

ROY COOPER

Governor

ELIZABETH S. BISER

Secretary

BRAXTON DAVIS

Director



NORTH CAROLINA
Environmental Quality

March 16, 2022

Mayor Ben Cahoon
Town of Nags Head
2616 S. Compass Lane
Nags Head, NC 27959

CERTIFIED MAIL RETURN RECEIPT
REQUESTED

Andy Garman, Town Manager
Town of Nags Head
P. O. Box 99
5401 S. Croatan Highway
Nags Head, NC 27959

CERTIFIED MAIL RETURN RECEIPT
REQUESTED and electronically:
andy.garman@nagsheadnc.gov

Re: Certification of Town of Nags Head Comprehensive and CAMA Land Use Plan

Dear Mayor Cahoon and Mr. Garman:

Please find enclosed the written Final Agency Decision granting the Town of Nags Head's request for certification of its Land Use Plan Update. Please let me know if you have any questions.

Very truly yours,

A handwritten signature in black ink, appearing to read "Braxton C. Davis".

Braxton C. Davis, Director
NC Division of Coastal Management

cc via email: M. Renee Cahoon, Chair
Mary L. Lucasse, Commission Counsel
Charlan Owens, AICP, Elizabeth City District Planner



North Carolina Department of Environmental Quality | Division of Coastal Management
Elizabeth City Office | 401 South Griffin Street, Suite 300 | Elizabeth City, North Carolina 27909
252.264.3901

IN THE MATTER OF THE REQUEST
FOR CERTIFICATION OF THE TOWN
OF NAGS HEAD COMPREHENSIVE
AND CAMA LAND USE PLAN

FINAL AGENCY DECISION

FACTS

1. This is the Town of Nags Head Comprehensive and CAMA Land Use Plan adopted October 6, 2021 by the Town of Nags Head (“Land Use Plan Update”).
2. The Town of Nags Head is located in Dare County and is bounded by the Town of Kill Devil Hills to the north, the Atlantic Ocean to the east, the Cape Hatteras National Seashore and Roanoke Sound to the south, and the Albemarle and Roanoke sounds to the west.
3. As of 2020, the permanent population of Nags Head was 3,168 persons and the estimated peak population was 45,015 persons.
4. The Town of Nags Head is requesting certification of the Land Use Plan Update that replaces the Town of Nags Head 2010 Land Use Plan certified by the Coastal Resources Commission on February 24, 2011, as amended through December 12, 2013.
5. The Land Use Plan Update supports the Town’s vision to preserve and protect its character, environment, tourism-based economy and sense of place to ensure a high quality of life for residents, and a memorable family vacation experience for present and future generations, while also addressing public beach and waterfront access, land use compatibility, infrastructure carrying capacity, natural hazard areas, and water quality.
6. A duly advertised public hearing on the Land Use Plan Update was held on September 1, 2021. No comments were received at the public hearing.

7. The Town of Nags Head adopted the Land Use Plan Update by resolution on October 6, 2021. The public had the opportunity to provide written comments on the plan to the Division of Coastal Management up to thirty (30) calendar days after local adoption. No comments were received.

CONCLUSIONS OF LAW

1. The Town of Nags Head Comprehensive and CAMA Land Use Plan (“Land Use Plan Update”) has met the substantive requirements outlined within the Land Use Planning Requirements effective February 1, 2016.

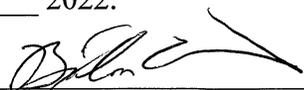
2. There are no conflicts evident in the Land Use Plan Update with either state or federal law or the State’s Coastal Management Program.

3. The elected body of the Town of Nags Head made a final decision on the contents of the Land Use Plan Update and provided opportunity for the public to provide written comment following local adoption of the plan, as required by N.C.G.S. § 113A-110 and 15A NCAC 7B .0802 and .0803, and the Land Use Plan Update was submitted to the NC Division of Coastal Management Commission without written objection or comment from the public.

DECISION

For the reasons stated herein, the Town of Nags Head’s request for certification of the Town of Nags Head Comprehensive and CAMA Land Use Plan (Update) is GRANTED.

This the 16th day of MARCH 2022.



Braxton C. Davis, Director
N.C. Division of Coastal Management

CERTIFICATE OF SERVICE

This is to certify that I have served a copy of the attached **Final Agency Decision** to the Town of Nags Head and the North Carolina Coastal Resources Commission by the means specified below:

Method of Service

Mayor Ben Cahoon
Town of Nags Head
2616 S. Compass Lane
Nags Head, NC 27959

CERTIFIED MAIL RETURN RECEIPT
REQUESTED

Andy Garman, Town Manager
Town of Nags Head
P. O. Box 99
5401 S. Croatan Highway
Nags Head, NC 27959

CERTIFIED MAIL RETURN RECEIPT
REQUESTED

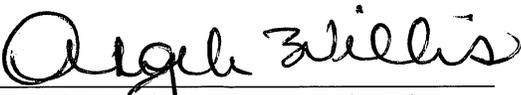
M. Renee Cahoon, Chair
Coastal Resources Commission

Electronically: Renee.Cahoon@ncdenr.gov

Mary L. Lucasse
Commission Counsel
NC Coastal Resources Commission
PO Box 629
Raleigh, NC 27602

Electronically: mlucasse@ncdoj.gov

This is the 16th day of March 2022.


Angela Willis Assistant to the Director



TOWN OF
Nags Head
Comprehensive & CAMA
Land Use Plan



Original Adoption: July 5, 2017

Local Adoption as

CAMA Land Use Plan: October 6, 2021

CRC Certified: March 16, 2022



Section I: CONTEXT & SETTING

I.I. Introduction

I.I.I. Purpose





ACKNOWLEDGEMENTS

BOARD OF COMMISSIONERS

Bob Edwards, Mayor
Susie Walters, Mayor Pro Tem
Renée Cahoon
Marvin Demers
John Ratzenberger

FOCUS ADVISORY COMMITTEE

Susie Walters
Kate Murray
Dave Elder
Molly Harrison
Margaret Suppler
Ben Cahoon
Melanie Smith
Dorie Fuller
John Juzwiak

PLANNING BOARD

Mark Cornwell, Chair
Kate Jones
Mike Siers
Mark Ballog
Michael Reilly
Kristi Wright
Dave Elder
Ben Reilly (Past)
Clyde Futrell (Past)
Jim Troutman (Past)
Pogie Worsely (Past)

TOWN STAFF

Holly B. White, Principal Planner
Andy Garman, Deputy Town Manager

Contributing

Cliff Ogburn, Town Manager
Kelly Wyatt, Deputy Director of Planning/Zoning Administrator
David Morton, Chief Building Inspector
Lily Campos Nieberding, Permitting Coordinator
Todd Krafft, Environmental Planner
Kevin Brinkley, Chief of Police
Kevin Zorc, Fire Chief
Chad Motz, Ocean Rescue Supervisor
Amy Miller, Finance Officer
Brie Floyd, Director of Human Resources
Ralph Barile, Public Works Director
Mike Norris, Facilities Maintenance Superintendent
David Ryan, Town Engineer
Nancy Carawan, Water Superintendent
Carolyn Morris, Town Clerk
Kim Thompson, Administrative Assistant
Kim Allen (Retired) Code Enforcement

OTHER CONTRIBUTORS

Outer Banks Visitors Bureau
The Nature Conservancy at Nags Head Woods Preserve
North Carolina Sea Grant
UNC Coastal Studies Institute
Outer Banks Chamber of Commerce
Dare County

Thank you to the Nags Head Community for your engagement during the FOCUS planning process!

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SECTION I: CONTEXT & SETTING





I.I. INTRODUCTION

The Town of Nags Head is a unique, coastal community steeped in culture and history, and rich in natural resources. The Town of Nags Head was formally incorporated in 1961. However, Nags Head's beginnings as a resort community stem back to the mid 1800's. In 1838, the first 200 room hotel was constructed to serve visitors and early inhabitants of the "Banks." The town has grown significantly since its beginnings but is still known as a family beach destination with a relaxed pace of life. This is in part due to a close-knit community which values its abundant natural resources and a commitment to environmental conservation.

Nags Head boasts the longest oceanfront shoreline of any municipality in Dare County at 11.29 miles. It also serves as the gateway to the Cape Hatteras National Seashore. The 6.6 square mile town jurisdiction is comprised mostly of single-family residential development with an equal amount of conservation/open space (Jockey's Ridge State Park and Nags Head Woods). While the year-round population is only 2,825 as of 2015, the seasonal population is estimated to swell to 40,000 during the peak summer visitation periods.

Throughout its history, the town has been visionary in dealing with and planning for complex coastal issues. The Town of Nags Head adopted its first Zoning Ordinance in 1962 followed in 1964 by adoption of its first Land Development Plan. Subsequently, a subdivision ordinance was adopted in 1971. Later in 1976, the first Coastal Area Management Act (CAMA) Land Use Plan was adopted. Since that time, the town has undertaken numerous other studies to address issues such transportation, stormwater management, decentralized wastewater management (septic system use), shoreline management, parks and recreation, beach access planning, architectural design, and growth management.

This Comprehensive Plan will build upon the 2010 Land Use Plan and will also incorporate recent plans and studies related to specific topic areas. Additionally, this plan identifies and recognizes unique areas of the town that have special land use related characteristics that should be preserved or enhanced, that have the potential to evolve into unique areas, or that have special development issues. Through implementation of the policies and actions in the plan, the vision for each of these unique areas, or Character Areas, can be accomplished.

Through time, Nags Head's desire to be a family beach community has not deviated. At the core of these desires are a healthy, well-maintained oceanfront beach that is both visually and physically accessible. The town recognizes the value of our coastal ecosystem and the role it plays in making Nags Head a great place to live, work, and visit. In addition to the preservation of the coastal ecosystem, the town is committed to sustaining a thriving local business community that supports residents and visitors. The town desires



and is committed to maintaining its status as a premier family beach destination. The town will foster and secure its legacy through implementation of this plan.

I.I.I. PURPOSE

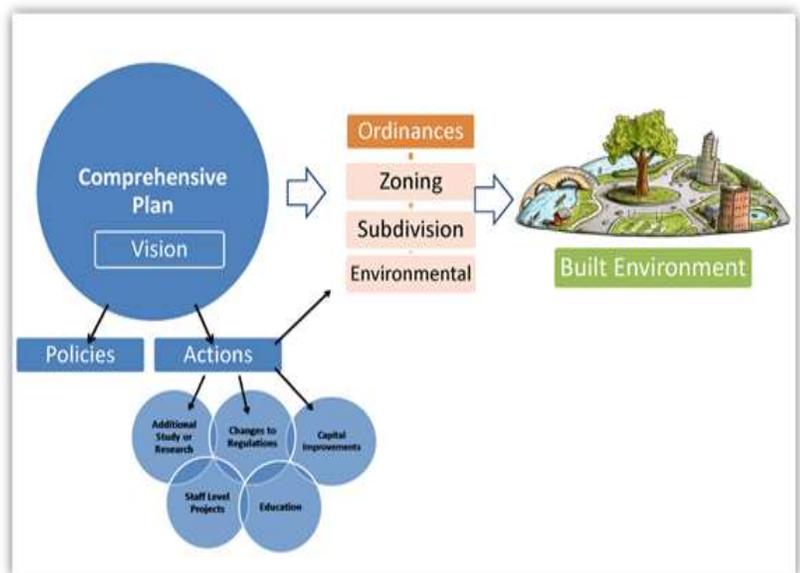
The Nags Head Comprehensive Plan is an official policy document adopted by the Town of Nags Head to strategically plan for and enhance the quality of life and physical character of the community. The plan builds upon adopted plans and policies to provide a foundation for decision making, future regulations, and project development. Further, the plan was created utilizing community input to illustrate a vision for the future of Nags Head and define steps to secure that future. While the Comprehensive Plan is not a regulatory document for Town purposes, the Division of Coastal Management may use the CAMA designated plan as the basis to approve or deny CAMA permits.

This vision is built upon many common values that form the goals, themes, and policies of the plan. These goals, themes, and policies provide direction for the Board of Commissioners, staff, and volunteer boards in determining if their decisions are consistent with and working to accomplish the town’s vision.

This comprehensive plan reorganizes information contained in the 2010 CAMA Land Use Plan and other planning documents into a forward-looking, action oriented strategic document. While this expanded plan goes beyond the scope of the 2010 CAMA Land Use Plan, it is prepared in accordance with the North Carolina Coastal Area Management Act.

The vision, policies, actions, and future land use map serve as the foundation and guide for the Town’s ordinances and zoning that regulate development. This ultimately dictates how we build and interact with the natural and built environments. The Town’s regulatory ordinances carry out the policy contained in the plan. Nags Head has ordinances that regulate zoning, stormwater, flood control and erosion.

Town staff, the Planning Board, and the Board of Commissioners use these ordinances to ensure development meets the desired standards needed to build in environmentally sensitive area and ensures Nags Head’s character, sense of community, and way of life are preserved.



1.1.2. RELATIONSHIP TO OTHER PLANS

The following plans, studies, and reports were reviewed in preparation of this plan to incorporate key goals, policies and recommendations into the Comprehensive Plan. These plans provide additional details and documentation to support the recommendations in the Comprehensive Plan and should be referenced to assist in the planning and decision-making process. The majority of these plans, studies, and reports were conducted by the town. However, Nags Head's long range planning efforts are guided by several plans or planning efforts external to the town. Reference to these documents may be required when conducting planning activities for specific elements.

Town Planning Documents & Studies:

- 2013 Land Use Plan Amendment (Adopted 2013)
- 2010 Land Use Plan (Adopted 2010)
- 2000 Land and Water Use Plan
- The Beach Road and Its Future Development: Conceptual Design Plan (2008, not adopted)
- Beach Cottage Row Local Historic District Plan (2008, not adopted)
- Gallery Row Arts District Report (2014)
- Dare County Comprehensive Transportation Plan
- Town of Nags Head Pedestrian Plan (Adopted 2014)
- Town of Nags Head Parks and Recreation Plan (Adopted 2012)
- Town of Nags Head Hazard Mitigation Plan (Adopted 2004)
- Adaptation Planning in the Town of Nags Head: Vulnerability, Consequences, Adaptation, Planning Scenarios (VCAPS) Report (Adopted August 2017)
- Town of Nags Head Emergency Operations Plan (Adopted 2015)
- Town of Nags Head Decentralized Wastewater Management Plan (2005)
- Town of Nags Head- Low Impact Development Solutions to Reduce Stormwater Run-off (2014)
- Stormwater Management Plan & Technical Report, WK Dickson (Adopted 2006)
- Beach Monitoring and Maintenance Plan (Adopted 2011)



External Documents & Studies:

- The Outer Banks Visitors Bureau Visitors Survey (2014-2015)
- Pathways to Prosperity: The Economic Impact of Investments in Bicycle Facilities (Technical report, 2004)
- Albemarle Regional Bicycle Plan (Adopted 2013)
- Pasquotank River Basin Wide Water Quality Plan (2007)
- Economic Valuation of the Albemarle-Pamlico Watershed's Natural Resources (2016)
- Nags Head Woods Management Plan (2013)
- Outer Banks Hydrology Management Committee Report of Findings (2006)
- Albemarle Regional Hazard Mitigation Plan (Adopted 2015)
- Outer Banks Regional Hazard Mitigation Plan (Adopted June 2020)
- The Outer Banks Chamber of Commerce Economic Development & Sustainability White Paper (2015)
- Albemarle Rural Planning Organization (ARPO) Strategic Prioritization Process
- Outer Banks Transportation Task Force – Outer Banks Transportation Study Final Report (2006)
- NCDOT – Traffic Safety Unit, Road Safety Audit of US 158 (2011)



I.1.3. ORGANIZATION OF THE PLAN

The Comprehensive Plan is broken into five sections. Section I, “Context and Settings” describes the plan’s purpose and the FOCUS Nags Head planning process which integrated community input with the consolidation of previous planning policy documents and the work of the FOCUS Nags Head Advisory Committee. The Plan’s Vision and five main goals, which emerged from the process, are laid out. Additionally, in Section I there is a brief community snapshot and highlights of data depicting existing town conditions, which sets the stage for the policy discussion of sections 2, 3 and 4.

Section 2, Character Areas, defines and describes eight distinct Character Areas within the town that require special planning to maintain or enhance their unique characteristics. Additionally, Section 2 discusses a specific vision and planning considerations for each area including desired uses, design characteristics including building size and scale, infrastructure, and other elements that new development or redevelopment must consider in each character area. The policies that support the vision and development plan of each character area are discussed in detail in Section 3, Elements.

Section 3 addresses elements of the Comprehensive Plan that generally apply town wide and have been broken into seven elements. The elements are complex and often interrelated resulting in broad discussions that provide background on the policies and actions of each section. These elements include Land Use, Natural Resources and Resiliency, Economic Development and Tourism, Cultural Resources, Parks and Recreation, Transportation, and Municipal Services. Each of these elements has its own section. Under each main element are sub-elements that explain the primary concerns of the community. In addition to a discussion of key issues, each element includes a table of policies and actions to guide future decision making. The seven elements are identified by a primary two letter code. Policies under each element are numbered and actions are lettered, creating a simple four letter code that makes each policy and its actions uniquely identifiable.

Section 4, Implementation, contains a consolidated table of the policies and actions described in parts 2 and 3 of the Comprehensive Plan. This is a useful reference for the community to review in one location the different actions recommended by the Plan. The table takes the policies and actions from Section 3 and assigns them priorities, responsible parties, a time frame, a likely revenue type, and the level of necessary financial resources. In a snapshot the matrix provides the town a framework for decision making and understanding the most effective approach to achieving town goals and ultimately the community’s vision for Nags Head.

Section 5, Appendix, contains reference information, supporting documents, or maps that provide the foundation for the work contained in the plan.



I.1.4. USING THE PLAN

The Comprehensive Plan has been created for use by elected and appointed boards and committees, Town staff, residents, business owners, the development community, and others with an interest in the future of the Town of Nags Head. Elected and appointed officials and staff utilize this plan to gauge if development is consistent with the vision for the Town. Residents, businesses, and the development community can use this plan to understand the vision of the Town in the future and specific actions that will be carried out by the Town to accomplish the vision.

The vision, goals, and guiding themes are located in Section I and visualizes the community's desires for Nags Head's future.

Section 2 Character Areas identifies areas where more detailed, planning and implementation of certain policies, investment, incentives, or regulations may be applied in order to preserve, improve, or influence their future development patterns that are consistent with the town's vision. The Character Area section includes a more detailed vision for each unique identified area along with planning considerations for the desired use, design, infrastructure, and other elements that development must consider. This section is only utilized for consistency purposes if proposed development is located in a designated Character Area.

General policies and actions for Land Use, Natural Resource and Resiliency, Economic Development and Tourism, Cultural Resources, Parks and Recreation, Transportation, and Municipal Services are found in Section 3. The policies and actions in this section work to implement the vision in Section I. Policies are generally open-ended in timeframe and are written to provide ongoing direction. The policies are utilized by staff and appointed/elected boards to determine if development is consistent with the plan. Actions are specific steps the Town will take to accomplishing the policies within the plan. While some actions may be ongoing, most have an identifiable end in which the actions are considered accomplished.

The future land use in map and associated descriptions are located in Section 4. The future land use map and descriptions provide the foundation for decision regarding land use and zoning showing visually where lands uses are appropriate within the Town.

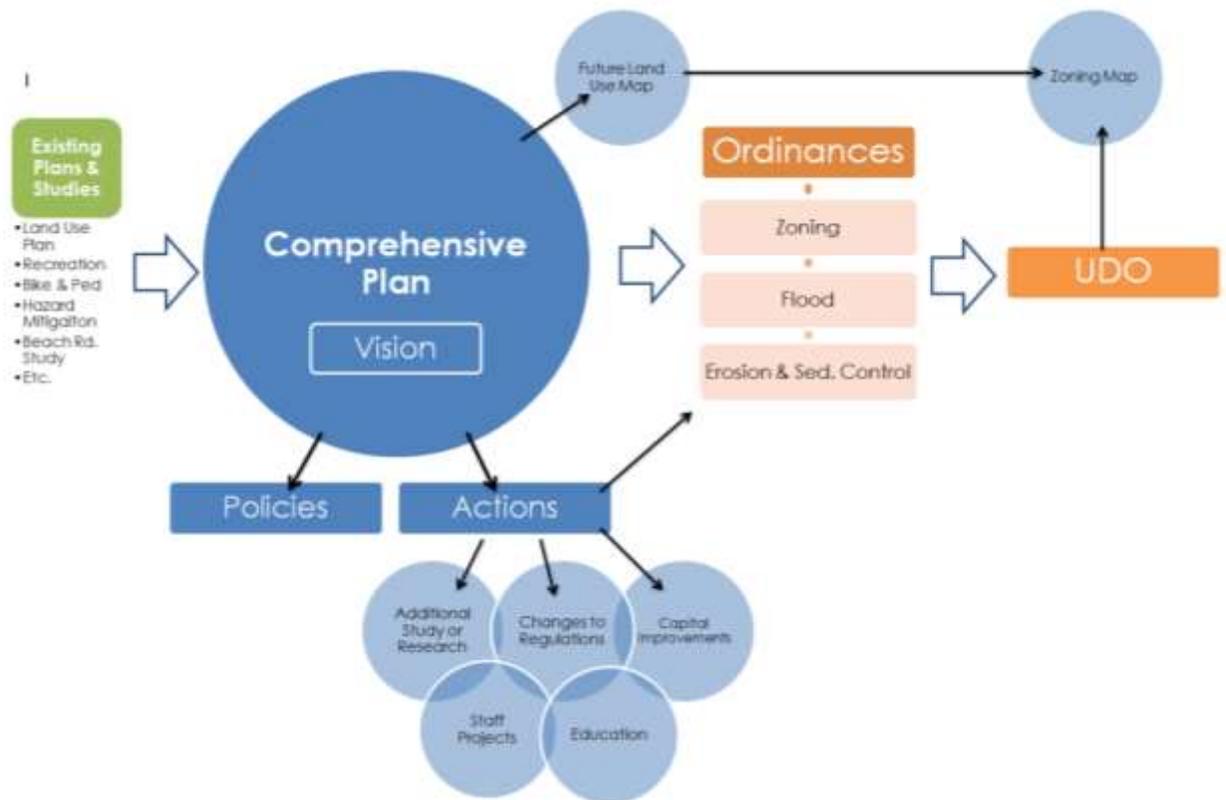
The vision, goals, guiding themes, and future land use map/descriptions should be utilized when determining if development is consistent with the plan. Further, if located within a designated Character Area, the appropriate portion of Section 2 Character Areas should be utilized. In order to achieve the vision in the plan, it is desired that development be consistent with the vision and policies in the plan.



I.1.5. FOCUS NAGS HEAD

This Comprehensive Plan was developed as part of the FOCUS Nags Head project that commenced during the summer of 2015. FOCUS Nags Head was initiated to assess progress toward the town’s long term goals, to determine emerging needs, and to unify the town’s goals and actions as it moves forward. FOCUS Nags Head had two main components: the development of a comprehensive plan and the preparation of a unified development ordinance (UDO) to help implement many of the comprehensive plan goals and policies. Adoption of this document will complete the first portion of the FOCUS Nags Head project. Many of the goals and actions in the Comprehensive Plan will be implemented with the completion of the UDO.

Figure I: FOCUS Nags Head Logic Model





I.1.6. PLAN PROCESS

The FOCUS Comprehensive Planning effort was initiated in early 2015 at the direction of the Town’s Board of Commissioners. The town issued a national request for proposals and selected a planning consulting team to assist with completing the two FOCUS Nags Head objectives in the spring of 2015. The town staff and consulting team worked closely to develop a framework for moving the FOCUS Nags Head initiative forward. The plan was developed under the schedule in Table I.1.5, Plan Development Schedule.

Table I.1.5: Plan Development Schedule	
Timeframe	Task
July 2015	Funded & Project Kick Off with Staff/Consultant
September 2015	Project Kick Off to the Public - 9/10/15- Community Kick Off Meeting (20 people in attendance) - 9/28/15- Consultant Stakeholder Interviews (70 total) o Community Visioning Meeting (50 people in attendance) - 9/29/15- Consultant Stakeholder Interviews o Kick Off Committee Meetings
September– December 2015	Research & Analysis (development of guiding principles and vision)
July 20-21, 2015	Kick Off Staff Meeting Staff and Boards Stakeholder Interviews
September 10, 2015	FOCUS Nags Head Kick Off Community Meeting
September 28-29, 2015	Community Stakeholder Interviews
September 28, 2015	Community Visioning Meeting
December 2015 – March 2016:	Advisory Committee Meetings: Development of Character Areas - 12/17/15 - 1/12/16 - 1/26/16 - 2/2/16 - 2/23/16 - 3/1/16
March 8, 2016	Community Meeting (20 people in attendance)
March-May 2016	Staff & Board Interviews (25 interviews)
May-June 2016	Additional Stakeholder Meetings
June 2016	Presentation of Vision to Board of Commissioners
June-December 2016	Drafting Section 2: Character Areas and Section 3: Elements & Policies
September – December 2016	Advisory Committee Meetings: Review and Discussion of Section 3 Elements



Table I.I.5: Plan Development Schedule

Timeframe	Task
	<ul style="list-style-type: none"> - 9/9/16 - 9/16/16 - 9/27/16 - 11/10/16 - 11/22/16 - 12/8/16 - 12/14 /16 - 12/19/16
January 12, 2017	Joint Workshop with FOCUS Advisory Committee, the Board of Commissioners, and the Planning Board: Discussion and Review of the Draft Plan
January – March 2017	Advisory Committee Meetings: Discussion of follow up items from Joint Workshop <ul style="list-style-type: none"> - 2/13/17 - 2/23/17 - 3/9/17
January-April 2017	Production of final draft
April 20, 2017	Community Meeting
June 7, 2017	Public Hearing
July 5, 2017	Adoption



I.1.7. COMMUNITY INVOLVEMENT

There was a great deal of community involvement during the planning process. Approximately 70 stakeholder meetings and four community meetings (approximately 100 people) were conducted throughout the project initiation, drafting, and adoption. In addition to the stakeholder interviews and community meetings, the Board of Commissioners appointed an Advisory



Committee to provide guidance to the town staff and consulting team on broad policy issues related to the strategic direction of the comprehensive plan. The committee represented a diverse cross section of the community and was made up of nine members. This included representatives from the Board of Commissioners, Planning Board, full-time residents (with geographic representation), engineer/architect, business community, restaurant industry, environmental issues, economic development, and tourism.





The Advisory Committee conducted 17 committee meetings (2-hour minimum meetings) during the planning process. Additionally, four community meetings were held to gain input and feedback from the community, not including the public hearings for adoption. The guidance and feedback from the Advisory Committee and the community was critical in developing the vision, policies, and actions contained in the plan.

In addition to input from the Advisory Committee, the Town utilized input from several topic specific ad-hoc committees appointed by the Board of Commissioners. These committees were created by the Board of Commissioners to gain community input and direction on specific areas of importance and of concern. The committees include the Stormwater Management, Shoreline Management, Local Business, Sea Level Rise, Parks and Recreation, Arts and Culture, and Solid Waste & Recycling. Input gained from these committees supplemented the Advisory Committee and community input to further shape the plan and develop the vision, policies, and actions. The processes of these committees and more detailed feedback are outlined in the sections specific to the topics.





I.1.8. KEY COMMUNITY CONCERNS

A. Key Community Concerns

Based on the initial stakeholder interviews by the consultant and kick-off community meeting, a list of broad, key concerns emerged. These key concerns represent issues of community concern that need to be addressed through the planning process. These key concerns included:

i. Embracing the Town's Vision

The town has a reputation as a small, family-friendly, coastal resort town comprised primarily of single-family homes. Through the planning process, the existing vision was revisited to determine if the vision is still relevant to the town. The community felt that the vision was largely in keeping with current desires and only minor adjustments were needed.

ii. Sustaining the Beach Road's Commercial Character

The town's commercial zoning districts allow residential uses, and this is a factor in the conversion of small-scale, low-rise existing commercial buildings to newer, larger, tourist-oriented residential development. While some residential development is acceptable, the town desires to protect its small-scale commercial stock.

iii. Diversifying Housing Options

The town is losing its historic small-scale, locally owned cottage courts to single-family vacation rentals. There are limited types of accommodations and housing for visitors and residents. This includes alternatives for both seniors and affordable, workforce housing.

iv. Educating Residents on Regulatory Realities

Due to the environmental sensitivity of the region, there are many state and federal regulations in place to guide development and ensure that the town's unique ecosystems area protected. Additionally, local regulations have been stringent to implement the town's vision of a small, family beach, residential community. Due to the complexity of this regulatory environment, conducting business and development in the town can be complicated. The town should work to improve current procedures in an effort to assist applicants in this complex regulatory environment and educate them on how these regulations and procedures work to protect the town's character and quality of life.

v. Preserving Commercial Character

The town has been losing small-scale, locally owned commercial establishments and needs to explore ways to protect this stock of small-scale, nonresidential floor space. In



addition, there is a need for higher quality commercial design standards, a desire for mixed uses (particularly along the Beach Road), and a strong desire to curb large-format retailers (over 20,000 square feet in area) from locating along NC 12 and concentrate them in existing shopping centers along US 158, in order to maintain and achieve the vision of a small coastal town.

vi. Connecting Key Town Destinations

The town has several unique areas and destinations that are not well connected for pedestrians or cyclists. These include the Whalebone Junction area, the Soundside Event Site, Cottage Row, Gallery Row, Dowdy Park, and many of the neighborhoods west of US 158. Connecting these areas could serve as a logical framework for guiding land use and transportation decisions.

vii. Adapting to Sea Level Rise

The impacts of a changing climate, including sea level rise, present potentially enormous future challenges. While vulnerability to sea level rise is typically thought of from a beach erosion standpoint, there are many other issues to address when exploring adaptation options for the town, including a rising ground water table. The town is committed to minimizing the impacts of future sea level rise.

B. Coastal Area Management Act (CAMA) Key Issues

In addition to the key issues described below and collected through community involvement, there are key issues associated with NC Coastal Area Management Act requirements (as referenced above in Section I.I Purpose) that must be addressed through this plan document. As part of those requirements, the plan addresses key issues specific to public access, land use compatibility, natural hazard areas, water quality, and infrastructure carrying capacity. A summary of key issues related to those specific topic areas are described below:

i. Land Use Compatibility

Land Use, both the pattern of land development as well as compatibility with adjacent properties and the environment, are important to Nags Head. Much of the town's vision statement is an expression of town desire from a land use perspective. Land Use is covered in depth in Section 3.2 Land Use. Issues related to land use can be described as:

- Preserving the character of Nags Head as described in LU-1, LU-10, LU-14, LU-15, LU-16, LU-17, LU-18, LU-19, LU-24, and LU-25.
- Appropriate pattern and scale of development for the US 158 and NC 12 corridors as described in LU-2, LU-5, LU-11, LU-23, and LU-26.



- Adaptable development along the oceanfront as described in LU-3.
- Protection of ecologically sensitive ecosystems, areas, and vegetation as described in LU-6, LU-7, LU-8, LU-20, LU-21, and LU-22.
- Diversity of accommodations and neighborhood serving business as reflected in LU- 4, LU-9, and LU-27.
- Maintain overall regulatory approaches for residential and commercial zoning districts that would not result in an increase of intensity or density as described in LU-12, LU-13, LU-28, LU-29, and LU-30.

ii. Natural Hazard Areas

Natural Hazard Areas are those areas susceptible and vulnerable to natural hazards that contain higher densities of population or areas of environmental, cultural, or economic value. Sections 3.3.2 Hazard Mitigation, 3.3.3 Mitigation Strategies, and 3.3.4 Coastal Resiliency and Sea Level Rise address in depth the issues related to natural hazard areas. The interrelationship between rainfall, groundwater, and flooding was a key throughout the planning process. Issues related to natural hazard areas can be summarized as:

- Protection of public health, safety, and welfare against hazards as described in NR-10.
- Ensure that Nags Head is disaster resilient as described in NR-11 and NR-15.
- Conduct mitigation efforts that reduce damaging effects of hazards as described in NR-12.
- Educate the community on the risks associated with hazards as described in NR-14.
- Minimize the impacts of sea level rise as described in NR-16.

iii. Water Quality

Water quality refers to the condition or degree of cleanliness of the water and is affected by a wide range of natural and human influences and nearby land uses. The cleanliness of water influences the way water can be used for activities such as drinking, swimming, and fishing. Good water quality in the sounds, ocean, and our freshwater resources (surface and groundwater) is imperative for long term sustainability. Section 3.3.6 addresses water quality in depth. Water quality issues related to failing or damaged septic systems or elevated groundwater levels was a major concern when discussing water quality issues. Issues related to water quality can be summarized as:

- Preserve, protect, and improve water quality as described in NR-24.
- Increase public understanding of the relationship between water quality, ecosystem health, and human health advisories as described in NR-25.
- Maintain and expand the septic health initiative as describe in NR-26.



- Develop partnerships to assist in research and educational efforts as described in NR-27.
- Preserve and protect groundwater aquifers from depletion and contamination as described in NR-28.

iv. **Infrastructure Carrying Capacity**

For the purposes of CAMA, infrastructure Carrying Capacity ensures that public infrastructure systems are sized, located, and managed so the quality and productivity of Areas of Environmental Concern (AEC's) and other fragile areas are protected. Issues related to Infrastructure Carrying Capacity can be summarized as:

- Maintain a well-run and efficient government that provides high quality and cost-effective services (Goal 5). This can be accomplished through the development, funding, and prioritization of an annual Capital Improvement Plan to provide for the infrastructure, equipment, and facility needs of the community.
- Recognize a low-density pattern of development for the oceanfront that is characterized by small scale adaptable structure as described in LU-3.
- Encourage a balance of land uses along the Beach Road characterized by a diversity of accommodations and small, neighborhood serving businesses as described in LU-4.
- Promote contiguous and cohesive nodes of commercial development of appropriate size and massing for the surrounding area as described in LU-5.
- Limit destruction and clearing of the maritime forest in Nags Head Woods as described in LU-6.
- Review regulations in the Ocean and Sound Waters Overlay District and the Commercial Outdoor Recreation Overlay District to ensure proper use of the ocean and sound waters to ensure the continued scenic, conversation and recreational value that these waters provide to the town as described in LU-7.
- Ensure proposal for future commercial uses in the sound are not detrimental to the marsh, sound bottom, and submerged aquatic vegetation as described in LU-8.
- Utilize on-site wastewater systems as the preferred method of wastewater treatment as described in LU-12.
- Maintain the overall regulatory scheme for residential and commercial zoning districts to avoid increasers in development intensity of density as described in LU-13.
- Protect and preserve vegetation until necessary for development as described in LU-20 and LU-21.



- Maintain the policy to restrict tie-ons to the Village Wastewater system as described in LU-28.
- Preserve and enhance dunes and native dune vegetation for the role they play in property and infrastructure protection as described in NR-20.
- Meet the infrastructure and service needs of the community at appropriate levels as the community continues to grow (EC-3).
- Provide local transportation infrastructure that is designed to accommodate all modes of transportation as described in TP-1.
- Reduce reliance on personal transportation as described in TP-2.
- Provide comprehensive bicycle and pedestrian connectivity within the town and the Outer Banks as described in TP-3.
- Support the development and maintenance of regional transportation infrastructure as described in TP-4.
- Provide sufficient levels of potable water to accommodate water demand at build-out through an economical and efficient means and in an environmentally sensitive manner as described in MS-14.
- Ensure that stormwater runoff is properly managed to reduce nuisance flooding and pollution of sensitive environmental areas as described in MS-15.
- Improve town drainage infrastructure through planning, maintenance, or new construction as described in MS-16.

v. Public Access

The most important recreational opportunity in the town is public access to the town's shorelines 11.29 miles of ocean shoreline and 17.28 miles of estuarine shoreline. Beaches are recognized as the single greatest asset within the town. Public accesses is covered in greater depth in Section 3.3.1. Environmentally Sensitive Ecosystems and Areas, Section 3.3.5. Shoreline Management, and Section 3.6. Parks and Recreation. Issues related to land use can be described as:

- Protect our critical natural resources and coastal ecosystem (Goal 2). Carefully manage ocean and estuarine shorelines to preserve the natural and beneficial functions of the environment while balancing the need to respect private property rights and public access.
- Provide substantial opportunity for the public to access the beach. This includes beach accesses with adequate parking at regular intervals for the length of the town with accessible facilities as described in the policies and actions of NR-19.
- Expand and develop public access to ocean and estuarine shorelines that accommodate different user types, age groups, and needs as described in PR-3a.

I.1.9. GUIDING THEMES

Many of the key community concerns above remained consistent throughout the planning process. However, there were additional concerns that became reoccurring themes throughout the plan process and informed the development of the policies and actions. These themes often cross-cut specific plan elements. Addressing these themes is critical to realization of the vision and implementation of the plan. These guiding themes include:

A. Architectural Integrity

Allow flexibility to maintain the unique, quirky character by examining the design review process and allowing nonconforming structures to renovate and expand.

B. Beach Road vs Bypass

Recognize that the Beach Road and the Bypass are two distinct areas with unique characteristics and should have different standards for development.

C. Protecting Conversion of Commercial Property to Residential

Encourage commercial development in appropriate places, in defined activity nodes, and at appropriate scales to support the existing commercial businesses along Beach Road. Continuing investment in infrastructure to further develop bike and pedestrian connections is paramount to this.

D. Shopping Centers and Large Format Development

Direct large format commercial development to existing activity nodes.

E. Character Areas

Recognize areas that each have their own unique characteristics and where more detailed planning and implementation of certain policies, investment, incentives, or regulations may be applied in order to preserve, improve, or influence their future development patterns that are consistent with the town's vision.

F. Oceanfront

Encourage future development that is resilient and more adaptable to changing conditions. (i.e.: low-density, smaller, more adaptable buildings, VE zone standards, reduce accessory structures in CAMA setback)

G. Preservation of Existing Business

Provide flexibility to nonconforming properties for renovations and updates, allowing them to remain relevant in the market. This would include flexibility during design review.

H. Greater Diversity in Housing and Accommodations

Encourage hotel development, cottage courts, and accessory dwelling in appropriate locations.



I. Connectivity

Provide increased connectivity between homes, businesses, recreational opportunities, and other key destinations in town resulting in a more walkable community and healthier way of life.

J. Healthy Small, Local Business Economy

Support small, local businesses, recognizing the value that many of the small businesses contribute to the sense of place, quality of life, and high-quality visitor experience within the town

K. Arts and Cultural Resources

Recognize the impact of culture and arts on the economy and quality of life.

L. Environmental Quality

Adapt to changing future conditions, such as sea level rise and climate change, in a way that allows the town to be more resilient without long-term damage to the economy, environment, or quality of life.



I.2. VISION

The Town of Nags Head is a unique coastal community built upon a legacy rooted in shared values, including our most recognized common bond – a love for the Outer Banks. We recognize that the town must be a good place to live before it can be a good place to visit. We strive to preserve and protect the Nags Head character, environment, tourism based economy, and sense of place in order to ensure a high quality of life for residents and a memorable family vacation experience for present and future generations.

We uphold our legacy by protecting and promoting our small town character that includes a sustainable local economy based on family vacation tourism, a high quality beach experience, and small, locally owned businesses. Fundamental to our legacy and quality of life are preserving the historic architecture and culture that distinguishes our town; providing residents and visitors with excellent public services and well-maintained recreational amenities; and ensuring access to a well-protected natural coastal environment.

Our legacy will be strengthened and preserved by a focused, transparent decision making process that is comprehensive and consistent with the community’s vision. In order to maintain that focus, our decisions are directed by the five goals described below.

I.3. GOALS

A. Preserve our community’s distinctive heritage and unique lifestyle

- a. A relaxed-paced, family beach community comprised primarily of low-density development and open spaces.
- b. A healthy, well-maintained oceanfront beach that is visually and physically accessible and usable; not blocked by large structures.
- c. An environment that reflects the heritage of “Old Nags Head” with unique and eclectic architectural styles, scenic views, and coastal landscapes.

B. Protect our critical natural resources and coastal ecosystem

- a. Build and promote a sustainable economy that supports residents and visitors
- b. A natural environment typified by clean water and a coastal barrier landscape with noninvasive, salt tolerant vegetation.
- c. Ocean and estuarine shorelines that are carefully managed to preserve the natural and beneficial functions of the environment while balancing the need to respect private property rights and public access.



- d. Plan for the future impacts of sea level rise; ensuring proper policies, plans, and practices for stormwater and wastewater management are in place to sustain the natural environment and maintain a viable family, tourism-based economy.

C. Build and promote a sustainable economy that supports residents and visitors

- a. A diverse supply of housing, including single-family homes and multi-family dwelling units, that meet the needs of residents in all phases of life and for varying income levels.
- b. A diverse supply of visitor accommodations, including single-family homes, hotels, cottage courts, and multi-family dwelling units for visitors who desire both short-term and long-term stays.
- c. A thriving local business community that offers a wide range of goods and services available to residents and visitors.
- d. A premier family beach destination on the Outer Banks, providing an enjoyable and memorable experience.

D. Plan for orderly and sustainable growth and redevelopment

- a. A well-organized and compatible pattern of land development and redevelopment through proactive land use and transportation policies.
- b. Development that is designed to reduce private property damage and loss of life from major storm events and natural hazards.
- c. Safe connectivity and accessibility between neighborhoods, businesses, and recreational opportunities for a variety of travel modes, lessening traffic congestion, and enabling an active and healthy lifestyle for residents and visitors.
- d. A place with active and passive recreational opportunities that serve all ages and abilities, creating opportunities for community interaction and healthy living.
- e. Preservation and maintenance of legacy commercial businesses.



E. Maintain a well-run and efficient government that provides high quality and cost effective services

- a. Develop, fund, and prioritize the Capital Improvement Plan annually to provide for the infrastructure, equipment, and facility needs of the community.
- b. Provide the highest quality public safety services possible, and routinely review the public safety needs of the community to ensure that resources are available to meet these needs.
- c. Provide friendly and accommodating customer service.
- d. Communicate town information to residents and visitors through a variety of media that demonstrates the results of measurable goals and objectives.
- e. Advocate for the provision of high quality, responsive services, legislation, resources, and policies from government partners and other organizations that further the vision of the Town of Nags Head.



Section I: CONTEXT & SETTING

1.3. Goals

1.1.9. Guiding Themes

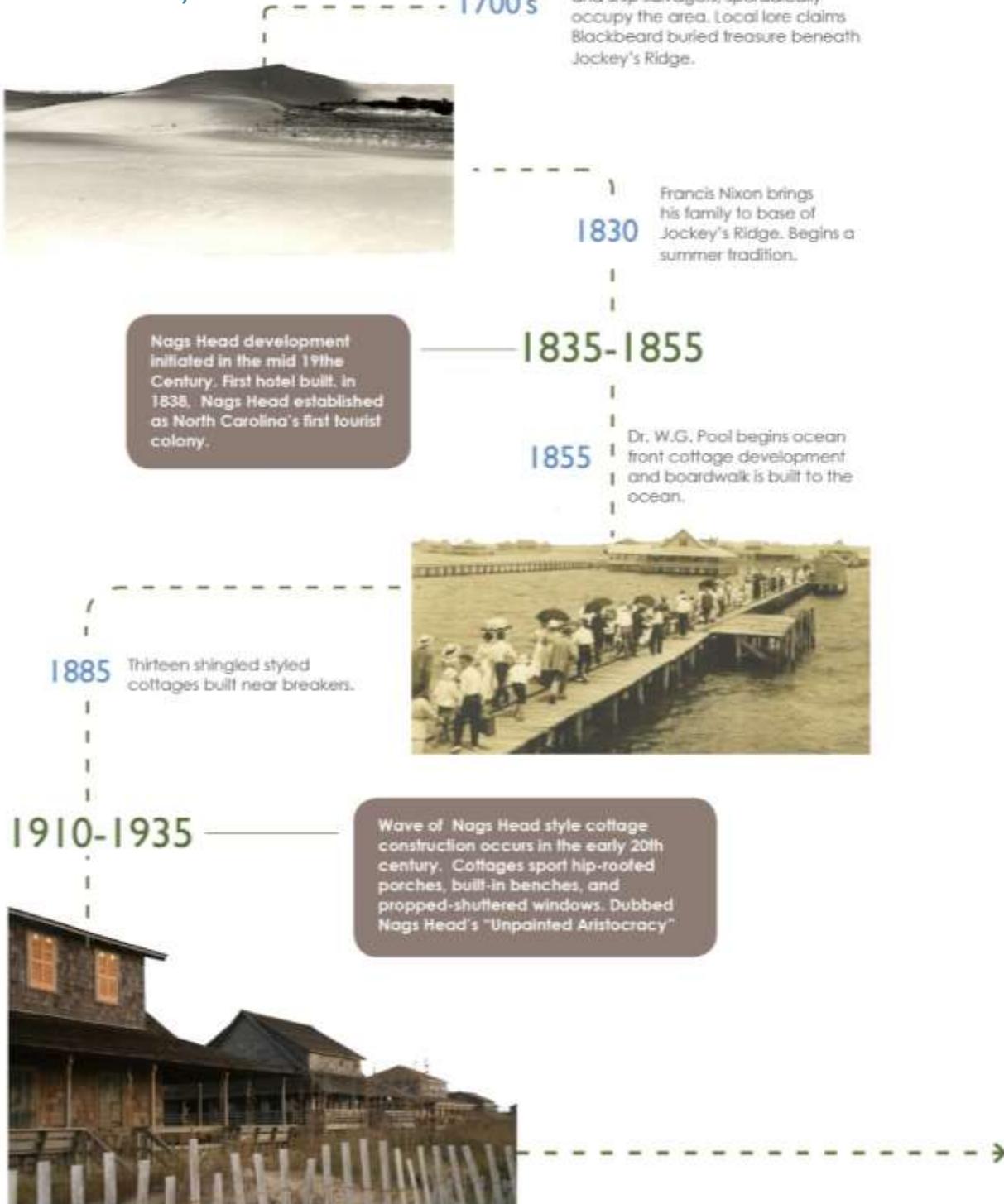




I.4. PLANNING CONTEXT

I.4.I. COMMUNITY SNAPSHOT

A. History





Section I: CONTEXT & SETTING

I.4. Planning Context

I.4.I. Community Snapshot



1935

Old Nags Head Casino is constructed.

