highest identified risk is the potential for glass breakage on structures greater than five stories, the Town's 35' maximum height restriction on buildings minimizes potential damage.

FUTURE LAND USE

The Future Land Use Classification Map is created to provide guidance for zoning and land use decisions. In the Town of Kure Beach, the Future Land Use Classification Map (Map 5-3) largely resembles the Official Zoning Map and the existing land use pattern in the Town's planning jurisdiction. This is primarily due to the minimal vacant land available and the established pattern of growth that should remain for the foreseeable future. The map visually depicts the Town's long range land use and development goals to be implemented by the Town. The map is intended to show the community's planned future development patterns in distinct areas (i.e. the "future land use classification areas") within the Town's planning jurisdiction. The map also shows the planned future boundaries of those respective areas to ensure that incompatible uses or types of development do not encroach.

To be used in conjunction with the Future Land Use Classification Map are the Future Land Use Classification Guidelines. The guidelines provide the desired land uses and development characteristics for each respective area. While the Future Land Use Classification Map and Guidelines establish goals and policy direction for various areas in the Town's planning jurisdiction, it is the Town's Official Zoning Map and Zoning Ordinance that codifies the actual development regulations within the planning jurisdiction.

Future Land Use Classification Guidelines

This section defines the future land use classification guidelines for the Town of Kure Beach. The future land use classification includes seven (7) land use categories. North Carolina General Statutes require that all zoning map and amendments to zoning regulations be reviewed for consistency with the Town's Land Use Plan, including a statement by the Planning and Zoning Commission and Town Council as to whether the amendment is or is not consistent with the Land Use Plan. However, a finding that a proposed amendment is not consistent with the Land Use Plan shall not preclude such an amendment for consideration by the Town. If found to be inconsistent, the Land Use Plan is thereby amended to reflect the inconsistent finding.

The following narrative outlines the key desired development guidelines for each individual future land use classification area depicted on the Future Land Use Classification Map.

Implementation

To implement the guidelines outlined in this chapter, ordinance amendments should be considered where the future land use classification description differs from the requirements of the Zoning Regulations. It is important to remember that the Future Land Use Map and category descriptions are not regulatory in nature and are to be used as a tool for revising existing development standards and guiding zoning-related decisions. The Land Use Plan does not require that these changes be made, but rather offers guidance in the event that there is a desire to revise development regulations.

How to Use the Future Land Use Map and Guidelines

Upon adoption of this plan, the Planning and Zoning Commission, Town Council, and residents of the Town should reference this chapter in reviewing land use and development related decisions and policy implementation. The Future Land Use Classification Map should be amended if significant changes occur or are proposed to occur. This will aid in consistency with changes to the Town's Official Zoning Map.

Each future land use classification (note: category is used interchangeably throughout this chapter) contained in this chapter is described with a short narrative and supporting development guidelines. The color that identifies that future land use category on the Future Land Use Classification Map is also provided on the page containing the narrative and development guidelines.

TOWN CENTER

The Town Center future land use category is intended to serve as the commercial hub that supports permanent and seasonal populations as well as day trippers. Restaurants, cafes, food markets, and limited retail establishments that are compatible with the residential and family-friendly atmosphere in the Town are supported. Additional food service offerings have been identified as a highly desirable land use in the Town Center based on public input. Adequate buffering should be applied where development within this land use category abuts single-family or two-family residential uses. The Town Center is intended to be maintained with its current character, which is that of a 1940s – 1970s coastal community.

Town Center

Example Desired Uses:

- Commercial/Retail, especially locally owned small businesses and restaurants – no more than 3,000 square feet for any individual establishment
- Office & Institutional/Government
- Mixed Use
- Water-based Commercial and Recreation

Example Undesired Uses:

- Industrial, manufacturing, and big-box retail
- Establishments with drive-through operations
- Residential units not associated with commercial uses

Implementation Considerations:

- Discouragement of commercial encroachment on existing residential neighborhoods
- Consideration of Mixed Use and/or Upper Story Residential uses
- Inclusion of bicycle and pedestrian facilities
- Maintain consistency with the Town Center Overlay District

Neighborhood Mixed Use

The purpose of the Neighborhood Mixed Use future land use category is to provide limited commercial services to the seasonal and permanent overnight population of the Town while maintaining the overall residential nature of the community. Opportunities to allow residents the option to access low profile commercial and office/institutional services near their homes is encouraged. This area would support both vertical and horizontal mixed use.