1939

Jennette's fishing pier opens and Nags Head passes the century mark as an established Outer Banks destination.

Ash Wednesday Northeaster destroys Nags Head Casino. While some legacy establishments such as the casino have been lost, others like Owen's Restaurant founded in 1946 continue Nags Head's legacy of local businesses.

1962



1975-2005

Late 20th century development boom, especially of large-scale, multi-bedroom vacation properties occurs, increasing community desire for growth management.

Nags Head Beach Cottage Row Historic District placed on National Register.

1977



In the 2000's hurricane events stress importance of coastal resiliency. Nags Head embarks on extensive beach replenishment.

Hurricane Isabel damages Jennette's pier and other structures.

2003

Pier reopens. Irene strikes without severe damage.

2011





Section I: CONTEXT & SETTING

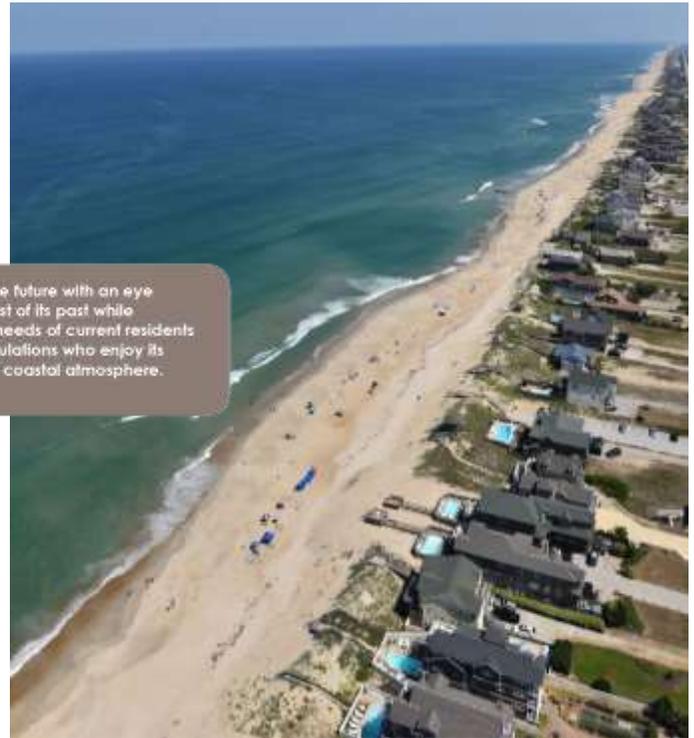
I.4. Planning Context

I.4.I. Community Snapshot



2015
Focus Nags Head

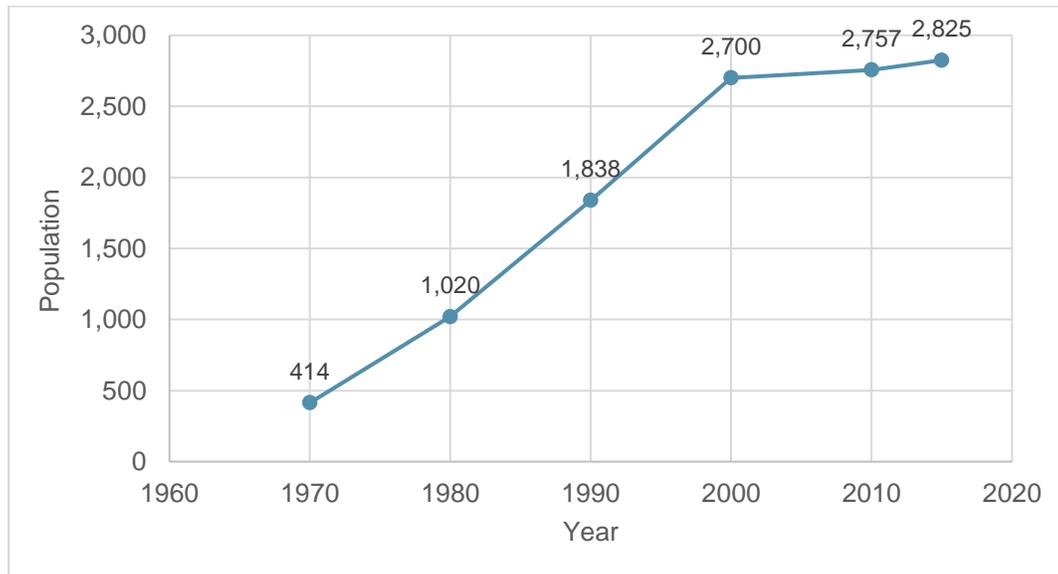
Nags Head looks to the future with an eye for maintaining the best of its past while accommodating the needs of current residents and the seasonal populations who enjoy its unique character and coastal atmosphere.



B. Permanent & Seasonal Population Trends

In 2015, the permanent population of Nags Head was estimated at 2,825 people. Figure 2 shows the population of Nags Head since it was first designated as a Census Place in the 1970 Decennial Census.

Figure 2: Nags Head Permanent Population, 1970-2015



Source: US Census Data

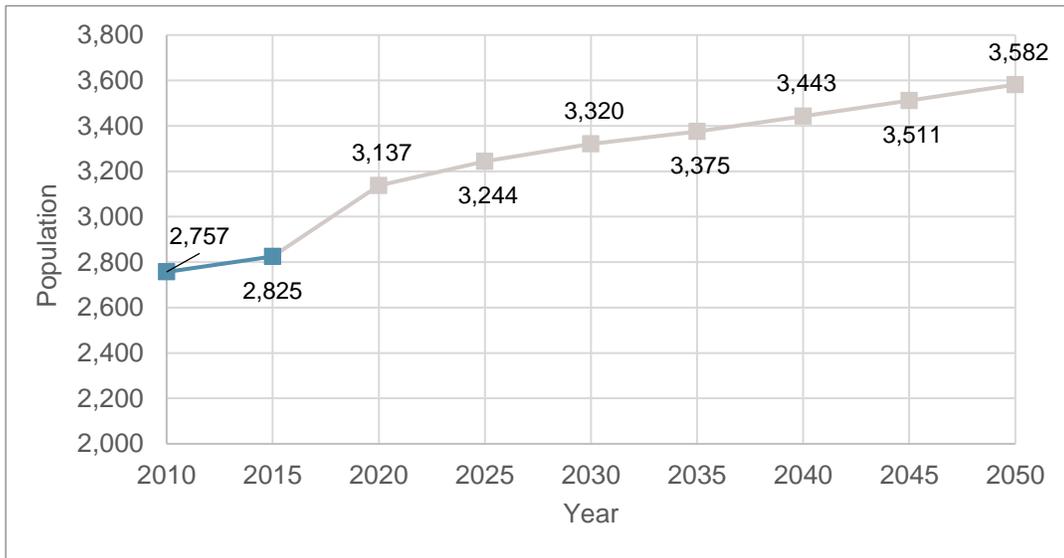
The town experienced a population boom from 1970 to 2000. Between 1970 and 1980, the town experienced a dramatic 146% growth in its population, which reflects both the low population (only 414 residents) in 1970 and the rapid development occurring in the town. While slower in the next decade, the population still grew by 80% between 1980 and 1990. The growth rate post-2000 is notably slower. Between 2000 and 2010, the town only saw 2% population increase, a low but healthy rate for a community that is mostly built-out and facing natural hazards and environmental challenges that come with Nags Head's coastal location.

A key step in planning for the community's future is estimating the population growth, both permanent and seasonal, that will occur over the next decades. This information is vital in order to plan for infrastructure, service, and amenity expansion, budgeting, hazard mitigation planning, and land use allocation. While it is impossible to predict exactly what will happen in the future, current population trends in the town and in Dare County can be extrapolated to make an estimation. Figure 3 shows permanent population projections for Nags Head through 2050. The relatively large growth projected for 2015-2020 comes from projections that Dare County will experience high growth as recovery from the Great Recession continues, then even back out to approximately 2% population growth into the next few decades. It is important to note that this projection is made for the purposes of planning only. The methodology assumes that employment opportunities, the broader economy, housing costs and availability, and birth, death, and migration rates in Nags Head



will remain constant. A major shift in one or more of these variables would change the projected population.

Figure 3: Nags Head Population Projections, 2020 - 2050



Points shown in blue are known data points.
Points shown in grey are projections.

With respect to seasonal population projections, assumptions have been made about the number of individuals residing in each dwelling unit and hotel/motel room in the Town, allowing the Town’s potential peak population to be estimated; Table I.2.1.D. presents the methodology and calculations for this procedure. The results indicate that in 2017 the potential peak population, both permanent and seasonal, is approximately 40,000. Applying this peak to the actual population in 2015 allows us to estimate that the seasonal peak population is approximately 14.35 times the permanent population; based on this assumption, the following Table provides an estimate for seasonal peak population for thirty years, from 2020 to 2050.

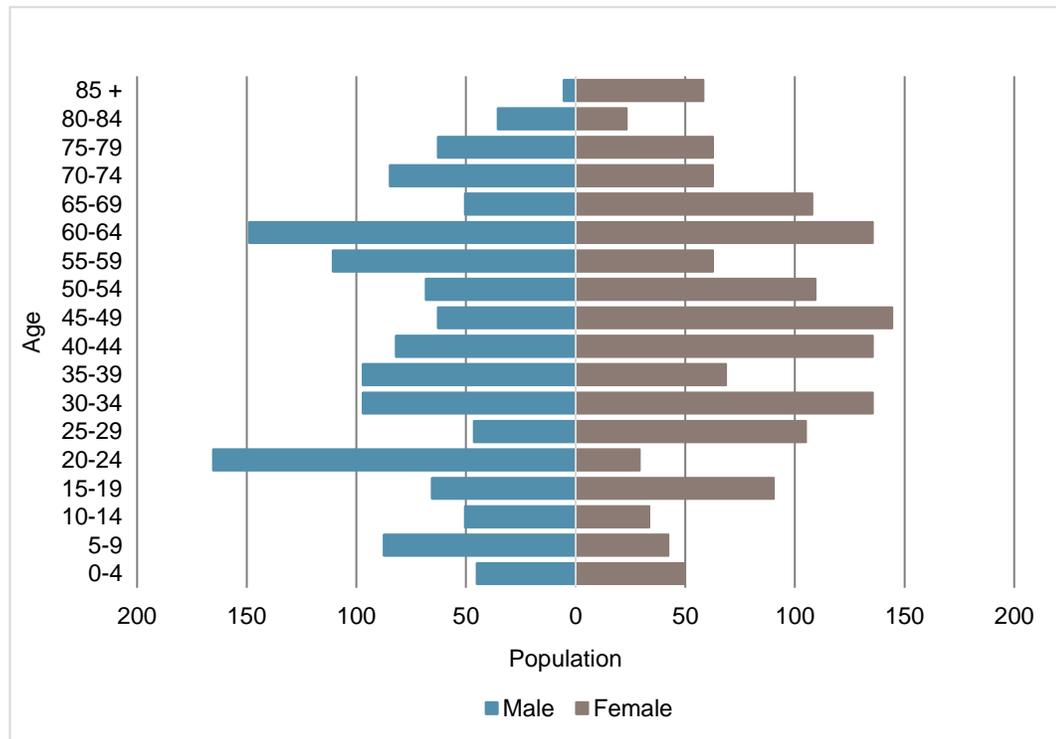
Table I.2.1.D: Seasonal Peak Population Estimate, 2020 - 2050	
Year	Change in Total # People
2020	45,015
2025	46,551
2030	47,642
2035	48,431
2040	49,407
2045	50,382
2050	51,401



C. Resident Demographics

The median age in Nags Head is 45 years, slightly older than the statewide median of 38 years. Figure 4 is a population pyramid for Nags Head as of 2015 and provides additional detail on the age structure in the town. It shows the number of males and females in each five-year age group. Viewing the population pyramid, it becomes apparent why the median age in Nags Head is older than most communities in North Carolina. A “typical” community’s chart is shaped like a pyramid: More young people on the bottom for a wider “base” of the pyramid, and fewer older people toward the top. While the distribution in Nags Head is not completely “top-heavy,” like the inverted pyramid one might expect in a retirement community, there are large numbers of adults age 60 and older and many fewer people under age 20 than in an average community.

Figure 4: Population Pyramid, Nags Head 2015



The median household income in Nags Head in 2015 was \$55,051, well above the statewide median of \$46,868.

About 70% of Nags Head residents identify as White. Another 22% identify as Black or African American. 9% identify as Hispanic or Latino.



D. Housing Stock

Table I.2.1.D displays the town’s housing stock by type and is current as of 2017. Single family and multi-family dwellings may be occupied by year-round residents, or by renters for between one week and several months out of the year. Transient units are visitor accommodations including hotels and cottage courts, which may be rented for stays as short as one night.

Nearly 88% of the bedrooms in the town are in single family homes, and two-thirds of the bedrooms in town are in mid-sized three to five bedroom homes. Out of the 2,251 single-family dwellings in town, only 220 are one or two bedroom homes. 234 homes have eight or more bedrooms, and these large houses now account for about 10% of the bedrooms available in town. 8% of the bedrooms are in multi-family units, and only 4.2% are currently in transient accommodations. As outlined in Table I.2.1.D.1, the town has lost a large number of transient lodging and smaller single-family homes since 2005. For a detailed discussion of the implications of these changes, see Section 3.2.5, Housing and Accommodations.

Table I.2.1.D: Housing Stock by Type and Potential Peak Population, 2017

Property Type	Total # Properties	Total # Rooms / Bedrooms	% of Total Bedrooms	Persons Per Unit/ Bedroom	Potential Persons at Peak Population
Single Family					
1-2 bedrooms	220	424	2.2%	2	848
3-5 bedrooms	3,497	12,985	66.1%	2	25,970
6-7 bedrooms	300	1,901	9.7%	2	3,802
8+ bedrooms	234	1,961	10.0%	2	3,922
Single Family Subtotal	4,251	17,271	87.9%	2	34,542
Multi-Family					
Multi-Family Subtotal	558	1,547	7.9%	2	3,094
Transient					
Hotel	15	627	3.2%	3.5	2,195
Cottage Court	13	201	1.0%	3.5	704
Transient Subtotal	28	828	4.2%	3.5	2,898
TOTAL					40,534



Table I.2.I.D.1: Change in Housing Stock, 2005-2017

Property Type	Change in Total # Properties	Change in Total # Rooms / Bedrooms	Change in Potential Persons at Peak Population
Single Family			
1-2 bedrooms	- 48	- 98	- 196
3-5 bedrooms	+ 103	+ 567	+ 1,134
6-7 bedrooms	+ 113	+ 715	+ 1,430
8+ bedrooms	+ 84	+ 863	+ 1,726
Single Family Subtotal	+ 252	+ 2,047	+ 4,094
Multi-Family			
Multi-Family Subtotal	+ 53	+ 143	+ 3,094
Transient			
Hotel	- 4	- 180	- 631
Cottage Court	- 2	- 12	- 673
Transient Subtotal	- 6	- 192	- 673
TOTAL	+ 299	+ 1,998	+ 3,708

E. Existing Land Use

The existing land use map depicts the current land uses in Nags Head today. Land uses are classified as undeveloped (vacant) or developed. Developed land uses could be categorized as single – family residential, multi-family residential, hotel/motel/cottage court, commercial, commercial services, institutional/community services, religious, recreational, conservation, washout, and miscellaneous uses. In addition to the map, the following table provides a breakdown of the town’s existing land uses by land use type.

Table I.2.I.E.1: Land Use Acreage by Type

Land Use	Acres	Parcels
Single – Family Residential	1,385	4,217
Multi-Family Residential	94	107
Hotel/Motel/Cottage Court	43	30
Property Owner’s Association	22	74
Commercial	215	166
Commercial Services	24	12
Institutional/Community Services	92	24
Religious	28	11
Recreational	235	68
Conservation	1,152	17
Washout	39	95
Vacant	466	635
Miscellaneous	20	47
Total	3,816	5,503



Consistent with the town’s vision statement, the predominant land use acreage is dedicated to single-family residential dwelling uses. There are currently 4,217 (1,385 acres) single-family dwellings in the town, which represents a 200+ dwelling unit increase over what existed in 2005.

Interestingly, the next highest acreage is dedicated to land in conservation use (1,152 acres), which is also consistent with the town’s vision statement. Based on information contained in this table and in the table depicting seasonal population, single-family dwellings are increasing, as well as the number of larger single-family dwellings. Multi-family residential dwellings are increasing slightly, primarily due to the construction of the Sugar Creek Condos. Hotels, motels, and cottage courts continue to decline. The number of parcels in commercial use is stagnant, increasing only slightly over what existed in 2005. The town does not have any industrial or agricultural areas, forestry or animal feeding operations within its boundaries. Existing Land Use classifications can be defined as the following:

Single – Family Residential - Accommodates low density, detached residential building development that is designed for occupancy by one family.

Multi – Family Residential- Allows for high density residential development and accommodates housing that is designed as a residence for three or more families to living independently of each other.

Hotel/Motel/Cottage Court - Accommodates development consisting of hotels, motels, and cottage courts designed with individual units or suites that utilize on site management that are intended for rental by transient guests.

Property Owner’s Association - Property owned and/or managed by a property owners association and commonly used as undeveloped open space and/or recreation.

Commercial - Development used for the provision of goods and services. This type of development is for general sales and series that comprise the vast majority of commercial land uses such as restaurants or stores.

Commercial Services- Development of higher intensity uses that are not compatible with other uses such light industrial and commercial service buildings such as storage for service industries.

Institutional/Community Services- A government owned or government operated structure or land used for public purpose, a nonprofit or quasi-public use, such as a library, public or private school, or hospital.

Religious - A use providing regular organized religious worship and related incidental activities.



Recreational - Uses that provide refreshment to the body and mind through forms of play, amusement, and/or relaxation. The recreation use may be active, such as bike paths or boating, or passive such as enjoying the natural beauty of the ocean and sound or its wildlife.

Conservation - Any parcel or area of undeveloped land conserved in its natural state or in open space, including open space for recreational uses, in perpetuity.

Washout - Land that was previously developed but has been severely eroded by coastal erosion and is now deemed undevelopable.

Vacant - Land or buildings that are not actively used for any purpose.

Miscellaneous - Uses that are related to public utilities or secondary improvements on vacant properties such as sheds, docks, or other accessory type structures.

Dominant Growth-Related Factors

Nags Head has experienced tremendous growth pressures in the past century. These growth pressures have been primarily related to exponential growth associated with the tourism driven economy on the Outer Banks. Tourism is the principal economic driver in Nags Head and Dare County. Nags Head's economy is directly linked to the quality of natural and cultural resources. A more in-depth analysis of tourism and its link to the economy in Nags Head's can be found in Section 3.4 Economic Development and Tourism.

While tourism has a positive effect on the local and state economy, it can potentially have negative effects on the unique natural resources, sense of place, and quality of life.

Uncontrolled growth could result in deterioration of the natural resources to a point that tourism growth may be comprised if not properly managed.



SECTION 2: CHARACTER AREAS







2.1. INTRODUCTION

The Town of Nags Head is comprised of several distinct areas that each have their own unique characteristics. The Comprehensive Plan recognizes these areas as Character Areas. Character Areas denote specific geographic areas of the town that:

- Have unique or special characteristics to be preserved or enhanced;
- Have the potential to evolve into unique areas with more intentional guidance of future development through planning and implementation; or
- Require special attention due to unique development issues.

These Character Areas represent areas where more detailed, planning and implementation of certain policies, investment, incentives, or regulations may be applied in order to preserve, improve, or influence their future development patterns that are consistent with the town’s vision.

Character areas provide both the vision and policy direction for the desired use, design, infrastructure, and other elements that new development must consider. Character area planning provides the policy direction that regulations must work to achieve. This means that the town’s ordinances, development standards, design standards, and other programs should work together to allow achievement of character area goals.

2.1.1. CHARACTER AREAS IDENTIFIED

Through the community involvement process, the following Character Areas were identified:

2.2 Gallery Row - Community Center

- Activity Nodes:
 - o Community Center
 - o Gallery Row

2.3 Historic

2.4 Village Municipal Service

- Village Municipal Activity Node

2.5 Neighborhoods

- Western Neighborhoods (West of US 158)

2.6 Whalebone Junction



- Activity Nodes:
 - o Whalebone Junction Core
 - o Soundside

2.7 South Nags Head

2.8 Corridors

- US 158/64
- NC 12
- SR 1243

2.9 Significant Natural Heritage Areas

- Jockey's Ridge
- Nags Head Woods
- Fresh Pond

Each Character Area will outline and address following elements:

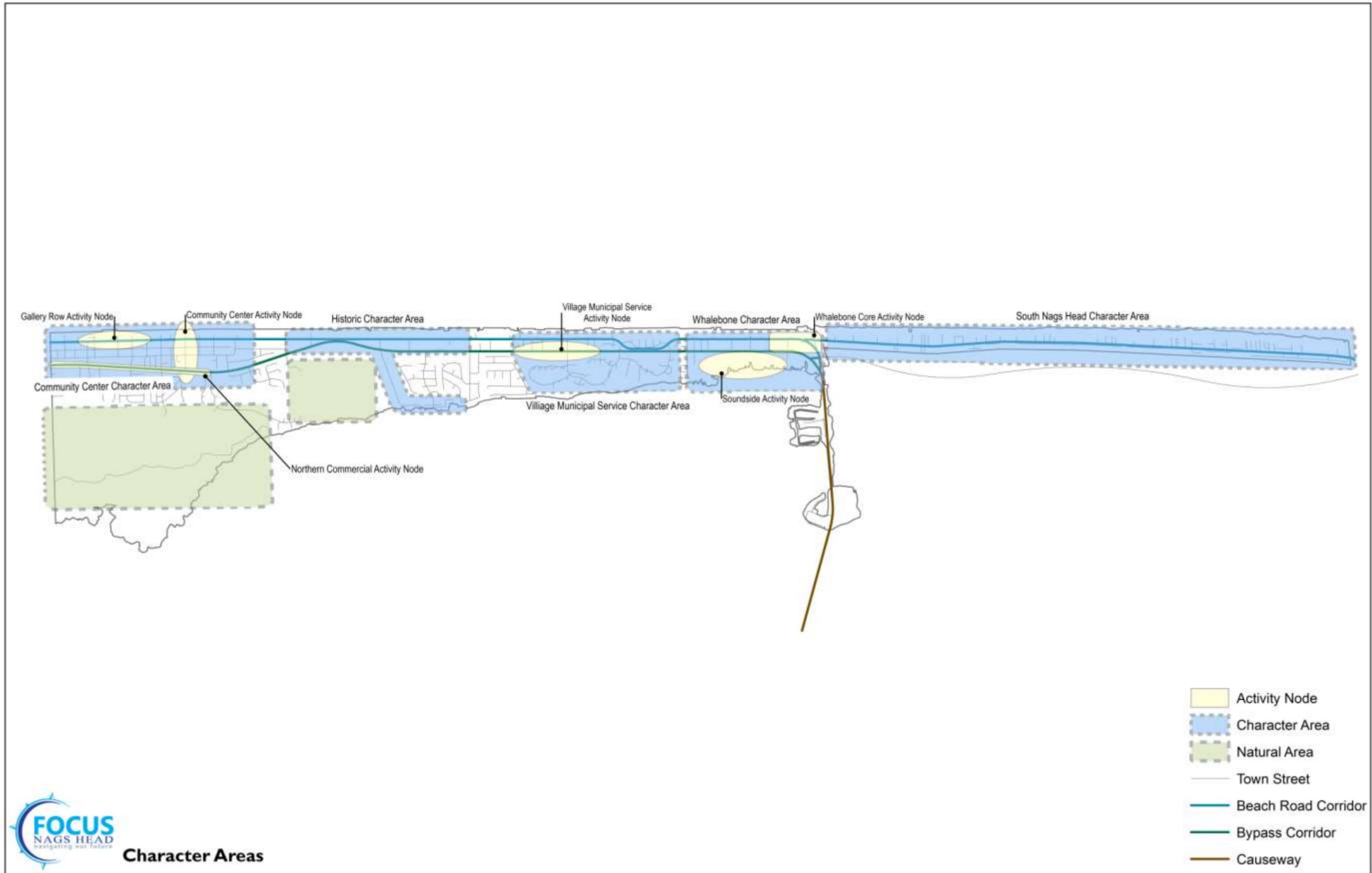
- Description of the area: Description of the area's significant features, attributes, infrastructure, land uses, and overall sense of place.
- Development Plan: describes the hopes and concerns for each character area and further outlines the future desires for land use types, form, height, density, architectural characteristics, important infrastructure and desired bicycle and pedestrian connections. In addition, the development plan will outline development considerations such as regulatory constraints and compatibility.

2.1.2. CHARACTER AREA TERMS

Understanding these terms will be helpful in navigating Section 2, Character Areas.

Activity Nodes are areas that are anticipated for future concentration of uses that serve as destinations or hubs of activity for the surrounding area. These are characterized by higher intensity uses, compact development patterns, walkability, and a higher standard of architectural and site design. Activity centers include a mix of residential and commercial uses including retail, dining, and office. Areas designated as activity centers should be planned in a way to encourage pedestrian activity.

Legacy establishments, structures, or locations contribute to the overall sense of place or tell the story of Nags Head's past. These establishments, structures, or locations often remind you of the past and are nostalgic.





2.2. GALLERY ROW-COMMUNITY CENTER CHARACTER AREA

2.2.1. GALLERY ROW - COMMUNITY CENTER CHARACTER AREA DESCRIPTION

The Gallery Row - Community Center Character Area is located in the northern portion of Town from the Nags Head Fishing Pier to the northern town limits, generally including the properties fronting US 158 east to the oceanfront. It encompasses the areas around Bonnett Street including Dowdy Park, the Bonnett Street Regional Beach Access, Nags Head Elementary School, the galleries along Driftwood Street and Gallery Row, the Beach Road from the northern town line to Nags Head Pier, and commercial areas along the US 158 corridor.

A large number of permanent residents live within this character area. Neighborhoods including Nags Head Acres, Nags Head Pond, Vista Colony, Hills of Nags Head, Villa Dunes, and North Ridge are all served by this area. Additionally, this character area contains commercial services, art galleries, recreation amenities, public education facilities, natural areas, and the beach. The daily needs of residents and visitors can be largely met with the amenities and services contained in this area. Much of the area is connected with pedestrian facilities along the west side of US 158 and on the east side of NC 12. The US 158 area includes several shopping centers as well as larger retail stores, services, offices, and restaurants. Building sizes along US 158 tend to be larger than along NC 12. The area between the highways is largely residential however there are a few businesses fronting side streets that connect US 158 to NC 12. The NC 12 corridor is lined with single-family dwellings with pockets of smaller scale commercial, mainly on its west side. Except for the Nags Head Fishing Pier, the adjacent hotel, and a cottage court, the majority of land uses on the oceanfront in this area have transitioned to single-family residential.

The Gallery Row - Community Center Character Area includes three primary activity nodes: Community Center, Gallery Row, and Northern Commercial.



A. Community Center

Bonnett Street is the focal point of the Community Center Activity Node. Dowdy Park, the Nags Head Elementary School, the YMCA and the Bonnett Street regional beach access for the anchor for many community events and activities. Dowdy Park, which is centrally located in this area, is a newly developed park designed to be a focal point for social interaction to include active and passive recreation as well as opportunities for community events. The park includes a performance pavilion, an events plaza, walking trails, an inclusive playground, garden areas, a sport court, and a multi-purpose recreation field. The 10' wide multi-use path along US 158 allows north-south movement from neighborhoods west of US 158 and an easy connection to the park at the signalized crosswalk at the Bonnett Street intersection with US 158. This intersection defines an important west to east connection between Nags Head Woods, which is directly to the west of the YMCA, and the Bonnett Street regional beach access. This is also an important route for parents and children to connect to the Nags Head Elementary School. Bonnett Street includes a five foot sidewalk on the south side of the street which transitions to a wide shoulder east of Wrightsville Avenue.

There are several shopping centers and businesses along US 158 that are conveniently located and meet the daily needs of residents and visitors of this area. In recent years, the addition of modern signalized crosswalks at Adams Lane, Barnes Street, and Bonnett Street has improved the safety for pedestrians and bicyclists crossing US 158. The area between US 158 and NC 12 has developed largely as residential except for properties with frontage on these two roadways. A grid of low speed, low traffic streets allows for vehicular, pedestrian, and bicycle transportation without sidewalks. However, additional sidewalk



connections would enhance pedestrian movement along important east west connections to include Adams Lane, Barnes Street, and Bonnett Street.

NC 12 is a two-lane roadway with an eight-foot wide pedestrian path along the east side. This area has always included a mixture of small commercial businesses,



Section 2: CHARACTER AREAS

2.2. Gallery Row-Community Center Character Area

2.2.1. Gallery Row - Community Center Character Area Description

accommodations, and single and multi-family dwellings. The last 10-20 years has seen a transition of commercial activity moving away from NC 12 to US 158. Many of the small businesses along NC 12 are being replaced with single-family dwellings, primarily serving as vacation rentals. The town continues to be concerned about this loss of neighborhood commercial businesses which contribute to the character of the Beach Road and provide the nostalgic experience for long time visitors to Nags Head. Many of these businesses include walk-up style restaurants or retail that serve community needs but also create additional leisure experiences for visitors. If these businesses disappear, a part of the experience that has defined Nags Head for so long could be lost. A large focus of this and other character areas is to develop policies and action items that will aid in retaining and expanding the neighborhood commercial activity along the Beach Road. The Bonnett Street/NC 12 intersection forms the heart of the Beach Road portion of this character area. Several businesses exist in this area and vacant parcels create opportunities for future commercial development that can benefit from the proximity to the Bonnett Street Regional Beach Access and Dowdy Park. Future land planning efforts should focus on activating neighborhood scale commercial development in the vicinity of this intersection.

The Bonnett Street/NC 12 intersection forms the heart of the Beach Road portion of this character area. Several businesses exist in this area and vacant parcels create opportunities for future commercial development that can benefit from the proximity to the Bonnett Street Regional Beach Access and Dowdy Park. Future land planning efforts should focus on activating neighborhood scale commercial development in the vicinity of this intersection.

B. Gallery Row

The Gallery Row Activity Node is located at the northern end of this character area generally east of US 158 between the northern town limits and Barnes Street. The identity of Gallery Row was established in the 1970's and 1980's as many locally owned art galleries operated in the area between US 158 and NC 12 primarily in the vicinity of Driftwood



Street and Gallery Row. This included Yellow House, the Seaside Art Gallery, Glenn Eure's Ghost Fleet Gallery, Sally Huss, Morales Art Gallery, Jewelry By Gail and Gray's Department store (Gallery Row Arts District Final Report, Cahoon 2016). Though some of these original galleries remain, many have closed, and the identity of this activity node has changed. New businesses have located to the east along NC 12 in the Gallery Row area however fewer galleries and businesses remain between the highways. Land uses in this area have become increasingly more residential. In recent



years, the town has designated a Gallery Row district that is much more expansive than the original Gallery Row area. Gallery Row remains an idea or concept more so than a physical place. The Gallery Row idea consists of an active arts community complemented with art related business as well as small shops and restaurants in close proximity to one another. This is a neighborhood scale district designed to accommodate pedestrian walk-up traffic with lower height buildings in close proximity to the street. Buildings should generally be residential scale and character and be complementary to surrounding residential uses. The town is currently working with the art community, businesses, and citizens to reimagine this area for the future. The Gallery Row Activity Node is more thoroughly described in the 2016 report prepared by Cahoon and Kasten Architects entitled, Gallery Row Arts District, Final Report. Many of the recommendations related to this activity node are taken from this report.

C. Northern Commercial

This includes the US 158 corridor from Eighth Street to Villa Dunes Drive. Many of the town's larger shopping centers are in this area including the Shoppes at 10.5 and the Satterfield Landing Shopping area. Land uses along the corridor consist of retail, restaurant, office, and personal service establishments which serve the daily needs of residents and visitors in this area. Buildings tend to be larger in size and scale with square footages ranging from 5,000 to 35,000 square feet. This area primarily includes the parcels fronting on US 158. West of US 158 between Satterfield Landing Road and Eighth Street is the town's commercial services district which includes warehousing, storage, manufacturing and fabricating uses. This is the only district that does not allow residential uses and is separated from residential and general commercial areas in order to limit incompatibility of land uses. This area is hidden from view from the town's major corridors and includes the parcels fronting South Lark Avenue and West Pond Avenue.



2.2.2. DEVELOPMENT PLAN

The development plan outlines the future desires for the Gallery Row – Community Center Character Area and is broken down by the previously described activity nodes.

The Gallery Row - Community Center Character Area is envisioned to be a community gathering area that capitalizes on access to the surrounding natural environments at the ocean front and Nags Head Woods while connecting public spaces with neighborhoods, community facilities, galleries, walkable commercial destinations, and the Community Center Node along Bonnett Street.

The Community Center Node, centered along Bonnett Street, is envisioned as a central node for community activity to include amenities and services that can meet a variety of daily needs, including active and passive recreation, social interaction, education and fitness, and commercial services for residents and visitors.

The Gallery Row Node is imagined to be an area focused on the arts and culture. While it was previously known for its abundance of galleries, the town is currently working with the art community and citizens to revitalize this area for the future.

The Northern Commercial Node is visualized to accommodate many of the necessary neighborhood oriented uses such as day care facilities, drug stores, and other similar personal type service uses. This is a concentrated area of larger format development.

A. Appropriate Land Uses

Appropriate land uses in each of these areas are outlined in the following table. This is only a general listing that should be further articulated through subsequent review of zoning standards for each area.



Table 2.2.2.A: Appropriate Land Uses in the Gallery Row-Community Center Character Area [1]	
Gallery Row- Community Center	Northern Commercial
<ul style="list-style-type: none"> - Mixed Use - Restaurant (Walk-up, sit down, no drive-thrus) - Accessory Residential to Residential or Commercial - Commercial (10,000 sq. ft. or less) - Office - Retail - Personal Service Establishment - Gallery/Museum - Equipment Rentals - Cottage Court - Hotel (Boutique/Small Scale) - Single-Family Residential (5,000 sq. ft. or less) 	<ul style="list-style-type: none"> - Multi-Family - Retail - Commercial (40,000 sq. ft. or less for individual buildings, excluding hotels) - Office - Restaurant (sit down only) - Accessory Residential to Commercial - Banking Institution - Personal Service Establishment - Gymnasium/Fitness Studio - Indoor Entertainment - Gallery/Museum - Hotel (Boutique/Small Scale) - Institutional (Parks, School, Non-Profit)
<p>NOTES: [1] Uses are listed in no particular order and do not reflect a priority or any other ranking.</p>	

B. Density/Intensity/Design Characteristics

I) Community Center and Gallery Row

The Community Center and Gallery Row Activity Nodes share similar characteristics including desired land uses, building types and sizes, development density, and architecture. In this area, it is envisioned that there will be a healthy mixture of residential and commercial uses where shopping, strolling, and dining are leisure activities as much as needed services. The primary focus of this character area and the Whalebone Junction Character Area is to develop policies and action items that will aid in retaining and expanding the neighborhood commercial activity along the Beach Road.

Compatibility between residential and commercial uses will be maintained by buildings that have a consistent residential scale and appearance. Residential and commercial density criteria are established in Section 3 and should be implemented in future zoning efforts. Building heights should be limited to 35 feet with top plate heights for individual stories limited to 10 feet.

Generally residential structures should be assembled according to lot size with 5,000 square foot being the established maximum size for single-family dwellings or the combined maximum for properties that have a principal structure and an accessory dwelling unit.

Individual commercial structures should generally not exceed 10,000 square feet with more careful review for compatibility as structures exceed 5,000 square feet. Commercial structures should be situated closer to the street and grade level although elevated to



minimize estimated flood risks in these areas. If possible, parking should be in the side or rear of properties to enhance the pedestrian environment. It will be important to refine this suggested criteria based on the study of building sizes/types for each corridor/character area as recommended in Chapter 3. Consideration should also be given to controlling the massing/scale of buildings through design and proportionality to lot size rather than specific limits on square footage.

Other initiatives beyond regulatory changes and infrastructure will be necessary to achieve the vision for this area and encourage the physical and financial investment necessary for its success. The community has established a new park near the Gallery Row and Community Center Activity Nodes and there is excitement surrounding the opportunities to celebrate the arts with events and public art. The Cahoon Report outlines several strategies to enhance this area:

1. Preserve the existing galleries and increase the number of galleries and exhibit spaces
 - Make it more difficult to convert commercial uses to single-family residential uses in the commercial zoning district, especially fronting NC 12 in the Gallery Row and the Community Center Activity Nodes.
 - Facilitate the creation of shared gallery space through zoning, grants, and private development.
 - Study whether expansion of the C-4 zoning district would be beneficial. (Chapter 3 describes this concept in more detail. If this were done, additional modifications to this zoning district standards would be necessary to support other ideas contained in this plan including building size and orientation, setbacks, parking, and accessory uses).
 - Facilitate the creation of an outdoor exhibit space.
2. Clarify the western district boundary and give the district a clear visual identity (additional work needs to be completed to determine if Gallery Row extends to Wrightsville Avenue or US 158. This will impact the approach for marketing the district – see Cahoon report).
 - Secure a logo or similar visual element for use by businesses in the district.
 - Promote the use of art as well as banners and flags throughout the district.
 - Create mechanisms for promotion (This policy recommendation relates to policies CR-1 to CR-4 in Section 3, Element 3.5 Cultural Resources)
3. Create additional parking in the district west of NC 12. This could include parallel parking or shared parking to reduce on-site parking requirements for businesses in the district.



4. Make Gallery Row more attractive to pedestrians and cyclists.

- This may include installing low level lighting on the multi-use path or installing crosswalks on NC 12 at all side streets including Gallery Row and Driftwood Street.
- Install a crosswalk across US 158 near Driftwood/Satterfield Landing Drive since there is no crosswalk between Admiral Street and Eighth Street.

Beyond the bicycle and pedestrian improvements described above, additional bike and pedestrian connections will be necessary to fully support the vision for this Character Area. These include:

- A seamless “sound to sea” trail connection along the Bonnett Street corridor linking the Roanoke Sound through Nags Head Woods with Bonnett Street at US 158 and eventually tying in with the Atlantic Ocean at the Bonnett Street Regional Beach Access. An improved multi-use path or sidewalk from US 158 to NC 12 along Bonnett Street will be necessary in this area.
- Continuous pedestrian facilities on east-west routes connecting US 158 with NC 12, particularly at signalized intersections with US 158.
- A sidewalk on the west side of NC 12 through the Gallery Row - Community Center Character Area generally from south of the Nags Head Fishing Pier to the Gallery Row Area.

The town may consider unique zoning techniques at the center of these activity nodes to facilitate the desired arrangement of land uses and encourage neighborhood commercial development. This could include density bonuses, offsite parking, shared parking, shared wastewater or offsite wastewater and reduced setbacks. Shared and offsite wastewater is currently allowed for commercial development in limited circumstances by the town’s ordinance and this practice should not extend beyond what is currently allowed. The town will also want to explore methods to limit the conversion of commercial development to residential uses/and or restrict certain types of residential development within activity nodes (LU-4c). Beyond regulatory changes, other techniques will need to be explored to influence development patterns in these areas. This may include additional infrastructure such as park space, pedestrian facilities, centralized parking facilities to reduce on-site parking requirements, and the formation of a downtown development association or commercial land trust to secure key parcels for commercial use.

2) Northern Commercial

The Northern Commercial area is defined by more general highway commercial uses providing services important to day to day living with building sizes generally ranging between 5,000-15,000 square feet. Two shopping centers exist in this area, the 10.5 Shoppes and the Satterfield Landing Shoppes, with buildings up to 35,000 square feet.



Commercial structures greater than 15,000 square feet should be reviewed carefully for architecture and land use compatibility given their potential for greater community impact. Many of the commercial parcels fronting US 158 are directly adjacent to residential areas with little transitional area. Building heights should not exceed 35 feet and density criteria should remain consistent with the standards established in Chapter 3. Landscaping and aesthetics are critical to future development in order to preserve the character of this area.

It will be important to ensure that future development and redevelopment accommodates pedestrian access from existing pedestrian infrastructure to storefronts and adequate pedestrian infrastructure is provided to safely traverse commercial sites and connect adjacent areas. East-west routes with signals at US 158 should include continuous pedestrian connections to NC 12. This primarily includes Eighth Street, Satterfield Landing Road, Admiral Street, Barnes Street, and Bonnett Street. The town should consider requiring new development to provide pedestrian infrastructure adjacent to major roadway corridors at the time of construction or provide a fee-in-lieu for the purpose of constructing pedestrian facilities.

C. Essential Policies and Considerations

- Develop standards through future ordinance revisions to implement the development plan as described herein. (LU-4, LU-11, LU-14, LU-15, LU-16, LU-24, LU-25)
- Develop pedestrian infrastructure for this character area as described in this section and as listed in the Transportation Element in Chapter 3. (TP-1, TP-3, PR-4, PR-8)
- Develop a plan to implement the strategies outlined in the Cahoon and Kasten report (summarized above) to support development of Gallery Row and the surrounding areas. (CR-4)
- Implement policies from the Cultural Resources Element in Chapter 3 that support arts, culture, and business development in the Gallery Row – Community Center Districts. (CR-4)
- Recognize legacy businesses and encourage their preservation. (EC-7)
- Promote and expand a diverse range of housing accommodations through incentives and removal of regulatory barriers. (LU-27)



2.3. HISTORIC CHARACTER AREA

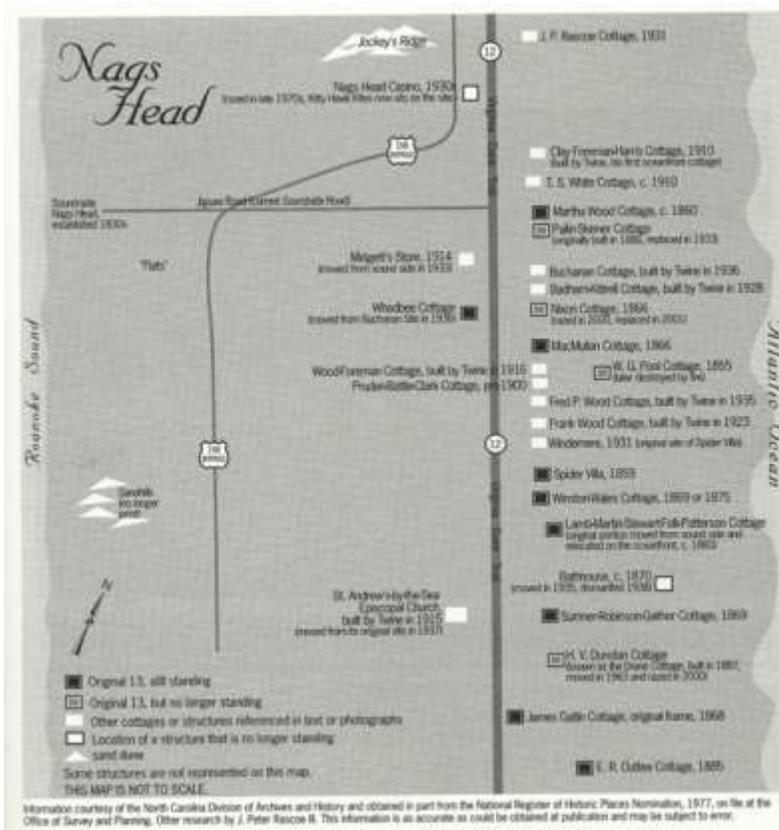
2.3.1. HISTORIC CHARACTER AREA DESCRIPTION

The Historic area is centrally located in the northern half of the town between E. Hollowell Street and Danube Street. This area encapsulates the earliest beginnings of the town and is reflective of the “Old Nags Head Style” architecture. The Historic area includes the Nags Head Historic Cottage Row, Jockey’s Ridge, Soundside Road, and the immediate surrounding areas.

At the center of the Historic area along the oceanfront and just east of Jockey’s Ridge State Park is a mile-long stretch of oceanfront beach cottages, the Nags Head Historic Cottage Row, that display a remarkable and reminiscent image of the Nags Head lifestyle of the late Nineteenth and early Twentieth Centuries. This row of approximately 41 contributing homes, including two complementary structures on the west side of the NC 12, was named to the National Register of Historic Places in 1977. The architectural designs of these historic structures have since become the model for what the town currently desires in modern architecture. Large wraparound porches to give the inhabitants a cool spot to sit, built-in benches, propped-shutter windows, full width

dormers and gabled roofs were most characteristic along with wood cedar shakes that remain weathered and unpainted. This is a visually distinct and historical area within the town attracting and intriguing both visitors and locals. More detailed information about the district and the individual houses can be found at websites maintained by the U.S. National Park Service pertaining to the National Register of Historic Places.

In 2008, a Beach Cottage Row Historic District Local Historic District Plan was developed by the Graduate Urban and Regional Planning Program at Virginia Commonwealth University at the request of Nags Head Property Owner Bill Flowers. The plan included recommendations and guidance



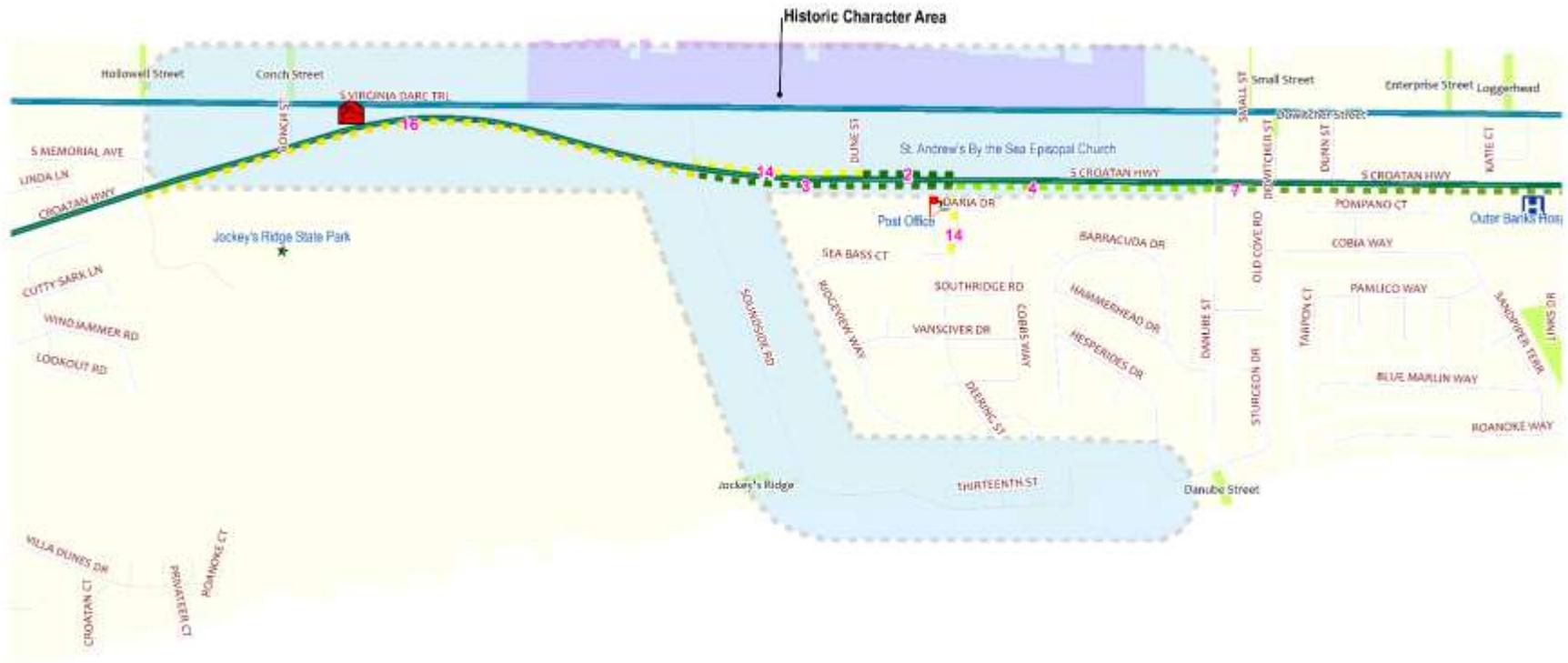
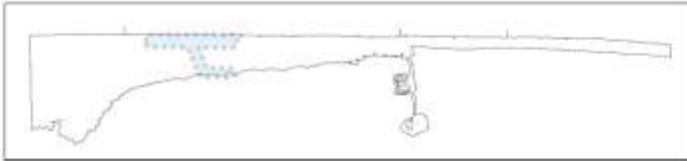


needed to prepare for and implement a local historic district. While this plan was not adopted by the Nags Head Board of Commissioners, it contains useful and interesting information about the history, geography, architecture, and threats to the district. The development surrounding the Nags Head Historic Cottage Row is primarily residential, although several businesses flank the area on the north and south sides of Jockey's Ridge. Further south,



significant commercial structures include the Surfside Plaza Shopping Center and St. Andrew's By the Sea. The area includes several larger, vacant tracts of land between NC 12 and US 158 directly adjacent to the Nags Head Historic Cottage Row. The report notes that future development or redevelopment in these surrounding areas will have a significant impact on the long-term character of the district.

A second area of significance is the residential enclave located at the end of Soundside Road in the vicinity of the unimproved portion of Soundside Road and Chowan Avenue. This area was one of the earliest developed areas of the town. Historically, it was in close proximity to the ferry landing point for many of the early visitors to Nags Head and was one of the first locations for summer houses before property owners began developing on the oceanfront. Many of the early cottages in this area were small, one to 1-1/2 story homes that resembled the cottages still present today in the Nags Head Historic Cottage Row. Although this area has experienced some redevelopment since its inception, many of the existing houses retain the character of the original development. This is reflected in the present architectural styles as well as the low-density, informal landscape which maintains the area's natural topography and vegetation. The Town of Nags Head recognizes this area as one of unique significance, and consequently has taken steps to preserve its character through the use of a zoning overlay district and architectural and development standards.



- Proposed Pedestrian Project*
 - Town Street
 - Beach Road Corridor
 - Bypass Corridor
 - Causeway
 - Activity Node
 - Character Area
 - National Register Historic District
 - Recreation Site/Access
- *Numbers correspond with the pedestrian improvement prioritized list in the Chapter 3 Transportation Element.



2.3.2. HISTORIC CHARACTER AREA DEVELOPMENT PLAN

A. Appropriate Land Uses

Appropriate land uses in the Nags Head Historic Cottage Row and in the Soundside Road area are primarily single-family residential. Oceanfront areas within the Historic character area should also generally be limited to single-family residential. The remaining area, which includes the properties fronting on and between US 158 and NC 12, should generally reflect a neighborhood scale, commercial/residential development pattern with single-family dwellings and neighborhood serving businesses consistent with the size and scale of cottages in the Historic Cottage Row.

Table 2.3.2.A: Appropriate Land Uses in the Historic Character Area	
Historic Cottage Row / Oceanfront / Soundside Road	Remaining Area [1]
<ul style="list-style-type: none"> - Single-Family Residential (5,000 sq. ft. or less) [2] 	<ul style="list-style-type: none"> - Single-Family Residential (5,000 sq. ft. or less) - Accessory Residential to Residential - Commercial (10,000 sq. ft. or less) - Accessory Residential to Commercial or Office - Mixed Use - Office - Retail - Restaurant (Walk-up, sit down, no drive-thrus) - Personal Service Establishment - Gallery/Museum - Cottage Court - Church
NOTES: [1] Uses are listed in no particular order and do not reflect a priority or any other ranking. [2] Current Soundside Overlay District Restricts Single-Family Dwellings to 4,200 sq. ft. or less	

CHARACTER AREAS

B. Density/Intensity/Design Characteristics

The Town of Nags Head has made several attempts over the years to establish a local historic district for the Nags Head Historic Cottage Row. The Historic Cottage Row is a unique and important element to the town's character and identity. The town continues to take the position that it will seek to establish such a district to preserve these cottages only when a majority of the affected property owners support it. This policy relies on the continued efforts of these property owners to ensure that the integrity of this historic resource remains intact. The town should continue to monitor development in the Historic Cottage Row and coordinate with property owners as necessary to provide support in preserving the character of this area.

Of utmost importance to this character area is to preserve the scale and character of the Nags Head Historic Cottage Row, the Soundside Road residential enclave, and views of



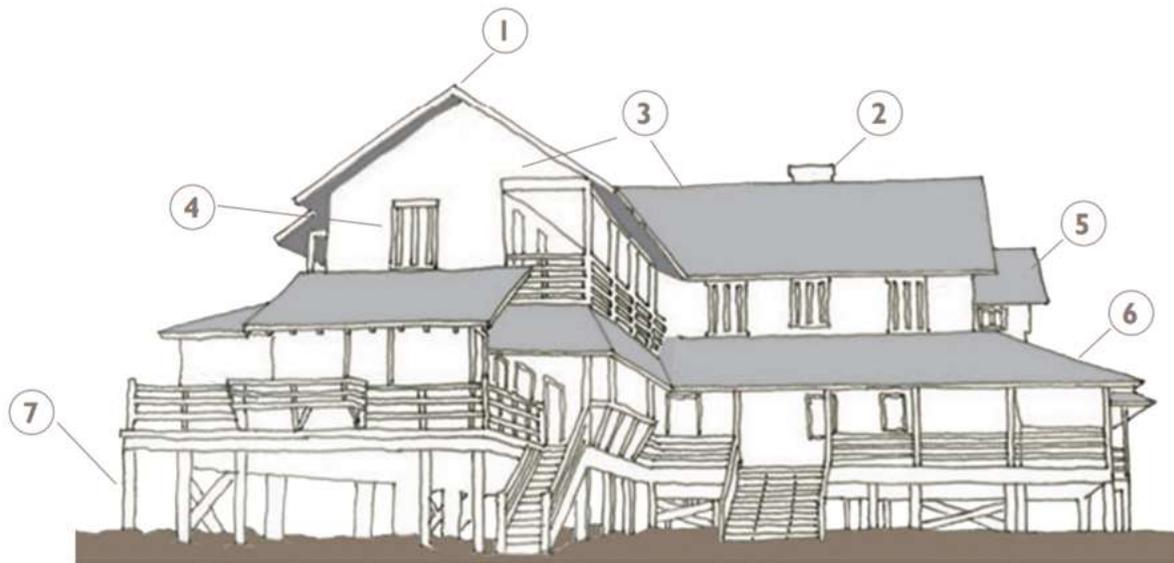
Section 2: CHARACTER AREAS

2.3. Historic Character Area

2.3.2. Historic Character Area Development Plan

Jockey's Ridge. As a necessity to protecting these areas, the town should also be concerned about the quality and consistency of development in the immediate vicinity. The aforementioned 2008 plan identifies this issue well – “To the west, on the opposite side of US 158 and to the south of the district, new development is beginning to appear. This development is both residential and commercial, most of which does not reflect or complement the existing architectural styles. These new architectural styles have the potential to significantly weaken or destroy the historical and architectural significance of this area.” The town will need to review its land use standards to ensure that future development in this area is consistent with the scale and appearance of the historic buildings and scale of development in this area.

Figure 5: Common House Characteristics of “Old Nags Head” Style



1. Pitched roofs with shallow eaves; 2. Brick chimneys; 3. Textured material palette typically consisting of unpainted wood shingles; 4. Casement and sash windows with batten storm shutters; 5. Dormers; 6. Wrap around porches with lean-out benches; 7. Timber pilings elevating buildings that range from two to three stories.

Specific considerations include:

- Residential development should be consistent with the town's current regulations regarding overall building size limits relative to lot size (max. 5,000 sq. ft., 3,500 for lots 16,000 sq. ft. or less).
- The town should closely monitor redevelopment within and directly adjacent to the Nags Head Historic Cottage Row since currently there is no local historic district.
- While commercial and residential development is currently allowed in this area, development standards should reflect a residential scale and character as well as blending with the surrounding natural environment.



- Preserving natural vegetation, topography, and maintaining open space and view sheds are key elements of preserving this area.
- Special consideration should be given to natural building materials and colors, particularly for larger commercial structures (taller than 1 ½ stories, > than 5,000 square feet).
- For commercial development – multiple, smaller structures are encouraged over larger strip development. Individual buildings over 5,000 square feet should receive more careful review for site design and architectural compatibility, particularly between US 158 and NC 12. Generally individual buildings should not exceed 10,000 square feet. All commercial buildings in this area should receive design review or utilize and comply with the town’s current residential design guidelines.
- The overall massing and bulk of buildings should be designed so views are maintained and individual buildings do not dominate adjacent development.
- Along NC 12, the front of commercial buildings should face the street and interact with the pedestrian environment.
- There shall be no rezoning of residentially zoned properties to commercial use.

C. Essential Policies & Considerations

- Review current ordinances to ensure future development and/or redevelopment is compatible with the aforementioned development plan for this character area. (LU-4, LU-11, LU-14, LU-15, LU-16, LU-24, LU-25, CR-2)
- Continue to monitor development in the Historic Cottage Row. As property is developed and redeveloped, coordinate with property owners or developers to provide support and discuss preserving the character of this area. (LU-16, LU-24, LU-25. CR-2)
- Implement pedestrian projects for this area as identified in the Transportation Element of this plan. (TP-1, TP-3, PR-4, PR-8)



2.4. VILLAGE MUNICIPAL SERVICE CHARACTER AREA

2.4.1. VILLAGE MUNICIPAL SERVICE CHARACTER AREA DESCRIPTION

The Village-Municipal Service Character area encompasses the Village residential areas as well as the commercial area around the Outer Banks Mall. This area also includes the Outer Banks Hospital, banks, medical and professional offices, retail establishments, mixed use, and single-family dwellings. The Town of Nags Head Town Hall and Fire Station are clustered on the southern end of this Character Area. There are three town beach accesses with parking in this character area as well as several private accesses for Village at Nags Head property owners and guests. East Mall Drive and East Epstein Drive connect commercial areas to the west with NC 12 and the adjoining residential and offices uses. This area is an important service node for the town providing commercial services to the Village at Nags Head and surrounding neighborhoods. The location of municipal facilities and medical facilities is also important in providing broader services to the entire town and larger Outer Banks community.

The Village at Nags Head is a Planned Unit Development that was established in the mid-1980's by the Ammons Dare Corporation. It is a golf course community which includes a mixture of residential and commercial uses as well as its own central wastewater sewage system. Additionally, the Village of Nags Head includes the Outer Banks Mall which contains 160,109 square feet of commercial space.



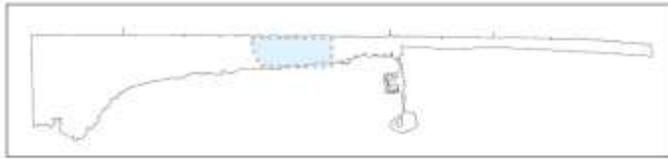


The Village was developed as a master plan community and has its own set of development regulations within the Nags Head zoning ordinance. The zoning map classification for the Village Planned Unit Development is SPD-C with a number of sub-designations for various land use areas. The land use categories for The Village at Nags Head include the following traditional planning classifications:

- Hotel District
- Commercial district
- Beach and Tennis Club District
- Multifamily Home District
- Attached Single-Family Home District
- Detached Single-Family Home District
- Townhouse District
- Institutional District

Any proposed changes to land use district classifications assigned to properties in the Village at Nags Head SPD-C district must meet the standards in the zoning ordinance. In addition to adopted town regulations, the Village is also regulated by a property owner's association and Architectural Control Committee through a set of covenants that mirror the regulations in the town's zoning ordinance. No significant changes to the development patterns within the broader Village community are anticipated.

The area between US 158 and NC 12 in this character was originally designated as commercial or hotel on the original Village Master Plan. Like many areas of the town, property closer to the ocean has a high value for single-family residential due to its proximity to ocean and potential for seasonal rental income. This has led to the conversion of many of the Village commercial parcels from commercial to residential. The land use hierarchy in the Village portion of the town's zoning ordinance allows re-designation of properties from commercial to residential without an amendment to the town's zoning map. Only a few commercial parcels remain undeveloped. These remaining parcels have no access to one of the town's major thoroughfares or a town street. This has been a factor in limiting their value for commercial development. The town may wish to consider allowing these parcels to transition to residential use due to their limited attractiveness for commercial use and the failure of this area to develop according to the original master plan. The town should continue to focus on maintaining the viability of existing commercial parcels in the Village Municipal character area which are primarily located directly adjacent to US 158. Future zoning efforts should consider modifying the land use hierarchy to prevent transition of these parcels from commercial to residential.



- Proposed Pedestrian Project*
- Town Street
- Beach Road Corridor
- Bypass Corridor
- Causeway
- Activity Node
- Character Area
- Recreation Site/Access

*Numbers correspond with the pedestrian improvement prioritized list in the Chapter 3 Transportation Element





2.4.2. VILLAGE MUNICIPAL SERVICE DEVELOPMENT PLAN

The Village-Municipal Character Area is envisioned as an area providing commercial and institutional services for the Nags Head residents and the broader Outer Banks community. In the future, this area is envisioned much as it is today. Overall, large scale restaurant, retail, office, municipal and medical facilities are appropriate along US 158 and in keeping with the vision of the Village - Municipal area as one of the major commercial service areas within the town.

A. Appropriate Land Uses

Table 2.4.2.A: Appropriate Land Uses in the Village Municipal Service Character Area [1]

- Commercial (40,000 sq. ft. or less for individual buildings, excluding hotels)
- Mixed Use
- Accessory Residential to Commercial or Office
- Retail
- Office
- Restaurant (sit down only)
- Banking Institution
- Personal Service Establishment
- Gymnasium/Fitness Studio
- Indoor Entertainment
- Hospital/Medical Care Facilities
- Gallery/Museum
- Institutional (Parks, School, Non-Profit)
- Multi-Family
- Single-Family Residential (5,000 sq. ft. or less)
- Accessory Residential to Residential
- Hotel

NOTES:

[1] Uses are listed in no particular order and do not reflect a priority or any other ranking.

B. Density/Intensity/Design Characteristics

For commercial development, multiple, smaller structures are encouraged over larger strip development. Development standards for individual buildings over 15,000 square feet should be revised to ensure site design, land use, and architectural compatibility with the surrounding area. The overall massing and bulk of buildings should be addressed so views are maintained, and individual buildings don't dominate adjacent development.

Development density and intensity for future development/redevelopment should be consistent with the standards established in the original Village Master Plan and in the current town zoning ordinance (SPD-C). If commercial redevelopment, does occur there is a preference toward planned commercial development.



C. Essential Policies & Considerations

- Generally, future development should be in keeping with the Village at Nags Head development scheme and master plan. However, the town may wish to consider allowing remaining undeveloped parcels between NC 12 and US 158 to transition to residential use due to their limited attractiveness for commercial use (no access to major thoroughfare or town street) and the failure of this area to develop according to the original master plan. (LU-1, LU-14, LU-15)
- The town should continue to focus on maintaining the viability of existing commercial parcels in the Village Municipal character area which are primarily located directly adjacent to US 158. Future zoning efforts should consider modifying the land use hierarchy to prevent transition of these parcels from commercial to residential. The town could consider incentives that would encourage infill development on these commercial properties. Due to the proximity to the Outer Banks Hospital, a number of medical office facilities have located in this area. The town may wish to remove regulatory barriers to expansion of these properties for medical related uses to increase overall access to health care for the town and greater Outer Banks community. (LU-14)
- The town should prevent rezoning of parcels that are outside of the Village for inclusion in the Village. (LU-28)
- The town should continue to coordinate with the Village at Nags Head property owner's association and Architectural Control Committee on changes to the Village at Nags Head zoning ordinance or regarding development projects which are reviewed by both entities. (LU-29)
- The town should continue to improve pedestrian connectivity by implementing pedestrian projects listed in the Transportation Element of Chapter 3. Specifically, a multi-use path is needed along the west side of US 158 from Soundside Road to the OBX Mall. This would create an improved connection from the Village Municipal Service area to the Historic area and to nearby residential areas north of the Village. (TP-1, TP-3, PR-4, PR-8)
- The town should continue to restrict tie-ons to the Village wastewater system by properties outside of the Village. (LU-28)
- The town should prevent the conversion of recreational or open spaces in the Village. (LU-30)



Section 2: CHARACTER AREAS
2.4. Village Municipal Service Character Area
2.4.2. Village Municipal Service Development Plan





2.5. NEIGHBORHOODS CHARACTER AREA

2.5.1. NEIGHBORHOODS CHARACTER AREA DESCRIPTION

Nags Head has several areas of well-established neighborhoods that fall outside of major character areas. These are areas of primarily low-density single-family development that have limited to no commercial influence. Included are subdivisions on the west side of US 158 north of Jockey’s Ridge such as Nags Head Pond, Nags Head Acres, Vista Colony, the Hills of Nags Head, Kitty Dunes Estates (Villa Dunes), and North Ridge Estates. South of the major Gallery Row- Community Center Character Area between US 158 and NC 12 is Old Nags Head Place. South of Jockey’s Ridge on the west side of US 158 there exists Southridge, Old Nags Head Cove, and Roanoke Shores. Much of the town’s year-round population lives in these areas and, as such, they are less subject to the influence of seasonal vacation rentals. The majority of the development in these areas is single-family residential. Lot sizes range from 6,000 square feet to greater than 25,000 square feet. Most newer subdivisions (post 1982) include lots that are 15,000 square feet or greater.

It is the town’s desire to keep these areas intact and protect them from incompatible land uses. Many of these communities are adjacent to or within close proximity to US 158. North of Jockey’s Ridge, many of these neighborhoods are separated from the highway by commercial lots. Along Old Nags Head Place, newer subdivision requirements maintain a vegetated buffer separating residential development from the roadway. It is important for the town to maintain various mechanisms to adequately buffer and transition these neighborhoods from the US 158 corridor and from adjacent commercial development.

In years past the town has experienced the conversion of ground floor areas to additional, illegal, living spaces and over-occupancy of single-family dwellings associated with seasonal workers and vacation rentals. The town should maintain a strong code enforcement presence in these communities and throughout the town to preserve the fabric of neighborhoods and limit nuisances associated with these practices.





In the 2014 Nags Head Pedestrian Plan, connectivity between neighborhoods and other areas of town including commercial development, recreational amenities, and the beach and sound areas was noted as being particularly important. Although sidewalks were not a high priority along town streets within these areas due to their low traffic volumes, it will be necessary to implement the pedestrian improvements identified in this plan to serve the growing demand for pedestrian and bicycle transportation. Primarily, providing a 10' wide multi-use path along the west side of US 158 will serve this need, allowing cyclists and pedestrians to access signalized intersections along US 158. The Transportation Element in Chapter 3 includes a list of pedestrian projects ranked in order of priority.

2.5.2. NEIGHBORHOODS CHARACTER AREA DEVELOPMENT PLAN

A. Appropriate Land Uses

Appropriate land uses in these neighborhood areas are primarily limited to single-family residential development. Certain institutional and municipal uses are also appropriate under the right conditions. In the past, the town has allowed duplex development for larger lots however there is not currently a significant number of duplex structures. The town may want to evaluate the desirability of duplex development moving forward. As noted in Chapter 3 – Land Use, the town may wish to consider allowing accessory dwelling units in the future as a means to address affordable housing and diversify available accommodations. This was identified as being important along NC 12. The town may wish to explore the desirability for allowing this in these established neighborhood areas.

B. Density/Intensity/Design Characteristics

For residential development, lot sizes range from 15,000 square feet in higher density areas (R-3) to 20,000 square feet in most other residential districts (excluding SED-80). There are many lots in the town that are less than the 15,000 square foot minimum lot size requirement and are considered nonconforming. Although these lots can be developed, new lots less than the minimum size cannot be created. It is important to note that there is a direct link between the lot size and the use of on-site wastewater systems. Lot coverage in residential areas is generally limited to 33 percent with most all improved surfaces counting towards the coverage requirement including pavement, buildings, gravel, wood deck structures, patios, and pools.

Height is limited to 35 feet in commercial and residential districts however this can be increased to 42 feet, for architectural purposes, to allow an increased roof pitch.

It is generally the town's position to resist changes to the Town Code that would increase overall lot coverage or development intensity in residential areas.



C. Essential Policies and Considerations

- The town should maintain various mechanisms to adequately buffer and transition these neighborhoods from the US 158 corridor and from adjacent commercial development. This includes providing appropriate setbacks and transition areas from adjacent commercial development and maintaining vegetation buffers along corridors adjacent to residential areas. (LU-20, LU-24)
- The town should maintain a strong code enforcement presence in these communities and throughout the town to preserve the fabric of neighborhoods and limit nuisances associated with conversion of single-family dwellings to duplex uses and over occupancy of dwelling units. (LU-3, LU-13)
- The town may want to evaluate the desirability of duplex development moving forward. As noted in Chapter 3 – Land Use, the town may wish to consider allowing accessory dwelling units in the future as a means to address affordable housing and diversify available accommodations. (LU-27)
- The town should continue to maintain current development standards in established neighborhoods and resist changes to the town code that would increase overall lot coverage or development intensity in these areas. (LU-3, LU-13, LU-14)
- Implement pedestrian projects for these areas as identified in the Transportation Element of this plan. (TP-1, TP-3, PR-4, PR-8)





2.6. WHALEBONE JUNCTION CHARACTER AREA

2.6.1. WHALEBONE JUNCTION CHARACTER AREA DESCRIPTION

Whalebone Junction is the southern gateway to the Town and Cape Hatteras National Seashore. This gateway is framed by three major transportation corridors that converge here: US 158, NC 12, and SR 1243, Old Oregon Inlet Road. Accordingly, all traffic coming to the Outer Banks via Hwy 64, regardless of the destination, must pass through this juncture to travel north or south to other Outer Banks destinations.

This area encompasses the area between Whalebone Junction and Forrest Street and contains many institutional, cultural, and recreational attractions including Jennette's Pier, the Soundside Event Site, Whalebone Park, and the Harvey Soundside Park. The Whalebone Junction Character Area represents the southernmost node of commercial activity in the town and contains many examples of legacy type establishments that embody the heritage of the town. This area is also known for its expansive, scenic views of the Roanoke Sound and marshes that are often visible from US 158 Corridor and at Whalebone Junction.

The Whalebone Junction Character Area accommodates uses such as restaurants, convenience/grocery stores, outdoor recreational opportunities, small scale shopping, and the only retail outlet center in the Outer Banks and northeastern North Carolina. These commercial uses are located within walking distance of surrounding residential accommodations. In 1995, portions of this Character Area, on the west side of 158, were established as an overlay district, the Commercial Outdoor Recreational Overlay District, to accommodate and focus outdoor recreational opportunities in a way that protects residential uses.





The range of accommodations in Whalebone is more diverse and abundant than other areas of the town containing hotels, motels, cottage courts, and a range of sizes of residential structures. In 2004, the town created a hotel overlay zoning district, directly adjacent to US 158, to further accommodate hotel/motel development through more flexible zoning. The Whalebone Junction Character Area is home to 53% of the hotels/motels in town and approximately 30% of cottage courts just following South Nags Head at 49%.

Advisory Committee members felt that Whalebone Junction and the Gallery Row-Community Center Areas are good representations of appropriate development for the Beach Road Corridor due to high walkability, small scale structures, and legacy type establishments.

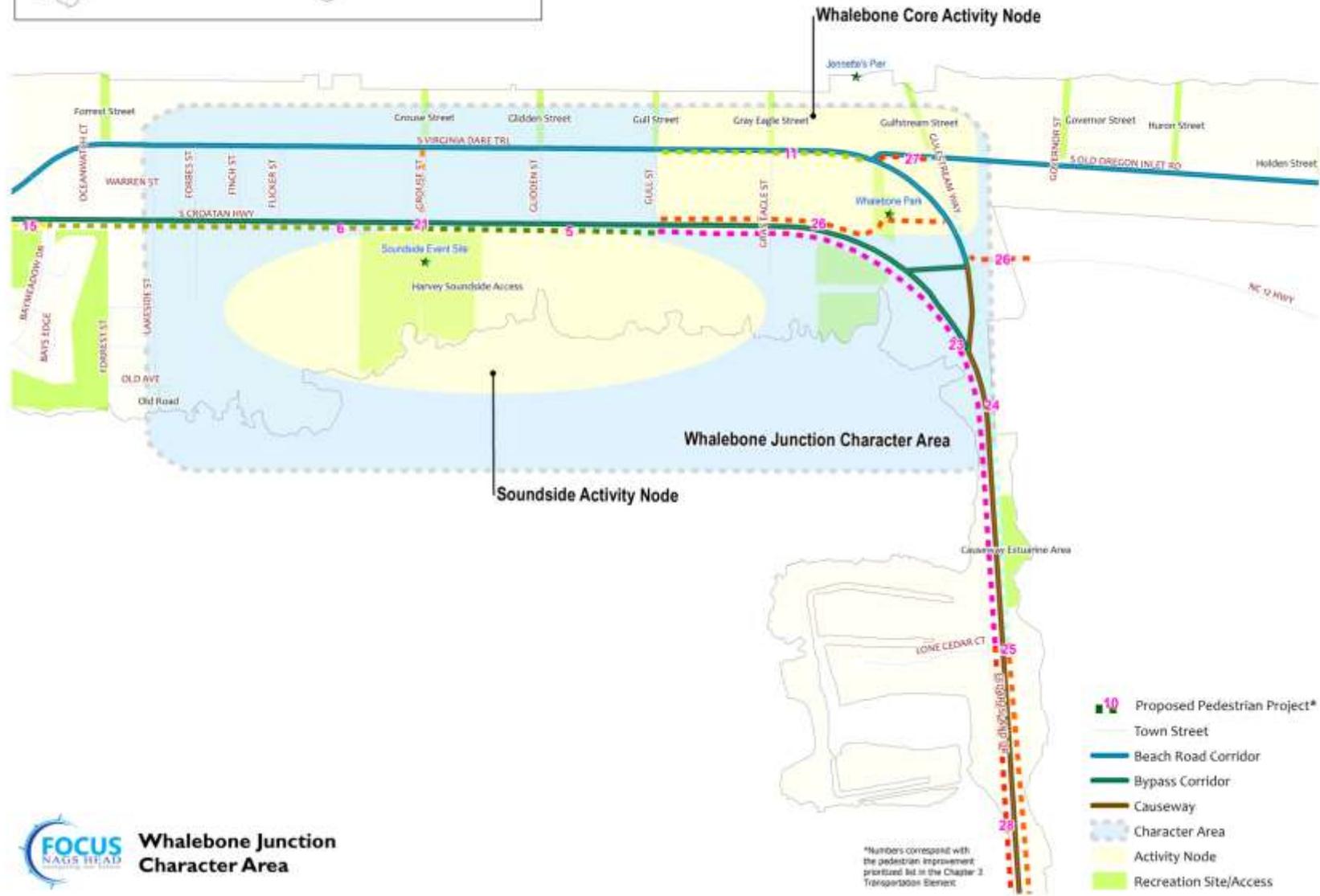
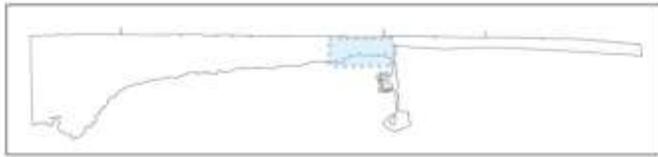
The Advisory Committee further identified two activity nodes in the Whalebone Junction Character Area:

- Whalebone Core
- Soundside

A. Whalebone Junction Core

The Whalebone Core Activity Node represents the heart of the Whalebone Junction Character Area from approximately West Gulfstream Way westward to East Gull Street. This area is attractive to visitors and residents due to its high walkability, central parking area, proximity to the ocean, and shopping, dining, and recreational opportunities. The backbone of bike and pedestrian transportation in this area is an eight-foot wide, multi-use path that runs along the east side of NC 12 connecting Whalebone to residential areas and other destinations to the north and south. Visitors and residents can park and leave their car or walk/bike from a nearby residential area to explore the Whalebone Core. People can take advantage of shopping opportunities, fishing at Jennette's Pier, play at Whalebone Park, grab an ice cream, or simply head to the beach. The mix of uses in this area is diverse and family friendly to accommodate a wide range of age groups and interests.

Commercial buildings in the Whalebone Core are characteristic of legacy type structures that are reminiscent of the past. Businesses in this area are often close to the road, are small scale in nature, and have porches, outdoor seating, and bike racks. They are appealing and invite people to pause and experience the surroundings. The Advisory Committee indicated that these legacy type establishments are paramount to the desirability of the area.





B. Soundside

The Soundside Activity Node is located on the west side of US 158 between West Forbes and West Grey Eagle in the general vicinity of the new Soundside Event Site and the Town's Harvey Soundside Park. The core of the Soundside Character Area is the Soundside Event Site, previously the location of Windmill Point Restaurant. The Soundside Event Site was purchased in 2008 and is a 10 acre area adjacent to the Roanoke Sound. The property is owned by the town and Dare County Tourism Board.

The Soundside Activity Node is known for its scenic viewsheds of the Roanoke Sound and marshes that are visible from the US 158 corridor. This area is an asset to the town because of the large expanses of marshes and the presence of estuarine shoreline. The estuarine shoreline not only adds to the sense of place and quality of life but provides important nursery habitat for seafood and birds. This area is relatively low density and comprised of outdoor entertainment, water-based recreation, and commercial uses such as dining and shopping. This area is viewed as a community gathering location due the many programmed events and festivals held at the Soundside Event Site.



CHARACTER AREAS



2.6.2. WHALEBONE JUNCTION CHARACTER AREA DEVELOPMENT PLAN

The development plan outlines the future desires for Whalebone Junction Character Area and is broken down by the previously described activity nodes.

The Whalebone Core Activity Node shares desires for future development similar to the Gallery Row – Community Center Character Area. This area is envisioned to be a destination where people can park their car and enjoy exploring the surrounding area by foot or bike. This area is imagined as primarily commercial with a mix of retail and restaurant and a high degree of walkability. The Advisory Committee identified this character area as the model of future beach road development.

The Soundside Activity Node is envisioned to remain a focal point for community and regional gatherings and events. While remaining a hub for gatherings and events, the committee further envisioned complementary high quality development that utilizes and preserves viewsheds to the Roanoke Sound. The Soundside Activity Node was identified as the prime location for future small, low scale hotel type development in the town.

A. Appropriate Land Uses

Appropriate land uses in each area are outlined in the following table. This is only a general listing that should be further articulated through subsequent review of zoning standards for each area.

Whalebone Core [1]	Soundside [1]
<ul style="list-style-type: none"> - Single-Family Residential (5,000 sq. ft. or less) - Hotel/Boutique Hotel - Mixed Use - Accessory residential to residential - Commercial (10,000 sq. ft. or less) - Accessory residential to commercial - Office as an accessory use - Retail - Equipment rentals - Restaurant (Walk-up, sit down, no drive-thrus) - Gallery/Museum - Institutional (Parks, School, Non-Profit) - Personal Service Establishment - Cottage Court 	<ul style="list-style-type: none"> - Multi-Family - Hotel/Boutique Hotel - Accessory residential to commercial - Mixed Use - Commercial - Office as an accessory use - Retail - Restaurant (Walk-up, sit down, no drive-thrus) - Personal Service Establishment - Indoor entertainment - Indoor/Outdoor Recreation - Water Dependent Uses (i.e. pier/boardwalk) - Accessory water dependent use to commercial use, mixed use, or hotel (i.e. pier/boardwalk) - Outdoor Events, Festivals, and Amusements



Table 2.6.2.A: Appropriate Land Uses in the Whalebone Junction Character Area	
Whalebone Core [1]	Soundside [1]
	<ul style="list-style-type: none"> - Gallery/Museum - Institutional (Parks, School, Non-Profit) - Gymnasium/Fitness Studio
NOTES: [1] Uses are listed in no particular order and do not reflect a priority or any other ranking.	

B. Density/Intensity/Design Characteristics

In both the Whalebone Core Activity Node and the Soundside Activity Node, the town may consider unique zoning techniques at the center of these activity nodes to facilitate the desired arrangement of land uses and encourage neighborhood commercial development. This could include density bonuses, offsite parking, shared parking, shared wastewater or offsite wastewater and reduced setbacks. Shared and offsite wastewater is currently allowed for commercial development in limited circumstances by the town's ordinance and this practice should not extend beyond what is currently allowed. Beyond regulatory changes, other techniques will need to be explored to influence development patterns in these areas. This may include additional infrastructure such as park space, pedestrian facilities, centralized parking facilities to reduce on-site parking requirements, and the formation of downtown development association or commercial land trust to secure key parcels for commercial use.

1) Whalebone Junction Core

Future development in the Whalebone Core is envisioned to retain the same small scale feel of the existing area with a look and architecture that reflect the legacy type establishments located within the node. Development that is primarily commercial uses, with a mix of restaurant and retail, and highly walkable are desired in this area. Compatibility between residential and commercial uses will be maintained by buildings that have a consistent low, residential scale and appearance often with only 1-1½ stories. Building heights should be limited to 35 feet with top plate heights for individual stories limited to 10 feet. Since the Whalebone Core area is located in the Hotel Overlay, hotels/boutique hotels would be acceptable. Additionally, multi-family and single family residential uses should be located on the periphery or outside of the activity node in order to preserve the commercial/mixed use nature of the Whalebone Core area. Multi-family development should have a residential look and feel and meet the residential height requirements.

Whalebone Junction Core is oriented with frontage on the NC 12 corridor and development should reflect that. As referenced in the Corridors Character Area Section,



the NC 12 Corridor is envisioned to be a slower pace, more walkable environment. Thus, development should be of a pedestrian scale that is highly walkable with public or privately owned spaces that are open to the public and provide outdoor seating, bike racks, and other amenities that encourage community interaction. While a multi-use bike path exists on the east side of NC 12, an additional multi use path is needed on the west side of NC 12 to connect commercial destinations and provide for the safety of those walking and biking. It is often difficult to maneuver vehicles in this area during season due to traffic patterns and an abundance of people walking and crossing NC 12. Wayfinding signage and traffic calming features are needed in this area and would help increase the safety and maneuverability of pedestrians, cyclists, and motorists.

Mixed use development is highly desirable in this area with the allowance of residential as an accessory to commercial activity. Commercial structures should generally not exceed 10,000 square feet with more careful review for compatibility as structures exceed 5,000 square feet. Additionally, there is a preference to multiple, smaller buildings rather than one larger building. Further, commercial buildings should be positioned closer to the street and existing grade, although elevated to minimize estimated flood risks in these areas. If possible, parking should be in the side or rear of properties to enhance the pedestrian feel of the area. Pedestrian connections between commercial uses and other uses in the area are strongly encouraged. Flexibility should be given to legacy type establishments for renovations as a way to retain the character of area while allowing the establishment to remain viable in the market.

Generally residential structures should be massed according to lot size with 5,000 square feet being the established maximum size for single-family dwellings or the combined maximum for properties that have a principal structure and an accessory dwelling unit.

Residential and commercial density criteria are discussed in Section 3 and should be implemented in future zoning efforts.

2) Soundside

The Soundside Activity Node is envisioned to develop as a high quality, mixed use area and prime location for recreational uses and hotel development. Further, the area is highly desirable for additional dining opportunities and local, boutique style shopping that is designed as a planned, highly walkable, destination type development. Mixed use development should utilize vertical and horizontal development with groupings of commercial, dining, office, and accommodations. This area was identified as appropriate for hotel development with a desire for a more specialty, boutique type hotel. Additionally, there is a preference for groupings of smaller scale buildings over a single, massive structure. Pedestrian connections between uses are strongly encouraged. In addition, all future development should work to protect the viewsheds of the sound from the US 158 corridor and avoid “walling off” the sound. Building sizes in this area should be evaluated



and additional study conducted to determine appropriate building sizing for the character area.

Future development should work to increase bike and pedestrian connections from the Soundside to the Whalebone Junction Core and other residential areas to the north and south. This could be addressed by planning for and constructing a multi-use path from Jennette's Pier to Gull Street along NC 12 and Gull Street to Baymeadow along US 158. Additionally, future accommodations or multi-family development should consider a shuttle service to beach accesses or provide for a pedestrian connection to the planned or existing multi use path system. Traffic calming and pedestrian safety measures, such as improved cross walks, should be implemented in order to safely move pedestrians and cyclists across US 158.

C. Essential Policies and Considerations

- Develop standards through future ordinance revisions to implement the development plan as described herein. (LU-1, LU-4, LU-11, LU-14, LU-15, LU-16, LU-24, LU-25)
- Develop pedestrian infrastructure for this character area as described in this section and as listed in the Transportation Element in Chapter 3. This includes but is not limited to a multi-use path on US 158 between Gull Street and the Event Site and between Jennette's Pier and Gull Street on NC 12. (TP-1, TP-3, PR-4, PR-8)
- Recognize legacy businesses and encourage their preservation. (EC-6, EC-7)
- Promote and expand a diverse range of housing accommodations through incentives and removal of regulatory barriers. (LU-27)
- Protect viewsheds from US 158 of the Roanoke Sound and marshes. (NR-1, NR-4)



2.7. SOUTH NAGS HEAD CHARACTER AREA

2.7.1. SOUTH NAGS HEAD CHARACTER AREA DESCRIPTION

The southern portion of Nags Head, commonly referenced as South Nags Head, is a unique residential beach community approximately five miles in length. It is bordered by the Whalebone Junction Character Area to the north and is surrounded by the Cape Hatteras National Seashore along its western and southern boundaries. Unlike the northern portion of the town, there is little commercial influence in this area with only a few hotels located near Whalebone Junction. These characteristics create a quiet family beach community surrounded by natural areas on three sides. SR 1243 (South Old Oregon Inlet Road) provides



access to the entire length of South Nags Head beginning at Whalebone Junction. NC 12 runs parallel and to the west of SR 1243 through the Cape Hatteras National Seashore. These two roadways join at the southern town limits. South Nags Head is the southernmost developed area in the northern Outer Banks and is the jumping off point prior to entering the Cape Hatteras National Seashore. A multi-use path extends the full length of SR 1243 forming a safe, separated route for pedestrians and cyclists connecting this area to a variety of restaurants and retail establishments in Whalebone Junction Character Area. In addition to 18 beach accesses; South Nags Head is home to one of the three fishing piers located in town. The pier, Outer Banks Fishing Pier, also has a restaurant and outdoor seating area that routinely draws large crowds. Throughout its length, a number of cottage courts are located on the east side of SR 1243. There are many residential subdivisions in South Nags Head with a combination of public and private streets.



2.7.2. SOUTH NAGS HEAD CHARACTER AREA DEVELOPMENT PLAN

South Nags Head is envisioned to remain primarily as a single-family residential area with similar height and density development as exists today.

A. Appropriate Land Uses

Appropriate land uses in South Nags Head are predominately single-family residential development. Certain institutional and municipal uses are also appropriate under the right conditions such as the Nags Head Fire Station and municipal beach access facilities. As noted in Chapter 3 – Land Use, the town may wish to consider allowing accessory dwelling units in the future as a means to address affordable housing and diversify available accommodations. This was identified as being important along SR 1243.

Table 2.7.2.A: Appropriate Land Uses in the South Nags Head Character Area [1]

- Single-Family Residential (5,000 sq. ft. or less)
- Accessory Residential to Residential
- Cottage Courts
- Hotel/Motel (northern end)
- Fishing Piers

NOTES:

[1] Uses are listed in no particular order and do not reflect a priority or any other ranking.

B. Density/Intensity/Design Characteristics

The northern portion of South Nags Head includes two commercial zoning designations – C-2 General Commercial on the west side of SR 1243 and CR – Commercial Residential on the east side of SR 1243. The C-2 is limited to the northernmost 15 lots south of Gulfstream Street which forms the southern boundary of the Whalebone Junction Intersection. This area is also part of the Town’s Hotel Overlay District. The majority of these lots have developed as single-family residential. The CR district on the east side extends south near the Holden Street beach access. In this area is a mixture of single-family residential as well as several hotels and multi-family developments. To the south of this area the remainder of South Nags Head is designated as R-2 which is a medium density residential zoning classification. Residential development remains the primary land use for development in South Nags Head and should remain consistent with the current regulations regarding overall building limits relative to the lot size (max. 5,000 sq. ft., 3,500 for lots 16,000 sq. ft. or less). There are several cottage courts as well, most on the east side of SR 1243. Lot sizes range from 5,000 – 25,000 square feet in residential areas to several acres for some of the larger hotel properties. There are many older nonconforming lots of record in South Nags Head. Although these lots can be developed,



new lots less the minimum size cannot be created. It is important to note that there is a direct link between the lot size and the use of on-site wastewater systems. Lot coverage in residential areas is generally limited to 33 percent with most all improved surfaces counting towards the coverage requirement including pavement, buildings, gravel, wood deck structures, patios, and pools. The commercial areas have a higher overall lot coverage; 55 percent for C-2 areas and 45 percent for oceanfront areas.

Height is limited to 35 feet in commercial and residential districts however this can be increased to 42 feet for architectural purposes to allow a greater roof pitch. Hotels can be up to 60 feet in the Hotel Overlay District and in the CR District. It should be noted that Chapter 3 suggests as a policy that future oceanfront development be limited to individual buildings not exceeding 5,000 square feet in area. This is consistent with CAMA regulations which define 5,000 square feet as the break point between small and large structures for the purposes of establishing setback regulations. The intent of this policy is to develop oceanfront structures that can be relocated as erosion occurs.

Existing hotels/motels and cottage courts should be given flexibility to repair and renovate, in order to remain relevant in the market. New hotels/motels or cottage courts are desired in the commercial area at the very northern end of South Nags Head. The town should explore mechanisms to encourage additional cottage court development in other areas of South Nags Head along or east of SR 1243. This has been acknowledged as being a traditional and compatible development practice in these areas.

C. Essential Policies & Considerations

- Maintain existing regulatory standards for development to limit increases in development density or intensity. (LU-3, LU-13, LU-14)
- Explore mechanisms to provide flexibility to existing hotels and cottage courts to make improvements that keep them relevant in the market. (LU-27, LU-28, EC-7)
- Explore allowing new cottage court development in South Nags Head adjacent to or east of SR 1243. (LU-27, LU-28, EC-7)
- As South Nags Head continues to develop, care should be taken to maintain compatibility between existing and new development. (LU-3, LU-12, LU-13, LU-14, LU-15, LU-24)
- All development and redevelopment should connect to both existing and planned recreational improvements such as multi use paths, beach accesses, and parks. (PR-4, PR-9)





2.8. CORRIDORS CHARACTER AREA

2.8.1. CORRIDORS CHARACTER AREA DESCRIPTION

Four primary roadways create the main arterials of the town’s transportation system. These include NC 12 (South Virginia Dare Trail), US 158 (South Croatan Highway), US 64, and SR 1243 (South Old Oregon Inlet Road). NC 12 and SR 1243 are two-lane roads adjacent to the oceanfront serving residential uses and pockets of smaller scale commercial development. US 158 and US 64 are five-lane roadways (four lanes with a center turn-lane) running from Eighth Street to Whalebone Junction and turning west to the base of the Washington Baum Bridge on the Nags Head Causeway. US 158 runs north-south for the length of the town and becomes US 64 beyond the Whalebone Junction Intersection where NC 12 intersects with US 158. NC 12 and SR 1243 are low speed roadways with speed limits of 25-45 mph. US 158 and US 64 are higher speed facilities with speed limits of 45 mph in the northern portion of the town from Eighth Street to the South of the Nags Head Elementary School, transitioning to 50 mph from this point south to the Washington Baum Bridge. Pockets of larger scale commercial development including several shopping centers flank US 158. Further, a portion of US 64 along the Nags Head Causeway creates the entrance or “foyer” to the town. This area is primarily business and restaurant oriented and is known for its memorable views of the sound. The causeway is important in providing access to the sound. Each of these roadways has a distinct look and feel that helps to define land use within the town.