Example Desired Uses:

Neighborhood Mixed Use

- Single-Family Residential uses
- Two-Family Residential uses
- Small-scale, compatible Multi-Family Residential uses
- Small-scale, compatible hotel/motel
- Vertical mixed use
- Low profile Commercial/Retail serving needs of overnight visitors – no more than one story or 2,500 square feet for any individual establishment. Upper story residential permitted.
- Office & Institutional/Government
- Recreation & Open space

Example Undesired Uses:

- Industrial, manufacturing, and big-box retail
- Automobile-oriented uses such as gas stations or establishments with drive-through operations

Implementation Considerations:

- Balancing residential growth with commercial services
- Buffering and setbacks of commercial uses from existing residential neighborhoods
- Inclusion of bicycle and pedestrian facilities

High Density Residential

Where multi-family residential development is currently permitted by zoning regulations, the land has been classified as High Density Residential on the future land use map. Based on public input concerns, the impact of multi-family development should be carefully mitigated to minimize conflicts with existing residential development.

Example Desired Uses:

High Density Residential

- Single-Family Residential uses
- Two-Family Residential uses
- Small-scale, compatible Multi-Family Residential uses
- Small-scale, compatible hotel/motel

Example Undesired Uses:

- Non-residential development

Implementation Considerations:

- Buffering and landscape material when Multi-family Residential uses abut lower density residential uses
- Provisions for open space
- Encouragement of quality construction to mitigate potential storm damage
- Standards to manage the construction of large dwellings

Medium Density Residential

Within certain pockets of the Town, both single-family and two-family housing types are permitted while disallowing more intense development. This moderate residential intensity allows for some housing choice while limiting density and scale. Most non-residential development is discouraged to maintain the neighborhoods' character.

Example Desired Uses:

Medium Density Residential

- Single-family Residential uses
- Two-Family Residential uses
- Limited recreational and institutional uses where not conflicting with established residential development

Example Undesired Uses:

- Commercial development, including hotels and motels
- Multi-family Residential

Implementation Considerations:

- Buffering and landscape material when incompatible uses abut lower density residential uses
- Bicycle and pedestrian access and safety

Low Density Residential

Within the Town, the predominant land use pattern consists of single-family residential development. The intent of this future land use category is to protect, maintain, and encourage the continued development of single-family residential dwellings for seasonal or permanent use. Infill single-family development and replacement of aging structures will occur within the Low Density land use category. Encroachment of multi-family residential or commercial development shall be discouraged in the Low Density Residential future land use category.

Example Desired Uses:

Low Density Residential

- Single-Family Residential uses
- Limited recreational and institutional uses where not conflicting with established residential development

Example Undesired Uses:

- Commercial development, including hotels
- Two- or Multi-Family Residential uses

Implementation Considerations:

- Bicycle and pedestrian access and safety
- Standards to manage the construction of large dwellings – those greater than 4,000 square feet
- Resilience of oceanfront development

Government Use

The Government Use category is intended to identify federally owned land that is currently and anticipated to remain in active use by units of government. Non-governmental use of property within this future land use classification is neither anticipated nor encouraged.

Example Desired Uses:

Government Use

- Government uses
- Public utility infrastructure
- Limited compatible recreational activities

Example Undesired Uses:

- Private development

Implementation Considerations:

- Evolution of existing land uses
- Continued partnership with MOTSU to establish compatible land uses
- Buffering from nearby coastal wetlands

CONSERVATION

The Conservation category is intended to maintain the MOTSU buffer area and, where appropriate, to encourage public open space/recreational opportunities. Coastal wetlands are included within this future land use category. Lands classified as coastal wetlands should be preserved in perpetuity to protect the natural, scenic, and recreational value of these areas.

Conservation

Example Desired Uses:

- Preserved open space
- Limited government use
- Public utility infrastructure
- In suitable locations:
    - Nature trails
    - Parks, piers, and docks
    - Public access points
    - Passive recreation areas
    - Active recreation areas

Example Undesired Uses:

- Commercial or residential development

Implementation Considerations:

- Protection of fragile estuarine environments
- Maintenance of MOTSU buffer requirements
- Continued partnership with MOTSU to establish compatible land uses
- Preservation of coastal wetlands and other geographic features for recreation, natural habitat, fishing, boating, and storm/flood mitigation

GOALS, OBJECTIVES, AND POLICIES

INTRODUCTION

The Town has established a set of land use and development related policies to act as guidelines during any official decision making process. These policies and goals provide citizens, property owners, and developers with a predictability of official actions. Town policies in this chapter relate to land use and growth management. One CAMA management topic is covered in the policy section herein: Land Use Compatibility.