Table 2.8.1: Defining Characteristics of the Corridors Character Area

US 158 / US 64	NC 12 / SR 1243
<ul style="list-style-type: none"> - Faster pace - Bypass - Convenience to get to services - Large commercial - Necessity - New - Scale- not human scale, car scale - Large parking lots - More cars 	<ul style="list-style-type: none"> - Slower pace - Beach Road - Walk up businesses - Quaint - Leisure - Old - Human scale- walkability - Small parking lots - More bikes - Rambling, Eclectic

Land Use patterns are defined primarily by the corridors and roadway types running through the town and are also heavily influenced by the proximity to the beach. Near the oceanfront and along the NC 12 and SR 1243 (beach road) corridors, land use is defined by single-family dwellings of different sizes primarily offered as vacation rentals or second homes.



Section 2: CHARACTER AREAS
2.8. Corridors Character Area
2.8.1. Corridors Character Area Description



The Beach Road north of Whalebone Junction includes a mixture of smaller scale businesses (less than 10,000 s.f.) including restaurants, fishing piers, retail, grocery, art galleries, hotels, motels and cottage courts and some personal and professional services. Some commercial businesses extend approximately 0.5 miles south of Whalebone Junction to include hotels, motels and cottage courts. However, South Nags Head (the area of town south of Whalebone Junction) is primarily residential. North of Whalebone, both the oceanfront and the area between the highways allow commercial and residential uses within the same zoning district (C-2 and CR) and the uses are interspersed. This has resulted in a mixed development pattern including pockets of commercial with limited cohesiveness.



The US 158 corridor and the causeway are much different than the beach road areas and include a mixture of residential neighborhoods, strip commercial development, shopping centers, and large format retail stores. Building sizes along this corridor are as high as



40,000 square feet. Currently, the area between the US 158 corridor and the NC 12 corridor shares essentially the same zoning district classification and zoning regulations. These two roadway corridors are each described as character areas with distinct existing and future land use patterns.

US 158 has one of the highest rates of bicycle and pedestrian fatalities in the state, according to Nags Head's Parks and Recreation Plan. In September of 2011, the North Carolina Department of Transportation's Traffic Safety Unit conducted a road safety review of US 158 because of its high rate of bicycle and pedestrian incidents. Findings indicate:

- Approximately 85% of bicycle and pedestrian crashes were crossing type crashes involving a bicycle or pedestrian crossing US 158, a side street, or a driveway.
- The following breaks down the location of the bicycle or pedestrian during a "crossing crash" along the study corridor:
 - Approximately 29% involved in crossing a side street (both signalized and un-signalized intersections.)
 - Approximately 27% involved crossing US 158 at an uncontrolled location.
 - Approximately 24% involved crossing US 158 at a signalized location.
 - Approximately 20% involved crossing a driveway.

The town has been successful in lowering the speed limit along US 158 in the northern portion of the town to 45 mph. The town has made requests through NCDOT to lower the speed limit on US 158 and US 64 for the remaining sections of town. Although this has been unsuccessful, the town should continue to monitor traffic safety and take appropriate measures to reduce the occurrence and severity of crashes through coordination with NCDOT. Chapter 3 – Transportation Element discusses this in more detail. Ultimately, a redesigned of US 158 and US 64 to a boulevard facility with median separation rather than a center turn lane coupled with additional pedestrian facilities will have the greatest impact on traffic and pedestrian safety.



2.8.2. CORRIDORS CHARACTER AREA DEVELOPMENT PLAN

The desires for the US 158/US64 and NC 12/SR 1243 corridors are described in Table 2.8.2. below:

Table 2.8.2: Desires for the Future in the Corridors Character Area	
US 158 / US 64	NC 12 / SR 1243
<ul style="list-style-type: none"> - More walkable and safe - Lower speed limit 	<ul style="list-style-type: none"> - More walkable and safe - Lower speed limit - Encourage smaller scale development with outdoor seating/dining and outdoor activities - Provide flexibility for existing legacy businesses to renovate to help keep the character of Beach Road. - More bike racks

A. Appropriate Land Uses

It will be important to create a land use scheme with zoning districts and regulations that appropriately define and regulate these corridors separately since they have unique characteristics.

Generally, the following land uses are appropriate for each corridor:

Table 2.8.2.A: Appropriate Land Uses in the Corridors Character Area [1]		
US 158 / US 64	NC 12	SR 1243
<ul style="list-style-type: none"> - Commercial (40,000 sq. ft. or less for individual buildings, excluding hotels) [2] - Accessory Commercial or Residential to Commercial or Office - Mixed Use - Retail - Office - Restaurant (Walk-up, sit down, no drive-thrus) - Banking Institution - Personal Service Establishment - Gymnasium/Fitness Studio - Indoor Entertainment - Gallery/Museum 	<ul style="list-style-type: none"> - Single-Family Residential (5,000 sq. ft. or less) - Accessory Residential to Residential - Mixed Use - Commercial (10,000 sq. ft. or less) - Accessory residential to commercial - Office - Retail - Equipment rentals - Restaurant (Walk-up, sit down, no drive-thrus) - Gallery/Museum - Institutional (Parks, School, Non-Profit) - Personal Service Establishment 	<ul style="list-style-type: none"> - Single-Family Residential (5,000 sq. ft. or less) - Accessory Residential to Residential - Cottage Courts - Hotel/Motel (northern end only) - Fishing Piers with accessory restaurant



Table 2.8.2.A: Appropriate Land Uses in the Corridors Character Area [1]		
US 158 / US 64	NC 12	SR 1243
<ul style="list-style-type: none"> - Institutional (Parks, School, Non-Profit) - Hotel - Multi-Family Residential 	<ul style="list-style-type: none"> - Cottage Court - Fishing Piers 	
NOTES: [1] Uses are listed in no particular order and do not reflect a priority or any other ranking. [2] Excluding areas where established neighborhoods abut US 158 and also within the Historic Character Area.		

B. Density/Intensity/Design Characteristics

Access management continues to be a priority of the town and is a particularly important component of the town’s zoning and subdivision policies. Existing policies establish limitations on new driveways and the number of driveways that connect to town and NCDOT streets with new development. Regulations require turnarounds to limit vehicles backing into roadways with high volumes of traffic. These policies should be maintained and strengthened as the town moves forward with revisions to its ordinances. For individual site developments, it is important to develop specific policies or standards to control access, including turning movements to and from sites as well as adequate separation distances from driveways and adjacent street intersections where conflicts can occur.

In the Outer Banks, bicycle and pedestrian involved crashes represent only 3% of total crashes. However, they accounted for 67% of fatal injury crashes. Because of this, the study recommended improved crosswalks, signage, access management, and continuation of the multi-use trail along the length of US 158, recognizing the need for improved pedestrian conditions through town. The town should ensure that these recommendations are incorporated into the corridor study for US 158. Coordination with NCDOT to implement high priority improvements from the US 158 safety study will be a required action of this plan. The Outer Banks Bicycle and Pedestrian Safety Coalition is an identified community partner that can assist with the development of additional safety improvements within the town as well as educational campaigns that will improve transportation safety awareness.

The town should consider establishing maximum building sizes for the NC 12 and the US 158 corridors that are appropriate to the desired scale and massing of these corridors. It may be necessary to study the existing inventory of commercial buildings in each of these areas to determine the appropriate size of structures in these areas.



C. Essential Policies & Considerations

- It will be important to create a land use scheme with zoning districts and regulations that appropriately define and regulate these corridors separately since they have unique characteristics. These regulations should address the desired scale and massing of buildings for each of these areas. (LU-2)
- Develop pedestrian facilities in defined activity centers on the west side of NC 12 to connect businesses and create a walkable environment. (TP-1, TP-2, TP-3, PR-4)
- The town should ensure that these recommendations are incorporated into the corridor study for US 158. Coordination with NCDOT to implement high priority improvements from the US 158 safety study will be a required action of this plan. (TP-4)
- The Outer Banks Bicycle and Pedestrian Safety Coalition is an identified community partner that can assist with the development of additional safety improvements within the town as well as educational campaigns that will improve transportation safety awareness. (PR-12, TP-1)
- Support access management strategies that are appropriate based on a roadway's functional characteristics, surrounding land uses, and users (location and spacing of permitted driveways). (LU-26, TP-1)
- Support mixed use development or accessory residential dwellings that combine commercial and residential uses along NC 12 and in designated commercial activity centers located between US 158 and NC 12. (LU-2, LU4, LU-11)
- Promote and infill mixed use commercial development in designated activity centers using available zoning and regulatory tools. (LU-11)
- Provide local transportation infrastructure that is safe, efficient, and designed to accommodate all modes of transportation consistent with the town's Complete Streets policy. (TP-1)



2.9. SIGNIFICANT NATURAL AREAS CHARACTER AREA

2.9.1. SIGNIFICANT NATURAL AREAS DESCRIPTION

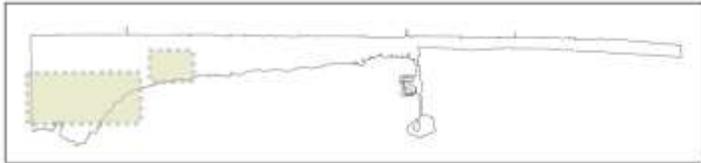
Nags Head has an abundance of natural areas and sensitive ecosystems that make it a unique place to live and visit. During the public involvement process, natural resources and access to these natural resources were noted as a reason that many people enjoy living here. Protecting and preserving these sensitive areas is critical to the high quality of life enjoyed by those who live and visit. In addition, many of these complex ecosystems are interdependent upon one another and work together. Therefore, it is important to provide protection to all portions of the larger barrier island system.

There are three broad ecosystems that make up the barrier island system: ocean shoreline system, estuarine shoreline system, and maritime forest system. These ecosystems are discussed in greater detail in Section 3.3.1 Environmentally Sensitive Areas and Ecosystem Protection. Within these ecosystems, are essential representation of these ecosystems that add value to quality of life not only for those living and visiting Nags Head, but the entire Outer Banks and region. These landmark natural areas include Nags Head Woods, Fresh Pond, and Jockey's Ridge. These three landmark areas represent some of the most unique and irreplaceable environments in the State containing many extraordinary plant and animal species, landforms, and habitats.

A. Nags Head Woods

Nags Head Woods has been valued by humans for centuries. Early settlers took advantage of the protection this maritime forest provided from the harsh elements of the barrier island both utilizing the forest for shelter, hunting, and foraging. The woods were home to a well-established local village with 13 homes, 2 churches, a store, school, and farms. Glimpses of a time past are evident today in the small gravesites and brick building foundations visible in the woods. Today, over 10,000 guests visit the Nags Head Woods Ecological Preserve each year.

Nags Head Woods was designated a National Natural Landmark in 1974 and is primarily owned by The Nature Conservancy with the Towns of Nags Head and Kill Devil Hills owning tracts. In some cases, portions of land are owned jointly by the Towns and The Nature Conservancy. There are still a few parcels remaining in private ownership. This is discussed in greater detail in Section 3.3.1 Environmentally Sensitive Areas and Ecosystem Protection.



-  Nags Head Woods Trails
-  Town Street
-  Beach Road Corridor
-  Bypass Corridor
-  Causeway
-  Natural Area
-  Recreation Site/Access

FOCUS Significant Natural Areas
 NAGS HEAD Character Area



Section 2: CHARACTER AREAS
2.9. Significant Natural Areas Character Area
2.9.1. Significant Natural Areas Description

Nags Head Woods, located in the northwest portion of the town, is a 1,200 acre mature, maritime forest representing one of the few intact maritime forest habitats in North Carolina and on the eastern US coast. Nags Head Woods Ecological Preserve represents a significant percentage of the land area in the town. In addition, Nags Head Woods contains the largest freshwater pond on Bodie Island known as Fresh Pond.



Nags Head Woods is bordered by Run Hill State Nature Preserve (another active eolian dune) to the North, the Roanoke Sound to the West, and private residential development throughout the remaining borders. Nags Head Woods Maritime Forest is indicative of a relict “dune and swale” system that can be dated back to 12,000 years ago. The relict dune and swale systems are comprised of a series of sandy ridges and low, wet swales that support approximately 40 seasonal and permanent ponds. These small freshwater ponds are rich with aquatic species, and the diverse topography supports a wide array of plant and animal natural communities.

These natural communities— groupings of plants and animals that depend on each other for vital life processes—at the Preserve include maritime deciduous forest, maritime swamp forest, maritime shrub forest, interdunal ponds, and brackish marsh. Nags Head



Woods is home to more than 550 species of plants, including eight species that are considered rare in North Carolina. More than 100 species of birds, 65 species of land vertebrates, and six species freshwater fish inhabit the various ecosystems within the ecological preserve. Due to the protection as a conservation area, Nags Head Woods will be able to be enjoyed for generations of visitors to come. Each part of this natural system is important to the survival of the whole system.

Nags Head Woods boasts over five miles of nature trails that wind through lushly wooded dunes, peaceful ponds, and brackish marsh teeming with plant and animal life. Each trail gives you a different perspective of the maritime forest. In addition to the trail system, a series of programming and education opportunities are available at The Nature Conservancy visitor's center located on Ocean Acres Drive in Kill Devil Hills.

B. Fresh Pond

Fresh Pond is a freshwater lake located on the eastern edge of Nags Head Woods, halfway between the Atlantic Ocean and the Roanoke Sound with the CAMA designation as a Small Surface Water Supply Watersheds AEC. The northern half of Fresh Pond is located in Kill Devil Hills and the southern half is located in Nags Head. Municipal facilities border the eastern boundary of the property. The pond is located very close to the eastern forest boundary and is hydrologically connected to adjacent interdunal ponds in the woods.

Historically, Fresh Pond has been pumped to supply drinking water to both Nags Head and Kill Devil Hills. However, the pumping is thought to possibly affect the natural hydrologic regime. Since 2009, Fresh Pond is no longer a source of drinking water for Nags Head or the Dare County Regional Water System. While Fresh Pond is no longer a source of potable water, care should be taken



to uphold and maintain the buffers that protect the water quality of the pond for potential future use. Large undeveloped tracts of land bordering the pond are part of the woods that are in conservation status and provide protection from development. Since this area is designated as a CAMA AEC, no development is allowed within 500 feet of the pond. Within 1,200 feet only one septic system designed to accommodate 480 gallons per day



may be permitted per acre of land. The town opposes the removal of the Fresh Pond Area of Environmental Concern in the future.

C. Jockey's Ridge

Jockey's Ridge, the tallest natural sand dune system in the eastern United States, varying in height from 80-100 feet depending on the weather conditions, is located in the Historic Character Area. Jockey's Ridge encompasses 426 acres and is bordered by Nags Head Woods to the north and Roanoke Sound to the east touching both the maritime and estuarine shoreline system. Jockey's Ridge is an example of a medano or a huge hill of shifting sand that lacks vegetation. While there are several examples of this type of sand dune in the area, Jockey's Ridge is the largest and most spectacular. In addition to the dune system, the park also contains two other important ecosystems in the town: the maritime thicket and Roanoke Sound. Jockey's Ridge has been designated by the state coastal resources commission as a unique coastal geologic formation area of environmental concern (AEC) and as a National Natural Landmark by the United States Department of the Interior. Additional information on those ecosystems can be found in Section 3.3.1 Environmentally Sensitive Areas and Ecosystem Protection.

Jockey's Ridge became a State Park in 1975, following local outcry and concern over potential development of this treasure. In August of 1973 a local citizen, Carolista Baum, stood in the path of a bulldozer to prevent sand from being removed from Jockey's Ridge forcing the driver to leave. Baum went on to raise money and petition the purchase of land now known as Jockey's Ridge State Park through the Save Our Sand Dune (S.O.S)



effort. She also assisted in the formation of People to People to Preserve Jockey's Ridge. Through the efforts of citizens this treasure has been persevered for future generations. Today, Jockey's Ridge is one of the largest cultural attractions in the Outer Banks drawing over 1.3 million people in the park each year.

Rangers hold regularly scheduled educational and interpretive programs about Jockey's Ridge State Park. A visitor



center with museum and 360-foot boardwalk with exhibits explain the dune’s ecology and are a gradual entry to the massive dune field. Educational materials about Jockey’s Ridge State Park have been developed for grades 4-6 and are correlated to North Carolina’s competency-based curriculum in science, social studies, mathematics and English/language arts. The Jockey’s Ridge program introduces students to the environment of a sand dune and the plants and animals that live on and around it. Major concepts covered include adaptations, animal signs and natural area preservation. Accompanying the program is a teacher’s booklet and workshop, free of charge to educators. The soundside access of the park is a different experience offering sunbathing, wading, paddling and a one-mile nature trail that opens onto wetlands, grassy dunes and maritime thickets.

2.9.2. SIGNIFICANT NATURAL AREAS CHARACTER AREA DEVELOPMENT PLAN

These significant natural areas represent critical, limited, and irreplaceable areas where management is needed to protect the natural, cultural, recreational, and scenic features. Nags Head Woods, Fresh Pond, and Jockey’s Ridge make the town and region a desirable place to live, work, and visit. Conservation of these areas that focuses on minimal development is paramount. These significant natural areas are envisioned to remain much as they are today.

A. Appropriate Land Uses

Table 2.9.2.A: Appropriate Land Uses in the Significant Natural Areas Character Area [1]

Nags Head Woods	Fresh Pond	Jockey’s Ridge
- Conservation	- Conservation	- Conservation
- Passive outdoor recreation	- Passive outdoor recreation	- Passive outdoor recreation
- Maintain existing municipal/institutional uses	- Maintain existing municipal/institutional uses	- Maintain existing municipal/institutional uses
- Single Family Residential		

NOTES:

[1] Uses are listed in no particular order and do not reflect a priority or any other ranking.

B. Density/Intensity/Design Characteristics

Special zoning districts were created to permit development that is compatible with the environmentally sensitive nature of these Significant Natural Areas.



The special planned development district, SPD-20, contains the largest portion of Jockey's Ridge State Park and the northwestern portion of the district borders on Nags Head Woods. The SPD-20 district is characterized by unique topographical and vegetative features including vegetated and unvegetated dunes, migrating sand dunes, as well as a pine forest. Specifically, the intent of this section is to:

1. Preserve the natural features and visual attractiveness of the area. Such features include both vegetated and unvegetated dunes, and forested areas.
2. Preserve vegetation acting as soil stabilizers or which provide wind or salt mist intrusion protection value, including the dune ridge plant communities and forested areas.
3. Promote low-density residential development and residential uses in a manner that protects and preserves natural topography and vegetation.
4. Prohibit commercial and industrial uses of the land and any other use not compatible with the ecological carrying capacity of the area, and the residential and recreational uses of the area.

The special environmental district, SED-80, contains Nags Head Woods and Fresh Pond. This zoning district was created to permit development that is compatible with the environmentally sensitive nature of Nags Head Woods. Additionally, the SED-80 district preserves land in a natural state where such land is considered to be a vital link in the groundwater replenishment cycle of the outer banks and where the destruction of natural vegetation would have a harmful effect on the stability of the soil and its resistance to erosion. The purpose of the SED-80 district is to:

1. Provide for the paramount public concern for these natural resources in the interest of health, safety and general welfare of the residents of and visitors to the town.
2. Preserve the natural features and functions of the area necessary for safe and compatible development on the entire outer banks. Such features include, but are not limited to, the following:
 - a. The components of the groundwater storage and recharge system which are necessary for the growth and maintenance of the maritime forest vegetation. Such components include ponds, lowlands, marshes, bay forests and wetlands.
 - b. Vegetation acting as soil stabilizers or which provide significant protection from storm or salt intrusion, including the dune ridge plant communities and scrub forest.



3. Protect the fragile ecosystems of Nags Head Woods from the effects of fire, storms, flooding and other natural and manmade disasters.
4. Prevent pollution of the estuary and the sound which might otherwise adversely affect the biological productivity of the sound.
5. Permit low-density residential development of those portions of the SED-80 district suitable for residential use and to encourage open space and limited passive recreational use of portions not suitable for residential use.
6. Prohibit commercial and industrial use of the land except as provided in this section.
7. Preserve the cultural heritage, features and integrity of Nags Head Woods as a maritime forest.

Most tracts of land in this district are 10 acres or greater. Some tracts exist in private ownership. The town seeks to limit development of these areas to single-family use. The ordinance currently permits “cluster development” in SED-80 which has been controversial in previous years and difficult from a development perspective. The town should evaluate appropriate land uses in the district and consider removing cluster housing as an allowable land use.

In addition to SED-80 zoning district, the adjacent C-3 commercial services district not only provides standards for commercial services, but it also provides additional protection for Fresh Pond. The intent of the C-3 standards is to regulate and buffer uses so that their location or activities will not be detrimental to adjacent uses, the environment, and the sources of potable water. In addition to buffering uses by a minimum of 500 feet, the amount of impervious surfaces is also limited. The ordinance also controls the size of septic systems and the types of chemicals and industrial processes that can occur in this area.

As these significant natural areas continue to develop, these standards should continue to be applied to development. The policies in Section 3.3.I Environmentally Sensitive Areas and Ecosystem Protection further support this.

C. Essential Policies & Considerations

Nags Head Woods- (LU-6, NR-5, NR-6, NR-7, PR-5)

- Educate visitors and residents about the rules of use, boundaries, shoreline habitat creation, native and invasive plants, and recreational opportunities within the preserve.
- Secure the conservation of undeveloped privately owned parcels.



- Ensure that existing town owned parcels are under conservation status.
- Support the successful management and restoration of habitat in the preserve.

Fresh Pond- (NR-24, NR-24, MS-14)

- Protect the water quality of Fresh Pond for potential future use.
- Retain the designation as a CAMA Area of Environmental Concern (AEC).
- With the cooperation of The Nature Conservancy and the Town of Kill Devil Hills, develop a management plan for the Fresh Pond to specify the types of activities to occur within or adjacent to the Pond and the degree of access that will be provided to the general public.
- The town will not allow or introduce public access and/or uses into the town-owned portions of Nags Head Woods and/or the Fresh Pond AEC which will degrade and/or supersede the ability to maintain the existing public uses such as the Police Shooting range and the Fresh Pond public water supply.
- The town's position with respect to the Nags Head Woods natural area and to Fresh Pond is to preserve these areas in their natural state and allow only limited public use for passive recreation. This shall include only limited walk-in only access to Fresh Pond and no improved facilities for boating, parking, or swimming.

Jockey's Ridge- (NR-3, NR-6, NR-8, NR-24, NR-26)

- Support the continued partnership with the state park service to sustainably manage the public sound access located off Soundside Road on the sound side of the park.
- Expand the partnership between the town and the Park for environmental education of both visitors and residents.
- Through zoning and other mechanisms, protect the bordering lands from intense development to maintain scenic and environmental qualities.



SECTION 3: ELEMENTS





Section 3: ELEMENTS

2.9. Significant Natural Areas Character Area

2.9.2. Significant Natural Areas Character Area Development Plan

FOCUS
NAGS HEAD
navigating our future



ELEMENTS



3.1. INTRODUCTION

Section 3 addresses elements of the Comprehensive Plan that generally apply town wide and have been broken into seven elements. The elements are complex and often interrelated resulting in broad discussions that provide background on the policies and actions of each section. Due to the interrelationship of these elements, there may be overlap in policy. However, each illuminates a facet of community life in Nags Head, ensuring that the plan is truly comprehensive.

The Elements discussed in this section include:

- 3.2 Land Use (LU)
- 3.3 Natural Resources and Resiliency (NR)
- 3.4 Economic Development/Tourism (EC)
- 3.5 Cultural Resources (CR)
- 3.6 Parks and Recreation (PR)
- 3.7 Transportation (TP)
- 3.8 Municipal Services (MS)

Each of these elements has its own section. Under each main element are sub-elements that explain the primary concerns of the community. Land use for example goes beyond a general land use discussion, exploring more detailed concerns such as site planning or housing considerations necessary for maintaining the town's family beach character. Some of these topics are also illustrated for further clarity. The Transportation, Economic Development and Tourism, Natural Resources and Resiliency, Cultural Resources, Parks and Recreation, and Municipal Services elements have similar sub-areas of focus, whose details can be reviewed in their sections.

In addition to a discussion of key issues, each element includes a set of policies and actions to guide future decision making, shown in grey boxes at the end of each element and sub element. The seven elements are identified by a primary two letter code. Policies under each element are numbered and actions are lettered, creating a simple four letter code that makes each policy and its actions uniquely identifiable.



3.2. LAND USE

Land use includes the policies, regulations, and other factors that determine how public and private property is developed. Land use also refers to the overall pattern of development in a community as well as the specific site regulations that ensure compatibility with adjacent properties. Much of the town's vision statement is an expression of what the town wishes to be from a land use perspective. Nags Head was originally a vacation destination in the 1800's for families in eastern North Carolina who spent summers here. These families built shingle-style second homes with pitched roofs and wide porches along the sound front south of Jockey's Ridge. These were later moved to the oceanfront and now form the Nags Head Historic Cottage Row. A community was formed with a strong social fabric and a respect and appreciation for the ocean and sound waters, beaches and natural landscapes. This original cottage community established the character of Nags Head and reflects a way of life that Nags Head continues to try and preserve.

As this development pattern continued, small businesses were established to serve the residents and visitors to include hotels, motels, and cottage courts, retail establishments, restaurants, and other services. Although there have been different architectural styles over the years, buildings generally had a residential scale, pattern, and appearance. Four primary roadways run through the town, NC 12 (South Virginia Dare Trail), US 158 (South Croatan Highway), US 64, and SR 1243 (South Old Oregon Inlet Road). NC 12 and SR 1243 are two-lane roads adjacent to the oceanfront serving residential uses and pockets of smaller scale commercial development. US 158 is a five-lane roadway (four lanes with a center turn-lane) running from Eighth Street to Whalebone Junction forming the backbone of transportation infrastructure in the town. US 64 is a five-lane roadway as well that runs the length of the area referred to as the Causeway between Nags Head and Manteo. Pockets of larger scale commercial development including several shopping centers flank US 158. Each of these roadways has a distinct look and feel that helps to define land use within the town. The roadway corridors are further discussed in chapter two – character areas.

The town looks much different today than it did years ago and, like many communities, has experienced tremendous growth and development pressure. The town's ordinances and policies are the work of years of planning and decision making by board members and town staff operating under North Carolina's regulatory and legal framework. Expressing and maintaining a consistent vision over the course of time with effective regulatory tools to achieve that vision is an audacious goal for any community. Although Nags Head has experienced both success and failure in preserving its original vision, the town has been consistent in its resolve to plan and prepare for future challenges. To this end, Nags Head



continues to restate and refine its desired characteristics that will form the basis for future land use and development decisions:

- Development that blends with the landscape, preserving natural vegetation, dunes, open spaces, and environmental quality.
- A visible and dark night sky maintained by lighting that is minimal and carefully designed.
- Views from the ocean beach of dunes and vegetation and structures that are low in height, blend with the landscape, and don't shade the beach.
- Buildings with a residential scale and appearance with low heights and small footprints that are designed to reflect the heritage of Nags Head.
- Commercial development that serves the needs of residents and visitors but respects the goals of the community related to design and appearance.
- Land uses that are compatible with the community and with adjacent properties that don't create excessive noise, light, unsafe conditions, or other nuisances.
- A land use pattern that preserves residential neighborhoods and establishes walkable nodes of commercial development that attract patrons and strengthen business opportunity.
- Signage that provides adequate communication but does not dominate the landscape.
- Development of low density and intensity served primarily with on-site wastewater systems.

Nags Head prides itself as a family beach community that is clearly distinguished from other boardwalk or commercial strip beach communities such as Myrtle Beach or Ocean City, of higher development intensities. Nags Head has never desired this type of congested atmosphere with crowded beaches, excessive traffic, intense nightlife, noise, lights, signs, vendors, novelties, and solicitations. Although the community of Nags Head has changed over the years, there have been ongoing and deliberate efforts to preserve its original character as a single-family residential beach community with ties to its natural environment.

Nags Head's land use planning efforts are guided by several plans/planning efforts external to this document. These plans can be found at www.focusnagshead.com. Reference to these documents may be required when conducting planning activities for specific land use elements.

- Town of Nags Head Land and Water Use Plan (2000)
- Town of Nags Head Land Use Plan (2010)



- The Beach Road and its Future Development – Conceptual Design Plan (2008)
- Decentralized Wastewater Plan – (2005)

This section is organized into the following Land Use Sub Elements:

- 3.2.1 Land Use Patterns
 - 3.2.1.A Oceanfront
 - 3.2.1.B Commercial vs. Residential
 - 3.2.1.C Shopping Centers and Large Format Development
- 3.2.2 Ecologically Sensitive Areas
- 3.2.3 Permitted/Prohibited Land Uses
- 3.2.4 Site Development Characteristics
 - 3.2.4.A Density and Intensity of Development
 - 3.2.4.B Building Size and Design
 - 3.2.4.C Lighting
 - 3.2.4.D Signage
 - 3.2.4.E Vegetation Preservation and Landscape Buffers
 - 3.2.4.F Parking
 - 3.2.4.G Incentives/Design Flexibility
 - 3.2.4.H Circulation and Access Management
- 3.2.5 Housing and Accommodations
 - 3.2.5.A Hotels, Motels, and Cottage Courts
 - 3.2.5.B Workforce Housing & Accessory Dwellings
- 3.2.6 Village at Nags Head



3.2.1. LAND USE PATTERNS

Land Use patterns are defined primarily by the corridors and roadway types running through the town. Land use patterns are also heavily influenced by the proximity to the beach. Near the oceanfront and along the NC 12 and SR 1243 (Beach Road) corridors, land use is defined by single-family dwellings of different sizes primarily offered as vacation rentals or second homes. Generally, the number of permanent housing increases as the distance from the ocean increases. Many of the year-round residents live in neighborhoods west of US 158.

The Beach Road north of Whalebone Junction includes a mixture of smaller scale businesses (less than 10,000 s.f.) including restaurants, fishing piers retail, grocery, art galleries, hotels, motels and cottage courts and some personal and professional services. Some commercial businesses extend approximately 0.5 miles south of Whalebone Junction to include hotels, motels and cottage courts. However, South Nags Head (the area of town south of Whalebone Junction) is primarily residential. North of Whalebone, both the oceanfront and the area between the highways allow commercial and residential uses within the same zoning district (C-2 and CR) and the uses are interspersed. This has resulted in a mixed development pattern including pockets of commercial with limited cohesiveness.

The US 158 corridor and the Causeway (US 64) are much different than the Beach Road areas and include a mixture of residential neighborhoods, strip commercial development, shopping centers, and large format retail stores. Building sizes along this corridor are as high as 50,000 square feet. It is important to note that the US 158 corridor and the NC 12 corridor share the same zoning district classification and zoning regulations.

In Chapter 2 of this plan, the town has been divided into specific character areas with distinct land use and development patterns. These roadway corridors are each described as character areas with distinct existing and future land use patterns. It will be important to create a land use scheme with zoning districts and regulations that appropriately define and regulate these two corridors separately since they have unique characteristics. The goal of Chapter 2 is to establish the existing and desired development characteristics of each character area in order to form the basis for revisions to the future land use map, zoning map, and land use regulations. The Land Use Element discusses land use more broadly and address issues that span multiple character areas or the town as a whole.



POLICIES & ACTIONS

- LU-1** Ensure that the character of Nags Head is preserved as a single-family residential beach community with ties to its natural environment. This character is defined by:
- Development that blends with the landscape, preserving natural vegetation, dunes, open spaces, and environmental quality.
 - A visible and dark night sky maintained by lighting that is minimal and carefully designed.
 - Views from the ocean beach of dunes and vegetation and structures that are low in height, blend with the landscape, and don't shade the beach.
 - Buildings with a residential scale and appearance with low heights and small footprints that are designed to reflect the heritage of Nags Head.
 - Commercial development that serves the needs of residents and visitors but respects the goals of the community related to design and appearance.
 - Land uses that are compatible with the community and with adjacent properties that don't create excessive noise, light, unsafe conditions, or other nuisances.
 - A land use pattern that preserves residential neighborhoods and establishes walkable nodes of commercial development that attract patrons and strengthen business opportunity.
 - Signage that provides adequate communication but does not dominate the landscape.
 - Development of low density and intensity served primarily with on-site wastewater systems.
- LU-2** Develop separate zoning districts and regulations that recognize the appropriate scale and pattern of development for the US 158 and NC 12 corridors.
- LU-2a:** Conduct an inventory of buildings sizes and types for commercial areas and use this information to define desired development characteristics and regulations for each corridor. This should include a review of site development regulations, with particular focus on Beach Road activity centers, to ensure that buildings address the street and relate to the pedestrian environment.
- LU-2b:** Develop pedestrian facilities in defined activity centers on the west side of NC 12 to connect businesses and create a walkable environment.
- LU-2c:** Focus on activating the front of commercial structures along the NC 12 corridor with uses that blend the private sphere of the business with the public sphere of the sidewalk and street. This can be accomplished through outdoor seating or dining.



A. Oceanfront

The oceanfront throughout Nags Head is developed predominately as single-family residential. There is also a mixture of hotels, motels, and cottage courts as well as multi-family development. There are three oceanfront piers within the town. Due to Coastal Area Management Act regulations which define setbacks for oceanfront development (CAMA uses a graduated setback based on the size of structures multiplied by the historical erosion rate) the limited depth of lots makes it difficult to develop large scale buildings along the oceanfront. The oceanfront is an active environment subject to wind,



waves, and the forces of erosion. Vulnerability to storm surge, erosion, sea level rise, and other hazards have influenced land use planning decisions and development patterns town wide and particularly along the oceanfront. This is discussed in greater detail in Section 3.3. Due to these factors, previous land use plans have designated the oceanfront for low-density development. This plan continues to recommend a low density development pattern for the oceanfront for the aforementioned reasons. While land uses should be varied to accommodate tourist related needs (i.e. accommodations, restaurant, retail, fishing piers), future building sizes should be small scale and adaptable to future conditions and hazards. Large scale hotels and multi-family buildings with higher heights are incompatible with the desired scale and character of the oceanfront and are difficult to manage with respect to beach erosion. In the future, new oceanfront structures should generally be limited to 5,000 square feet of heated area and 35 feet in height (this could be higher to accommodate architectural requirements). Existing lot coverage requirements of 33 percent for single-family and 45 percent for other uses are appropriate.

In recent years, the town has experienced the loss of hotels, particularly along the oceanfront. Many of the small hotels and commercial establishments are being converted to single-family dwellings. Cottage courts, which involve multiple detached single-family dwellings on one lot, may be an alternative to hotel development and are more compatible for the oceanfront. The town desires to offer a diversity of accommodations and should consider incentives to encourage cottage court development along the oceanfront as an alternative to single-family vacation rentals.



The town may wish to limit the over proliferation of accessory structures within the active oceanfront environment where frequent damage occurs. This could include additional regulations applicable to oceanfront pools, dune decks, walkovers, and gazebos. For example, dune walkovers in residential situations could be limited to four foot wide so that only 4x4” piles are necessary. Pools should be required to be constructed in the ground without the use of a cradle or foundation. This allows these structures to be easily removed when impacted by erosion and limits disturbance to the dunes during initial construction. The town currently limits ground floor enclosures in the VE flood zone and requires structures to be elevated so that the area below the structure is free and clear. The town should consider continuing these regulations to protect property and limit storm damage and debris.

POLICIES & ACTIONS

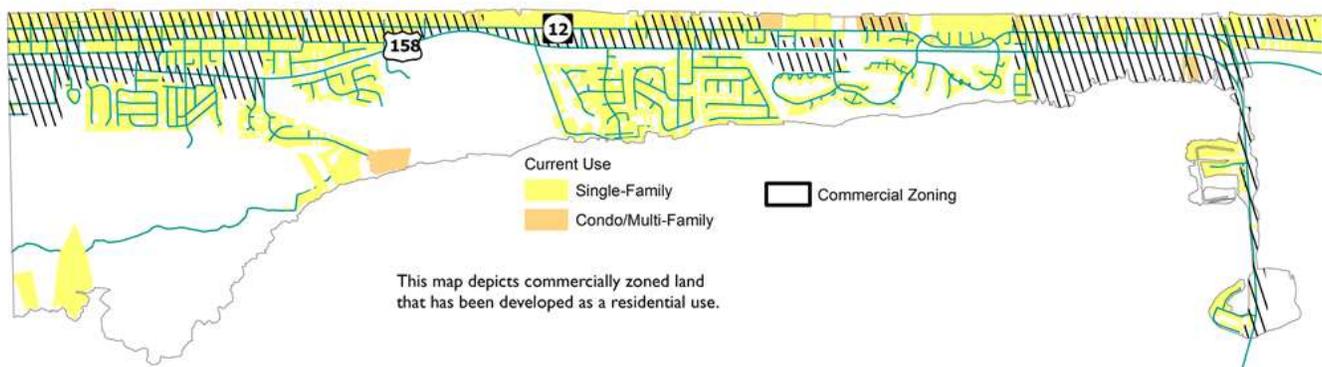
- LU-3 Recognize a low-density pattern of development for the oceanfront that is characterized by small scale, adaptable structures.
 - LU-3a: Develop incentives or regulations that limit individual building sizes to 5,000 square feet and 35 feet in height for new oceanfront development. Any new town regulations should not preclude existing structures greater than 5,000 square feet from making improvements, renovations, or repairs.
 - LU-3b: Regulate accessory structures in the active, oceanfront environment where frequent damage occurs to protect private property and limit storm damage and debris. This may include additional regulations applicable to oceanfront pools, dune decks, walkovers, and gazebos.
 - LU-3c: Maintain current regulations regarding free of obstruction and the prohibition of ground floor enclosures along the oceanfront.



B. Commercial vs. Residential

As mentioned previously, large areas of the town are located in zoning districts which allow commercial and residential development. This includes the oceanfront, the NC 12 and US 158 corridors, and the area between the highways from Eighth Street to Whalebone Junction. This has resulted in a mixed development pattern including pockets of commercial with limited cohesiveness. Due to the strong market for single-family homes as vacation rentals, many of the smaller commercial businesses along the NC 12 corridor have been converted to single-family homes. The town has made previous efforts to preserve businesses along the Beach Road including a study of the Beach Road and Its Future Development referenced in the beginning of this section. The town seeks to have a balance of land uses along the Beach Road, with diversity in accommodations as well as neighborhood serving businesses. This is discussed in greater detail in the Economic Development and Tourism Element of this Chapter.

Figure 6. Commercial Zoning vs. Existing Land Use



The Beach Road Study focused on having a series of nodes or activity centers along the Beach Road to serve different areas of town. These nodes would focus on neighborhood scale businesses and would be within walking distance of accommodations and residences in these areas. Several of the character areas discussed in chapter two are based on the activity center idea from the Beach Road Study (referred to as districts). Chapter two describes Gallery Row/Bonnett Street and the Whalebone Junction as areas to be further developed as neighborhood commercial nodes or activity centers. The Village at Nags Head currently has a central commercial node and there are several shopping centers and large format stores along US 158. Future zoning revisions should focus development in areas of existing commercial development or to nodes within the appropriate character areas as defined in chapter two. This would further strengthen commercial development by creating cohesive districts which are pedestrian friendly, 'human scale', and attract patrons by offering a wide range of goods and services in contiguous and connected areas. There



also may be areas such as the historic district where extensive or large scale commercial development may be incompatible with the historic nature of this area. The town may also wish to consider limiting certain types of residential development (single-family) in commercial nodes or require a mixture of uses if residential development is to be allowed in nodal areas.

Other incentives to encourage commercial development to nodal areas should be explored and are discussed further in character areas section of this plan.

Due to the wide geographic area covered by commercial zoning in the town, particularly between the highways, many of the town’s commercially zoned areas have been partially or fully developed as cohesive residential neighborhoods with no commercial development. Future land use map, zoning map and regulatory revisions should identify and evaluate reclassifying these areas as residential to preserve their integrity and limit future land use compatibility issues. This strategy would be completed in conjunction with further defining the commercial activity centers described above to direct commercial development to these areas.

POLICIES & ACTIONS

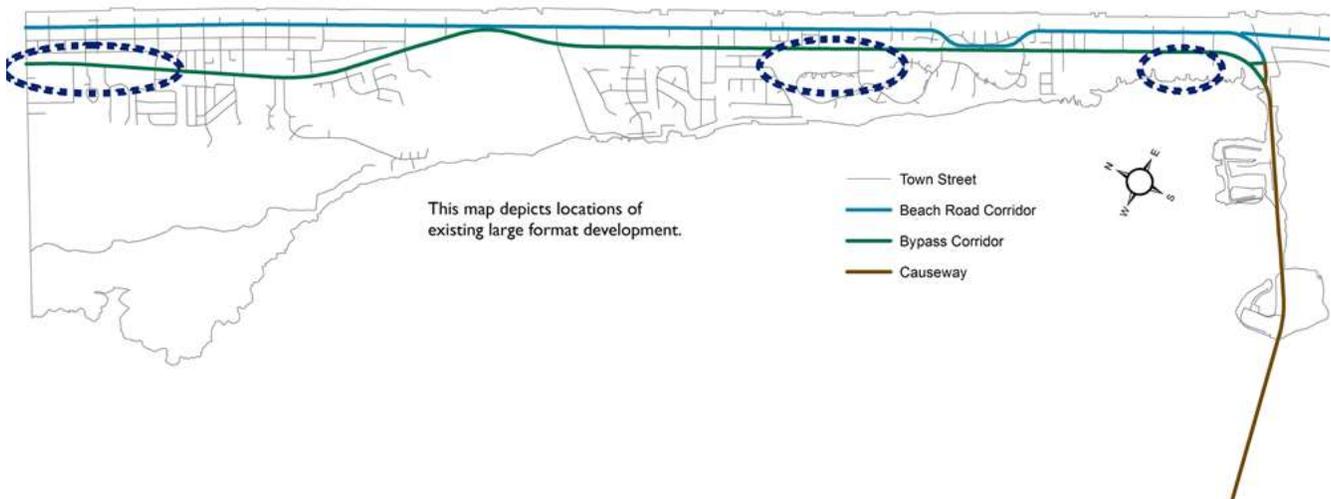
- LU-4 Encourage a balance of land uses along the Beach Road characterized by a diversity of accommodations and small, neighborhood serving businesses.
 - LU-4a: Direct commercial development to activity centers or nodes through incentives or modifications to zoning regulations consistent with the development plans described in Section 2.
 - LU-4b: Explore incentives and develop regulations to encourage pedestrian friendly, human scale development along the Beach Road.
 - LU-4c: Explore ways to create cohesiveness in commercial activity centers by limiting certain types of residential uses (single-family) or allowing single-family or residential uses only as accessory to commercial uses. This could include utilizing vertical or horizontal mixed use or detached accessory residential structures.
 - LU-4d: Identify existing cohesive residential areas that are currently zoned commercial and consider rezoning to residential to preserve their integrity and limit future land use compatibility issues.
 - LU-4e: Develop regulations that prevent incompatible commercial development adjacent to areas with historical designations or significance.

C. Shopping Centers and Large Format Development

The US 158 corridor includes several shopping centers with large format (footprint) stores. Near Eighth Street there are two shopping centers with a total commercial square footage of 113,167 sq. ft. The Village of Nags Head includes the Outer Banks Mall which contains 160,109 square feet of commercial space. Finally, the Outlet Center at milepost 14 includes with a commercial square footage of 83,990 sq. ft. Most of these stores are smaller units. Beyond these shopping center nodes there are several shopping plazas including Central Square, Pirate’s Quay, Surfside Plaza, and Croatan Center.

Although these large format commercial shopping centers exist and meet a community need, the town’s general desire for future commercial development is to limit the size and scale of development to a residential or human scale. The town’s objective is to have contiguous and cohesive areas or nodes of commercial development. The town should consider establishing regulations to limit commercial building sizes outside of the existing large format shopping centers. Currently the town’s regulations allow retail buildings up to 40,000 square feet. The town should consider establishing maximum building sizes for the NC 12 and the US 158 corridor that are appropriate to the desired scale and massing of these corridors. It may be necessary to study the existing inventory of commercial buildings in each of these areas to determine the appropriate size of structures in these areas. Careful consideration should be given this strategy since there may be competing goals, such as future hotel development, which may need consideration when addressing this issue.

Figure 7. Large Format Development



ELEMENTS



POLICIES & ACTIONS

- LU-5** Promote contiguous and cohesive nodes of commercial development of appropriate size and massing for the surrounding area.
- LU-5a:** Conduct a study to inventory existing commercial buildings along each corridor or character area in order to determine the appropriate size/massing and scale of structures in these areas.
- LU-5b:** Establish regulations to define maximum sizes and/or address the scale and massing of new commercial buildings based on the study of building sizes/types for each corridor or character area. These regulations should address the desired scale and massing for both the US 158 and NC 12 corridors. Careful consideration should be given to this approach as there may be competing goals, such as future hotel development, which may need special attention when addressing this issue. The town should consider whether the C-1 or C-4 zoning classifications should replace the current C-2 zoning classification in certain areas such as along NC 12 where smaller building sizes may be more appropriate.

3.2.2. ECOLOGICALLY SENSITIVE AREAS

Ecologically Sensitive Areas include the ocean and sound waters, the ocean and estuarine shorelines, marshes and wetlands, Jockey's Ridge, and Nags Head Woods. These areas and associated policies are more fully discussed in the Natural Resources and Resiliency element of this chapter. This section describes specific land use related issues regarding ecologically sensitive areas that are in private control or are not governed or under the control of other state or federal agencies.

A significant component of the Nags Head zoning and regulatory scheme is designed to preserve and protect Nags Head Woods. Nags Head Woods is located in the SED-80 zoning district which includes minimum lot sizes of roughly two acres and primarily limits development to single-family homes. There is an ongoing effort by the Nature Conservancy to secure privately owned parcels in Nags Head Woods for conservation use, either through fee simple purchase or through the acquisition of conservation easements. Nags Head wishes to limit destruction and clearing of the maritime forest in Nags Head Woods to maximum extent possible, allowing only the minimum clearing and land disturbance necessary to make reasonable use of property. The current ordinance requires town approval for any tree removal and Board of Commissioner's approval for tree removal greater than a certain caliper.

The SPD-20 zoning district surrounds Jockey's Ridge and the Nags Head Woods area and includes regulations to protect trees and vegetation that are important to limit the invasion of salt spray into the edge of the maritime ridge line forest. Although this district allows more intensive land uses than the SED-80 district, only limited tree and vegetation clearing is allowed in this district. It is the town's desire to maintain and enforce regulations for the continued protection of the Nags Head Woods ecosystem. The town may want to evaluate allowed land uses in the SED-80 and SPD-20 zoning districts and determine if the listed uses are compatible with the goals and objectives of preserving Nags Head Woods and the surrounding area. In particular, the SED-80 district includes a provision for cluster housing which allows more than one dwelling unit on a lot. The town has been previously concerned about the overall compatibility of this type of use in the SED-80 district. The town should pay close attention to this when conducting its review of appropriate land uses.

The ocean and sound waters overlay district is designed to regulate land and water uses along the town's shoreline. The commercial outdoor recreation overlay district works largely in conjunction with the ocean and sound overlay district since it regulates land uses along the estuarine shoreline south of the Village at Nags Head wrapping around to the Nags Head causeway. The Ocean and Sound Waters District was established to provide for the proper use of the ocean and sound waters, including islands that adjoin the town, to ensure the continued scenic, conservation and recreational value that these waters provide to the town, its residents, visitors and the surrounding area. Water uses are limited primarily to passive or traditional uses or commercial uses permitted in the Commercial Outdoor Recreation Overlay District. Watercraft rentals including jet skis, boats and parasail activities are limited to the Commercial Outdoor Recreation Overlay



District. These activities are carefully regulated due to the potential to create noise and impacts to private property. The town should identify issues since these regulations were created and determine if additional control is necessary to maintain compatibility with the estuarine environment and adjacent land uses. The town should also carefully consider proposals for future commercial uses in the sound to ensure they are not detrimental to the marsh, sound bottom, and submerged aquatic vegetation. Additionally, compatible sound uses will not increase turbidity in the water and will maintain overall water quality.

POLICIES & ACTIONS

- LU-6 Limit destruction and clearing of the maritime forest in Nags Head Woods to maximum extent possible, allowing only the minimum clearing and land disturbance necessary to make reasonable use of property.
 - LU-6a: Maintain and enforce regulations for the continued protection of the Nags Head Woods ecosystem.
 - LU-6b: Evaluate allowed land uses in the SED-80 and SPD-20 zoning districts and determine if the listed uses are compatible with the goals and objectives of preserving Nags Head Woods and the surrounding area. In particular, the SED-80 district includes a provision for cluster housing which allows more than one dwelling unit on a lot. The town has been previously concerned about the overall compatibility of this type of use in the SED-80 district. The town should pay close attention to this when conducting its review of appropriate land uses.
- LU-7 Review regulations in the Ocean and Sound Waters Overlay District and the Commercial Outdoor Recreation Overlay District to ensure proper use of the ocean and sound waters, including islands that adjoin the town, to ensure the continued scenic, conservation and recreational value that these waters provide to the town, its residents, visitors and the surrounding area.
 - LU-7a: Review regulations for commercial boating and personal watercraft to maintain compatibility with adjacent uses and the estuarine environment.
- LU-8 Ensure proposals for future commercial uses in the sound are not detrimental to the marsh, sound bottom, and submerged aquatic vegetation. Compatible sound uses will not increase turbidity in the water and will maintain overall water quality. The town will not support upland excavations for the development of canals that will destroy significant areas of wetlands or marsh.



3.2.3. PERMITTED AND PROHIBITED LAND USES

Table 3.2.3 lists land use types generally allowed within the town.

Table 3.2.3: General Permitted Land Uses			
Residential	Commercial	Institutional	Commercial Services
<ul style="list-style-type: none"> - Single-family and duplex - Multi-family - Hotels - Motels - Cottage courts - Bed and breakfasts 	<ul style="list-style-type: none"> - Retail - Office - Banking institutions - Professional and personal services - Restaurants and eating establishments - Indoor and outdoor entertainment - Automobile service and care facilities - Equipment rental, sales and service - Mixed use 	<ul style="list-style-type: none"> - Government facilities - Utilities - Hospitals - Nursing care facilities - Schools - Parks and recreation - Public access facilities - Religious facilities 	<ul style="list-style-type: none"> - Concrete processing - Storage and warehousing - Screen printing - Fabricating - Contractor and materials sales, service and storage

Future land use is covered in greater detail in Section 3.9, Future Land Use.

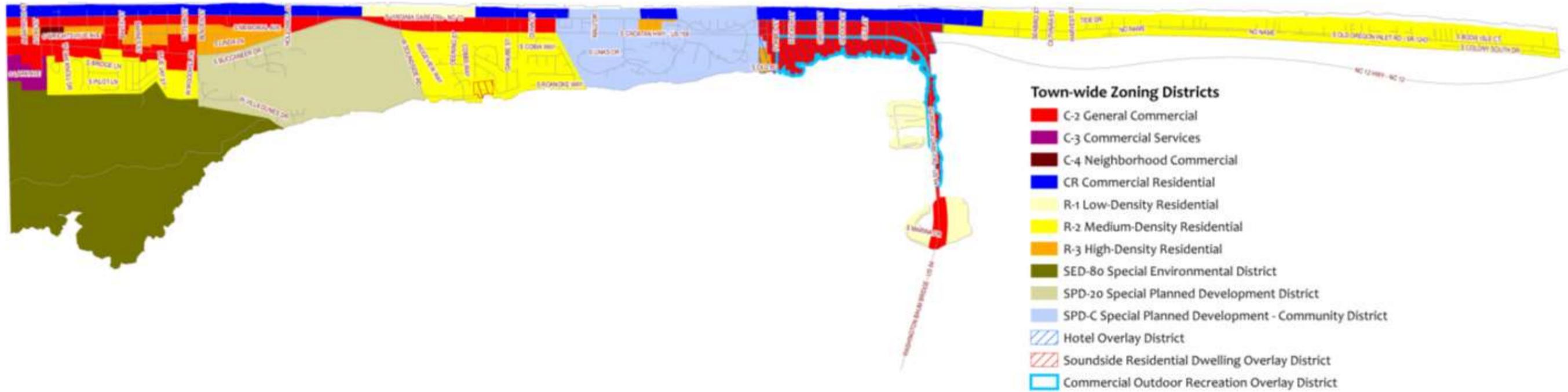
The town has a zoning classification system which determines the uses that are allowed by zoning district. Excluding the Village at Nags Head, there are five commercial districts (C-1 Neighborhood Commercial, C-2 General Commercial, C-3 Commercial Services, C-4 Village Commercial, CR Commercial Residential). Each district differs in terms of overall development intensity, scale and uses allowed. The C-3 district is unique from the other four districts in terms of land uses allowed. This district is the only location in town where higher intensity uses are permitted such as light industrial, warehousing, processing and storage facilities. Other districts (C-1, C-2, and C-4) generally allow similar types of land uses more consistent with supporting daily public and tourism related needs. The town has made a conscious choice in segregating these higher intensity uses due to their overall compatibility with the remainder of the town. The town does not wish to expand the area allowed for these types of uses. The town has been very careful in selecting appropriate commercial land uses for specific areas of the town. Due to a recent North Carolina Supreme Court decision (Byrd v. Franklin County), the town now defines both permitted and prohibited uses. Except for the C-3 commercial services district, the town's land uses are focused on serving the needs and activities of year-round and seasonal residents. The town's primary zoning districts prohibit or discourage land uses that produce significant noise, light, heavy vehicle traffic, noxious fumes or poor air quality. Uses are also



prohibited that are unsightly, encourage unsafe behavior, or require large amounts of land for heavy industrial uses, processing, or storage of materials or equipment. Future zoning ordinance revisions should evaluate the land uses specified in each zoning district and further clarify which uses are appropriate based on the intent of each district, their overall compatibility with current land uses, and desired future development patterns.

The majority of commercial zoning in the town is designated as C-2 (between the highways and along US 158) and CR (along the oceanfront). C-2 is the district which allows the broadest range of commercial goods and services. C-4 includes the Village Commercial zoning district which is confined to the Gallery Row area. There are no areas within the town designated as C-1. The C-1 and C-4 zoning districts are intended as lower intensity, pedestrian scale commercial areas serving neighborhoods with a mixture of regular and resident businesses. Although not currently specified in the ordinance, building sizes should be limited in the C-1 and C-4 zones to achieve the desired scale of development consistent with pedestrian traffic and lower speed roadways. This would further clarify and reinforce the intent of commercial zoning in these areas. The town should also explore replacing the existing C-2 zoning in other areas of the town with these two designations if it is determined that they would be more suited to lower intensity, neighborhood scale commercial development. This would primarily be along the beach road, between the highways, and along US 158 outside of the existing major shopping center developments. These concepts are more thoroughly addressed in chapter two related to the town's character areas.

The 1990 Land Use Plan identified that the combination of commercial and residential uses has become imbedded as a tradition in the town. The plan stated, "Many of the early merchants lived above or behind their commercial establishments." This pattern is still seen, primarily in businesses along Beach Road. While some owners still occupy the residential portions of the property, many merchants are able to rent these spaces as an additional business space or small residential units providing additional income. The town's zoning ordinance currently includes only limited opportunities to have separate commercial and residential uses on one lot. This is primarily in the C-4 (Village Commercial) zoning district where a detached single-family dwelling is allowed on the same property in conjunction with a commercial business. The town should explore allowing residential dwellings or apartments as an accessory use to commercial businesses in other areas of the town to enhance the opportunity for locally owned and neighborhood serving businesses. This could be in a variety of forms to include vertical mixed use (apartment over commercial space) or separate detached buildings with residential and commercial uses. This would primarily be along NC 12 and between the highways.



Village Zoning Districts

- Commercial 1 District
- Commercial 2 District
- Hotel District
- Institutional District
- Recreation District
- Single-Family 1 District
- Single-Family 2 District
- Single-Family 3 District
- Attached Single-Family 4 District
- Attached Single-Family 5 District
- Townhouse 1 District



POLICIES & ACTIONS

- LU-9 Encourage land uses that serve the needs of both year-round and seasonal residents in support of the town's overall vision for the community.
- LU-9a: Evaluate land uses specified in each zoning district and further clarify which uses are appropriate based on the intent of each district, their overall compatibility with current land uses, and desired future development patterns.
- LU-9b: Evaluate all current commercial zoning districts, based on this plan and the future land use map, to determine if they are functioning as envisioned and make necessary modifications. This should include review of the existing C-2 district and determination if the C-1 and C-4 districts would be better suited than the current C-2 zoning along NC 12, between the highways, and along US 158 (excluding major shopping center developments).
- LU-10 Discourage high intensity land uses that produce significant noise, light, heavy vehicle traffic, noxious fumes or poor air quality, are unsightly, encourage unsafe behavior, or require large amounts of land for heavy industrial uses, processing, or storage of materials or equipment.
- LU-10a: Evaluate land uses specified in each zoning district and further clarify which uses are appropriate based on the intent of each district, their overall compatibility with current land uses, and desired future development patterns.
- LU-10b: Maintain the current boundaries of the C-3 district and do not expand these uses to other parts of the town.
- LU-11 Support mixed use development or accessory residential dwellings that combine commercial and residential uses along NC 12 and in designated commercial activity centers located between US 158 and NC 12.
- LU-11a: Create incentives and zoning tools to encourage mixed residential and commercial development at appropriate locations including activity centers (both vertical, horizontal and detached mixed use) which would enhance the opportunity for locally owned and neighborhood serving businesses
- LU-11b: Promote and infill mixed use commercial development in designated activity centers using available zoning, incentives, and regulatory tools.
- LU-11c: Ensure new mixed use development provides opportunities for healthy and active lifestyles by requiring bicycle and pedestrian circulation/parking, sidewalks, and pedestrian plazas and/or seating areas.



3.2.4. SITE DEVELOPMENT CHARACTERISTICS

The town's land use regulations include provisions to address a variety of site specific design requirements. In order to address the desired development characteristics as stated earlier in this section, it is necessary to regulate building design and orientation, lot coverage and density, open space, vegetation preservation and buffering, setbacks, parking and traffic circulation and street access, signage, lighting and wastewater facilities. The town's regulations include provisions to address these issues for commercial and residential development.

A. Density and Intensity of Development

Generally, the overall intensity and density of development within the town is controlled through lot size requirements, lot coverage, setbacks, height regulations, and the use of on-site wastewater systems. Lots with on-site wastewater systems need to be larger to accommodate the size of the drain field and to have enough area to treat effluent. In Dare County, the minimum lot size to use on-site wastewater is 15,000 square feet. The town has a longstanding policy to utilize on-site wastewater systems as the preferred method of wastewater treatment. Along with not requiring substantial public investment in a central sewer system, using on-site wastewater systems is a direct way to limit overall lot density. For these reasons, the town wishes to continue this policy as long as these systems remain viable to treat effluent and protect water quality. The town will take steps to monitor and improve the effectiveness of these systems.

For commercial development, lot sizes are generally 15,000 square feet for new subdivisions with lot coverages ranging from 45 percent in oceanfront areas to 55 percent in non-oceanfront areas. There are many lots in the town that are less than the 15,000 square foot minimum lot size requirement and are considered nonconforming. Although these lots can be developed, new lots less the minimum size cannot be created. It is important to note that there is a direct link between the lot size and the use of on-site wastewater systems.

For residential development, lot sizes range from 15,000 square feet in higher density areas (R-3) to 20,000 square feet in most other residential districts (excluding SED-80). Lot coverage in residential areas is generally limited to 33 percent with most all improved surfaces counting towards the coverage requirement including pavement, buildings, gravel, wood deck structures, patios, and pools.

Height is limited to 35 feet in commercial and residential districts however this can be increased to 42 feet for architectural purposes to allow a greater roof pitch. A height of 60 feet is allowed for hotels and certain other specialized uses such as communications towers or the aerial adventure park.



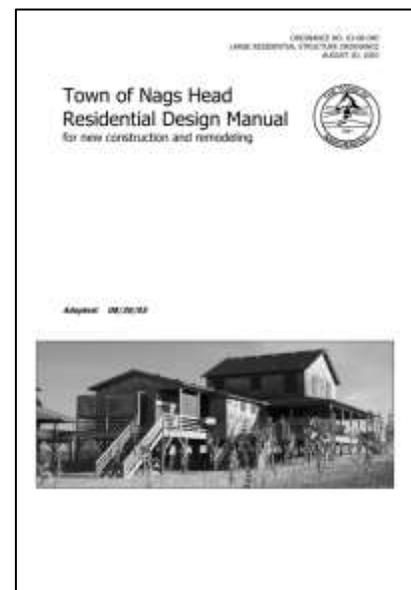
Generally, it is the town’s policy is to maintain the overall regulatory scheme described herein and to resist proposals that would seek to increase these allowances or result in an overall increase in development intensity or density within the town. However, the town may wish to consider incentives that would encourage infill development in commercial activity centers and nodes. Incentives could include increases in density or lot coverage or additional site design flexibility.

POLICIES & ACTIONS

- LU-12 Utilize on-site wastewater systems as the preferred method of wastewater treatment as long as they remain viable to effectively treat effluent and protect water quality.
- LU-13 Maintain the overall regulatory scheme for residential and commercial zoning districts as a means to avoid overall increases in development intensity or density.
 - LU-13a: Consider incentives that would encourage infill development in commercial activity centers and nodes in accordance with the character area development plans outlined in Section 2. Incentives could include increases in density or lot coverage or additional site design flexibility.

B. Building Size and Design

In 2003, the town adopted ordinances regulating large single-family dwellings. Prior to this date, the town was experiencing the development of houses that could be occupied by 20 or more persons and were out of scale with desired development character. The regulations establish size limitations for homes based on lot size and include other provisions to address aesthetic, parking, wastewater, and sanitation issues. The town continues to maintain size limits for housing based on these lot sizes. The maximum house size is 5,000 square feet for most residential zoning districts. In order to construct a house 3,500 or greater, the lot size must be 16,000 square feet. These standards focus on the heated portion of the structure only and do not directly address the proportionality of the structure to the lot or to adjacent development. Many of the town’s lots





are 50 feet wide with eight-foot side yard setbacks, particularly along the oceanfront. Height regulations allow homes to be up to 42 feet high. Structures are often three times deeper than they are wide. This results in long, three-story vertical walls adjacent to the side yard setback. Given this combination of factors, much of the newer residential structures appear to be disproportionate to the lot size and to adjacent structures. Although the town has an architectural design manual, many of the standards designed to influence proportionality are optional and are often not utilized. While the town's regulations to control large residential structures have been largely deemed successful, it is recommended that the town review its standards to address proportionality of residential structures to lot size and to address the overall character of residential development. Concerns have also been expressed regarding the monotonous appearance of dwellings where several houses constructed side-by-side are of the exact or very similar design. The town should explore avenues to discourage monotonous building design.



Architectural requirements are in place for commercial buildings and are applied based on the size of buildings. The requirements for smaller buildings utilize a point system which is based on a flexible menu of design features and is intended to create a residential building type for small commercial buildings. The regulations related to larger buildings (greater than 15,000 square feet) require specific design elements including building material types, porches, mansards, wall and roof articulations, and specific window design. These are prescriptive requirements of the ordinance and do not require review by an architectural control board. Therefore, the approval is administrative (staff) and there is no flexibility in the design review process. The town should examine the buildings constructed since the architectural requirements were established in 2004 and determine if the regulations have created the desired scale and appearance of commercial development. This examination



will determine if the town should consider evaluating other regulatory approaches for architectural design. Alternative approaches could involve developing a point system for all commercial buildings or utilizing design guidelines and a discretionary (board) review process to provide some flexibility to the design of commercial buildings.

It should be noted that many of the older legacy businesses in town are small and have a varied architectural style. Not all buildings reflect the shingle style of historic cottages but are still important to the heritage of Nags Head. An example is the flat top cottages which were prevalent in the 50's and 60's along the Outer Banks. To encourage creativity in design, the town may consider exemptions from the architectural requirements for buildings below a certain size and/or height.

Other than setbacks, there are no current requirements for building orientation and positioning on sites. Many of the older commercial buildings were set close to the street to create more interaction with the pedestrian environment and potential business patrons. This concept is particularly important along the Beach Road. The town should consider reviewing setback regulations for commercial areas, particularly in the desired Beach Road commercial nodes, to ensure that buildings address the street and relate to the pedestrian environment. The town should focus on activating the fronts of these structures with uses that blend the private sphere of the business with the public sphere of the sidewalk and street. In commercial areas outdoor seating and especially outdoor dining can have the same effect. The need for outdoor seating was a strong desire identified during stakeholder and community outreach. This will improve walkability and the human scale environment of these areas.





POLICIES & ACTIONS

- LU-14** Limit the scale and mass of single family residential dwellings to support the town’s vision for low density and intensity residential neighborhoods.
- LU-14 a:** Maintain current regulations that control maximum house size based on lot size.
- LU-14b:** Review the town’s development standards to address proportionality of residential structures to lot size and to address the overall character of residential development. At a minimum, this review should examine:
- Building height requirements as they relate to setbacks.
 - Alternative approaches to the current building to lot size ratio (i.e. floor area ratio or consideration of lot width as a factor in limiting building sizes).
 - Overall approaches to regulating height.
 - Current standards for regulating the length-to-width ratio of buildings.
 - Factoring decking and/or porches and other unheated spaces in the building to lot size ratio and/or the building length-to-width ratio.
 - Existing lot coverage incentives for providing engineered stormwater management.
 - Methods to discourage monotony in building design, particularly for residential dwellings.
- LU-15** Promote architectural standards for commercial development in keeping with the Nags Head style architecture.
- LU-15a:** Examine buildings constructed since the architectural requirements were established and determine if the regulations have created the desired scale and appearance for commercial development. Identify examples of favorable design projects and determine how the regulations or guidelines should be modified to achieve this.
- LU-15b:** Consider evaluating other regulatory approaches for commercial architectural design. An alternative approach could involve utilizing design guidelines and a discretionary (board) review process to provide some flexibility to the design of commercial buildings. The town should consider creating a pre-application or pre-design review process to help applicants understand what is expected in terms of site and building design.
- LU-15c:** Encourage creativity in the design of smaller commercial buildings to accommodate the historically varied and eclectic architectural styles within the town. The town may consider exemptions from the architectural requirements for buildings below a certain size and/or height to accommodate this.



C. Lighting

The town has held a longstanding commitment of being a dark sky community. The International Dark Sky Association (IDA) defines a dark sky community as “a town, city, or municipality that has shown exceptional dedication to the preservation of the night sky through the implementation and enforcement of quality lighting codes, dark sky education, and citizen support of dark skies.” More about the IDA can be found at www.darksky.org. The town’s lighting ordinance requires downlit fixtures that are low intensity and do not glare. The town requires lighting plans for commercial development in order to review fixture types, photometry, and overall lighting layout. The focus of the lighting plans is to limit lighting levels by regulating foot-candles at their source and at property boundaries. The town should evaluate and modernize the lighting ordinance in the future with revisions to reflect best practices in being a dark sky community. The town may even consider applying to the IDA for the Dark Sky designation.

It should be noted that there are no lighting regulations that currently apply to residential properties. The town may wish to consider minimum regulations that limit nuisance lighting and glare to adjacent properties or to town rights-of-way.

The town has always regulated light pollution along the shorelines including the ocean and sound waters. This is for aesthetic reasons and to limit disturbance to habitats including marine turtle species that nest on the town’s beaches. The town should continue this practice and evaluate future ordinance revisions to strengthen and clarify these regulations.

POLICIES & ACTIONS

- LU-16 Preserve the dark night sky through implementation and enforcement of quality lighting fixtures and codes, dark sky education, and citizen support.
 - LU-16a: Evaluate and modernize the lighting ordinance to reflect best practices for being a dark sky community.
 - LU-16b: Research and consider applying to the IDA for the Dark Sky designation.
 - LU-16c: Explore the feasibility of minimum regulations for residential properties that limit nuisance lighting to adjacent properties or town rights-of-way associated with glare or light trespass.
 - LU-16d: Explore efficient low-level lighting along multi-use pathways and at crosswalks to promote safety while preserving the night sky. The town should resist proposals to provide overhead lighting along roadway corridors.
- LU-17 Maintain current regulations which prohibit lighting of the ocean beach or estuarine waters to protect marine species and limit unnecessary intrusions into natural areas.



D. Signage

Two main objectives in the beginning of this section relate to regulation of signage:

- Commercial development that serves the needs of residents and visitors but respects the goals of the community related to design and appearance.
- Signage that provides adequate communication but does not dominate the landscape.

Signage is currently regulated based on two primary categories: commercial and residential. Commercial signage regulations provide for a freestanding sign allowance as well as allowances for building mounted signage based on the roadway frontage of sites. These allowances are applied uniformly through all the town's commercial zoning districts. As the town addresses suggestions contained herein to distinguish building sizes and design for the two roadway corridors, the town may want to also develop appropriate sign standards based on the desired character of each area. For example, a 64 square foot freestanding sign might be appropriate along US 158, however this may be too large and unnecessary along NC 12 and between the highways. Appropriate sign standards for each commercial zoning district will help to preserve the overall appearance of these areas.

Residential sign regulations primarily focus on the ability to have temporary signage for building construction and real estate activities. Recognizing the seasonal nature of the community, additional sign allowances are included to provide for property identification signs (non-commercial signage) and signs to convey information to visitors who identify the property based on the property management company's information. The goal of the residential regulations is to allow limited signage while preserving the non-commercial character of residential areas.

The town's sign ordinance was modified in 2016 to a content neutral standard based on the US Supreme Court decision from *Reed v. Town of Gilbert, AZ*. Moving forward the town will want to ensure that future revisions remain content neutral. Additional modifications to the ordinance may be necessary as the courts further clarify the outcome of this decision.

In addition to the incorporation of standards from the recent Supreme Court decision for *Reed v. Town of Gilbert, AZ*, the Town's sign ordinance shall also continue to incorporate, to the extent that is allowable based on a content-neutral standard, language to uphold the decision of the 1982 Court of Appeals case, *RO Givens, Inc. v. Town of Nags Head*. This case was related to the control of Outdoor Advertising structures (billboards) and off-premises signage.



The town will not permit a heavily commercialized or “circus” appearance and seeks to limit signs and attention getting devices. The town will not permit signs that flash, spin, rotate, blink or any type of digital signage. The town does not wish to have vehicles and other objects used as signs, particularly along its main corridors, and does not want signs facing the ocean and sound waters or ocean beaches.

POLICIES & ACTIONS

- LU-18 Encourage signage that is designed to serve the needs of residents and visitors but respects the goals of the community related to design and appearance.
 - LU-18a: Develop appropriate freestanding sign standards based on the desired character of each area, particularly along roadway corridors.
 - LU-18b: Ensure that future revisions to signage regulations remain content neutral.
- LU-19 Support signage that provides adequate communication but does not dominate the landscape. The town will not permit signs or attention getting devices that flash, spin, rotate, blink, or are digital. Signs shall not be directed to or face the ocean beach or sound waters.



E. Vegetation Preservation and Landscape Buffers

The town's vegetation planting requirements were modified in 2015 related to commercial development. The town's regulations require preservation of vegetation on commercial sites where possible as well as maintaining vegetative coverage on a certain percentage of the site. There is also a vegetative coverage requirement that applies to large residential structures. In addition to vegetation planting requirements, buffering requirements also apply on commercial sites to provide appropriate transitions between land uses and provide visual enhancement along town corridors. This is supported by a set of planting guidelines that specifies appropriate plant material for various zones within the town with a preference towards native species. This recognizes that careful consideration must be given to plant material depending on the exposure of sites to wind and salt and is designed to improve the overall success of planting and buffering plans within the town. The town supports measures to preserve existing mature vegetation where possible on all

development sites. Future ordinance revisions should provide examples of appropriate and compliant landscaping plans that could assist with improving the overall success and

survivability of landscaping plans.



The town also restricts clearing of vegetation on vacant lots below a certain size. In the past, sites have been cleared of vegetation in advance of development. The town's goal is to preserve existing vegetation until clearing is necessary for development.

The town's SPD-20 and SED-80 zoning districts surround Nags Head Woods and Jockey's Ridge State Park. These districts further limit vegetation clearing to protect the maritime forest environment of Nags Head Woods. The town has generally seen success in this regulatory approach. Continued success will rely on property owner education and strict enforcement of existing regulations.



The town should continue to evaluate the effectiveness of its vegetation preservation and buffering ordinances and provide modifications as appropriate to improve their overall effectiveness. The town should take additional steps to educate property owners, landscapers, and the development community on town regulations and the importance of preserving our unique coastal vegetative landscape.

POLICIES & ACTIONS

- LU-20 Protect and preserve existing vegetation until necessary for development. Avoid clearing lots prior to the actual preparation of sites for development.
 - LU-20a: Develop and conduct educational efforts for property owners, landscapers, and the development community on the importance of preserving the unique coastal vegetative landscape.
 - LU-20b: Evaluate the effectiveness of vegetation preservation ordinances in order to improve their overall success.
- LU-21 Protect and preserve mature vegetation where possible on development sites and within rights-of-way rather than removing vegetation and replanting.
 - LU-21a: Strengthen existing regulations or develop incentives that work to preserve mature vegetation and prioritize retention of existing vegetation over replanting. Seek to limit removal of mature vegetation outside of required development footprint areas and within rights-of-way.
- LU-22 Improve the overall success and survivability of landscape plantings through careful selection of vegetation that will withstand the anticipated exposure to wind and salt.
 - LU-22a: Amend town ordinances to provide examples of appropriate and compliant landscaping plans in order to assist with the overall success and survivability of required landscaping and buffering.

F. Parking

A comprehensive revision to the town's parking standards was completed in 2015. The goal of this revision was to identify parking standards in the town's ordinance that were leading to excess parking on development sites. Prior to this, the town had recently completed a new stormwater ordinance and excess parking was identified as a major contributing factor to stormwater runoff. The town is largely dependent on automobile transportation, and off-street parking will continue to be a necessary component of the town's land use requirements. The town should continue to require adequate parking for all land uses while it continues to work towards its other goals for increasing non-motorized transportation and reducing automobile dependency. Incentives have and should continue to be considered for sites that provide facilities for bicycles and that are also served by pedestrian facilities. As future ordinance revisions occur, the town should maintain consistency between permitted land uses and its parking tables and evaluate changes as necessary to correlate parking standards with actual parking demand based on best available data and information.

POLICIES & ACTIONS

- LU-23 Require sufficient parking for commercial businesses with parking area design regulations that limit impacts on neighbors and surrounding land uses.
 - LU-23a: Explore incentives or regulations that encourage bike and pedestrian infrastructure to be incorporated into site design.
 - LU-23b: Monitor the use of parking and utilize this information to evaluate changes in parking standards.
 - LU-23c: Explore maximum limits on the number of parking spaces for each land use.

G. Incentives/Design Flexibility

One of the recent goals of the town has been to review and recommend regulatory changes that would improve the business climate in the town without sacrificing the town's goals for community design and appearance. The town established a Local Business Committee in 2014 to assist in this process. The Local Business Committee identified design flexibility and the use of incentives during development review as a way to remove obstacles to business development. This generally involves the ability to waive or modify the terms of the town's ordinance to achieve other project or community goals. An example is the reduction in a parking requirement or parking dimensional standards to preserve additional vegetation on development sites. Limited design flexibility could be applied to a project administratively during staff review. An example is the recent ordinance allowing for administrative adjustments on projects where a slight setback



encroachment may have resulted from an error during the construction process. This ordinance allows staff to administratively approve these encroachments without review by the town's Board of Adjustments. Additional flexibility may be provided if the process involves discretionary review by a Board. From the Local Business Committee discussions, it is apparent that the community desires flexibility in the design review and project approval process. Future ordinance revisions should consider additional mechanisms for staff and the town's design review boards (Planning Board and Board of Commissioners) to incorporate design flexibility into the review process that achieves project goals and preserves the overall spirit and intent of the town's ordinance and land use goals.

The town has taken recent steps to preserve older legacy businesses and encourage the retention of these structures. There has been a regulatory shift with regards to nonconforming properties (properties which met zoning regulations at the time they were developed but are not consistent with regularity changes that have occurred). Essentially, non-conformity regulations have been modified to allow continued improvements to these older properties. The regulations are primarily designed to restrict additional development of unwanted land uses. The town's position is to allow continued use and improvement to nonconforming properties.

POLICIES & ACTIONS

- LU-24 Support land use compatibility and business development through flexibility in the application of design standards that achieves project goals and preserves the overall spirit and intent of the town's ordinances and land use goals.
 - LU-24a: Explore methods to allow greater flexibility in the application of design standards that achieves project goals without compromising the spirit and intent of the town's ordinances. This may include administrative sign offs, incentives, and other discretionary review mechanisms.
- LU-25 Support continued use and improvement of non-conforming properties.

H. Circulation and Access Management

Access management continues to be a priority of the town and is a particularly important component of the town's zoning and subdivision policies. Existing policies establish limitations on new driveways and the number of driveways that connect to town and NCDOT streets with new development. Regulations require turnarounds to limit vehicles backing into roadways with high volumes of traffic. These policies should be maintained and strengthened as the town moves forward with revisions to its ordinances. For individual site developments, it is important to develop specific policies or standards to control access, including turning movements to and from sites as well as adequate separation distances from driveways and adjacent street intersections where conflicts can occur.

POLICIES & ACTIONS

LU-26 Support access management strategies for individual developments that are appropriate based on a roadway's functional characteristics, surrounding land uses, and users (location and spacing of permitted driveways).

LU-26a: Develop standards to control access for individual developments including turning movements to and from sites and separation distances from driveways and adjacent street intersections where conflicts can occur.



3.2.6. HOUSING AND ACCOMMODATIONS

Nags Head includes a mixture of accommodations to include single-family dwellings, duplexes, multi-family dwellings, hotels, motels and cottage courts. These provide year-round housing, second homes, and vacation accommodations. The vast majority of Nags Head’s housing is in single-family dwellings, which is consistent with the overall vision for the town. The current zoning ordinance includes more restrictive standards for multi-family units and, as a result, fewer multi-family dwellings have been constructed in recent years. Residents typically live in single-family dwellings further away from the beach since these areas contain more affordable dwellings and fewer transient accommodations. It is commonly cited that the cost of living and housing affordability is an issue in Nags Head. Section 1.2 of this plan further illustrates the breakdown of residential housing and accommodations by type.

In addition to affordability, improving the accessibility of homes to allow people to age in place is another issue. Approximately 55.06% of the town’s population is over the age of 50 (2010 US Census). The vast majority of people want to remain in their homes and communities as they grow older. The town should review existing policies and regulations to remove regulatory barriers that would allow people to age in place.

A. Hotels, Motels, and Cottage Courts

Vacation accommodations are primarily single-family dwellings offered as weekly rentals. In the past, there was a mixture of accommodations to include hotels, motels, and cottage courts. Since 2000, there has been a significant decline in the number of available units offered for stays less than one week. Many of the older motels and cottage courts have been replaced by large single-family vacation rentals (see Table 3.2.5.A, Hotel Demolitions 2000-2016).

Date	Name	Number of Units
6/12/2000	Vacationer Motel	-28
4/6/2001	Carolinian Hotel	-96
11/21/2001	Pebble Beach Motel	-104
2/14/2002	Sand Pebble	-10
12/14/2001	Olde London Inn	-90
2/8/2000	Vivianna Motel	-14
6/17/2002	Silver Sands/Econo Lodge	-26
2/25/2002	Ocean Veranda	-32
3/10/2003	Sandbar Motel	-9



Table 3.2.5.A: Hotel Demolitions 2000-2016		
Date	Name	Number of Units
9/18/2003	Whalebone Hotel	-5
6/2/2003	Cabana East	-38
6/28/05	Sea Ootel	-80
12/5/06	Sea Spray	-24
11/3/2011	Manor Hotel	-18
3/16/15	Beacon Motor Lodge	-50

The Outer Banks Visitors Bureau and the Outer Banks Restaurant Association have cited the need to diversify vacation accommodations to ensure the town has an adequate supply of hotels, motels and cottage courts. Many first-time visitors to the Outer Banks often stay less than a week which makes these units desirable to attract the first-time visitor. These visitors will often return and stay in a weekly rental. Hotels, motels and cottage courts serve as an entry point for some of these visitors. These types of accommodations are often sought the most in the shoulder seasons for festivals and events ultimately contributing to lengthening the shoulder season. Nags Head has modified ordinances to encourage hotel development including the establishment of a hotel overlay district south of the Village at Nags Head which allows greater density for hotels. To date, one new hotel has been constructed under these regulations. The town may wish to examine its regulations again to determine what other barriers may be inhibiting hotel development. The town has been contacted by hotel developers and it may be useful to learn from these individuals how they evaluate sites to determine what conditions they need to make a project work.

In recent years, several of the older cottage courts have been renovated and improved. The oceanfront is a difficult location to construct large buildings such as a traditional hotel due to CAMA and FEMA regulations. Cottage courts, with small single-family units, represent an alternative to hotels that are much





more compatible with these areas. According to the Outer Banks Visitors Bureau, there is also a strong demand for this type of housing among both younger generations and retirees, making it an exceptionally attractive option for the town. Cottage Courts currently make up less than 2 percent of Nags Head accommodations. They are also unique properties that are growing in popularity. The town has taken recent steps to revise regulations to allow cottage courts as an alternative to hotels. The town should continue to evaluate the success of this ordinance and revise it to meet market conditions and address unintended consequences.

B. Workforce Housing, Accessory Dwellings, and Accessible Housing

The cost of land and the strong market for vacation rentals makes it difficult to develop workforce housing within the town. This is true not only for year-round residents, but also for seasonal workers. The town does not currently provide housing for any of its seasonal workforce including Ocean Rescue staff. Many businesses will provide housing for workers, but this is often overcrowded and



leads to other neighborhood scale problems. One alternative to providing additional workforce housing is to allow accessory apartments or dwellings. Currently the town's ordinance only allows one principal structure per lot. It is not possible to build two dwellings on one lot except in the case of a duplex (which requires a much greater lot size). Accessory dwellings are subordinate in size to the main dwelling and can provide housing for workers and for family members who need care but wish to have independent living quarters. Maid's Quarters were commonly constructed as accessory dwelling units to the cottages in the Nags Head Historic Cottage Row. This concept could be reestablished to address several needs including accommodations for seasonal, year-round residents, and the town's aging population. If this concept is evaluated, it will be important to control the overall density of the site to be consistent with the town's regulations for large residential dwellings. The town should consider making the square footage limitation cumulative for all



structures on a property. Since the town is a desirable place to live, many people choose to retire here. Approximately 55% of the town's population is over the age of 50. The town should review existing policies and regulations to remove regulatory barriers that would allow people to age in place.

POLICIES & ACTIONS

- LU-27** Promote and expand the types of housing and accommodations for varying income levels, aging populations, and the seasonal workforce within the town.
- LU-27a:** Explore incentives and remove regulatory barriers to encourage cottage court development along the oceanfront and beach road areas. The size and scale of individual buildings within cottage court developments should generally be limited to small scale structures (no greater than 2,000 square feet) that are consistent with the size and appearance of traditional cottage court development within the town.
- LU-27b:** Research and examine barriers that may be inhibiting hotel development in the town.
- LU-27c:** Research and explore other options to diversify the types of housing and accommodations available within the town. This could include creating allowances for accessory dwelling units and housing appropriate for seasonal populations within the town. The town should ensure that any regulations for accessory dwelling units are consistent with the town's size limitations for large residential dwellings.
- LU-27d:** Review existing policies and ordinances to remove regulatory barriers preventing accessible housing for the aging population.



3.2.7. VILLAGE AT NAGS HEAD

The Village at Nags Head is a Planned Unit Development established in the mid-1980's by the Ammons Dare Corporation. It is a golf course community which includes a mixture of residential and commercial uses as well as its own central wastewater sewage system. The Village was developed as a master plan community and has its own set of development regulations within the Nags Head zoning ordinance. The Village is also regulated by a property owner's association and Architectural Control Committee through a set of covenants that mirror the regulations in the town's zoning ordinance. Most residential lots within the Village are significantly smaller than elsewhere in town since they are served by central sewer. However, the Village "offsets" this density through the use of preserved open space associated with the golf course and common areas. Due to the current level of build-out within the Village relative to the original master plan, significant changes to the development patterns within the Village are not anticipated. More discussion of the Village at Nags Head is included in the character area discussion in Chapter 2. However, it should be noted that it has been a policy of the town subsequent to the establishment of the Village to restrict tie-ons to the Village wastewater system by properties outside of the Village. It is the town's desire to continue this policy.

POLICIES & ACTIONS

- LU-28 Maintain the policy to restrict tie-ons to the Village wastewater system to only those properties that were part of the original Village master plan.
- LU-29 Maintain coordination with the Village at Nags Head property owner's association and Architectural Control Committee on changes to the Village at Nags Head zoning ordinance or regarding development projects which are reviewed by both entities.
- LU-30: Prevent the conversion of recreational or open spaces in the Village.





3.3. NATURAL RESOURCES AND RESILIENCY

As a community balanced between ocean side sand dunes and sound side marshes, natural resources and resiliency policy plays a unique role in Nags Head. Protecting natural resources and features that attract tourists to the region is critical. Preserving natural resources, however, is more than ensuring the quality of land, habitat, air or water. It is also ensuring that residents have access to these assets both physically and visually. The goals and strategies of this section of the plan ensure that this natural heritage is preserved, development is in harmony with the natural heritage, and the community continues to be resilient in light of ecological risks and hazards.

Other plans referenced in this section include:

- 2010 Land Use Plan
- The Outer Banks Visitors Bureau Visitor Survey 2014-2015
- Pasquotank River Basinwide Water Quality Plan, 2007
- Economic Valuation of the Albemarle-Pamlico Watershed's Natural Resources, 2016
- Town of Nags Head Decentralized Wastewater Management Plan, 2005
- Nags Head Woods Management Plan, 2013

This section is organized into the following Natural Resource and Resiliency Sub Elements:

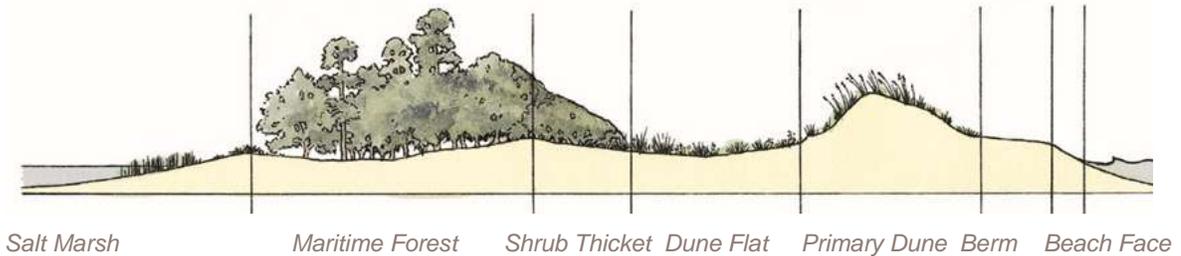
- 3.3.1 Environmentally Sensitive Ecosystems and Areas
 - 3.3.1.A Ocean Shoreline System
 - 3.3.1.B Estuarine Shoreline System
 - 3.3.1.C Maritime Forest
 - 3.3.1. D Coastal Area Management Act (CAMA) Areas of Environmental Concern
- 3.3.2 Soils
- 3.3.3 Hazard Mitigation
- 3.3.4 Mitigation Strategies
- 3.3.5 Coastal Resiliency and Sea Level Rise
- 3.3.6 Shoreline Management

3.3.7 Water Quality



3.3.1. ENVIRONMENTALLY SENSITIVE ECOSYSTEMS AND AREAS

Nags Head has an abundance of natural areas and sensitive ecosystems that make it a unique place to both live and visit. During the public involvement process, natural resources and access to these natural resources were noted as a reason that many people enjoy living here year-round. Protecting and preserving these sensitive areas is critical to the high quality of life enjoyed by those who live year-round and visit. In addition, many of these complex ecosystems are interdependent upon one another and work together. Therefore, it is important to provide protection to all portions of the larger barrier island system.



This barrier island system in Nags Head includes the following broad ecosystems and significant natural areas:

1. Ocean Shoreline System
2. Estuarine Shoreline System
3. Maritime Forest System
4. CAMA Areas of Environmental Concern

The Nags Head landscape is dominated by ocean and estuarine shorelines. The ocean shoreline system includes the beach face where people recreate and frontal dunes which protect the private property and public infrastructure behind them. The ocean shoreline is typically considered a high-energy environment.

The estuarine shoreline system includes a brackish marsh and wetlands that act as a buffer to protect soundside private property and public infrastructure, stormwater filter for runoff, and habitat for juvenile fish and crabs as well as nesting birds. The estuarine shoreline system is typically considered a low-energy environment. However, due to the width of the sound and the large fetch, the town's estuarine shoreline can also be a high-energy environment at times.



In addition to ocean and estuarine shorelines, Nags Head contains an irreplaceable maritime forest. Maritime forests are systems of interwoven trees forming a canopy that shields out salt, protecting the understory.

Beyond the ocean and estuarine shorelines and maritime forests, the North Carolina Coastal Area Management Act (CAMA) identifies Areas of Environmental Concern (AECs). Areas of Environmental Concern (AECs) are defined as an area of natural importance: It may be easily destroyed by erosion or flooding; or it may have environmental, social, economic or aesthetic values that make it valuable to the state. There are four broad categories of AECs: The Estuarine and Ocean System, the Ocean Hazard System, Public Water Supplies, and Natural and Cultural Resource Areas.

Nags Head is also home to several Significant Natural Heritage Areas identified by the North Carolina Natural Heritage Program (NHP). A natural heritage area is an area of land or water that is important for the conservation of the natural biodiversity of North Carolina and therefore has priority for protection. Significant Natural Heritage Areas in the coastal region of the Pasquotank Basin include communities of Maritime Grassland, Maritime Forest, Sand Flats, and Salt Marshes. In Nags Head, Jockey's Ridge, Nags Head Woods, and the Cape Hatteras National Seashore have been identified as Significant Natural Heritage Areas.

Natural Heritage Areas are evaluated on the basis of rare plant and animal species, rare or high-quality natural communities, and geologic features. The global and statewide rarity of these elements and the quality of their occurrence at a site relative to other occurrences determines a site's significance rating. The overall rating for all areas within Nags Head is exceptional. Protection exists for Jockey's Ridge State Park, Cape Hatteras National Seashore, and portions of Nags Head Woods. Because of the extreme rarity of these barrier island communities, protection should be a priority for the unprotected Significant Natural Heritage Areas.