It should be noted that these topic areas are developed as part of the Division of Coastal Management's 7B Land Use Planning Guidelines.

Refer to Appendix A for Definitions of action words contained within the policy section.

LAND USE COMPATIBILITY

Goal 5.1: Ensure that development and use of resources or preservation of land balances protection of natural resources and fragile areas with economic development, avoids risks to public health and welfare, and are consistent with the capability of the land.

Objective 5.1: Maintain the small town, family-friendly atmosphere of the Town of Kure Beach by encouraging single-family and two-family residential development, compatible business establishments, preserved natural resource areas, and parks/recreation facilities.

Policy 5.1.A: New Development and Redevelopment should be Consistent with Existing Development: The Town shall protect existing development through regulating new development proposals to ensure their character retains the existing low-profile and predominant housing type characteristics. Accordingly, the Town shall utilize zoning and subdivision procedures, allowed per NC General Statutes, to preserve the unique characteristics of the community. This may include – but shall not be limited to – overlay districts, cluster development requirements, density incentives, open space allocation, tree preservation, school site reservation, conditional zoning, and other tools as may be necessary.

Policy 5.1.B: Commercial Development: The Town does not support expanding the current limits of Kure Beach's commercial zoning districts. Restaurants, cafes, food markets, and retail establishments – particularly small-scale locally owned businesses – that are compatible with the residential and family-friendly atmosphere in the Town of Kure Beach are supported within commercially zoned areas. Intense commercial development, beyond that necessary to serve tourists and residents, is not encouraged.

Policy 5.1.C: Commercial Scale: The Town discourages large retail commercial projects (also referred to as "big box stores") within the Town of Kure Beach and its planning jurisdiction. The Town desires that new development projects be designed to fit within the commercial district and to be compatible with the size and appearance of the structures already in place. Potential commercial developers are encouraged to discuss restrictions and conceptual matters in advance with Town officials.

Policy 5.1.D: Single-Family and Two-Family Residential Development: The Town shall maintain areas exclusively for conventional single-family and two-family residential development. The Town shall retain its predominantly single-family residential character. Conversion of single-family and two-family homes to multi-family residential uses shall be discouraged.

Policy 5.1.E: Local Regulations May Limit the Size of Residential Structures: The Town discourages large residential dwellings, as very large structures will be incompatible with the small-town appearance desired in the jurisdiction.

Recommended Action 5.1.E.1: Consider establishing Floor Area Ratio (FAR), size thresholds, or other standards to further manage the density and intensity of development and redevelopment.

Policy 5.1.F: Tourism: The Town supports tourism as an essential economic activity having direct positive impact on future development.

Policy 5.1.G: Industrial Type Uses: The Town shall prohibit any form of industry other than those associated with tourism.

Policy 5.1.H: Military Ocean Terminal Sunny Point (MOTSU) & State Ports Authority: As practicable, the Town shall review and comment on all actions of the NC State Ports Authority which may affect the Town or the surrounding area. As the Town's planning jurisdiction extends to the river, which is the State Port's corridor for transport, the Town has a clear interest in river activity.

Policy 5.1.I: Maintaining MOTSU Buffer: The Town supports the federal government's policy of keeping the MOTSU buffer zone in its natural state to protect wildlife habitat.

Policy 5.1.J: MOTSU Joint Land Use Study: The Town of Kure Beach supports efforts to build upon the work of the *Military Ocean Terminal Sunny Point Joint Land Use Study* (JLUS), including considering opportunities to implement the recommendations of the JLUS.

> **Recommended Action 5.1.J.1:** Consider opportunities to improve processes to ensure appropriate notification to MOTSU when development regulations are adopted or amended pursuant to North Carolina General Statute 160D-601(b) and consider amending local development regulations to provide similar notification for other development applications.
>
> **Recommended Action 5.1.J.2:** Consider establishing a Town policy requiring that any response or analysis provided by MOTSU regarding the compatibility of a proposed land use action be provided to the Town Council or any appointed board of the Town as part of the staff report for that item.