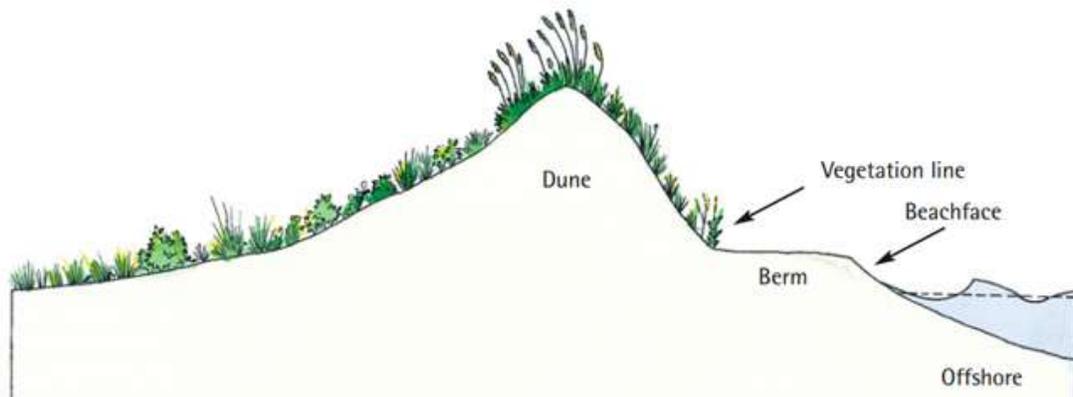
In addition to Natural Heritage Areas, habitats and ecosystems in the Town support fourteen (14) endangered species as identified by the US Fish and Wildlife Service IPaC Resource List. These endangered species include northern long-eared bat, red wolf, west Indian manatee, piping plover, red knot, red-cockaded woodpecker, roseate tern, American alligator, green sea turtle, hawksbill sea turtle, kemp's ridley sea turtle, leatherback sea turtle, loggerhead sea turtle, and the sea beach amaranth.

Natural resource functions of the Town's ecosystems and areas have not been impacted by development. The Town has been proactive in adopting policies and regulations to protect environmentally sensitive and fragile ecosystems. Zoning regulations were adopted for the areas around Jockey's Ridge to limit the intensity and density of development, regulate vegetation removal, and general land disturbing activities to a minimum.



A. Ocean Shoreline System

The town boasts 11.29 miles of oceanfront shoreline; more than any other municipality in Dare County. Each week, thousands of people flock to the town to enjoy its beaches. The town recognizes its beaches as the single greatest asset. Just landward of the beaches are large dunes that run parallel to the shoreline. Wind-blown sand gets trapped in vegetation, such as sea oats or beach grass, and builds these dune systems. These dunes act as barriers to ocean overwash experienced during nor'easters, hurricanes, and tropical events. It is important to protect and build the dune systems as a means of protection for infrastructure and property.



Beach profile

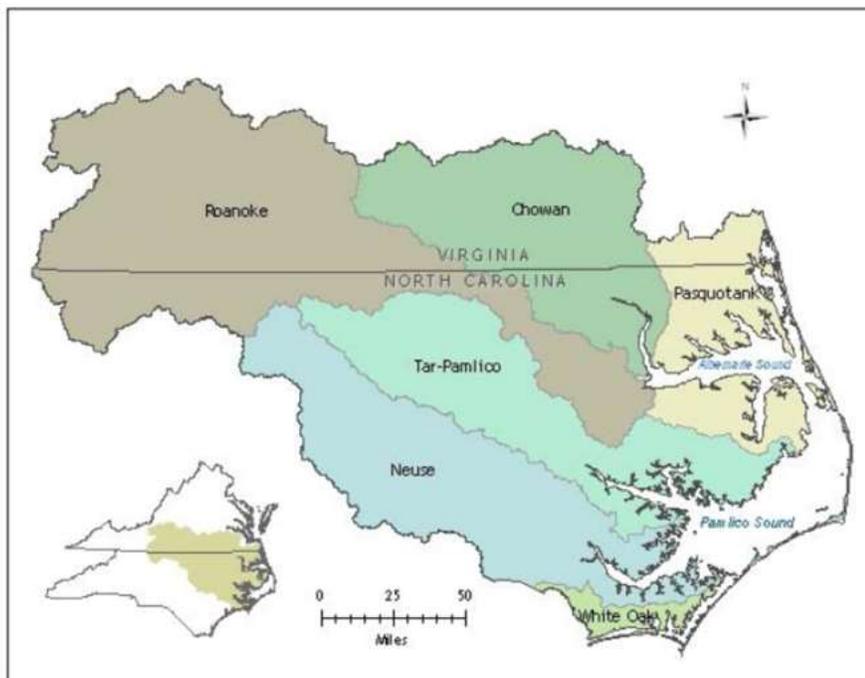
Moving into the future it will be important to research and determine how to sustainably maintain the town's beaches and dunes long-term. In addition, further research to understand how climate change and sea level rise will impact the town's beaches and dunes and our adaptation alternatives is paramount. Both of these issues are discussed in greater detail in the Shoreline Management Element and the Coastal Resiliency and Sea Level Rise Element in Chapter 3.

B. Estuarine Shoreline System

Nags Head is bordered by the Roanoke Sound to the west with approximately 17.28 miles of estuarine shoreline. The Roanoke Sound is part of the larger Albemarle Pamlico estuary system, which is the second largest estuarine ecosystem in the lower 48 states. Within the town's extraterritorial jurisdiction, there are another 7.5 miles of shoreline on Bodie Island owned and managed by the Cape Hatteras National Seashore and approximately 7.5 miles of estuarine shoreline along the various islands in the sound.



Previous Land Use Plans discussed management of ocean and estuarine resources and shorelines, growth pressures, development patterns, and issues. However, there has been a greater urgency to focus on the ocean shoreline due to accelerated erosion that has impacted public infrastructure and private homes. Moving forward, the town should explore and develop an estuarine shoreline management plan that addresses the delicate balance between development, septic systems, stormwater management, water quality, natural ecosystems and habitats, and public health. This portion of the plan will work in conjunction with the specific Character Area Polices contained in Chapter 2 and in the Water Quality Sub-Element.



River Basins within the Albemarle Pamlico Estuary System





1) Wetlands and Marshes

The estuarine shoreline is made up of coastal wetlands and marshes along the sound. These wetlands and marshes work to filter stormwater runoff removing contaminants and pollution as well as providing a buffer against storms and hurricanes. Research shows that salt marshes dissipate wave energy by 50% within the first 7.5 feet and by 95% within 90 feet of the marsh. In addition, coastal wetlands and marshes can trap sediments, helping the shoreline keep up with fluctuating water levels. Just beyond the marshes, submerged aquatic vegetation, which thrives on the sound bottom, provides important habitat and spawning areas for fish, crabs, and other marine life.



Salt marshes and estuaries along the North Carolina coast 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, secondary, and special secondary nursery areas. The estuary adjacent to Nags Head does not contain any of the above nursery system categories. Additional information on the Pasquotank River Basin, Albemarle-Pamlico Estuary System, and the Town's estuarine waters classification (as defined by the NC Division of Environmental Quality) is located in Section 3.3.7 Water Quality.

2) Recreational Uses

The town has a long history of, and commitment to, providing public access to the estuarine waters. People are drawn to the sound to enjoy many water dependent recreational opportunities including fishing, crabbing, hunting, swimming, kayaking, canoeing, kitesurfing, and boating.

The estuarine system is different from the ocean beaches. On ocean beaches the law of free passage applies. This means that individuals can traverse the shoreline up to the seaward toe of the frontal or primary dunes. In the estuarine system, property owners own land to the mean high water mark and the free rite of passage does not generally



apply. Therefore, the public generally accesses the sound at public access sites. There are five sound side public accesses in Nags Head. These include: Jockey's Ridge State Park (off Soundside Road), W. Danube Street (Old Nags Head Cove Subdivision), Harvey Sound Access (6912 S Croatan Hwy/MP 16), Nags Head Estuarine Site (on 64/264 Causeway), and Little Bridge (on 64/264 causeway). These are discussed in greater detail in the Parks and Recreation Element of this plan.

Fisheries are one of the most significant estuarine resources that benefit the regional and state economy. According to the 2016 study entitled the Economic Valuation of the Albemarle-Pamlico Watershed's Natural Resources; these fisheries have an annual economic value of \$1 billion dollars statewide. The commercial fishing industry provides income for residents and stocks many fish markets and restaurants in the region. While not a major contributor to Nags Head's economy, commercial fishing has historically been a mainstay of the culture here. The Town should support and ensure future opportunities to engage in commercial fishing by understanding the town's role in water quality and protection of natural shoreline.



3) Development

Development along and adjacent to the estuarine shoreline is regulated by the town, Coastal Area Management Act, US Army Corps of Engineers, and the National Flood Insurance Program. Depending upon the location and proposed impacts from development, approval by other state agencies may be required. This higher level of oversight is necessary due to the sensitivity of the surrounding ecosystem. Improper development along the estuarine shoreline can result in unregulated stormwater runoff that can pollute, destroy, or degrade adjacent waters, submerged aquatic vegetation (SAV), and wetlands.

The majority of development adjacent to the sound is residential. However, 4.77 miles of the 17.28 mile estuarine shoreline are protected by the Nags Head Woods Preserve and Jockey's Ridge State Park. Only small pockets of commercial development abut the sound. These areas are located around Whalebone Junction and along the Causeway. It is imperative that adequate stormwater controls are in place for large scale commercial and residential development. In addition, the town recognizes the valuable waterfront viewsheds visible from the Causeway and along S. Croatan Highway in the Whalebone Junction Character area. During the community involvement process, this area was identified as unique because it is the only place in town where these types of viewsheds are visible from a vehicle.

These viewsheds work to create a sense of place and gateway into the town. Future development should be designed in a way to maintain and preserve these open, waterfront viewsheds.

Bulkheads and rip-rap are currently the main methods to protect the estuarine shoreline from erosion. While this is appropriate in certain

circumstances, there are other “soft” stabilization methods that maintain the functions of the natural shoreline and marshes. The town should explore these alternative options, often referred to as “living shorelines”, and where they may be successfully utilized.





Section 3: ELEMENTS
3.3. Natural Resources and Resiliency
3.3.1. Environmentally Sensitive Ecosystems and Areas



The goal of the town is to maintain and improve estuarine water quality and natural estuarine functions while providing water based recreation opportunities that do not comprise water quality goals. In the future, a policy priority will be to protect the marshes, submerged aquatic vegetation, and wetlands that make up the natural shoreline through restoration, strategic acquisition, or other appropriate mechanisms. In addition, further research about how climate change and sea level rise will impact these vital ecosystems and our adaptation alternatives is paramount. Continued partnerships with nearby universities and nonprofit agencies will be essential to further identifying risk and making sound scientific based decisions that increase the town’s resiliency.



POLICIES & ACTIONS

- NR-1 Protect natural estuarine shorelines for their capacity to absorb and filter runoff and ability to provide habitat.
 - NR-1a: Develop incentives for the protection of natural shorelines.
 - NR-1b: Develop an estuarine shoreline management plan that establishes policies, procedures, and overall management strategy for the town’s estuarine shoreline.
- NR-2 Utilize constructed “living” shorelines to stabilize and restore estuarine shorelines when feasible.
 - NR-2a: Research, identify and map marsh loss, “soft” stabilization methods that are appropriate for Nags Head’s estuarine shoreline, potential opportunities for land acquisition, potentially restorable wetlands, and mitigation measures for unavoidable impacts to submerged aquatic vegetation (SAV).
 - NR-2b: Develop incentives for utilizing constructed “living” shoreline methods that encourage improved water quality and ecological integrity while reducing shoreline erosion.
 - NR-2c: Develop partnerships with non-profits and universities to design and construct living shoreline demonstration projects within the town.
- NR-3 Support partnerships and programs that work to educate the public on the benefits of natural shorelines.
 - NR-3a: Establish partnerships with NC Sea Grant, the Coastal Studies Institute, the Nature Conservancy, Jockey’s Ridge State Park, and the Coastal Federation to develop and offer education on the benefits of natural shorelines.
 - NR-3b: Develop and distribute educational materials and offer training on natural shorelines. The educational materials should describe how living shorelines are a viable alternative to hardened structures, explain the benefits that natural shorelines provide, and discuss construction methods and permitting guidance.
- NR-4 Preserve important estuarine waterfront viewsheds along the Causeway and in the Whalebone area that contribute to the overall quality of life and sense of place.
 - NR-4a: Identify key waterfront viewsheds and develop incentives or regulations to protect them.



C. Maritime Forest

Nags Head Woods, located in the northwest portion of the town, is a 1,200 acre mature, maritime forest representing one of the few intact maritime forest habitats in North Carolina and on the eastern US coast. Nags Head Woods Ecological Preserve represents a significant percentage of the land area in the town. In addition, Nags Head Woods contains the largest fresh water pond on Bodie Island known as Fresh Pond.

Nags Head Woods has been valued by humans for centuries. Early settlers took advantage of the protection this maritime forest provided from the harsh elements of the barrier island by utilizing the forest for shelter, hunting, and foraging. Now, over 10,000 visitors visit the Nags Head Woods Ecological Preserve each year.

Nags Heads Woods Preserve is primarily owned by The Nature Conservancy with the Towns of Nags Head and Kill Devil Hills owning tracts, along with some private ownership. The Nature Conservancy and the town also co-own a tract of land within the Preserve with a 70% -30% split of property ownership. The town and The Nature Conservancy have a memorandum of understanding (MOU) that designates actions for managing the preserve. However, the parcel owned completely by the Town of Nags Head does not have dedicated nature preserve status and has no regulatory conservation protection. Additionally, there are still parcels in private ownership. In the future, action is needed to better secure these parcels.

Nags Head Woods was designated a National Natural Landmark in 1974. Between 1978 and 1986, the Nature Conservancy acquired about 420 acres in the northern section of the forest with some additional land being donated by property owners. Soon after, the town leased 350 acres to The Nature Conservancy for management. In 1992, the Conservancy and the town of Nags Head jointly acquired an additional 389 acres. In 1997, the town of Nags Head agreed to dedicate nearly 300 acres of Nags Head Woods as a permanent conservation area under the State Nature Preserves Act. In addition, the Town of Kill Devil Hills signed a Memorandum of Understanding with The Nature Conservancy, placing another 100 acres in the forest under cooperative management. The mission of The Nature Conservancy is to conserve the lands and waters on which all life depends.





Nags Head Woods is bordered by Run Hill State Nature Preserve (another active eolian dune) to the North, the Roanoke Sound to the West, and private residential development throughout the remaining borders. The forest is able to thrive partly due to the protection from high wind and salt spray provided by Jockey’s Ridge and Run Hill.

Nags Head Woods Maritime Forest is indicative of a relict “dune and swale” system that can be dated back to 12,000 years ago. The relict dune and swale systems are comprised of a series of sandy ridges and low, wet swales that support approximately 40 seasonal and permanent ponds. These small fresh water ponds are rich with aquatic species, and the diverse topography supports a wide array of plant and animal natural communities.

These natural communities— groupings of plants and animals that depend on each other for vital life processes—at the Preserve include:

- Maritime Deciduous Forest—found on the higher and generally drier dune slopes and ridges; dominant plants include oak, hickory, beech, holly and loblolly pine.
- Maritime Swamp Forest—found in lower and generally wetter valleys (or swales) between the dunes; tree species include sweet gum, black gum, red bay and black willow.
- Maritime Shrub Forest—also found in low, wet swales; these areas are dominated by wild shrubs and grasses.
- Interdunal Ponds—found in especially low swales; the water is so deep that plants cannot survive.
- Brackish Marsh- tidally influenced and typically dominated by *Juncus Roemerianus*, *Spartina Cynosuriodes* or *S. Patens*.

Nags Head Woods is home to more than 550 species of plants, including eight species that are considered rare in North Carolina. More than 100 species of birds, 65 species of land vertebrates, and six species freshwater fish inhabit the various ecosystems within the ecological preserve.

Fresh Pond is a fresh water lake located on the eastern edge of Nags Head Woods, halfway between the Atlantic Ocean and the Roanoke Sound. The northern half of Fresh Pond is located in Kill Devil Hills and the southern half is located in Nags Head. The pond is located very close to the eastern forest boundary and is hydrologically connected to adjacent interdunal ponds. Historically, Fresh Pond has been pumped to supply drinking water to both Nags Head and Kill Devil Hills. However, the pumping is thought to possibly affect the natural hydrologic regime. Since 2009, Fresh Pond is no longer a source of drinking water for Nags Head or the Dare County Regional Water System. While Fresh Pond is no longer a source of potable water, care should be taken to protect the water



quality for potential future use. This will be further addressed in the Municipal Services and Infrastructure Element.

In the future, education is a major policy priority. This includes education of visitors and residents about the rules of use, boundaries, shoreline habitat creation, native and invasive plants, and recreational opportunities within the preserve. In addition, priority should also be given to supporting the successful management and restoration of habitat in the preserve.

The town's position with respect to the Nags Head Woods natural area and to Fresh Pond is to preserve these areas in their natural state and allow only limited public use for passive recreation. This shall include only limited walk-in only access to Fresh Pond and no improved facilities for boating, parking, or swimming. The town will not allow or introduce public access and/or uses into the town-owned portions of Nags Head Woods and/or the Fresh Pond AEC which will degrade and/or supersede the ability to maintain the existing public uses such as the Police Shooting range and the Fresh Pond public water supply.

D. CAMA Areas of Environmental Concern

In 1972, Congress passed the Coastal Zone Management Act, which encouraged states to keep our coasts healthy by establishing programs to manage, protect and promote our country's fragile coastal resources. Two years later, the North Carolina General Assembly passed the landmark Coastal Area Management Act, known as CAMA. CAMA established the Coastal Resources Commission, required local land use planning in 20 coastal, North Carolina counties and provided for a program for regulating development. The North Carolina Coastal Management Program was federally approved in 1978. As a part of this program, the Coastal Resources Commission (CRC) designated "Areas of Environmental Concern" within the 20 coastal counties and set rules for managing development within these areas. An Area of Environmental Concern, or AEC, is an area of natural importance: It may be easily destroyed by erosion or flooding; or it may have environmental, social, economic or aesthetic values that make it valuable to our state. There are fifteen categories of AECs separated into four broad groupings: Estuarine and Ocean System; Ocean Hazard System; Public Water Supplies and Natural and Cultural Resource Areas.

Development within or adjacent to AECs is sensitive and requires extreme care. CAMA issues major, general, and minor permits. Certain city and county governments have been delegated the authority to enforce the state's rules and regulations for a number of environmental programs including CAMA. Therefore, Nags Head administers CAMA regulations for minor permits such as single-family houses. In addition to CAMA regulations in AECs, the Town has additional ordinances for development occurring within



and adjacent to these areas. The Town is not aware of any natural resource areas impacted or lost due to incompatible development.

The Estuarine and Ocean System AEC

The estuarine and ocean system is the coast's broad network of brackish sounds, marshes and surrounding shores. Normally found where rivers and streams meet the ocean, an estuary is a unique and important part of coastal life – a transitional area where fresh and salt water mix. Nags Head is part of the Pasquotank River Basin that is a part of the larger Albemarle – Pamlico Estuarine system. This addressed in greater detail in Section 3.3.7. Water Quality. Permits may be needed for development in the four components of this system:

- **Public Trust Areas**
Public trust areas are the coastal waters and submerged lands that everyone has the right to use for activities such as boating, swimming or fishing. These areas often overlap with estuarine waters, but they also include many inland fishing waters. The following lands and waters are considered public trust areas:
 - all waters of the Atlantic Ocean and the lands underneath, from the normal high water mark on shore to the state's official boundary three miles offshore;
 - all navigable natural water bodies and the lands underneath, to the normal high watermark on shore (a body of water is considered navigable if you can float a canoe in it). 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.
- **Estuarine Waters**
Estuarine waters are the state's oceans, sounds, tidal rivers and their tributaries, which stretch across coastal North Carolina and link to the other parts of the estuarine system: public trust areas, coastal wetlands and coastal shorelines. Estuarine waters are the dominant component and bonding element of the entire estuarine and ocean system, integrating aquatic influences from both the land and the sea. Estuaries are among the most productive natural environments of North Carolina. They support the valuable commercial and sports fisheries of the coastal



area which are comprised of estuarine dependent species such as menhaden, flounder, shrimp, crabs, and oysters. These species must spend all or some part of their life cycle within the estuarine waters to mature and reproduce. Of the 10 leading species in the commercial catch, all but one are dependent on the estuary.

- **Coastal Shorelines**
Coastal shorelines include both estuarine and public trust shorelines. Estuarine shorelines are those non-ocean shorelines extending from the normal high water level or normal water level along the estuarine waters, estuaries, sounds, bays, fresh and brackish waters, and public trust areas for a distance of 75 feet landward. Public trust shorelines are those non-ocean shorelines immediately contiguous to public trust areas located inland of the dividing line between coastal fishing waters and inland fishing waters extending 30 feet landward of the normal high water level or normal water level.

Development within coastal shorelines influences the quality of estuarine and ocean life and is subject to the damaging processes of shoreline erosion and flooding. The coastal shorelines and wetlands contained within them serve as barriers against flood damage and control erosion between the estuary and the uplands. Coastal shorelines are the intersection of the upland and aquatic elements of the estuarine and ocean system, often integrating influences from both the land and the sea in wetland areas. These areas are among the most productive natural environments and support the functions of and habitat for many valuable commercial and sport fisheries of the coastal area. Many land-based activities influence the quality and productivity of estuarine waters. Some important features of the coastal shoreline include wetlands, floodplains, mud and sand flats, forested shorelines and other important habitat areas for fish and wildlife. These are discussed in greater detail in Section 3.3.1 Environmentally Sensitive Ecosystems and Areas A. Ocean Shoreline System and B. Estuarine Shoreline System.

- **Coastal Wetlands**
Coastal wetlands are defined as any salt marsh or other marsh subject to regular or occasional flooding by tides, including wind tides, that reach the marshland areas through natural or artificial watercourses (provided this does not include hurricane or tropical storm tides). The unique productivity of the estuarine and ocean system is supported by detritus (decayed plant material) and nutrients that are exported from the coastal wetlands. Without the wetlands, the high productivity levels and complex food chains typically found in the estuaries could not be maintained.



Additionally, coastal wetlands serve as barriers against flood damage and control erosion between the estuary and uplands.

The Ocean Hazard System AEC

The Ocean Hazard System is composed of those AECs that are considered natural hazard areas along the Atlantic Ocean shoreline where, because of their special vulnerability to erosion or other adverse effects of sand, wind, and water, uncontrolled or incompatible development could unreasonably endanger life or property. Ocean hazard areas include beaches, frontal dunes, inlet lands, and other areas in which geologic, vegetative and soil conditions indicate a substantial possibility of excessive erosion or flood damage. The Ocean Hazard System is made up of oceanfront lands and the inlets that connect the ocean to the sounds. There are two ocean hazard AECs- ocean erodible AEC and inlet hazard AEC.

- **Ocean Erodible Area**

The ocean erodible area where there is the substantial possibility of excessive erosion and significant shoreline fluctuation. The oceanward boundary of this area is the mean low water line. The landward extent of this area is the distance landward from the first line of stable and natural vegetation to the recession line established by multiplying the long-term annual erosion rate times ninety (90); provided that, where there has been no long-term erosion or the rate is less than two feet per year, this distance shall be set at 180 feet landward from the first line of stable natural vegetation. For the purposes of this Rule, the erosion rates are the long-term average based on available historical data. The current long term average erosion rate data for each segment of the North Carolina coast is depicted on maps entitled "2019 Oceanfront Setback Factors & Long-Term Average Annual Erosion Rate Update Study " and approved by the Coastal Resources Commission on February 29, 2019 (except as such rates may be varied in individual contested cases or in declaratory or interpretive rulings). In all cases, the rate of shoreline change shall be no less than two feet of erosion per year. The maps are available from any Local Permit Officer or the Division of Coastal Management on the internet at <http://www.nccoastalmanagement.net>. Issues specific to the Ocean erodible area in Nags Head is discussed in depth in Section 3.3.6 Shoreline Management.

- **Inlet Hazard Area.** The inlet hazard areas are natural-hazard areas that are especially vulnerable to erosion, flooding, and other adverse effects of sand, wind, and water because of their proximity to dynamic ocean inlets. These areas are established through a report that is approved by the Coastal Resources Commission. There are no inlet hazard areas in Nags Head.



The Public Water Supply AEC

The public water supply AEC includes valuable small surface water supply watersheds and public water supply well fields. These vulnerable, critical water supplies, if degraded, could adversely affect public health or require substantial monetary outlays by affected communities for alternative water source development. Uncontrolled development within the designated boundaries of a watershed or well field site could cause significant changes in runoff patterns or water withdrawal rates that may adversely affect the quantity and quality of the raw water supply. Also, incompatible development could adversely affect water quality by introducing a wide variety of pollutants from homes, businesses, or industries, either through subsurface discharge, surface runoff, or seepage into the vulnerable water supply. Fresh Pond has been designated as a public water supply AEC by CAMA and noted as a Significant Natural Areas Character Area in Section 2.9 of the plan.

Natural and Cultural Resource AECs

Natural and cultural resource areas are defined as areas containing environmental, natural or cultural resources of more than local significance in which uncontrolled or incompatible development could result in major or irreversible damage to natural systems or cultural resources, scientific, educational, or associative values, or aesthetic qualities. There are four types of natural and cultural resources AEC's: coastal complex natural areas, coastal areas that sustain remnant species, unique coastal geologic, and significant coastal archaeological resources and significant coastal historical archeological resources. In Nags Head, Jockey's Ridge has been designated as a unique coastal geologic formation and is identified by this plan as a Significant Natural Area Character Area as detailed in Section 2.9.



E. Jockey's Ridge State Park

Nags Head is also home to Jockey's Ridge, the tallest natural sand dune system in the eastern United States. Jockey's Ridge encompasses 426 acres and is bordered by Nags Head Woods to the north and Roanoke Sound to the east touching both the maritime and estuarine shoreline system.

Jockey's Ridge became a State Park in 1975, following local outcry and concern over potential development of this treasure. Now, over 1.3 million people visit the park each year.

Jockey's Ridge varies in height from 80-100 feet depending on the weather conditions.



Shifting maritime winds blow sand in different directions constantly changing the shape and size of the dune. Jockey's Ridge is an example of a medano or a huge hill of shifting sand that lacks vegetation. While there are several examples of this type of sand dune in the area, Jockey's Ridge is the largest and most spectacular.

In addition to the dune system, the park also contains two other important ecosystems in the town: the maritime thicket and Roanoke Sound:

- The maritime thicket is comprised of live oaks, persimmons, red cedars, wax myrtles, bayberry, red oaks, and pines. This area is able to thrive due to the height of the dune that provides protection from the wind and salt that blows off the ocean. While this ecosystem is protected, the effects of the wind and salt stunt the growth of trees causing them to look more like shrubs. This area also provides habitat for animals like rabbits, fox, and deer.
- The Roanoke Sound Estuary habitat is located on the far western portion of the park. It is a rich habitat for plants, birds, and marine life. Many species of marsh grasses such as big cordgrass, black needles rush, marsh elder, and several types of sedges can be observed here. Bird life is abundant here in the late summer and fall when large numbers of migrating birds travel south.

A public sound access is situated on the western side of the park off Soundside Road. The public sound access is part of the state park property and partially maintained by the town.



Section 3: ELEMENTS
3.3. Natural Resources and Resiliency
3.3.1. Environmentally Sensitive Ecosystems and Areas



The town's responsibility currently is to help maintain the property through trash collection, grass mowing, and traffic management along Soundside Road. The soundside access off Soundside Road is the most heavily used due to its sandy beach that makes it a great place to swim and relax. During "red flag" days where the ocean is too rough to swim, many people flock to the soundside access to enjoy the water. While this is great alternative, this often creates traffic management issues along Soundside Road.

In the future, the town is committed to continued partnership with the state park service to sustainably manage the public sound access located off Soundside Road on the sound side of the park. In addition, there are many opportunities for partnership between the town and the Park for environmental education of both visitors and residents.



POLICIES & ACTIONS

- NR-5** Engage the public in sustained and coordinated efforts to increase awareness and encourage individual stewardship of Nags Head Woods Preserve through educational efforts.
- NR-5a:** Develop a joint education and outreach effort to develop greater awareness of rules of use and boundaries of Nags Head Woods Preserve in an effort to maintain ecosystem function.
 - NR-5b:** Conduct targeted environmental education efforts regarding sustainable use, habitats, and ecosystem services of Nags Head Woods Preserve.
 - NR-5c:** Promote educational and recreational opportunities in Nags Head Woods Preserve through social media.
- NR-6** Protect important natural habitats and ecosystems ensuring improvements associated with development minimize impacts to natural resources and Areas of Environmental Concern (AEC's).
- NR-6a:** Seek dedicated nature preserve status or regulatory conservation protection for town owned property in Nags Head Woods Preserve.
 - NR-6b:** Partner with the Nature Conservancy to purchase or preserve through easements the remaining vacant parcels in private ownership in Nags Head Woods Preserve.
- NR-7** Enhance the partnership between the town and the Nature Conservancy in order to achieve mutual goals for the protection and promotion of the Nags Head Woods Ecosystem.
- NR-7a:** Partner with the Nature Conservancy to explore additional opportunities for passive recreation in Nags Head Woods. This includes a coordinated effort between the Towns of Nags Head and Kill Devil Hills and the Nature Conservancy to allow limited access to the Fresh Pond for passive recreation while maintaining water quality through protection of the water source.
 - NR-7b:** Coordinate with the Nature Conservancy to update a Fire Management Plan for Nags Head Woods.
 - NR-7c:** Promote the cultural, historical, and natural resources in Nags Head Woods through wayfinding and interpretive signage or interpretive apps or other innovative media by partnering with the Nature Conservancy to develop and install appropriate signage.



POLICIES & ACTIONS

- NR-7d: Establish an annual meeting with the Nature Conservancy to discuss mutual goals and management issues.
- NR-7e: Engage in dialogue with TNC and other education partners to continue successful education programs in Nags Head Woods Preserve.
- NR-8 Enhance the partnership with Jockey's Ridge State park in order to achieve mutual goals for the protection and promotion of the park.
 - NR-8a: Conduct maintenance as needed for the upkeep of the sound access off of Soundside Road.
 - NR-8b: Partner with Jockey's Ridge State Park to identify common education efforts and work together to conduct environmental education as opportunities arise.
- NR-9 Preserve Nags Head Woods and Fresh Pond in their natural state and allow only limited public use for passive recreation. This shall include only limited walk-in only access to Fresh Pond and no improved facilities for boating, parking, or swimming. The town will not allow or introduce public access and/or uses into the town-owned portions of Nags Head Woods and/or the Fresh Pond AEC which will degrade and/or supersede the ability to maintain the existing public uses such as the Police Shooting range and the Fresh Pond public water supply.



3.3.2. SOILS

Sandy beach deposits underlain by sandy and silty estuarine deposits dominate the soils of Nags Head. The sands and interbedded sands and silts comprise the surficial aquifer. Underneath the sands and silty sands lies a compact clay layer that represents the bottom of the surficial aquifer. The clay layer was likely deposited in an offshore environment or estuarine mud flat. In general, the predominant surface soil textures are sand and fine sand, with minor muck. As a result, average permeabilities are very rapid ranging from 12 to greater than 20 inches per hour. The permeabilities in the muck are typically less than 3 inches per hour, but this represents a small portion of the study area, west of Nags Head Woods.

The surficial soils are almost exclusively sands with some organic soils in the marshes on the sound side (Daniels et al., 1999). The beach-foredune unit is comprised of sands and follows the eastern coast of Bodie Island and the Nags Head study area. Toward the western side of the island and Roanoke Sound, Newhan fine sand, Newhan-Corolla complex, Duneland-Newhan complex, and Newhan-Urban Land complex soils become prevalent. All these soil types are well drained sands with the exception of the urban complex, which typically represents impermeable surfaces. Other soil types include the Duckson fine sand and the Corolla-Duckson complex, which are also well-drained sands. The marsh soils adjacent to Roanoke Sound are comprised of Carteret sands and Hobonny organic marsh soils. The Nags Head Woods are comprised primarily of Fripp fine sands. South of Nags Head Woods and north of the Whalebone, Duneland sands are also prominent (USDA, 1977).

All on site waste water treatment systems are regulated by the State of North Carolina. Limitations for on site waste water treatment systems in Nags Head are usually due to the following factors:

- A. Soil- Drain field disposal capacity usually falls within .5 to 1.2 gallons per square foot. The long term acceptance rate used in specifying the area of the bottom of drain field trenches is also a factor. This rate usually depends on water table measurements and soil type(s) which vary through the Town.
- B. Lot Size- The lot size limit will limit the allowable flow design based on the level and type of treatment approval from the local health department.
- C. Setbacks- Setback requirements such as property lines, wells and structures



3.3.3. HAZARD MITIGATION

The Town of Nags Head is vulnerable to a wide range of natural and man-made hazards. These hazards threaten the life and safety of residents and visitors, and have the potential to damage or destroy both public and private property and disrupt the local economy and overall quality of life. Natural hazards are a part of the world in which we live. These include floods, hurricanes, tornadoes, winter storms, wildfires, and other hazardous events. Natural hazards are inevitable and there is little humans can do to control their force and intensity. However, how the natural and the built environments interact with hazards is quite different. The natural environment is amazingly recuperative from the forces of nature and can regenerate with resiliency, restoring habitat and ecosystems in time for the next generation of plant and animal life to begin. The built environment, however, is not as resilient. Natural disasters occur when human activities in the form of buildings, infrastructure, agriculture and other land uses are located in the path of the destructive forces of nature. Since the built environment is more susceptible to natural hazards and cannot recuperate like the natural environment, communities impacted by a natural hazard often recover only over a long period of time and at great social and economic cost.

In recent years, the frequency and impact of natural disasters has increased because more people are choosing to live and work in locations that put them and their property at risk.

As a result, risk of disasters occurring in the wake of natural hazards has grown exponentially. Likewise, while floods have caused a greater loss of life and property and have disrupted more families and communities than all other natural hazards combined, the rate of development in flood-prone areas continues to escalate, putting more people and property in danger.





In addition to natural hazards, the town is vulnerable to man-made hazards. Man-made hazards can be categorized as technological hazards or terrorism. FEMA Guide 386-7 “Integrating Man-made Hazards into Mitigation Planning” provides the following definitions: Technological hazards refer to the origins of incidents that can arise from human activities such as the manufacturing, transportation, storage and use of hazardous materials. Terrorism refers to the use of Weapons of Mass Destruction (WMD), including biological, chemical, nuclear and radiological weapons; arson, incendiary, explosive and armed attacks; industrial sabotage and intentional hazardous materials releases; and “cyber-terrorism.”

With the increase in man-made hazard events in recent years, the need to incorporate these new threats into mitigation planning is becoming more and more evident. Events such as the 1995 bombing of the Murrah Federal Building, the 1996 Olympic Park Bombing, the 2001 Anthrax attacks, the 2001 hazardous materials train derailment, the September 11th attacks on Washington and New York, the 2002 Beltway sniper attacks, the 2009 mass casualty shooting at Fort Hood, the 2012 Sandy Hook shootings, the 2013 Boston Marathon Bombing, and a multitude of smaller-scale incidents and accidents reinforce the need for communities to reduce their vulnerabilities to future terrorist acts and technological disasters.

While natural and man-made hazards cannot be prevented, local communities can use various means to reduce the vulnerability of people and property to damage. Communities can reduce exposure to future natural hazards by managing the location and characteristics of both the existing and future built environment. By utilizing location and construction techniques, a community can mitigate negative impacts and reduce future damage to both human lives and property.

Hazard mitigation is defined as “any action taken to eliminate or reduce the long-term risk to human life and property from natural and technological hazards.” Mitigation activities are ongoing and overlap all phases of emergency management.

Local hazard mitigation planning is the process of organizing community resources, identifying and assessing hazard risks, and determining how to best minimize or manage those risks. This process results in a hazard mitigation plan that identifies specific mitigation actions, each designed to achieve short-term planning objectives as well as a long-term community vision.

The primary objective of the Town of Nags Head related to hazard mitigation is to reduce, to the extent possible, damage to life and property from hurricanes, severe coastal storms, and the other hazards identified in this plan. To support this objective, the following goals will serve to guide the development of mitigation strategies and policies:



Mitigation planning offers many benefits, including:

- Saving lives and property;
- Saving money;
- Speeding recovery following disasters;
- Reducing future vulnerability through wise development and post-disaster recovery and reconstruction;
- Expediting the receipt of pre-disaster and post-disaster grant funding; and
- Demonstrating a firm commitment to improving community health and safety.

Typically, mitigation planning is described as having the potential to produce long term and recurring benefits by breaking the repetitive cycle of disaster loss. A core assumption of hazard mitigation is that pre-disaster investments will significantly reduce the demand for post-disaster assistance by lessening the need for emergency response, repair, recovery, and reconstruction. Furthermore, mitigation practices will enable local residents, businesses, and industries to re-establish themselves in the wake of a disaster, getting the community economy back on track more quickly and with less interruption.

The benefits of mitigation planning go beyond solely reducing hazard vulnerability. Measures such as the acquisition or regulation of land in known hazard areas can help achieve multiple community goals, such as preserving open space, maintaining environmental health, and enhancing recreational opportunities. Thus, it is vitally important that any local mitigation planning process be integrated with other concurrent planning efforts, and any proposed mitigation strategies must take into account other existing community goals or initiatives that will help complement or hinder their future implementation.

A. Hazards

Nags Head is vulnerable to a wide range of natural and manmade hazards that threaten life and property. A rating system that evaluates the potential for occurrence for each identified threat is provided below. The hazards identified in Table 3.3.2.A were determined to be of concern for the town, even if only a low probability of occurrence.

Table 3.3.2.A: Hazards Affecting Nags Head		
Natural Hazards		Manmade Hazards
Hurricanes	Erosion	Transportation/Infrastructure Impacts
Tropical Storms	Drought/Heat Wave	Active Shooter/Mass Casualties
Nor'easters	Earthquakes	Cyber Attacks



Table 3.3.2.A: Hazards Affecting Nags Head		
Natural Hazards		Manmade Hazards
Floods	Landslides/Sinkholes	Pandemic Events
Tornadoes	Tsunami	Public Health Events
Winter Storms	Dam/Levee Failure	Terrorism
Sea Level Rise	Rip Currents	

Table 3.3.2.A.I ranks the hazards that could affect the town according to several measures:

- Likelihood of Occurrence estimates the likelihood of each type of hazard occurring in the Albemarle Region.
 - Highly likely = near 100% probably in the next year.
 - Likely = between 10 and 100% probability in the next 100 years.
 - Possible = between 1 and 10% probability in the next year, or at least one chance in the next 100 years.
 - Unlikely = Less than 1% probability in the next year, or at least one chance in the next 100 years.
- Intensity Rating- varying levels of potential intensity using relative terms high, moderate, and low.
- Impacts describe a combination of the severity of the event, its magnitude, and the density of human activity in the affected areas.
 - Catastrophic= >50% magnitude, multiple deaths, complete shutdown of critical facilities for >30 days, >50% of property is severely damaged.
 - Critical= 25% to 50% magnitude, multiple severe injuries, complete shutdown of critical facilities for >13 days, >25% of property is severely damaged.
 - Limited= 10% to 25% magnitude, some injuries, complete shutdown of critical facilities for >7 days, >10 % of property is severely damaged.
 - Negligible= <10% magnitude, minor injuries, shutdown of critical facilities for <24 hours, <10% of property is severely damaged.



Table 3.3.2.A.1: Hazards Ranking

Hazard Type	Likelihood of Occurrence [1]	Intensity Rating [2]	Impacts [3]	Conclusion Rank
Earthquake	Unlikely	Low	Negligible	2
Floods	Highly Likely	High	Critical	5
Hurricanes	Highly Likely	High	Catastrophic	5
Land Slides	Unlikely	Low	Negligible	1
Nor'easters	Highly Likely	High	Critical	4
Thunderstorms	Highly Likely	Moderate	Negligible	2
Tornadoes	Possible	Moderate	Limited	3
Wildfires	Likely	Moderate	Limited	4
Winter Storms	Likely	Moderate	Limited	3
Dam/Levee Failure	Unlikely	Moderate	Limited	2
Tsunami	Unlikely	High	Critical	1
Erosion	Highly Likely	Moderate	Critical	5
Rip Currents	Highly Likely	High	Limited	3
Drought	Unlikely	Low	Negligible	1
Bridge Collapse	Possible	Moderate	Critical	3
Transportation Infrastructure Impacts	Possible	Moderate	Critical	3
Terrorism Event	Unlikely	Low	Negligible	1
Active Shooter/Mass Casualties	Possible	Moderate	Critical	3
Cyber Security Attacks	Likely	High	Critical	4
Pandemic Event	Unlikely	Moderate	Critical	1
Public Health Event	Possible	Moderate	Critical	2
NOTES: [1] Highly Likely, Likely, Possible, Unlikely [2] Relative terms [3] Catastrophic, Critical, Limited, Negligible				

B. Vulnerability

Vulnerability is defined as the extent to which people experience harm and property damage from a hazard. This section provides an overview of vulnerability by discussing the physical layout, existing development, and hazardous locations.

The following provides an overview of development vulnerability with respect to non-specific hazards throughout the Albemarle Region:



1) Dare County Existing Vulnerability

Table 3.3.2.B: Dare County Vulnerability						
Location	Developed			Undeveloped		
	# of Parcels	Acreage	Total Value	# of Parcels	Acreage	Total Value
Dare County (Unincorporated)	10,968	28,175	\$ 4,134,129,900	5,917	191,658	\$ 972,636,700
Duck	2,226	1,063	\$ 1,413,368,100	455	232	\$ 76,731,100
Kill Devil Hills	5,775	1,974	\$ 1,752,751,900	1,177	1,140	\$ 162,041,100
Kitty Hawk	2,502	1,792	\$ 920,425,300	991	2,865	\$ 91,706,900
Manteo	746	440	\$ 414,007,600	284	611	\$ 32,398,300
Nags Head	4,484	2,636	\$ 2,098,215,800	1,013	6,082	\$ 266,585,500
Southern Shores	2,411	1,671	\$ 1,178,210,700	619	544	\$ 122,646,700

2) Dare County Future Vulnerability

Currently, Dare County does not have the future land use information required to perform a detailed analysis of potential future conditions in relation to the non-specific hazard area. The County will continue to work on improving its GIS capabilities and aim to incorporate this element into future updates of this plan.

C. Flooding & Storm Surge

The Town of Nags Head is vulnerable to flooding from heavy rain events, hurricanes, tropical storms, and nor'easters. Flooding during hurricanes, tropical storms, and nor'easters impacts the ocean and estuarine shorelines, as well as adjacent development, which are vulnerable to the impacts of storm surge.

Maps included in the Appendix, Section 5.3, graphically depict the Sea, Lake and Overland Surge from Hurricanes (SLOSH) model runs for both slow moving and fast moving Hurricanes. SLOSH is a computerized model run by the National Weather Service to estimate storm surge heights resulting from hypothetical hurricanes by taking into account the maximum of various category hurricanes as determined by pressure, size, forward speed and sustained winds. Storms are categorized into three groups - Category 1&2, Category 3 and Category 4&5- for both fast and slow approaches. The SLOSH model should be seen as defining the "worst case scenario" of potential maximum surge for particular locations as opposed to the regional impact of one singular storm surge event. While there are varying areas of inundation for the slow moving and fast moving storm as described below, there is little variation in depth of flooding. For a Category 1 storm, depth of flooding, as described below, is primarily less than 3 feet. Limited Areas of the marsh adjacent to the Roanoke Sound are show to have 3 foot or greater depths.



For a Category 2 Storm, 3 foot or less of inundation extends extensively between US 158 and Hwy 12 from the northern line to Whalebone. Along Soundside Road, areas near West Seachase Drive, areas near West Baymeadow Drive, and Whalebone Junction inundation is shown to be 3' or less and connect ocean to sound. In south Nags Head, 3' or less inundation is primarily along the ocean front and properties adjacent to the sound. Areas greater than 3 foot of inundation but less than 6 foot are centered around Soundside Road, south of Forbes Street to Whalebone, and along the sound, west of Old Oregon Inlet Road in South Nags Head. Greater than 6 foot of inundation will affect areas adjacent to the sound and in the marshes adjacent to the sound.

For a Category 3, 4, and 5, inundation greater than 6 foot is largely between the highways. There are areas, as described below, where inundation connects ocean to sound. In south Nags Head, inundation greater than 6 will affect properties west of Old Oregon Inlet Road. There are small pockets of inundation of greater than 9 feet along Soundside Road, the area along the sound near Whalebone, and the marshes in Nags Head Woods and South Nags Head. It should be noted that for a Category 5 storm, the Causeway, Forbes Street south to Whalebone, and the areas west of Old Oregon Inlet Road area shown to have 9 feet or greater inundation.

SLOSH- Slow Moving

In areas north of Jockey's Ridge during a slow moving storm of a Category 1, 2, or 3 storm surge is limited to areas east of Hwy 158 or areas directly adjacent to the Sound. In the same area during a slow moving storm of a Category 4 and 5, inundation impacts neighborhood areas west of Hwy 158. Areas of inundation south of Jockey's Ridge during a slow moving Category 1, 2, and 3 storm surge are more extensive. Along Soundside Road, areas near West Seachase Drive, areas near West Baymeadow Drive, and Whalebone Junction inundation is shown to connect ocean to sound. There are small pockets or "islands" of high ground between Jockey's Ridge and Whalebone that are located west of Hwy 158 and are shown as not inundated during a Category 1-5 Storm. In this same area, there appears to be an area of high ground, east of Hwy 12, that is only inundated during a Category 4 or 5 storm event. For areas located in South Nags Head, a Category 1 and 2 storm inundates properties on the western portion of Hwy 12 completely. In certain portions of south Nags Head, inundation crosses across Hwy 12 to properties on the east side of Hwy 12. Properties on the east side of Hwy 12 are more greatly affected by Category 3, 4, and 5 Storms. There is a "pocket" of higher ground directly adjacent to the frontal dune that is not shown as being inundated by a Category 1, 2, 3, 4, or 5 storm.