Policy 5.1.K: Growth Management: Kure Beach believes in managing and directing the Town's growth and development. Development should be based on: 1) the suitability of land to accommodate the use; 2) the capacity of the environment; 3) compatibility with Town goals; 4) densities allowable in sensitive areas; 5) the availability of support facilities and services; and 6) traffic conditions. Where required by local regulations, new development shall provide open space for the citizens of the Town under circumstances related to the issuance of a special use permit or as a part of the subdivision approval process.

Policy 5.1.L Building Height Restrictions: Structures within the Town's planning jurisdiction shall not exceed 35 feet in height.

Policy 5.1.M: Age-Friendly Development: The Town encourages age-friendly development principles that support residents' ability to age in place. This may include efforts to help people live easily and comfortably in their homes as they age. Age-friendly communities have walkable streets, housing and transportation options, access to key services and opportunities for residents at all life stages to participate in community activities.

Policy 5.1.N: Historic Preservation: The Town supports maintaining its 1940s – 1970s coastal community heritage within Kure Beach's Downtown Preservation District and shall require Certificates of Appropriateness where applicable to ensure exterior elements of new development and improvements to existing development are compatible with the District's character.

Policy 5.1.O: Land Use Plan Consistency: The Town generally requires that any official land use and development related actions (e.g. re-zonings, text amendments, and special use permits) remain consistent with the policies adopted in this plan and any other applicable plan. Any actions that are inconsistent with such plans shall require a statement from the Planning and Zoning Commission

and Town Council approving such decisions, as to the inconsistent finding. For zoning map amendments, such statement shall include reasoning why the action was reasonable and in the public interest.

Policy 5.1.P: Public Participation: In accordance with statutory and ordinance requirements, the Town will assure that all segments of the population in the planning area are informed about land use decisions and have an opportunity to participate in planning and decision-making processes.

Recommended Action 5.1.P.1: Consider continuing to utilize standing committees and commissions to involve the public in planning decisions whenever practicable.

Recommended Action 5.1.P.2: Consider continuing to utilize the Town's website and other methods to keep citizens informed of planning and land use decisions whenever practicable.

Policy 5.1.Q: Land Use Plan Implementation Status Report: The Town shall initiate review of the goals, policies, and contents of this plan every two years. Such review will be conducted by the Planning and Zoning Commission two years following plan adoption. An informal presentation and report of the accomplishments completed as a result of the land use plan will be delivered to the Town Council by the Planning and Zoning Commission Chairman.

Policy 5.1.R: Land Use Plan Update: The Town supports an update of the Land Use Plan approximately every 5-7 years to address changing dynamics, population growth, economic development, and housing needs.

Recommended Action 5.1.R.1: Consider opportunities for utilizing remote sensing and geospatial mapping to supplement land use planning activities.

Map 5-1: Existing Land Use

Legend

- Corporate Limits
- ETJ Boundary
- Waterbody

Land Uses

- Single-Family Dwelling
- Manufactured Home
- Two-Family (Duplex)
- Multi-Family
- Commercial
- Civic/Institutional
- Recreation
- Private Common Area
- Vacant

RIVERFRONT
DAVIS
K
DOW
ALABAMA
OCEAN
CROAKER
SPOT
SEARAY
PINFISH
MACKEREL
SETTLERS
GULF STREAM
SAILOR
SLOOP POINTE
LARGO
ANCHOR
SEAWATCH
SELANE
KURE DUNES
MYRTLE
OCEAN VIEW
HANBY
SEVENTH
SIXTH
H
FIFTH
FOURTH
THIRD
GENERAL WHITING
WATER OAK
SEA SHELL
SAND DOLLAR
PELICAN
421
ATLANTIC
FORT FISHER

Kure Beach: 2022 Land Use Plan

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Atlantic Ocean

0 0.25 0.5 1 1.5 2 Miles

NORTH

Map 5-2: Vacant Land by Zoning District

Legend

- Corporate Limits
- ETJ Boundary
- Waterbody

Vacant Zoning

- B-1: Business
- B-2: Neighborhood Business
- B-4: Residential/Laboratory
- RA-1A: Residential
- RA-2: Residential
- RA-2A: Residential
- RA-2T: Residential Trailer
- RA-3: Residential
- RA-4: Residential
- RB-1: Residential Business

RIVERFRONT
DAVIS
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SIXTH
FIFTH
FOURTH
THIRD
SEA SHELL
GENERAL WHITING
WATER OAK
SAND DOLLAR
PELICAN
421
ATLANTIC
LARGO
ANCHOR
KURE DUNES
SEAWATCH
SETTLERS
GULF STREAM
SAILOR
SLOOP POINTE
SELANE
FORT FISHER
MYRTLE
OCEAN VIEW
HANBY
DOW
ALABAMA
OCEAN
CROAKER
SPOT
SEARAY
PINFISH
MACKEREL

Kure Beach: 2022 Land Use Plan

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0 0.25 0.5 1 1.5 2 Miles

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Map 5-3: Future Land Use

Legend

- Corporate Limits
- ETJ Boundary
- Waterbody

Future Land Use Category

- Town Center
- Neighborhood Mixed Use
- High Density Residential
- Medium Density Residential
- Low Density Residential
- Government Use
- Conservation

Kure Beach:
2022 Land Use Plan

Atlantic Ocean

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NORTH

CHAPTER 6: TOOLS FOR MANAGING DEVELOPMENT

This section of the Land Use Plan describes Kure Beach's procedures for administering land development regulations and also provides a schedule for implementation of recommended actions. This section has two major parts that describe the:

- *Existing development management program*: The existing management program includes the Town of Kure Beach Code of Ordinances and North Carolina Building Code.
- *Action plan and implementation schedule*: The priority policies and recommended actions that will be taken to implement the plan with a general schedule to accomplish these actions.

Collectively, these sections describe how Kure Beach's Comprehensive Land Use Plan will manage future land use and development.

EXISTING DEVELOPMENT MANAGEMENT PROGRAM

The Town of Kure Beach operates under the authority of a Mayor/Council form of government. Four Commissioners and the Mayor sit on the Town Council. The Council makes decisions regarding certain development applications including amendments to regulations and Special Use Permits. The Kure Beach Building Inspections Department oversees development-related issues and construction inspections within the planning jurisdiction. The Town has a Planning and Zoning Board that reviews and comments on certain proposed developments. The Town also has a Historic Preservation Commission. There is also a Board of Adjustment that reviews appeals and variances.

The following provides a summary of the Town's land use-related codes and regulations:

KURE BEACH'S LAND DEVELOPMENT REGULATIONS

The Town of Kure Beach, like other municipalities in the state, has been granted general statutory authority by the North Carolina General Statutes to enact necessary ordinances designed to protect and promote the health, safety, and general welfare of its citizens. Local plans and policies are enforced through ordinances adopted by the Town Council, which is granted this authority by the Charter ratified in 1947. Below is a listing of Town Ordinances and enforcement provisions related to land use and development.

Zoning Regulations: The zoning ordinance is the most prominent land development regulatory tool used by the Town of Kure Beach. The ordinance regulates location and height of buildings, establishes minimum building lot sizes, and establishes districts in which uses related to residential, commercial, and institutional uses are either allowed or prohibited. In addition to the uses allowed within each district, certain conditional uses are permitted on a case-by-case review process.

Subdivision Regulations: Kure Beach's subdivision regulations guide the general design of newly developing areas within the Town's jurisdiction. A subdivision is the division of any parcel or tract of land into two or more lots for the purpose of development. The purpose of the subdivision regulations is to establish procedures and standards for the development and subdivision of land within the territorial jurisdiction of the Town of Kure Beach.

Building Code: The Town of Kure Beach has an active building inspections program and enforces the NC State Building Code, including the codes concerning general construction, plumbing, heating, electrical, fire, and gas, as well as the NC Uniform Residential Building Code. The Town Building Inspector issues building permits and inspect construction to ensure strict compliance with all code enforcement.

Flood Damage Prevention Ordinance: The Town of Kure Beach is a participant in the National Flood Insurance Program (NFIP). Participation in the program allows for Town residents to receive federal flood insurance. In doing so, the Town must regulate all development that is located within the Special Flood Hazard Area (SFHA). The purpose of the Flood Damage Prevention Ordinance is to promote public health, safety, and general welfare and to minimize public and private losses due to flood conditions within flood prone areas

Dune Protection: Kure Beach protects its dunes by enforcing CAMA permitting, Building Code provisions, and by forbidding vehicular traffic on the beach. Moreover, walkways are provided at each beach access which guide pedestrian traffic from disturbing the dunes.

Stormwater Ordinance: In 2007, Kure Beach adopted a Universal Storm Water Ordinance to protect, maintain and enhance the environment, public health, safety, and general welfare of the citizens of Kure Beach by controlling the adverse effects of increased post-construction runoff and illicit discharges. An approved, professionally engineered stormwater plan is required prior to applying for certain permits.