SLOSH- Fast Moving



In areas north of Jockey’s Ridge during a fast moving storm of a Category 1 or 2 storm surge inundation is located primarily on properties adjacent to Hwy 12 or areas directly adjacent to the Sound. In this same area, inundation, for a Category 3 storm, extends from the Memorial Ave. vicinity west to properties adjacent to Hwy 158. In the same area during a fast moving storm of a Category 4 and 5, inundation impacts neighborhood areas west of Hwy 158. Areas of inundation south of Jockey’s Ridge during a fast moving Category 1, 2, and 3 storm surge are more extensive. Along Soundside Road, areas near West Seachase Drive, areas near West Baymeadow Drive, and Whalebone Junction inundation is shown to connect ocean to sound. There are small pockets or “islands” of high ground between Jockey’s Ridge and Whalebone that are located west of Hwy 158 and are shown as not inundated during a Category 1-5 Storm. In this same area, there appears to be an area of high ground, east of Hwy 12, that is only inundated during a Category 4 or 5 storm event. For areas located in South Nags Head, a Category 1 and 2 storm inundates properties on the western portion of Hwy 12 completely. In certain portions of south Nags Head, inundation crosses across Hwy 12 to properties on the east side of Hwy 12. Properties on the east side of Hwy 12 are more greatly affected by Category 3, 4, and 5 Storms. There is a “pocket” of higher ground directly adjacent to the frontal dune that is not shown as being inundated by a Category 1, 2, 3, 4, or 5 storm.

The following Table 3.3.2.C provides an overview of existing conditions for portions of Dare County that are impacted by potential storm surge generated by both slow and fast approaching storms.

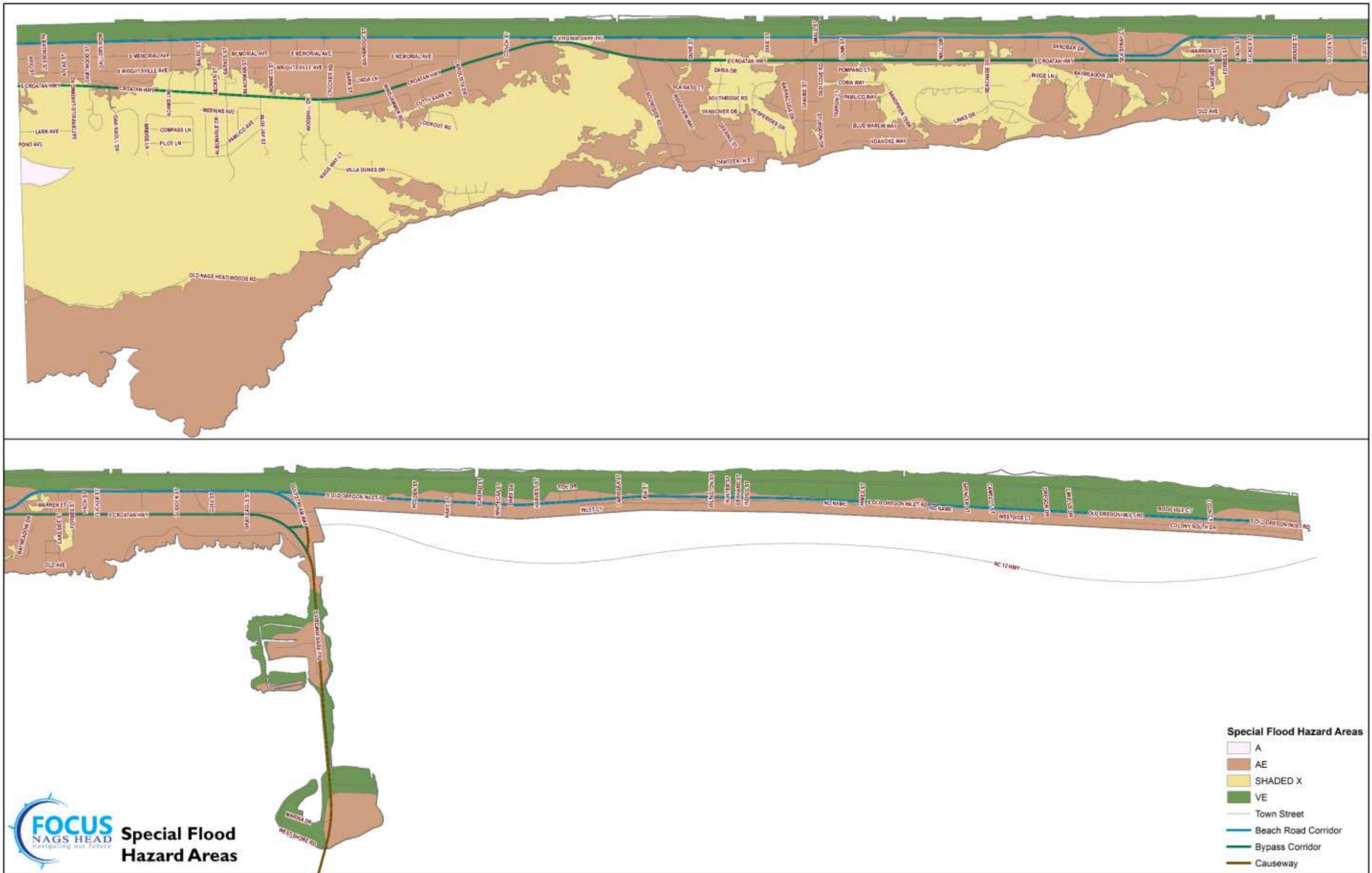
Table 3.3.2.C: Vulnerability to Storm Surge						
Developed Land						
	Hurricane Storm Surge Category					
	Cat 1-2 Slow	Cat 3 Slow	Cat 4-5 Slow	Cat 1-2 Fast	Cat 3 Fast	Cat 4-5 Fast
# of Parcels	13,962	4,292	8,188	12,248	9,390	4,016
Acreage	20,841	5,414	10,482	31,215	3,630	1,724
Building Value (\$)	\$2,633,947,500	\$786,698,900	\$1,974,548,600	\$2,846,411,600	\$1,649,638,000	\$777,027,200
Total Assessed Value (\$)	\$4,675,451,800	\$1,752,163,000	\$4,619,689,400	\$6,322,145,900	\$3,144,768,200	\$1,394,292,000
Undeveloped Land						
	Hurricane Storm Surge Category					
	Cat 1-2 Slow	Cat 3 Slow	Cat 4-5 Slow	Cat 1-2 Fast	Cat 3 Fast	Cat 4-5 Fast
# of Parcels	6,002	1,305	2,353	5,953	2,300	1,203
Acreage	101,270	38,285	8,388	199,858	2,088	1,231



Total Assessed Value	\$566,287,500	\$560,970,900	\$508,811,700	\$1,252,873,700	\$270,208,100	\$117,207,400
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Flooding also impacts many areas of the town with low ground elevations and/or high groundwater tables. The town has experienced significant ponding, as much as 3 feet in some areas of town, during heavy rainfall events due to limited drainage features, flat topography, and high groundwater elevations. A high groundwater table prevents infiltration of rainfall and stormwater. Flooding not only causes public safety hazards due to flooded roadways but a public health hazard if septic tanks and drain fields become covered. Stormwater is discussed in greater detail in Section 3.8.5 Stormwater Management. Additionally, high groundwater tables and water quality issues are discussed in more depth in Section 3.3.7, Water Quality.

The State of North Carolina, through the Federal Emergency Management Agency’s (FEMA’s) Cooperating Technical Partnership, has assumed primary ownership and responsibility of the Flood Insurance Rate Maps (FIRMs) for all North Carolina communities. The FIRM maps depict the 1% annual chance of flooding (i.e. there is a 1% chance in any given year that the town will experience a 100-year flood event) in the Town of Nags Head. These are called Special Flood Hazard Areas. There are two types of Special Flood Hazard Areas in the town; the VE zone and the AE zone. The AE zone includes areas subject to flooding from the 100-year storm event. The VE zone includes areas subject to flooding from the 100-year storm event as well as wave action of three feet or more.





The town also includes areas vulnerable to flooding beyond the Special Flood Hazard Areas depicted on the maps. Properties in the X zone are considered to be outside the Special Flood Hazard Area and are not required to have flood insurance nor do they need to meet minimum construction standards. These properties are considered low or moderate risk and have .2% annual chance of flooding. While these areas have a reduced risk, nearly 25% of all flood claims come from properties in an X flood zone.

Areas that are inundated by flooding include:

- Areas along or adjacent to NC 12 including:
 - the Old Post Office site
 - Kitty Hawk Kites/Sports (Casino Outfall)
 - the Ocean Rescue Station at Jockey's Ridge
 - Small Street
 - Eastern portions of the Municipal Complex site
 - E. Gray Eagle Street
- Areas between Highway 158 and NC12
 - Properties between Baltic Street, north to the town line at 8th Street on Wrightsville Ave., Memorial Ave., and NC 12.
 - Bonnett Street
 - Engagement Hill Loop, Seven Sisters Subdivision- frequent road flooding
 - Sandbar Drive and Bluewater Dr. -Dolphin Run Subdivision
 - Portions of Old Nags Head Place Subdivision along S. Memorial Ave.
- Areas adjacent to the Sound including:
 - W. Lakeside Street
 - Areas off S. Old Road, Forrest Street, and King Fisher Street
 - Outer Banks Event Site
 - W. Danube Street
 - Properties adjacent to the sound
 - Old Nags Head Cove sound access
 - Soundside Road



- Old Nags Head Cove Subdivision along Roanoke Way, S. Blue Marlin Way, and S. Pamlico Way
- Neighborhoods west of US 158
 - Vista Colony subdivision (northern portion)
 - North Ridge
 - Properties along Lookout Road and Cutty Shark Lane
 - Southridge
 - Deering Street (western portion)
 - Nags Head Acres (southeastern portion)
- South Nags Head
 - Juncos Street vicinity
 - Tides Drive vicinity
 - Areas adjacent to S. Nags Head drainage ditch
 - Outer Banks Pier vicinity
- Nags Head/Manteo Causeway (South Virginia Dare Trail/US RT 64/264)
 - Flooding across the road near the estuarine accesses site
 - The east bound and west bound approaches of the “Little Bridge”
 - Areas near Sugar Creek Restaurant
 - Pond Island

The following provides an overview of existing conditions for portions of Nags Head located within a defined flood hazard area. (Zones A, AE and VE):

Table 3.3.2.C.1: Dare County Vulnerability to Flooding

Location	Developed				Undeveloped		
	# of Parcels	Acreage	Building Value	Total Value	# of Parcels	Acreage	Total Value
Dare County (Unincorporated)	9,799	27,412	\$1,849,483,000	\$3,873,104,100	5,344	191,060	\$937,944,100
Duck	1,216	733	\$372,637,600	\$932,482,700	271	166	\$51,863,200
Kill Devil Hills	4,309	1,646	\$734,155,700	\$1,462,959,600	805	963	\$131,322,600
Kitty Hawk	1,785	1,469	\$336,956,800	\$654,080,600	746	2,836	\$67,823,100
Manteo	746	440	\$250,295,600	\$414,007,600	283	611	\$32,326,100
Nags Head	3,620	2,361	\$838,142,400	\$1,831,212,400	821	5,992	\$249,968,100
Southern Shores	1,428	1,156	\$375,004,800	\$813,983,000	373	377	\$87,662,300

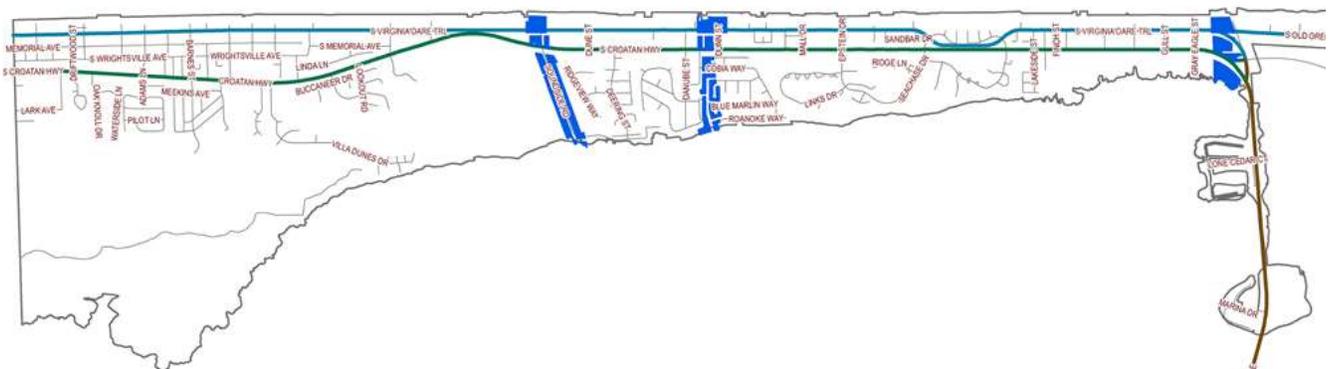
Source: Based on Flood Insurance Rate Maps (FIRMs) adopted on September 20, 2006

D. Incipient Inlets

An incipient inlet is an ocean-to-sound inlet which has the potential form as a result of a severe storm event. Historically, three incipient inlets have been identified in Nags Head. These include:

- Whalebone Junction Incipient Inlet
- Marlin Waterway Incipient Inlet
- South Jockey’s Ridge Incipient Inlet

Figure 8. Incipient Inlet Potential





E. Vulnerability to Sea Level Rise

The impacts of a changing climate, which includes sea level rise, present potentially enormous future challenges to municipalities across the world, especially those with a close connection to the ocean like Nags Head. The Town of Nags Head wants to improve its resilience to preserve the core values and quality of life despite current and future hazards. A resilient Nags Head means our community will be better able to withstand, respond to, and recover rapidly from disruptions due to hazards without long-term damage to our economy or environment. It means the town will ideally require less government and/or private funding to recover, rebuild, and redevelop after a hazard occurs. Sustaining natural systems improves resilience by providing ecosystem services that directly or indirectly support our community's survival and quality of life. As stressors like accelerating sea level rise alter the damage we see from future hazards, it may not be enough to repeat actions the town has used in the past to recover. Therefore, we must identify, study, and implement adaptations – the actions the town, its residents, and business owners need to take to maintain and improve our resilience.

While sea level rise is often thought of as a rise in the ocean height, it has many more impacts on the land than simple inundation (flooding). Sea level is a component of the rates of erosion and can also interact with coastal aquifers, influencing both water table height and salinity. These types of impacts can affect Nags Head long before dry land is permanently flooded. Further, soundside marshes will struggle to migrate eastward and keep pace with the rising sea level and, in places where marsh migration is impeded by development, marsh acreage may be lost.

Sea level rise also adds to storm surge on both ocean and sound sides, not only changing the rate of erosion but also increasing the potential hazards from overwash. In addition, it is possible that a change in sea level may alter the potential risk of an inlet opening during exceptionally severe storm surges.

Higher water tables especially coupled with these type events where sea level increases on top of storm surge, could keep ocean outfalls inundated longer and may slow drainage leading to prolonged flooding in low lying areas. Additionally, chronically higher and saltier water tables may impact septic system function. It is not yet known how severe such impairments would need to be to affect surface water quality.

Resiliency, sea level rise, and adaptation are discussed in greater detail in Section 3.3.4, Coastal Resiliency and Sea Level Rise.



F. Critical Facilities

After a hazard event, it is important to be aware of those facilities that are essential to the health, safety, and viability of the community and general public. The damage or destruction of publicly-owned facilities could disrupt the everyday lives of citizens throughout the town. Critical facilities are defined as those facilities that are essential to the preservation of life and property during a disaster, those that are critical to the continuity of government, those necessary to ensure timely recovery, and those that provide shelter to individuals needing that service. The following is a list of identified critical facilities in the Town of Nags Head:

Facility	Physical Address
Nags Head Municipal Complex & Police Station	5401 S. Croatan Highway
Fire Station #16	5314 South Croatan Hwy
Fire Station #20/Ocean Rescue Station	3719 South Croatan Hwy
Fire Station #21	8806 South Old Oregon Inlet Road
Nags Head Public Works Facilities	2200 Lark Ave
Nags Head Elementary	3100 S Wrightsville Avenue
Nags Head Water Processing Facility/Eighth Street Pump Station	2100 Pond Ave.
Gull Street Pump Station and Water Tank	104 East Gull
Water Tower - S. Nags Head	South Old Oregon Inlet Road
Water Tower - 8th Street	8th Street
Power Transmission Facility	West Lakeside Drive
Outer Banks Hospital	4800 South Croatan Hwy
Outer Banks Medical Center	4917 South Croatan Highway
Peak Resources Nursing Facility	430 Health Center Drive
Village at Nags Head Sewage System	Croatan Highway
Villas Package Plant & Central Sewage System	Villa Dunes Drive
State Roads/Stormwater Outfalls- North Carolina Department of Transportation	Town wide
Dare County Water- Water Main	Parallel to US 158

G. Repetitive Loss Properties

Repetitive loss structures are those that have suffered damage from repeated hazard events. A Repetitive Loss (RL) property is technically defined as any insurable building for which two or more claims of more than \$1,000 were paid by the National Flood Insurance Program (NFIP) within any rolling ten-year period, since 1978. A repetitive loss property may or may not be currently insured by the NFIP. The only reliable source of information on repetitive loss structures is flood insurance claims data available through the NFIP.



3.3.4. MITIGATION STRATEGIES

These focus areas define the various aspects of mitigation, and provide guidance toward the development of a truly comprehensive solution to mitigation planning.

1. Prevention includes regulatory methods such as planning and zoning, building regulations, open space planning, land development regulations, and stormwater management.
2. Property protection actions diminish the risk of structural damage through acquisition of land, relocation of buildings, modifying high-risk structures, and floodproofing high-risk structures.
3. Natural resource protection can soften hazard impacts through mechanisms such as erosion and sediment control or wetlands protection.
4. Emergency services measures include warning and response capabilities, town critical infrastructure protection, and health and safety maintenance.
5. Structural mitigation controls natural hazards through projects such as reservoirs, levees, diversions, channel modifications and storm sewers.
6. Public education includes providing hazard maps and information, outreach programs, real estate disclosures, technical assistance and education.

The following goals will provide the basis for the policies and actions that will be included in this section, some of which are already being administered and implemented:

1. Reduce the risk of loss of life and personal injury from natural hazards.
2. Reduce the risk and impact of future natural disasters by regulating development in known high hazard areas.
3. Maintain critical facilities in functional order.
4. Protect infrastructure from damage.
5. Ensure that hazard mitigation is considered when redevelopment occurs after a natural disaster.
6. Provide education to citizens that empowers them to protect themselves and their families from natural hazards.
7. Fulfill federal and state requirements for receipt of future disaster recovery and hazard mitigation assistance.
8. Improve inter-jurisdictional cooperation and coordination, especially regarding the reduction of natural hazard impacts.



POLICIES & ACTIONS

- NR-10** Protect the public health and safety of the town from natural and manmade hazards through proactive planning and mitigation efforts.
- NR-10a:** Partner with the county, state, and local agencies to develop a special needs registry list.
 - NR-10b:** Coordinate with the Outer Banks Hospital, the Peak Resources nursing care facility, and other special needs populations to develop a policy and procedure for evacuation procedures. Ensure that yearly contact is made, prior to an event, to verify the town's role.
 - NR-10c:** Explore the feasibility of developing a Local Emergency Preparedness Committee (LEPC) to assist in planning, preparedness, response, and mitigation for potential hazards that could affect the town.
- NR-11** Ensure that the town is a disaster resilient community that can survive, recover from, and thrive after a natural or man-made disaster event.
- NR-11a:** Engage the community in the update of the town's Emergency Operations Plan.
 - NR-11b:** Ensure that an emergency transportation route, parallel to US 158, is maintained to provide an alternate route to NC 12 and US 158.
 - NR-11c:** Obtain pre-storm authorization from the NC Department of Transportation (NCDOT) to clear NCDOT maintained roads after storm events.
 - NR-11d:** Enter into an agreement prior to storm events to secure the use of the helipad at the hospital for pre- and post-disaster event needs.
 - NR-11e:** Maintain mutual aid agreements and reevaluate as necessary to continue post-storm assistance with building inspections, damage assessment, utilities repair, public facilities maintenance, and additional public safety personnel. This includes continued participation in the Statewide Mutual Aid Compact.
 - NR-11f:** Obtain debris removal and monitoring agreements on a yearly basis and seek pre-approved temporary disaster-debris management sites with the North Carolina Department of Environmental Quality (NCDEQ).
 - NR-11g:** Continue to exercise inter-local agreements with Dare County and other municipalities for debris management and monitoring.



POLICIES & ACTIONS

- NR-11h: Identify and implement methods to streamline the damage assessment process to provide information to Dare County, the state, and any other agencies assisting the town with recovery efforts. This includes methods to expedite the availability of damage and condemnation information to town staff and the public.
- NR-11i: Explore resilient construction techniques and higher regulatory standards to protect existing and future development from frequent localized flooding events.
- NR-11j: Monitor areas of frequent flooding during regular and major storm events. Maintain and utilize this information to ensure accurate floodplain mapping, educational efforts, and the application of higher regulatory standards (if needed).
- NR-12 Support mitigation projects that reduce the potential damaging effects of hazards on the town.
 - NR-12a: Update and maintain a map of properties that are considered repetitive loss.
 - NR-12b: Assist home and businesses owners in mitigating hazards to their structures through grant funding opportunities, educational efforts, or one-on-one opportunities as they seek permits to complete work.
 - NR-12c: Develop a program to identify businesses and material storage areas where significant amounts of toxic or hazardous products are stored which would be subject to flooding.
- NR-13 Support the town's continued participation in the National Flood Insurance Program (NFIP) and Community Rating System (CRS). Participation in the NFIP is key in making federally backed flood insurance available within the town and to improve the town's CRS rating.
- NR-14 Promote public awareness of risks from natural and manmade hazards through public education programs.
 - NR-14a: Partner with Dare County's Joint Information Section and other neighboring municipalities to develop a process and protocol for informing visitors, residents, and special needs populations of potential hazard events prior, during, and after events. This includes storm-related information as well as evacuation and re-entry. The policy should explore alternative non-traditional methods of information dissemination.



POLICIES & ACTIONS

NR-14b: Enhance and expand the internal processes for providing public information pre, during, and post storm. This includes automated voice messaging system and other means of social media with storm damage and re-entry information, a Mayor's radio broadcast, email broadcasts, improved real-time website information with relevant local contact information, available information at traffic stops, and designation of a post-storm public information officer.

NR-14c: Develop a comprehensive educational outreach program to inform the public and increase awareness on hazards, how to develop and retrofit their properties against hazards, and individual tasks that can help them better prepare and respond to hazards. This should also include targeted educational strategies for repetitive loss properties. Staff should explore alternative options to traditional on-site meetings. This may include increased use of social media, the public access channel, and short videos or handouts.



3.3.5. COASTAL RESILIENCY AND SEA LEVEL RISE

Nags Head's coastal location and environment ensure an abundance of natural resources that make it a highly desirable place to live, work, and visit. While the town's coastal location and environment enhance the quality of life and are key to the economic vitality of the community, it also makes the town vulnerable to a range of hazards including climate change and sea level rise. Vulnerability is the quality or state of having little resistance to some outside agent or the state of being left without shelter or protection against something harmful. Section 3.3.2 Hazard Mitigation, outlines a full list of hazard vulnerabilities in Nags Head.

The impacts of a changing climate, which includes sea level rise, present potentially enormous future challenges to municipalities across the world, especially those with a close connection to the ocean like Nags Head. The town recognizes the need to prepare for future hazards today.

A. Science of Sea Level Rise

1) Potential Impacts of Sea Level Rise

While sea level rise is often thought of as a rise in the ocean height, it has many more impacts on the land than simple inundation (flooding). Sea level is a component of the rates of erosion and can also interact with coastal aquifers, influencing both water table height and salinity. These types of impacts can affect Nags Head long before dry land is permanently flooded. Further, soundside marshes will struggle to migrate eastward and keep pace with the rising sea level and, in places where marsh migration is impeded by development, marsh acreage may be lost.

Sea level rise also adds to storm surge on both ocean and sound sides, not only changing the rate of erosion but also increasing the potential hazards from overwash. In addition, it is possible that a change in sea level may alter the potential risk of an inlet opening during exceptionally severe storm surges.

Higher water tables, especially coupled with these type events where sea level increases on top of storm surge, could keep ocean outfalls inundated longer and may slow drainage leading to prolonged flooding in low lying areas. Additionally, chronically higher and saltier water tables may impact septic system function. It is not yet known how severe such impairments would need to be to affect surface water quality.

2) Measuring the Change in Sea Level

While the ability to predict the exact sea level in 30 years is far from precise, the best available science suggests that sea level rise presents a risk of potentially serious impacts.



There are two scales on which sea level change is discussed: global sea level and relative (local) sea level.

Globally, ocean heat (thermal expansion with warmer water and contraction with cooler water) and the melting of land based ice are the main contributors to sea level. However, of greater concern to Nags Head is relative sea level change, or the difference in elevation between the surface of the ocean and the local land, averaged over time to eliminate the influence of tide and season. This relative sea level change is also influenced by vertical land motion and ocean dynamics in the region. The North Carolina Coastal Resources Commission (CRC) Science Panel 2015 NC Sea Level Rise Assessment Report gives an overview of the scientific causes of the tectonic structural deformation and glacial isostatic adjustment contributing to land subsidence measured in the Albemarle Embayment, the region in which Nags Head lies.

Tide gauges allow the measurement of sea level change over time in a place relative to a datum (a fixed point). The National Oceanic and Atmospheric Administration (NOAA) has two tide gauges near Nags Head for which sea level trends are computed: at the Duck pier on the ocean side, and at the Oregon Inlet Marina on the sound side. Of the two, the data record at the Duck pier is longer and uninterrupted, allowing a trend to be computed more precisely. While the Duck gauge is known to be extremely accurate it still has only been recording data since the 1970's. To understand relative sea level changes further back in history, samples of cores taken from marshes have also allowed scientists to reconstruct proxy data for the last 1,000-2,000 years that correlate with local tide gauge records and support that sea level in coastal North Carolina has been rising.

3) Research

In 2015, the North Carolina Coastal Resources Commission (NC CRC) Science Panel provided projections through 2045 of relative sea level at the Duck and Oregon Inlet tide gauges using linear interpretation of past trends and two greenhouse gas emissions scenarios, the lowest emissions scenario (RCP 2.6) and the highest emissions scenario (RCP 8/5). Greenhouse gas emissions scenarios are necessary to consider potential thermal expansion of water and melt rates of land-based ice due to scenarios of increased global temperature. These projections included vertical land motion, but did not attempt to include localized oceanographic effects that currently have an accelerating effect north of Cape Hatteras (Sallenger et al 2012 etc) because of disagreement in the literature on whether such effects are cyclical or will persist until 2045. The CRC Science Panel did not assign a likelihood to any of these scenarios, however, Kopp et al 2014 conducted a bottom-up analysis of all factors contributing to sea level rise and found that regardless of emissions scenarios it is very likely (probability of 90%) that by 2050 sea levels will rise at Duck between 9.4 and 23.2 inches above 2000 levels, with a median rise (half of scenarios less than, and half of scenarios greater than) of 16 inches. (tables here of mean, low, and



high for each) Kopp et al. 2015 note that these represent average trends over time, and because annual mean relative sea level varies to be higher or lower depending on conditions, sea level may be higher in isolated years even when a long term trend is absent. Such anomalously high sea level years may have shorter term impacts on infrastructure even if those trends do not persist, as in the 2009 anomaly.

Several studies have been produced since the NC CRC science panel report suggesting higher rates of global sea level rise (e.g. Mengel et al 2016). However, differing methodologies to estimate the contributions of land-based ice sheet behavior continue to produce different magnitudes of potential sea level contributions.

B. Adaptation

Coastal hazards like hurricanes, nor'easters and erosion currently affect the Town of Nags Head, and the town is taking actions to reduce the negative impacts of these hazards on town property owners. Over the past 10 years, the State of North Carolina also has begun to study how sea level rise and climate change may impact our coast in the future.

To begin identifying how proactive actions could increase resilience, the town has partnered with North Carolina Sea Grant to conduct a project that explores how sea level rise might impact the town, its infrastructure, economy, and ability to provide services. In order to consider a broad range of possible options, this process focuses on local community knowledge and perspectives on adaptations to potential hazards- including sea level rise.

Adaptations are actions that help the community and ecosystems prepare for and adjust to new conditions brought on by future sea level rise and climate change. Adaptation can be protective (i.e., reduce harm from the negative impacts of hazards) or opportunistic (i.e., take advantage of any beneficial effects of climate change).

Adaptation is an important step in order to become resilient. A resilient Nags Head means the town and its residents:

- Withstand, respond to, and recover rapidly from disruptions without long-term damage to the economy or environment;
- Require less government funding to recover, rebuild and redevelop its communities; and
- Sustain the way that natural systems provide ecosystem services that directly or indirectly support human survival and quality of life.

C. Sea Grant Partnership

In 2015, the Board of Commissioners supported entering into a partnership with NC Sea Grant to conduct an extension project to provide Nags Head with the data, legal, and



policy analysis it needs to understand its vulnerabilities and more effectively plan for the future. This project is rooted in a public process that involves generating community feedback to increase the public's understanding of sea level rise. In a 2015 Board of Commissioners retreat, town staff developed several sea level rise adaptation goals, which this project will help Nags Head begin to address:

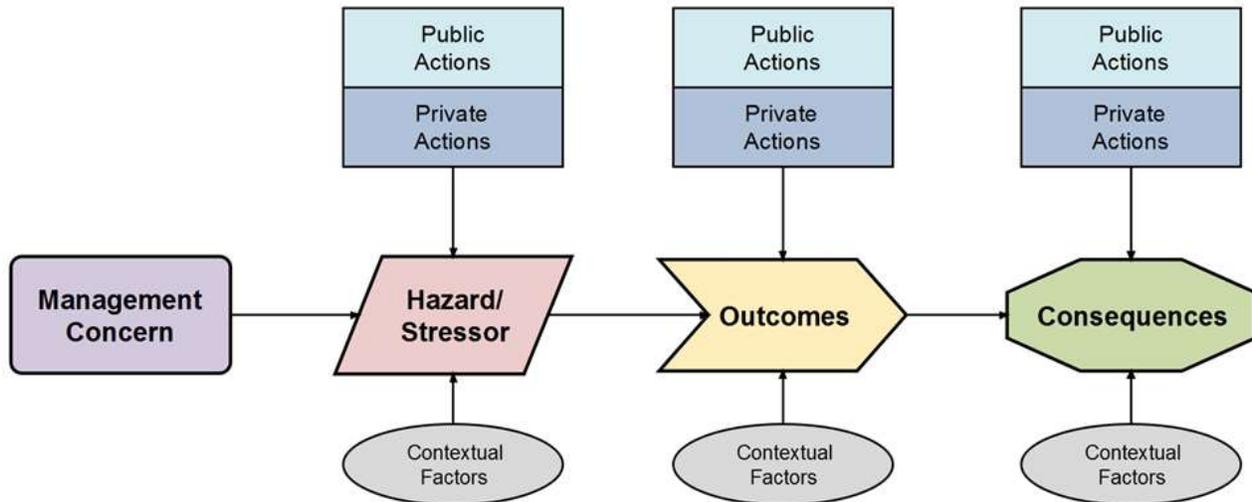
1. Determine the factors that make Nags Head vulnerable;
2. Explore adaptation and mitigation practices that may be used to offset negative impacts of sea level rise at a local scale;
3. Obtain scientific information to enable effective decision making to address threats posed by sea level rise;
4. Identify areas vulnerable to sea level rise;
5. Develop progress toward improving resiliency; and
6. Adopt a risk-based approach in planning policies.

In order to assist in meeting these goals, this project also will help the town to understand the legal and policy implications of adaptation alternatives, including issues of environmental justice. As part of the initial phase of this extension project, North Carolina Sea Grant utilized the Vulnerability Consequences and Adaptation Planning Scenario (VCAPS) process in the summer of 2015. The VCAPS process is intended to help communities become more resilient to hazards including climate change and sea level rise.

In the fall of 2015, Sea Grant staff conducted stakeholder interviews with key members of community, the Board of Commissioners, and staff. On December 7-8, 2015, approximately 60 people participated in a two-day community workshop. This workshop engaged those that participated in the initial stakeholder interviews as well as an open invitation to the community to participate. Participants at the workshop were broken into groups and asked to share how the town and its residents can reduce negative impacts to potential hazards. Through the VCAPS diagramming process, participants were able to communicate what they felt were hazards stressors, outcomes of the hazard stressors, and potential consequences of both of these. In addition, this process further engaged participants in thinking about potential public and private actions to adapt to or mitigate the issues identified. At the end of the two-day workshop, each group had produced a diagram that represents the potential hazards, outcomes, consequences, and public/private actions they felt could impact Nags Head. Following the meetings, interested participants signed up to participate in future planning activities.



Figure 9. VCAPS Diagram



In April 2016, a Climate Adaptation and Sea Level Rise Committee was formed. Later in June, the committee held its first meeting where they reviewed a draft report from the December workshop to ensure the report and diagrams were inclusive and captured the discussion of each of the three groups prior to moving a draft document forward to the Board of Commissioners. The Committee met again in August to review the public and private actions that are part of the draft report and diagrams. The committee worked to consolidate the actions and also engaged in a prioritization exercise. The adaptation actions identified can be generally broken into five main categories: ocean management, estuarine shoreline management, stormwater management, water (ground/surface) management, and an “all issues” category in which the actions were identified by all three groups at the December 2015 meetings.

Based on the prioritization exercise, key next steps for the town include: maintain and expand the Septic Health Initiative, on-going monitoring of erosion rates, development of a comprehensive education and outreach program on resiliency and sea level rise, development of an estuarine shoreline management plan, and development of a plan for adaptation that includes a suite of sea level rise scenarios.



Table 3.3.4.C: Sea Grant Implementation	
Date	Task
Early 2015	Board Approval
Summer 2015	<ul style="list-style-type: none"> - Research & Preparation - Stakeholder Interviews
Winter 2015	Vulnerability, Consequences, Adaptation, Planning Scenarios (VCAPS) Workshop
Spring 2016	<ul style="list-style-type: none"> - Drafting of Findings & Report - Formation of Coastal Resiliency & Sea Level Rise Committee
Summer 2016	Follow Up Meetings June 2016 – Review of Draft Plan August 2016 – Prioritization
Fall 2016- Current	<ul style="list-style-type: none"> - Finalize Report - Incorporate actions and policies into Comprehensive Plan
Spring/Summer 2017	<ul style="list-style-type: none"> - Final Committee Meeting - Presentation to BOC & Adoption

At this time, a detailed draft report has been completed and released. The action steps identified through this process will establish the foundation for the town’s adaptation strategy. The Climate Adaptation and Sea Level Rise Committee will meet again to review the draft report. Following this meeting, the report will be presented to the Board of Commissioners for acceptance and adoption.



POLICIES & ACTIONS

- NR-15** Foster partnerships with universities and non-profits to assist the town in identifying risks and making sound scientific based decisions that increase the town’s resiliency.
- NR-15a: Continue to partner with NC Sea Grant to finalize the VCAPS process and study on Sea Level Rise and Climate Adaptation.
 - NR-15b: Seek additional partners to assist the town in carrying out the actions of the VCAPS study including the scenario based vulnerability analysis.
- NR-16** Minimize impacts of future sea level rise.
- NR-16a: Conduct a vulnerability analysis to determine the town’s risk to hazards including sea level rise. This analysis should include future sea level rise scenarios.
 - NR-16b: Research and map estuarine marsh migration along Roanoke Sound.
 - NR-16c: Develop a plan for adaptation that includes a suite of SLR scenario/probability distributions (more up-to-date than CRC).
 - NR-16d: Develop a comprehensive education and outreach program for K-12 and residents/property owners that includes the follow topics: SLR, storms, sound side & oceanfront erosion, beach nourishment, and CRS.
 - NR-16e: Maintain and expand the Septic Health Initiative by providing government assistance for septic retrofits, assisting homeowners in maintaining their septic systems, conducting more groundwater sampling, securing additional wells for sampling, developing partnerships to assist with the peer review of existing data, transitioning to a mandatory septic inspection program with incentives, and mapping of groundwater.
 - NR-16f: Develop an estuarine shoreline management plan that establishes policies, procedures, and an overall management strategy for the town’s estuarine shoreline. This plan will work to develop projects and strategies to prevent estuarine flooding in the future. The plan should research, identify and map marsh loss, “soft” stabilization methods that are appropriate for Nags Head’s estuarine shoreline, potential opportunities for land acquisition, potentially restorable wetlands, and mitigation measures for unavoidable impacts to submerged aquatic vegetation (SAV). Additionally, it should develop incentives that can be utilized for the protection of natural shorelines.



3.3.6. SHORELINE MANAGEMENT

Nags Head has extensive ocean and sound (estuarine) shorelines, both of which provide significant value to the town and to public and private property owners for their aesthetic, natural, recreational, and storm protective qualities. The ocean shoreline is publicly accessible and is the primary recreation asset in the town. Concerns over shoreline erosion and its impacts on the recreational quality of the beach as well as private development and public infrastructure have been a primary focus of the town's management efforts for years. The sound shoreline is private and the public cannot access the shoreline except on publicly owned property. It is important to recognize how the ocean and estuarine shorelines are different in terms of public access and property rights and that the majority of the town's publicly accessible shoreline is along the oceanfront. This plan will address both ocean and sound shoreline management issues. However, the objectives and required actions are different between these two types of shorelines for the aforementioned reasons.

The 2010 Land Use Plan and previous plans addressed shoreline management policies and the town's vision for ocean and sound shoreline management. Although significant other work has been completed by the town related to shoreline management, the town does not have a shoreline management plan or other single reference document that comprehensively summarizes this work. This other work primarily includes the planning that was conducted for the town's first nourishment project and the town's legal and administrative efforts to remove storm damaged structures and associated debris from the beach. The town's website includes a compilation of information pertaining to shoreline management, particularly related to the town's first nourishment





project and more recent activities to develop a 30-year shoreline management plan (www.nagsheadnc.gov/shoreline). This work continues to evolve beyond the development of this comprehensive plan, however it will be important to update this plan once the 30-year shoreline management plan is complete.

It is important to note that the town's first nourishment project was originally planned as a federally funded project to also include the Towns of Kill Devil Hills and Kitty Hawk. Later, after it was determined that federal funding was unavailable, the town elected to do its own local project with revenue generated through taxation. For the local project, the town utilized some of the work and information developed for the federal project but largely had to recreate its own plans, permits, project design and construction documents, as well as its own funding approach. This also included collecting easements for the sections of town that were not completed for the federal project. The website information includes only the information developed for the local project.

A. Ocean Shoreline

There are approximately 11.29 miles of oceanfront shoreline stretching the entire length of the town. The oceanfront shoreline includes nearshore waters, beaches, dunes, and associated habitats. These areas are most heavily utilized by tourists, visitors, and residents due to their recreational value. Beaches and dunes also provide storm protection for oceanfront development. They are a source of immeasurable natural value and the primary resource on which the town's future depends. Management of the ocean shoreline primarily deals with the impacts of erosion and the interface between development and a migrating shoreline. However, additional management concerns arise over the use of the beaches for recreational and commercial activities. It is important to note that there is crossover between this plan sub element and the land use element since both elements will address policies for ocean and sound shoreline development.

B. Background

Development of the oceanfront and estuarine shorelines is impacted by federal, state, and local regulatory programs. At the federal level, the National Flood Insurance Program (NFIP) establishes regulations to protect structures from the impacts of flood waters, waves, and storm surge. Special Flood Hazard Areas (SFHA), also known as flood zones, are established for land areas due to their topography and proximity to the water based on an analysis of historic and estimated flood and storm data. Flood zones determine how high a structure must be elevated, whether flood insurance is required, and whether other construction standards are necessary to reduce the risk of flood damage. There is an established hierarchy of flood zones based on estimated risk. Construction standards are established proportional to this estimated level of risk. The first flood maps for Nags Head were established in 1974 and flood zones and associated regulatory elevation requirements have changed many times over the years.



The North Carolina Division of Coastal Management (DCM) also establishes regulations to protect structures from storm damage and the long-term effects of erosion. These regulations are part of the Coastal Area Management Act, or CAMA, and establish a series of setbacks for development using the historical shoreline erosion rate. The setbacks are graduated based on the overall heated square footage of structures and are measured from the first line of stable natural vegetation on the oceanfront primary or frontal dune (in the case of the nourished beach area, the setback is measured from the static vegetation line which is the surveyed first line of stable natural vegetation prior to the construction of the nourishment project). Per DCM's current maps prepared in 2019, the erosion rates in Nags Head range from two to eight feet per year with higher erosion rates to the south in the National Park Service Property. The setback regulations were created in 1979 and have also changed many times over the years. It is important to note that many structures pre-date the current NFIP and/or the CAMA regulatory requirements and are non-compliant with respect to these regulations. This creates limitations on how these properties can be improved in the future. As erosion occurs over time, the position of the shoreline and the protective dunes can and has moved westward.





This eventually causes structures to become located on the ocean beach. Structures and their supporting infrastructure are then susceptible to frequent damage. The majority of homes and infrastructure susceptible this type of erosion and location on the ocean beach over time are located in South Nags Head. This situation degrades the recreational, natural, and aesthetic qualities of the beach and dune areas. As the overall inventory of oceanfront structures continues to age, erosion threatened structures are becoming more commonplace and an aggressive management approach becomes necessary to maintain the beach in a condition acceptable to the community.

In earlier land use plans, the town established a policy of retreat which encouraged the removal or relocation of structures that are impacted by erosion. This policy recognized that erosion is a reality of this environment and an adaptive approach is necessary to manage development. Although setbacks and other regulatory approaches were established to protect structures for a period of 30 years or greater, many property owners are unwilling to remove structures when they become located on the beach and will utilize a variety of physical and legal means to preserve their investment. At times the town has had widespread sections of beach occupied by damaged or erosion threatened structures. Recognizing the complicated nature of a retreat approach, the town changed course during the 1990 and later land use plans and began actively pursuing a beach nourishment strategy. Inevitably there will be a point in time where the economics of beach nourishment will no longer make it a viable option. However, at the current time the town and the county have the financial resources to accomplish this for the foreseeable future.





C. Shoreline Management Strategy

After years of trying to plan for and initiate a federal beach nourishment project, in 2011 the Town of Nags Head conducted the largest locally funded beach nourishment project in U.S. history. The town nourished approximately ten miles of beach with 4.6 million cubic yards of sand at a cost of \$36 million dollars. The town is now pursuing its first maintenance of this project as well as a 30-year shoreline management plan which aims to plan for a 30-year cycle of maintenance to this initial project. The goal of this plan is to consider the environmental, legal, financial, physical, and regulatory issues and constraints that will need to be addressed to conduct ocean shoreline management over a 30-year time horizon. The plan will also look at sand fencing, dune vegetation, sand migration, alternative shoreline stabilization techniques, and the potential for structure acquisition in limited circumstances.

An ideal approach to nourishment would include regular intervals of maintenance that are tied to the town's ability to finance and construct these projects. The current funding model involves utilizing a combination of ad valorem taxes collected town-wide and also within an oceanfront Municipal Service District (MSD) to pay for a portion of the project. The town also receives funding from Dare County through its beach nourishment fund which is generated from a portion of the county occupancy tax that is dedicated to that purpose. Previous efforts to generate revenue for beach nourishment using a dedicated sales tax have also been utilized although this was later repealed through a voter referendum. The 2011 project was financed over a five-year period using special obligation bonds. It was estimated that the project lifespan was 10 years with maintenance occurring as early as six years or when 50 percent of the overall nourishment sand volume had moved outside the dune, beach, and nearshore system (-19' msl). The MSD tax was collected for a period of five years to fund five years of bond payments. Once the bonds were paid off, the town removed the MSD tax which is levied at a much higher rate than the town-wide tax. It is anticipated that a new MSD tax rate will be established once the town is ready to construct its maintenance project. It is also possible that the town will adjust the town-wide tax rate after it is determined what the appropriate funding ratio should be between oceanfront and non-oceanfront owners. It is important to note that the town receives no other state and federal funding for its nourishment project. The funding for beach nourishment will be discussed as part of the 30-year shoreline management plan however considerable feedback from the town's Board of Commissioners and town residents and property owners will be necessary as this strategy evolves. The town, along with Dare County and its other municipalities, will need to continue a strong advocacy approach to increase available revenue from the state and federal governments to assist with funding nourishment projects. Advocacy will also include seeking additional authority from the legislature to raise local revenue to fund shoreline management activities and to regulate development. Obtaining administrative and legal enforcement from state agencies



will also be required to successfully manage this problem, particularly to remove storm damaged structures, debris, sandbags, and other man-made structures that frequently occupy the recreational portion of the beach after the shoreline recedes.

In addition to beach nourishment, the town actively plans and constructs dune stabilization projects using a combination of sand fencing and dune vegetation. This is typically done on an annual basis using revenue received from Dare County as well as revenue from the town's shoreline management capital reserve fund. It is anticipated that dune vegetation and sand fencing will be an important component of the town's next beach nourishment maintenance project. The town has experienced significant blowing sand as part of its original project due to a wide dry sand beach and the windy conditions of the Outer Banks, particularly during the winter season with strong and frequent northeast winds. Dune vegetation, sand fencing, and adjustments to the beach and dune nourishment profile will need to be considered as part of the town's long term nourishment program to reduce impacts to oceanfront property owners. Dune vegetation and sand fencing will be part of a long-term strategy through consecutive nourishment projects to build dunes and widen the beach to a target beach condition. This target beach condition will be determined as part of the 30-year shoreline management plan and will be defined by the town's desired goals for storm damage protection, recreational beach width, and overall dune and beach aesthetics. It is important to note that the town's initial beach nourishment project was designed with a primary goal to replace sand which was lost to erosion over the previous ten year period. However, additional goals and objectives will be considered as part of a long-term plan which will augment the original project and modify the initial design. The town may also wish to incorporate a design parameter to address sea level rise in future planning and design for nourishment projects.