Historic Preservation: The Town has undertaken the work to preserve the 1940s – 1970s coastal community heritage of the four-block town center business district through regulating the exterior design of structures within the district. This effort is intended to reinforce the small-town family-friendly character of Kure Beach.

The Town shall follow all local, state, and federal rules and regulations.

Action Plan and Implementation Schedule

The following table outlines a schedule to assist the Town in implementing the recommended actions of this land use plan. The implementation schedule is to be used as a resource for Town staff and officials. The schedule is not a mandate for the allocation of funding, nor does it require such.

Table 6.1: Schedule for Implementing Recommended Actions

Action Item	To be done in Fiscal Year	Department Responsibility
Natural Hazard Areas		
3.1.A.1: To the extent practical, continue to maintain the Town's Community Rating System level to preserve reductions in Flood Insurance Premiums within the community and enhance resilience to coastal flood damage and storms.	Ongoing	Building Inspections
3.1.C.1: Consider continuing to advocate for financial support for coastal storm damage reduction activities with federal, state, and county officials.	Ongoing	Administration
3.1.C.2: Consider developing a strategy for sustainable, long-term sources of funding for ongoing coastal storm damage reduction in the event that federal or state funding for coastal storm damage reduction projects is reduced.	Ongoing	Administration, Finance
3.1.F.1: Consider updating language in Kure Beach development regulations to clarify when underground utilities are required.	FY 2022 – 2023	Administration, Building Inspections
3.1.I.1: Consider amending Town ordinances to provide additional regulatory standards defining and managing uses and structures that are inappropriate for construction within the 100-year flood plain, erosion prone areas, and other areas susceptible to hurricane and other storm event flooding.	FY 2023 – 2024	Administration, Building Inspections
3.1.L.1: Consider developing specific and timely recommendations for implementing hazard mitigation measures contained in the Southeastern NC Regional Hazard Mitigation Plan (2021) following a state or federally declared natural disaster.	Ongoing	Administration, Building Inspections
3.1.L.2: Consider applying for funding from the Hazard Mitigation Grant Program (HMGP) for priority projects in the event that the President declares Kure Beach a disaster area.	Ongoing	Administration, Finance

Water Quality and Natural Environment		
3.2.A.1: Consider amending Town ordinances to enhance regulations addressing the use of fill dirt in development activities.	FY 2023-2024	Administration, Building Inspections
3.2.B.1: Consider amending Town ordinances to include provisions incentivizing and/or requiring pervious parking materials for certain development activities.	FY 2024-2025	Administration, Building Inspections
3.2.D.1: Consider exploring opportunities for constructing infrastructure such as rain gardens and providing education to residents regarding best practices – such as the redirection of downspouts from the storm drain system – that protect water quality.	Ongoing	Public Works
3.2.D.2: Consider pursuing state funding for planning and facilities projects which will improve area water quality.	Ongoing	Administration, Building Inspections, Public Works
3.2.F.1: Consider pursuing grant funds to assist in developing a Watershed Restoration Plan. Pursuant to Section 205(j)/604(b) of the Clean Water Act, the Division of Water Resources will award grant funds to Regional Commissions and Councils of Government for to carry out water quality management and planning projects, including, but not limited to: • Identifying most cost effective and locally acceptable facility and non-point source measures to meet and maintain water quality standards; • Developing an implementation plan to obtain state and local financial and regulatory commitments to implement measures developed to meet water quality standards; and • Determining the nature, extent, and cause of water quality problems in various areas of the state.	FY 2023 – 2024	Administration, Finance
3.2.F.2: Consider ensuring that the Watershed Restoration Plan contains the nine minimum elements required to receive EPA Section 319 funds for implementation of capital improvements projects	Ongoing	Administration, Building Inspections
3.2.L.1: Consider seeking funds from the Clean Water Management Trust Fund and other sources to identify and to fix identified stormwater problems.	Ongoing	Finance, Public Works

Infrastructure Carrying Capacity		
4.1.B.1: Consider expanding the use of the Town's website, newsletters, and occasional mail inserts to educate, inform, and encourage residents and visitors to recycle water, through the use of catches, for such purposes as watering the lawn.	Ongoing	Administration, Public Works
4.1.D.1: Consider preparing water and wastewater supply master plans to identify and prepare for future capital investments.	FY 2022 – 2023	Public Works
4.1.L.1: Consider opportunities to install and maintain pedestrian and bicycle infrastructure, such as crosswalks and pedestrian ramps, in accord with the Town's bicycle and pedestrian plan and where a need for such infrastructure is identified. On NCDOT streets, such infrastructure must be in accordance with relevant state policies.	Ongoing	Public Works
4.1.L.2: Consider opportunities to implement the analysis and recommendations of the forthcoming bicycle and pedestrian plan to be prepared in collaboration with the WMPO.	Ongoing	Administration, Public Works
4.1.N.1: Continue to monitor and evaluate system development fees in accordance with statute.	Ongoing	Finance, Public Works
4.1.P.1: Consider opportunities to review and update the Town's mutual aid agreements with other communities.	Ongoing	Administration, Fire Department, Police Department
Public Access and Recreation		
4.2.A.1: As feasible, continue to identify ways to improve existing access sites and improve handicapped access.	Ongoing	Administration, Public Works
4.2.B.1: Consider establishing criteria for the acceptance of donated property for future purposes, such as recreational, municipal, or community uses.	FY 2023 – 2024	Administration, Public Works, Recreation
4.2.E.1: Consider opportunities to enhance access to public trust waters through the acquisition, development, and redevelopment of beach access areas and parks.	Ongoing	Administration, Public Works
4.1.I.1: Consider opportunities to improve the management of off-street parking on municipal roads.	FY 2023 – 2024	Public Works
4.2.P.1: Consider opportunities to provide additional educational signage for residents and visitors on topics such as: sea turtles, littering, and dune protection.	FY 2022 – 2023	Public Works
4.2.S.1: Consider opportunities to improve processes for reviewing requests to film on public property.	FY 2022 – 2023	Recreation
4.2.U.1: Consider engaging in a process to update the Town's Parks and Recreation Master Plan, including a capital planning component.	FY 2023 – 2024	Public Works, Recreation

Land Use Compatibility		
5.1.E.1: Consider establishing Floor Area Ratio (FAR), size thresholds, or other standards to further manage the density and intensity of development and redevelopment.	FY 2023 – 2024	Administration, Building Inspections
5.1.J.1: Consider opportunities to improve processes to ensure appropriate notification to MOTSU when development regulations are adopted or amended pursuant to North Carolina General Statute 160D-601(b) and consider amending local development regulations to provide similar notification for other development applications.	FY 2022 – 2023	Administration, Building Inspections
5.1.J.2: Consider establishing a Town policy requiring that any response or analysis provided by MOTSU regarding the compatibility of a proposed land use action be provided to the Town Council or any appointed board of the Town as part of the staff report for that item.	FY 2022 – 2023	Administration, Building Inspections
5.1.P.1: Consider continuing to utilize standing committees and boards to involve the public in planning decisions whenever practicable.	Ongoing	Administration
5.1.P.2: Consider continuing to utilize the Town's website and other methods to keep citizens informed of planning and land use decisions whenever practicable.	Ongoing	Administration, Building Inspections
5.1.R.1: Consider opportunities for utilizing remote sensing and geospatial mapping to supplement land use planning activities.	Ongoing	Administration, Building Inspections

Appendix A: Definitions and Acronyms

Definitions of Action and Descriptive Words Used in Policies

The following is a list of definitions for the 'action-words' used in the Town's policy statements. This list is used to help in clarifying a policy's meaning and intent.

Consider: Implies permission to pursue a course of action or implies that a course of action is probable and likely.

Continue: Follow past and present procedures to maintain desired goal, usually with Town staff involved at all levels from planning to implementation.

Create: Bring about the desired goal, usually with Town staff and Planning Board involved at all levels from planning to implementation. This could include financial support by the Town.

Discourage: Inhibit an undesired course or action through Town regulation, staff recommendation and decisions.

Encourage: Foster the desired goal through Town regulation, staff recommendation and decisions.

Enhance: Improve current regulations and decisions towards a desired state through the use of policies and Town staff at all levels of planning. This could include financial support by the Town.

Ensure: To make certain or sure an action is implemented, usually with Town staff involvement. Financial support by the Town should be provided if needed.

Establish: To introduce through the creation thereof. Financial support by the Town may be provided if needed.

Identify: Catalog and confirm resource or desired item(s) through the use of Town staff and actions.

Implement: Actions to guide the accomplishment of the Plan recommendations.

Maintain: Keep in good condition the desired state of affairs through the use of Town regulations and practices by staff. Financial support by the Town should be provided if needed.

May: Implies permission to pursue a course of action or implies that a course of action is probable and likely. While "may" leaves room for flexibility for a range of choices, it does not imply a "may" or "may not" status as used in policy statements.

Prevent: Stop described event through the use of appropriate Town regulations, staff actions, Planning Board actions, and Town finances, if needed.

Promote: Advance the desired state through the use of Town policies and codes and Planning Board and staff activity at all levels of planning. This could include financial support by the Town.

Protect: Guard against a deterioration of the desired state through the use of Town policies and regulations, staff, and, if needed, financial support by the Town.

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.

Recommended Action: A statement outlining a specific course of action the Town may pursue to implement goals and policies. Recommended actions are not used in review of development proposals, text amendments, and/or rezoning requests.

Shall: An obligation to carry out a course of action.

Should: An officially adopted course or method of action intended to be followed to implement the community Goals. Though not as mandatory as "shall", it is still an obligatory course of action unless clear reasons can be identified that an exception is warranted.

Support: Supply the needed staff support, policies, and financial assistance at all levels to achieve the desired goal.

Sustain: Uphold the current state through Town policies, decisions, financial resources, and staff action.

Work: Cooperate and act in a manner through the use of Town staff actions, and policies to create the desired goal.

Acronyms Used In the Report

AEC	Areas of Environmental Concern
CAMA	Coastal Area Management Act
CFCC	Cape Fear Community College
COE	Corps of Engineers, United States
CRAC	Coastal Resource Advisory Committee
CRC	Coastal Resource Commission
CRS	Community Rating System
CZMA	Coastal Zone Management Act
DCM	Division of Coastal Management
NC DEQ	Department of Environmental Quality
DWR	Division of Water Resources

DWQ	Division of Water Quality
EMS	Emergency Medical Service
EMT	Emergency Medical Technician
ETJ	Extra-territorial Jurisdiction
FAR	Floor Area Ratio
FEMA	Federal Emergency Management Agency
GIS	Geographic Information System
HQW	High Quality Waters
ICWW	Intracoastal Waterway
LPO	Local Permit Officer
LUP	Land Use Plan
LUPSC	Land Use Plan Steering Committee
MG	Million Gallons
MGD	Millions of Gallons per Day
MHWL	Mean High Water Line
MLWL	Mean Low Water Line
MS4	Municipal Separate Storm Sewer System
N.A.	Not Applicable
NC	North Carolina
NCAC	North Carolina Administrative Code
NCDOT	North Carolina Department of Transportation
NFIP	National Flood Insurance Program
NPDES	National Pollutant Discharge Elimination System
	Nonpoint Source
NSW	Nutrient Sensitive Waters
ORW	Outstanding Resource Water
OSDS	Onsite Sewage Disposal System
PL	Public Law

SW	Swamp Waters
U.S.	United States

KURE BEACH TOWN COUNCIL
TOWN OF KURE BEACH, NC

RESOLUTION R22-12

A RESOLUTION OF TOWN COUNCIL OF THE TOWN OF KURE BEACH, NORTH CAROLINA ADOPTING THE KURE BEACH 2022 COMPREHENSIVE LAND USE PLAN

WHEREAS, from March 2021 through May 2022, the Town of Kure Beach drafted a Coastal Area Management Act (CAMA) Land Use Plan with the assistance of its consultant, the Cape Fear Council of Governments, and conducted a series of public workshops and meetings as part of a comprehensive public participation program under the leadership of the Town's Land Use Plan Committee; and

WHEREAS, on May 4, 2022, the Planning and Zoning Commission recommended Town Council's adoption of the draft Land Use Plan; and

WHEREAS, the adopted Plan was submitted as required by state law to the District Planner for the Division of Coastal Management under the North Carolina Department of Environmental Quality and forwarded to the Division Director; and

WHEREAS, at a duly advertised meeting and compliant with the notice requirements of N.C.G.S. § 113A-110(e), Town Council held a public hearing on the draft Land Use Plan on November 21, 2022; and

WHEREAS, during its November 21, 2022 Regular Meeting, Town Council found the policies and Future Land Use Map set forth in the draft Land Use Plan to be consistent with the Town's vision of its future growth and development and voted to adopt the draft Land Uses Plan; and

NOW, THEREFORE, BE IT RESOLVED THAT Town Council in a meeting duly noticed and assembled hereby adopts the Land Use Plan.

Adopted this 21st day of November, 2022.

TOWN OF KURE BEACH

Craig Bloszinsky, Mayor