D. Managing Development

In addition to beach nourishment, the town has taken an active role in managing oceanfront development through its regulatory programs. The town is responsible for administering the NFIP and CAMA programs through its Planning and Development Department. As mentioned earlier, these programs determine where and how structures can be placed relative to the protective dune system and the height at which they must be elevated to minimize damage from storms and wave action. Since many of the town's oceanfront structures are increasingly becoming threatened by erosion, the town has also used a combination of local and state regulations to remove storm damaged structures. In many of these instances, the legal process and the court system is driving how the town may proceed. The courts have stated (*Town of Nags Head v. Cherry Inc.*) that the town lacks the legal authority to regulate activities on the state's public trust lands (generally the area of the beach from seaward toe of the dune east) although recent legislative efforts have been successful to expand this authority. The state has not assisted the town in litigating these cases and communities are left to their own resources to deal with storm damaged structures. The Dare County Health Department is responsible for administering state laws to regulate on-site wastewater systems. These systems are often damaged during storms and become exposed on the ocean beach. Replacement of these systems is common, even in locations where they are susceptible to future damage. There is a general fear from permitting agencies that withholding permits will lead to regulatory takings claims and will cause the regulating agency to provide just compensation for the value of the property.





There has been little overall success by the town or outside agencies using the regulatory system to remove storm damaged structures from the beach. It is clear that additional legal and legislative efforts will be necessary for these programs to succeed. The town has historically had the most success regulating development during the permitting and site planning process and may wish to consider regulations to position development as far landward as possible on oceanfront lots. This might involve a “build-to” line on the west side of properties as opposed to the current setback line which is based on a minimum required distance from the first line or static vegetation line.



E. Beach Bulldozing, Sandbags, and Dune Disturbance

With the construction of its first nourishment project in 2011, the town has recognized the importance of limiting private alterations of the beach profile including beach bulldozing and sandbagging activities. Beach bulldozing involves scraping sand from the recreational beach to place on the dunes to reinforce their structural integrity and storm protective value. Research has shown that this practice can actually be counterproductive since it involves lowering the profile of the beach thereby allowing for increased velocity of wave run-up. This can have an increased scouring effect on the dunes.

Sandbags have posed a variety of problems for the town. Originally meant to be temporary structures, sandbags have remained on the town's beaches for years and act to harden the shoreline, increasing scouring of the beach at their base and creating a flanking effect, increasing wave energy and velocity which amplifies erosion to adjacent properties. The town has removed a significant number of privately placed sandbags once they become damaged and litter the beach.



Since the town's initial nourishment project, oceanfront property owners have experienced significant accumulation of sand on and against structures. The town has established a permitting mechanism for owners to remove the excess sand and place it on the beach. In many cases, this has involved making cuts in the dune to clear a path for equipment or to remove sand from dune decks and walkovers. The town has been working to establish a continuous dune line to protect structures and preserve the overall integrity of the beach nourishment project.

The town views beach bulldozing and the use of sandbags as undesirable activities and will continue to take appropriate steps to prohibit their use. The town should continue to take steps to control or limit the practice of dune cuts and dune removal, particularly related to the sand relocation process.

F. Other Activities

In recent years, the town has developed additional regulations to control the proliferation of personal items left on the beach. Tents, chairs, and other recreation equipment can be a safety hazard at night or if washed into the ocean. They are also a form of litter if left permanently. Leaving personal items on the beach is unacceptable and the town will



continue to develop regulatory and educational programs to control this practice. Digging large holes on the beach has also become a common practice by beachgoers and leaving them unattended or allowing persons to enter these holes is a safety hazard that the town seeks to limit. The town has adopted regulations requiring beachgoers to fill in holes if they are unattended. Town staff also has the authority to require holes be filled in if they are deep enough to pose a safety hazard. The town's policy is to encourage beachgoers to leave the beach in the condition in which they found it, leaving only footprints.

For years the town has held a strong value to limit commercialization of the ocean beach. The town is not an oceanfront boardwalk community and does not wish to have a sales and solicitation presence on its beaches or within its beach accesses. Although the beach is used by commercial enterprises to provide services such as lessons for watersports, no commercial transactions may take place on the beach and marketing or solicitation of business cannot occur on the town's beaches. Vending of merchandise, food, or other products or services is also not allowed. Signage is considered commercialization of the beach and, except for its limited use during special events, signage is not allowed on the beach. This does not include products used by individual beachgoers for regular recreational activities containing corporate logos.

G. Natural Habitat

During the spring and summer various species of sea turtles are found swimming in the area with some coming ashore to deposit their eggs in the sand near the toe of the frontal dunes. Turtle species known to be in the area include the Loggerhead, Kemp's Ridley, Green, Hawksbill, and Leatherneck. Currently the turtle nesting period runs from May 1 to November 15. Common birds include various species of gulls, sandpipers, sanderlings, pelicans and terns. Many of the above species are migratory. A host of other bird species utilizes the beach for feeding during their yearly migration. The beach zone and the surrounding water and land habitats and environments are sensitive to the effects of man as well as nature and natural processes such as erosion and storms.

Typical dune vegetation includes American Beach Grass, Sea Oats, and Bitter Panicum Grass. The area west of the frontal dune generally slopes towards the road with elevations generally ten to sixteen feet above sea level. Typical plant species in this area include most of the grasses mentioned above as well as some salt tolerant shrubs such as Yaupon Holly, Wax Myrtle, and Bayberry. This vegetation is important in stabilizing the dune from wind erosion.

The town supports policies and regulations to preserve the natural habitat for beach and nearshore species of plants and animals. During the ordinance review process, the town should consider the appropriateness of additional regulations to protect marine species



habitat, including turtle nests, and prohibit harassment of wildlife or marine life. This should also include regulations to protect dune plants and vegetation.





POLICIES & ACTIONS

NR-17 Maintain an ocean shoreline that provides a high level of recreational, aesthetic, natural, and storm protective value that is free of structures, debris, and litter.

NR-17a: Develop a long-term shoreline management plan that considers the environmental, legal, financial, physical, and regulatory issues and constraints that will need to be addressed to conduct ocean shoreline management over a 30-year time horizon. The plan should consider the following:

- Multiple strategies including nourishment, structure relocation, sand fencing, dune vegetation, alternative shoreline stabilization techniques, and the potential for structure acquisition in limited circumstances. This includes agreement from the public and elected leaders on a target beach condition which becomes the town's goal to achieve through consecutive nourishment cycles.
- A streamlined and programmatic approach to permitting that allows for a shorter window for construction projects.
- Best practices for dune management including minimum disturbance by property owners (i.e. cutting away dunes to enhance views or significant dune removal to clear structures), regular sand fencing and dune vegetation planting, and proper siting and construction of structures.
- An improved design utilizing dune vegetation, sand fencing, and adjustments to the beach and dune nourishment profile to limit impacts to oceanfront property owners from migrating sand.
- Appropriate trigger points for maintenance cycles that address project goals.
- A long-term funding strategy that provides consistent revenue for the town and reasonable and predictable tax rates for oceanfront and non-oceanfront property owners.
- A coordinated approach with Dare County and other municipalities on a long-term funding approach to nourishment which provides a consistent and predictable source of revenue for maintenance and construction projects.
- A coordinated approach with Dare County and other municipalities to determine if and how regional planning can improve project efficiencies and achieve cost savings.



POLICIES & ACTIONS

- NR-17b: Incorporate appropriate policies in shoreline management planning to account for estimated impacts associated with sea level rise. This should acknowledge that a long-term approach may involve shifting strategies in areas of the shoreline where it is cost prohibitive to continue beach nourishment. This should also acknowledge that other strategies will require additional financial and legal resources including outside assistance to succeed.
- NR-17c: Develop legal and financial resources to manage the shoreline.
- NR-17d: Develop a comprehensive communication strategy to educate town property owners and residents on the importance of the beach and the strategies the town is utilizing to maintain the beach and provide public access.
- NR-17e: Develop regulations to protect marine species habitat, including turtle nests, and prohibit harassment of wildlife or marine life.
- NR-18 Support and retain the public's right to use the wet and dry sand beach while respecting the rights of individual property owners. This includes limiting the ability of groups or parties to restrict the use of the beach by other individuals.
- NR-18a: Review ordinance language to limit conflicts between different user groups of the beach and nearshore waters and ensure the safety of beach users (i.e. fisherman, bathers, surfers).
- NR-18b: Modify ordinance language for crowd gatherings to clarify that groups or parties using the beach for events cannot limit access to the beach by other parties or individuals.
- NR-19 Provide substantial opportunity for the public to access the beach. This includes beach accesses with adequate parking at regular intervals for the length of the town with accessible facilities.
- NR-19a: Develop a public access plan to consider opportunities for additional public accesses and facilities and establish a prioritized maintenance plan for existing public access facilities. This plan should also address an accessibility standard for public accesses where feasible.
- NR-19b: Acquire oceanfront property when the opportunity arises to meet other shoreline management or public access goals.



POLICIES & ACTIONS

- NR-20** Preserve and enhance dunes and native dune vegetation for the role they play in property and infrastructure protection.
- NR-20a:** Identify and strengthen regulations and educational efforts that promote the preservation of dunes, vegetation and topography.
- NR-20b:** Protect structures from erosion by considering additional setbacks beyond the minimum, where possible. This may involve exploration of a “build-to” line, which requires buildings to be located within a certain distance of the front yard setback line.
- NR-20c:** Clarify and strengthen the town’s policies for low-density oceanfront development and adaptability of structures, recognizing that smaller structures can more easily be removed or relocated when threatened by erosion.
- NR-20d:** Develop a policy approach regarding the town’s role in managing the loss of public infrastructure including streets and utilities.
- NR-20e:** Investigate mitigation programs and grants to assist property owners with structure relocation.
- NR-20f:** Investigate innovative programs and seek funds for mitigation measures such as relocation of threatened structures and more stringent building codes for high hazard areas that support the growth management policies of the town.
- NR-21** Prevent the use of sandbags, seawalls, bulkheads and other hard structures as an approach to erosion protection for private property along the oceanfront shoreline. This does not include public protection projects such as a terminal groin which are an integral component of a community wide erosion abatement strategy.
- NR-21a:** Clarify and strengthen regulations that address appropriate erosion protection approaches.
- NR-22** Prevent commercialization of the ocean beaches.
- NR-22a:** Clarify and strengthen regulations on non-commercialization of the ocean beaches to include the activities that are prohibited.



POLICIES & ACTIONS

- NR-23** Seek cooperation on shoreline management activities from local, state and federal agencies.
- NR-23a:** Advocate for the establishment of a statewide beach management strategy and policy along with a dedicated funding (state or federal) program designed specifically for beach restoration and nourishment projects.
- NR-23b:** Advocate for legal and administrative enforcement assistance from state and other local agencies to remove structures and debris from the ocean beaches. This includes advocating for expanded state and federal programs to remove structures on the beach.
- NR-23c:** Lobby for Federal funding to remove/relocate threatened structures by supporting the reinstatement of the Upton-Jones amendment which modified the National Flood Insurance Program. (The amendment did not require a homeowner to wait for destruction of their home by erosion but to submit claims and be re-compensated if occurrence of damage was imminent.) (Resolution adopted March 5, 2008)
- NR-23d:** Advocate for the expansion of local authority to construct alternative erosion control structures in key locations as part of a community wide strategy for erosion abatement.
- NR-23e:** Work with state agencies to improve the inventory of data that will be beneficial to planning and development of shoreline management projects.



3.3.7. WATER QUALITY

Water quality refers to the condition or degree of cleanliness of the water and is affected by a wide range of natural and human influences and nearby land uses. The cleanliness of the water influences the way water can be used for activities such as drinking, swimming, and fishing. Unclean water not only affects humans but wildlife as well.

Next to the town's beaches, water quality is crucial to sustaining the town's economy, environment, and quality of life. The Visitors Survey 2014-2015, by the Outer Banks Visitors Bureau, asked visitors to identify activities they took part in while on their stay in the Outer Banks. Overwhelmingly, 87.7% of respondents ranked the beach as the number one activity they participated in while on vacation. Other water dependent activities followed including fishing (21.6%), kayaking/canoeing (9.1%), water sports (7%), charter/boat fishing (6.1%), surfing (4.9%), parasailing (2.2%), kite boarding (.8%), and scuba diving (.1%). Good water quality in the sound, ocean, and our fresh water resources (surface and groundwater) is imperative for long term sustainability.

As the town continues to grow, there will be increases in pavement and impervious surfaces. Impervious surfaces increase stormwater runoff by eliminating the natural ability of the ground to absorb and treat water before it reaches the ocean or sound. Stormwater runoff often carries sediment particles from these surfaces. The sediments bind to other pollutants, such as bacteria and viruses, that protect the bacteria from ultraviolet rays that kill them. The bacteria coated sediment then accumulates on the shallow bottoms of receiving waters. When the bottoms are agitated, the sediments are re-suspended. Therefore, it is paramount that sediments and containments be properly managed to mitigate water quality issues.

A. Regional Watershed System

The Town of Nags Head is located in the Pasquotank River Basin and encompasses 3,635 square miles of low-lying lands and vast open waters, including Albemarle Sound. The basin includes all or portions of Camden, Chowan, Currituck, Dare, Gates, Hyde, Pasquotank, Perquimans, Tyrrell and Washington counties. The basin also contains numerous small watersheds that drain into Albemarle, Currituck, Croatan, Roanoke and Pamlico Sounds. A small portion (~577 acres) of the Pasquotank River basin is located in Virginia. The Pasquotank River basin is part of the Albemarle-Pamlico Estuarine system, the second largest estuarine system in the United States. There are 11 municipalities within the 10 counties in the basin. The largest municipalities are Elizabeth City, Hertford, Columbia, Manteo, and the Outer Banks north of Manteo. Understanding the town in a more regional basin-wide context is important because the town recognizes that the water quality of the Sound is impacted by the result of upstream activities. Regional efforts are necessary in



order to make forward progress. Therefore, it is important for the town to actively monitor proposed regulations that could impact not only the town but the entire basin.

Basin waters have suffered from losses of riparian vegetation, straightening of streams, erosion of banks, and reductions of aquatic vegetation that serves as food and shelter for fish, birds, and other wildlife. Non-point pollution sources that degrade water quality in the basin include agriculture, animal operations, urban development, forestry, stormwater discharge, rural residential development, hydrologic modifications, and septic systems.

Point-source pollution sources in the basin may include municipal wastewater treatment plants, industrial facilities, reverse osmosis water treatment facilities, and urban and industrial stormwater systems. According to the North Carolina Sanitary Report, there are not existing drainage problems or water quality issues related to point-source discharges of stormwater runoff within the Town. According

to the same Report, non-point sources of pollution in Nags Head include on-site wastewater systems, stormwater, and the Nags Head Golf Links at the Village at Nags Heads.

Nags Head's estuarine waters are classified by the NC Division of Environmental Quality (NCDEQ) as SA Waters. SA Waters are defined as tidal salt waters that are used for commercial shell fishing or marketing purposes and are also protected for all Class SC and Class SB uses. All SA waters are also considered High Quality Waters (HQW). The HQW classification is a supplemental classification intended to protect waters which are rated excellent based on biological and physical/chemical characteristics through NC DEQ monitoring or special studies, primary nursery areas designated by the Marine Fisheries Commission, and other functional nursery areas designated by the Marine Fisheries Commission. Many of the classifications, especially those designed to protect drinking water supplies and certain high quality waters, have protection rules which regulate activities, such as development, that may impact surface water quality.



The Pasquotank River Basin



Nags Head's ocean waters are designated as SB by the NC Division of Environmental Quality (NCDEQ). SB waters are defined as 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.

B. Hydrological System

In order to understand water quality issues in the town, it is important to first understand how water moves both across the surface of the land and under the ground. Stormwater and rain infiltrates the sandy soil or runs into drain pipes or swales (ditches) where it is transported either into the groundwater, sound, or ocean. Therefore, the quality of water in the sound and ocean is directly linked to surface and groundwater quality. The hydrological system in Nags Head is also influenced by tidal fluctuations and groundwater elevations.

On the ocean side of Nags Head, tidal fluctuations have a pronounced influence on water table elevations. There are five surface water drainage outlets along the Atlantic Ocean (referred to as ocean outfalls), four in the northern one-third of town, and one at the southern end of town. These outfalls are owned and maintained by the North Carolina Department of Transportation and referenced as:

1. 10.5 (Red Drum)
2. Curlew Street
3. Conch Street
4. 12.5 (Soundside Road - connected ocean to sound)
5. South Nags Head

There is a fresh water aquifer underlying the town and groundwater elevations in many parts of the town change by a foot or more over the course of a year. Since potable water is purchased by the town from a county source, there are only a small number of wells utilizing this aquifer. However, prolonged use of the aquifer could lower the water table and potentially alter the ecology of the wetlands in Nags Head. The top of this aquifer is near the land surface. The elevation of the groundwater aquifer is expressed in the numerous ponds in Nags Head Woods and in surface water ditches throughout the town. Since the ditches may in some cases lower the local water table, the quality of the groundwater may in turn impact the quality of the surface water.

The primary function of the surface water ditches in Nags Head is to lower local groundwater tables, although the ditches may also provide some drainage during rainfall events. Understanding water quality characteristics and trends in the ditches is important



because these may discharge to the ocean and affect recreational water quality. In addition to the issues outlined above, there are many other factors that can potentially have an effect on water quality. These include soils, water temperature, water depth, salinity, turbidity, nutrients, bacteria, weather, and seasonal impacts.

C. Soils

In addition to the understanding the hydrologic system, soils play a key role moving water through the system and filtering any containments in the water associated with the use of on-site wastewater treatment systems. Section 3.3.2 Soils outlines the soil types most common in Nags Head. A properly functioning onsite wastewater treatment system relies upon the soil to absorb and adequately treat all wastewater generated from a site. However, all soils are not suitable for onsite treatment. Some soils may not allow wastewater to drain through the soil while other soils too quickly allow wastewater to pass to the groundwater without adequate treatment.

The potential contamination of water is a function of several factors, including soil suitability, depth to the water table, and proximity to surface waters. Soils on the Outer Banks are generally unsuitable for septic systems. Under the Soil Conservation Service (SCS) criteria most soil in Nags Head is classified as having severe or very severe limitations to septic tank use. Evaluations of soils following to State Health Department criteria differ substantially from the SCS criteria, and generally indicate that soils are not as unsuitable for septic tank usage as the SCS criteria would indicate. This discrepancy results from the fact that State regulations do not address soil permeability as a factor in soil suitability for septic tank use. State regulations allow on-site wastewater disposal in extremely porous soil where depth to water table is greater than 12 inches. State regulations, administered by Dare County Health Department, govern the installation, location and use of septic tanks. (GS 103A-335).

D. Water Quality Issues

The causes of water quality issues in the town are often interrelated. Many of the water quality issues experienced within the town can be traced back to high groundwater elevations, improperly treated stormwater, and poorly managed on-site wastewater treatment systems.



Septic Systems

As mentioned previously, the ground water elevations within the town fluctuate during different times of the year. In some areas, ground water elevations are high enough to reduce the amount of separation between mean high groundwater level and the bottom of the drain lines for conventional on-site wastewater disposal systems. These conventional systems utilize a tank, drain field, and soil beneath the drain field to effectively treat wastewater. The purpose of the drain field is to deliver the liquid sewage effluent to the soil where the real treatment of wastewater occurs in the soil beneath the drain field. As the effluent

flows into the perforated pipe in the drain field, it trickles down through a series of gravel and soil lines. The soil filters out bacteria and absorbs germs until they are destroyed. If not properly monitored and managed, water quality issues could result due to interaction

between groundwater and the drain field. It is imperative that these systems function properly since over 85% of the town's properties are served by on-site wastewater treatment systems.





This issue can be further compounded by heavy rainfall and tidal events. During heavy rainfall events, stormwater may fall so quickly that there is not enough time for stormwater to infiltrate into the soil voids, but rather it rushes quickly across the ground surface picking up contaminants along the way polluting the receiving water body. Furthermore, if ground water elevations are already high, there may not be enough storage voids in the soil to allow for proper infiltration of stormwater. Instead, stormwater will pond on the ground surface receiving no treatment and potentially sitting on top of on-site wastewater system drain fields creating a public health issue. In addition to these rainfall events, tidal events can cause the existing stormwater drains to not flush properly due to higher than normal tides that back up into the stormwater drains. This effectively prevents stormwater from flowing out.

Conventional on-site wastewater treatment systems have been the town's preferred treatment option and the main mechanism for treating effluent from single family residences and other land uses. These systems are designed for certain capacities. If the capacity is exceeded, functionality of the system suffers and over time could cause failure of the system. Tourism data, provided by the Outer Banks Visitors Bureau in the 2014-2015 Visitor Survey Report, indicates that there is an increasing number of visitors during the shoulder seasons. While this has been a goal, the extended seasons with high occupancies allow less time for these systems to recover, overloading the system with more water than it is capable of treating. This results in effluent back up into the house or on top of the ground. The Septic Health Program, described in subsection D below was developed to proactively prevent system malfunctions and failures. The Town is unaware of any areas where there are wide spread septic systems malfunctions or failures.

While conventional on-site wastewater systems have been the preferred method of treating effluent for single family residences, as noted in previous land use plans, there are other options for treatment. Innovative treatment systems are often used where soils are too wet or too shallow for the conventional systems. Innovative treatment systems require up to 50% less area for installation than conventional systems. In addition, they are extremely effective in treating effluent utilizing UV, chlorine, or media filters such as peat or synthetic materials. However, these systems are expensive to install, maintain, and replace. Sometimes these alternative systems can cost 10 times more than conventional systems.

Monitoring

The North Carolina Shellfish Sanitation and Recreational Water Quality Section monitors the state's coastal recreational waters including the Town's ocean beaches and sound. The program's primary purpose is to protect the public's health by monitoring the quality of North Carolina's coastal recreational waters and notifying the public when bacteriological standards for safe bodily contact are exceeded. This is done by testing waters for the bacteria enterococci, which are indicator organisms. While the enterococci themselves are



not harmful, they are an indicator that other organisms are present that can cause illness. In general, North Carolina coastal water quality is very good. The NC Shellfish Sanitation and Recreational Water Quality Section samples thirteen (13) locations in Nags Head. Of the thirteen (13) locations, only one (1) location is a soundside site. Over 6,000 water samples were collected in all of coastal North Carolina last year and only 46 swimming advisories, were issued. The majority of advisories were for sound-side waters and lasted for a single day.

Swimming advisories may be posted on a temporary basis if a single sample exceeds the standards for that area. Advisories posted based on single sample results are retested immediately. High-use sites, which include all ocean beaches, must also maintain an acceptable running monthly average. A swimming advisory will also be issued if a site exceeds the monthly standard. If the swimming standard is exceeded, a press release is sent out to inform the public and advisory signs are posted at the swimming site recommending people do not swim in the waters that exceeded the standard.

Generally, recreational water contamination can be caused by stormwater, which is created when rainfall carries pollutants found on the ground surfaces into coastal waters. Other sources include failing septic systems, sanitary sewer leaks or spills, boats emptying their heads in the water rather than using a pump-out station, pets, livestock, wildlife or even swimmers themselves, especially children in diapers. A written sanitary survey report is required every three years by the NC Shellfish Sanitation Program. The sanitary report utilizes all water quality monitoring data collected for an area to determine which water bodies are open and closed to shellfish harvest. This is a requirement of and part of the State's participation in the National Shellfish Sanitation Program. The National Shellfish Sanitation Program works to promote and improve the sanitation of shellfish (oysters, clams, mussels and scallops) moving in interstate commerce through federal/state cooperation and uniformity of State shellfish programs.

The sanitary report summarizes and analyzes the data from the water sampling survey, the pollution source survey and the hydrographic and meteorological surveys. From the analysis of the sanitary survey data, the appropriate classification of the waters of the growing area are determined. In order to correctly evaluate coastal waters for shellfish harvesting, an evaluation of the pollution sources that may affect the area is required. The shoreline survey is conducted of the shellfish growing area shoreline and watershed to locate pollution sources that could have an effect on area water quality. Every three years, shoreline survey staff walk the shoreline of all coastal shellfish growing areas in North Carolina looking for existing and potential sources of pollution. This shoreline survey is conducted as part of a federally mandated triennial sanitary survey to assess the proper classification of shellfish growing waters. Potential sources of pollution such as marinas, multi-slip docks, agricultural areas, subdivisions, septic tanks, wastewater treatment plants



and ditching are all evaluated. These shoreline surveys are coupled with water quality sampling to provide a comprehensive look at the health of a given growing area and to assure proper classification. On a yearly basis, these surveys are updated to include any new pollution sources so that any changes can be accounted for.

Bacteriological surveys are also part of the sanitary report and include the collection of water samples from all shellfish growing areas. A minimum of six sets of water samples are collected from each sampling station in each growing area on a random schedule to assess the overall quality of the waters for classification. Waters are classified as either Approved, Conditionally Approved or Prohibited based on the analysis of the data collected from each sampling station.

The sanitary report includes a summary of the meteorological conditions that have an effect on a growing area must be made within the sanitary survey report. Rainfall and the resultant runoff can cause fecal coliform counts to increase within shellfish growing waters. Climate and weather can affect the distribution of pollutants or can be the cause of pollutant delivery to a growing area. Prevailing winds can determine the distribution of pollutants in a growing area. Rainfall patterns and intensity can affect water quality through pollutant delivery in runoff or cause flooding which can affect the volume and duration of pollutant delivery. All of these factors must be evaluated as part of the overall sanitary survey and classification of shellfish growing areas. Also, an evaluation of the hydrographic factors that may affect the distribution of pollutants throughout the area must be made. Examples of hydrographic factors are tidal amplitude and type, water circulation patterns, and the amount of fresh water. These factors, along with water depths and stratification caused by density (salinity and temperature) differences, and wastewater and other waste flow rates are used to determine dilution and time of transport.

In Nags Head, there are two sanitary survey areas: H-1 and I-2. The H-1 growing area consists of all waters north of a line running from Smith Island to South Point near Oregon Inlet, and south of a line running from Northwest Point to Mann Point, including Roanoke Sound, Shallowbag Bay, Broad Creek, and Mill Creek. Overall, the area includes a total of approximately 21,340 water acres. Portions of the Town of Manteo, Wanchese, and the Town of Nags Head are adjacent to the growing area. Specifically for Nags Head, the report covers the majority of estuarine shoreline in the town from approximately Barnes Street south. According to US Census Block Data from 2010, the permanent population within the H-1 watershed is about 5,410. According to the Report of Sanitary Survey and Recreational Water Quality Section of the DMF, the H-1 area is actively managed with portions of the area prohibited for shellfish growing. Portions of the H-1 area north of Jockey's Ridge (Old Villas Treatment Plant Discharge), Old Nags Head Cove, and areas along the causeway have been identified as being prohibited to shellfish growing due to dockage, stormwater, and dense development. Review of the bacteriological and shoreline



survey data collected during the current sanitary survey report period indicates some improvements in bacteriological water quality, and all sampling stations now meet the requirements for approved status. No changes in classification were recommended as a result of the 2016 report.

The I-2 area consists of the waters of eastern Albemarle Sound, Kitty Hawk Bay and the waters around Colington. The area is bordered on the east by a portion of the heavily populated Outer Banks beaches of northern Nags Head, Kill Devil Hills, Croatan Shores and Avalon Beach. The area is bordered on the north by Currituck and Albemarle Sounds and on the south by Croatan and Roanoke Sounds. The only portion of the I-2 located in Nags Head is along the estuarine shoreline between 8th Street and Barnes Street.

According to the Report of Sanitary Survey and Recreational Water Quality Section of the DMF, the I-2 area is permanently closed to shellfish growing due to lack of staffing and funding necessary to monitor. This report was last updated in 2011 and was scheduled to be updated in 2014. However, State budgetary concerns have prevented this report from being updated since. In the 2011 sanitary report, all sampling stations met the approved status.

The water quality data collected through the NC Shellfish Sanitation and Regional Water is further utilized and compiled as part of the North Carolina's Basinwide Water Quality Planning Program. Nags Head is located in the Pasquotank River Basin that includes portions or all of Camden, Chowan, Currituck, Dare, Gates, Hyde, Pasquotank, Perquimans, Tyrrell and Washington counties. More specifically, Nags Head is located in Subbasin 03-01-56 that includes the Outer Banks from the northern portion of Dare County south to Oregon Inlet. The goal of the basin wide plan is to identify water quality problems in impaired waters and restore them to full use as well as protect unimpaired waters. The basinwide plan incorporates the 303(d) and 305(b) data pertinent to Nags Head. The water quality assessment process utilized to develop the 303(d) and 305(b) Integrated Report is a framework used by the North Carolina Division of Water Resources to interpret data and information to determine whether a waterbody is meeting water quality standards. This framework is critical to providing a balanced and consistent comparison of data and information with North Carolina water quality standards. Since the last adoption of the Pasquotank River Basinwide Water Quality Plan in 2007, the assessment of water quality in North Carolina required under Section 303(d) and 305(b) of the Clean Water Act have been updated. The 2018 Integrated Report outlines the following areas with impaired waters:



Name Sample Area	Assessment Unit	Integrated Report Category	Parameter
Pond Island	30-21-4a	5	Shellfish Growing Area Status (Fecal, SH, SA)
Pond Island	30-21-4b	5	Shellfish Growing Area Status (Fecal, SH, SA)
Roanoke Sound	30-21e1a	5	Shellfish Growing Area Status (Fecal, SH, SA)
Roanoke Sound	30-21e1b	1	Enterococcus (GM 35, REC, SW)
Roanoke Sound	30-21h	5/1	Shellfish Growing Area Status (Fecal, SH, SA)/Enterococcus (GM 35, REC, SW)
Roanoke Sound	30-21g	5	Shellfish Growing Area Status (Fecal, SH, SA)
Roanoke Sound	30-21f	5	Shellfish Growing Area Status (Fecal, SH, SA)
Roanoke Sound	30-21c	5	Shellfish Growing Area Status (Fecal, SH, SA)

The majority of the assessment areas identified in the report are classified as a category 5. Category 5 assessments are assigned when a parameter exceeded criteria and requires development of a Total Maximum Daily Load (TMDL) TMDL or other reduction plan is required to address the pollutant of interest.. Category 5 assessments are the 303(d) list. States are required to submit Category 5 assessments to EPA and the EPA must approve the Category 5 assessments. The Total Maximum Daily Load (TMDL) Program is a Federal program authorized under the Clean Water Act to address waters that are not meeting water quality standards. A TMDL is a calculation of the maximum amount of a pollutant that a waterbody can receive and still meet water quality standards. The TMDL is then



used to establish limits on sources of the pollutant which are classified as either point sources (waste load allocation), and non-point sources (load allocation). The TMDL must account for seasonal variation in water quality and include a margin of safety to ensure that the TMDL allocations will adequate to protect the body of water. There are no TMDL's for Pasquotank River Basin at this time.

In order to protect human health and maintain water quality, failing septic systems should be maintained and repaired and older systems must be updated. Additional water quality monitoring throughout the town will aid in identifying and strategically correcting water quality "hot spots". Furthermore, precautions should be taken by the Dare County Health Department and homeowners to ensure that new systems are sited and constructed properly and adequate repair area is available.

E. Septic Health Initiative

Nags Head has experienced tremendous growth and development over the last 40 years. This has led citizens and town officials to be concerned about the impacts that failing or substandard on-site wastewater treatment systems (OWTS) may have on water quality in the groundwater, estuaries, and ocean. Over 85% of town properties are served by OWTS. In 2000, the town developed the Septic Health Initiative as a way to protect public health, the environment, and future economic stability through a multi-pronged approach to managing on-site wastewater systems. This includes an educational program teaching owners how to maintain their systems, a pumping and inspection program to identify poor functioning systems, a low-interest loan program to help owners replace failing systems, and a water quality monitoring program.

The Septic Health Initiative is a long-term strategy for protecting water quality while allowing the continued use of on-site wastewater systems. This Initiative is the only one of its kind on the Outer Banks and one of a few in the nation. Until the town began monitoring water quality in 2000, very little historical water quality information was available for the water bodies adjacent to Nags Head.

Details of the four major program areas of the Septic Health Initiative are as follows:

- I. Septic Tank Pumping and Inspection Program - The Septic System Inspection and Tank Pumping Program offers incentives to all qualifying property and business owners in Nags Head. Owners of non-innovative systems can receive a free system inspection. In addition to the free inspection, a property owner that has their septic tank pumped can also receive a \$30 water credit toward their water bill.



2. **Water Quality Monitoring Program-** The Water Quality Monitoring Program works to measure the effectiveness of the town's Septic Health Initiative and to provide a general measure of water quality in the Town of Nags Head. This is accomplished by monitoring ground and surface water throughout Nags Head and measuring the levels of bacteria and nutrients in groundwater. There are 16 surface water monitor sites and 7 groundwater monitoring sites in the town.
3. **Education Program-** Educational information developed by town staff is available to homeowners on how septic systems work and how to care for their systems, including recommendations for routine pumping and inspections.
4. **Low-Interest Loan Program –** To assist property owners with failing septic systems, the town also offers a low interest loan that can be used for septic repairs or replacement. The maximum amount financed to owners is \$5,000 (payable over three years at the prime interest rate minus 2.5%).



In 2005, the town prepared a Decentralized Wastewater Management Plan. The following mission statement provided direction for this effort:

“The Town of Nags Head is committed to protecting the environment and public health. Effective care of on-site systems is essential to keeping this commitment. The town will enhance its oversight of these systems in a fair, reasonable and cost-effective manner to ensure they are well managed and that system owners have the information and tools necessary to protect their private investment and the public good. The Decentralized Wastewater Management Plan will be dynamic and evolving over time so that decentralized systems remain a sustainable component of Nags Head’s infrastructure.”

The Plan covered a range of elements including septic system inspection, tank pumping, water use tracking, water quality monitoring, education and outreach, and suggested ongoing analyses and program review. The recommendations and findings from this Plan provided the foundation and direction for the Septic Health Initiative in its early years. An update to this plan has not been conducted since 2005. An updated planning effort is needed to reassess the program and determine its effectiveness. The 2005 plan recommended a review of the program and scientific analyses of water quality monitoring data be performed every 2-3 years. In addition, it was suggested that a comprehensive update to the Decentralized Wastewater Management Plan be performed in the future, although no specific timeframe was indicated. .

F. Sewage Treatment Facilities

In addition to the on-site wastewater systems, there are several private sewage treatment facilities in the Town as shown on the map above titled Public and Private Wastewater Service areas. Currently, there are two package sewer treatment plants which provide services to residential and commercial uses. The primary authority to regulate these systems is the Dare County Health Department and the State Division of Environmental Management.

The Village at Nags Head Wastewater Treatment Plant, managed by a Carolina Water Service Inc., currently treats both residential and commercial uses in The Village at Nags Head including the Outer Banks Mall. The Village at Nags Head Wastewater Treatment Plant has a permitted capacity of 400,000 gallons per day. In 2019, the plant underwent a rehabilitation project that utilized the existing tanks and upgraded and installed new plant components. The Village at Nags Head Wastewater Treatment Plan has been in compliance with State requirements since 2016 with no document overflows or threats to public health.

In addition to the system at the Village at Nags Head, The Villas Wastewater Treatment Plant, managed by Enviro Tech, treats residential units with a capacity of 36,000 gallons per day. Current



flows at the plant are 8,000 gallons per day with peaks in the summer months of 11,000 gallons a day. The flow numbers for the plant have decreased over time and appear to be linked to usage by occupants that are seasonal but year round. The discharge point for the plant to the Sound was removed approximately ten (10) years ago and replaced with high rate infiltration ponds. There are no document overflows or threats to public health.



- NR-24 Preserve, protect, and improve water quality and natural estuarine functions to ensure public health, protection of natural resources and habitats, and recreational use.
- NR-24a: Develop and map the surface drainage system in Nags Head to enable a better understanding of the impacts on-site systems have on surface waters.
- NR-24b: Coordinate with Dare County Environmental Health to utilize septic permit data to develop a dataset of existing ground water elevations.
- NR-24c: Monitor proposed regulations that could potentially affect water quality within the town and within the Pasquotank River Basin.
- NR-24d: Lobby for adequate safeguards from upstream land uses.
- NR-25 Increase public understanding of the relationship between water quality, ecosystem health, and human health advisories relating to water quality.
- NR-25a: Further develop partnerships with the UNC Coastal Studies Institute, the Dare County Cooperative Extension and Health Department, the Nature Conservancy, Jockey's Ridge State Park, the Cape Hatteras National Park Service, and the Coastal Federation to encourage research and education opportunities related to water quality, ecosystem health, and human health.
- NR-25b: Develop a focused educational outreach plan for the Septic Health Initiative that can be implemented, with the assistance of partnerships.
- NR-25c: Work with Dare County Health Department, real estate agents, and property managers to educate property owners on the maintenance needs of septic systems.
- NR-26 Maintain and expand the Septic Health Initiative.
- NR-26a: Centralize all septic health program data and water quality data into a single database, available on the town's website, that allows staff to easily search and manipulate data. This should include data from: the town's water quality monitoring program, the NC Division of Shellfish Sanitation, septic permit data from Dare County, town inspections and pump outs, and repair/loan data.
- NR-26b: Develop improved administrative management tools for implementing the program. This includes:
- An efficient way to email reports to owners directly from permitting software.
 - A streamlined process for how inspections are received, coordinated, scheduled, and a report of the inspection sent back to the homeowner.



POLICIES & ACTIONS

- NR-26c: Refine the town's permitting software to determine how to track more detailed inspection and pump out data.
- NR-26d: Identify properties through septic health data that have never had an inspection or pump out. Make contact with those property owners to inform them of the program and offer services. If feasible, map vulnerable areas based on their proximity to major drainage features and target those areas for outreach.
- NR-26e: Identify properties through mapping efforts with older OWTS (pre-1980) to inform them and offer loan program for repairs or replacement.
- NR-26f: Update and maintain the septic health program's website monthly to provide program information and current water quality data.
- NR-26g: Update the Decentralized Wastewater Management Plan to evaluate the overall effectiveness of the program and recommend additional measures as necessary.
- NR-26h: Provide annual updates to the Board of Commissioners on the program status.
- NR-26i: Conduct peer reviewed scientific analysis of the program every three years.
- NR-27 Develop and enhance relationships with the county, state, federal, non-profit, and Institutional partners to assist in research and educational efforts. This includes, but is not limited to, the Dare County Health Department, the Dare County Cooperative Extension, Jockey's Ridge State Park, the National Park Service, the Nature Conservancy, the Coastal Federation, the UNC Coastal Studies Institute, and other partners in the university system.
 - NR-27a: Ensure water quality testing results are peer reviewed through partnerships with universities.
- NR-28 Preserve and protect groundwater aquifers from depletion and contamination.
 - NR-28a: Update the town code to prevent fracking or deep well injection of wastewater.



3.4. ECONOMIC DEVELOPMENT AND TOURISM

Economic development encompasses efforts that promote economic growth and opportunity resulting in an overall improvement in the quality of life of a community. Economies that are advancing create jobs with higher pay, offer people basic amenities, and provide the tax base for schools, infrastructure, and other basic services.

The Town of Nags Head strives to build and promote a sustainable economy that supports residents and visitors. Nags Head's economy is directly linked to the quality of natural and cultural resources and tourism.

Other plans, studies, or documents referenced in this section:

- 2000 & 2010 Land Use Plans
- The Outer Banks Visitors Bureau Visitor Survey – 2014-2015
- The Beach and its Future Development (The Beach Road Study) – 2008
- 1985 Land Use Plan Update
- 1990 Land Use Plan
- Economic Function and Population Land Development Plan – 1964
- The Outer Banks Chamber of Commerce Economic Development & Sustainability White Paper – 2015

Specific areas of Economic Development focus in the Comprehensive Plan include:

- 3.4.1 Tourism as an Economic Driver
- 3.4.2 Tourism in the Future
- 3.4.3 Local Business Development
- 3.4.4 Economic Diversification



3.4.1. TOURISM AS AN ECONOMIC DRIVER

A. Historical Perspective

Historically, tourism has been the main source of economic development for both Nags Head and Dare County. As noted in the town’s 1964 Economic Function and Population Land Development Plan, tourism in Nags Head can be traced back to the mid-1800’s. This plan described a hotel which could accommodate 200 guests, a series of boardwalks, a railroad from the hotel to the ocean, a wharf that extended ½ mile into the sound, and numerous cottages. At that time, Nags Head was a regional summer retreat for area families who traveled by boat to the area. However, the area became more accessible by the 1930’s due to the construction of roads and bridges. At the time of the town’s incorporation in 1960, it is estimated that there were 840 year-round residents and a seasonal population of 15,000. The Economic Function and Population Land Development Plan from 1964 states,

“These changes will have a marked effect. They will stimulate the growth of the economy and permanent population of the Nags Head community. At the same time, responsibility for providing the type of tourist facilities needed will be placed upon the Nags Head community. In coping with this responsibility, the community will find that what formerly has been suitable for the Nags Head vacationer is not going to be suitable for all the newcomers. Conversely, that which appeals to many of the newcomers - particularly the short-stay visitors - may have an adverse effect upon the people who in the past have come down to stay for longer periods.

The total effect that these changes will bring to Nags Head is entirely dependent upon the ability of the community to overcome the problem and difficulties that accompany them. Change met with alacrity and single minded purpose will produce more desirable effects than change unbridled.”

B. Tourism in the Outer Banks

Tourism is the chief economic driver for the Outer Banks and Nags Head and an industry that is still growing. Visit North Carolina, a unit of the Economic Development Partnership of North Carolina, reports that tourism in Dare County exceeded \$1 billion for the first time in 2014. Dare County ranked fourth statewide in visitor spending and first amongst other coastal counties. Statewide in 2014, North Carolina Tourism brought in \$21.3 billion in visitor spending and more than 200,000 jobs, breaking all-time records.

Dare County Tourism by the Numbers

In 2014, Visitor Spending Supported:

- \$1.019 Billion Into Local Economy
- 12,300 Jobs
- \$207.24 Million In Payroll
- #4 Rank Out of 100 NC Counties
- \$2,606 Tax Savings Per Dare Resident



The Tourism industry is directly linked to the natural environments and cultural resources of the Outer Banks and the town. The Visitor Survey conducted by the Visitors Bureau in 2014-2015 found that the top four activities that attracted people to the area were the beaches/ocean, lighthouses, open, natural areas, and historical sites. Interestingly, the time of year did not impact their interest in these destinations. No matter the time of year, people still ranked their interest in the top four destinations in the same order.

This reinforces the tie between the town’s economy and both natural and cultural resources. While tourism has positive impacts on the local economy and tax base, it can potentially have negative effects on natural resources and quality of life if not sustainably managed. Uncontrolled tourism growth can result in deterioration of the natural resources to a point that tourist growth could potentially be compromised. Since natural resources are the main draw to the area, they should be protected in order to ensure sustainable growth of tourism and economic development in the future. The town supports policy that works to protect and support natural and cultural resources while creating a sustainable economy that supports both residents and visitors.

Table 3.4.1.B: OBVB Survey of Reasons for Visitation

Activity/ Attraction	# Responses	% of Total Responses	Activity/ Attraction	# Responses	% of Total Responses	Activity/ Attraction	# Responses	% of Total Responses
Beach, ocean	9,503	86.1%	Other outdoor activities/ recreation	1,783	16.2%	Site for a wedding	253	2.3%
Lighthouses	5,821	52.8%	Inexpensive travel cost	1,698	15.4%	Good place for a honeymoon	218	2.0%
Open natural area	5,446	49.4%	Shopping	1,643	14.9%	Friend or relative’s wedding	199	1.8%
Historical sites	4,071	36.9%	Visit friends or relatives	1,578	14.3%	Study/ educational tour	182	1.6%
Nature activities	2,934	26.6%	Short travel time	1,225	11.1%	Scuba diving	110	1.0%
Safe place to visit	2,932	26.6%	Water sports	1,163	10.5%	Business trip	82	0.7%
National Park Service sites	2,375	21.5%	Golf	410	3.7%	Competitive sports event	76	0.7%
Fishing	2,291	20.8%	Festival or other special event	397	3.6%	Company meeting / conference	34	0.3%



C. Seasonality of Tourism

Historically, the peak season for tourism in the Outer Banks occurs between June and August. According to Outer Banks Visitors Bureau data, approximately 70% of visitors come to the area during this peak season. The spring season generally runs from March-May and the Fall Season is from September to November.

Having the majority of visitors come in such a short window places extreme pressure for local businesses to make the majority of their income in only three months. During the past 25 years, it has been a shared goal of the Outer Banks Visitors Bureau, local municipalities, and businesses to partner together on efforts that work to extend the season in order to create a more sustainable local economy. Ultimately, this goal grows the local economy and enhances the quality of life for all residents. There has been a concerted effort to develop and create events in the fall and spring of the year to help extend the season. Some of these events include the Outer Banks Marathon and the Outer Banks Seafood Festival. In 2015, the Police Department reported assisting with 47 events in Nags Head alone.

Visitor numbers collected by the Visitors Bureau indicate that stays during the “shoulder seasons” (spring and fall) are increasing. Table 3.4.1.E shows the number of visitors at top Nags Head destinations such as Jennette’s Pier, which in 2015 had 189,000 visitors, and Jockey’s Ridge, which in 2015 had 1,274,000 visitors. Jockey’s Ridge, the larger attraction, counts vehicles entering the park, whereas Jennette’s Pier’s counts are based on pedestrian traffic. In addition, interviews with the town’s Police, Fire, and Ocean Rescue departments indicate there is increased demand for services during the shoulder seasons in recent years. As the shoulder season continues to grow, it will be important to ensure that town services are sufficient to support these extended seasons. This topic will be discussed in greater detail in the Municipal Service Section.

D. Visitor Characteristics

According to an Outer Banks Visitors Bureau Visitors Survey, the overwhelming majority of visitors (93%) indicate their primary purpose in coming to the Outer Banks is for pleasure and vacation rather than a specific event or purpose. Other reasons included special events such as family reunions or anniversaries (3.2%) or weddings (1.9%). Visitors also specifically indicated that the OBX Marathon was one of the special events that drew them to the Outer Banks. Business travel and meetings/conferences only accounted for 0.9% of annual visitation.

E. Visitor Population Estimates

It is estimated by the Outer Banks Visitors Bureau that approximately 5 million visitors come to Dare County each year. While difficult to measure the exact number of total visitors to the town or County, several attractions within the town track visitor numbers.



In the future, it would be helpful for planning purposes to have a more accurate visitor count. These figures are reflected in the table below.

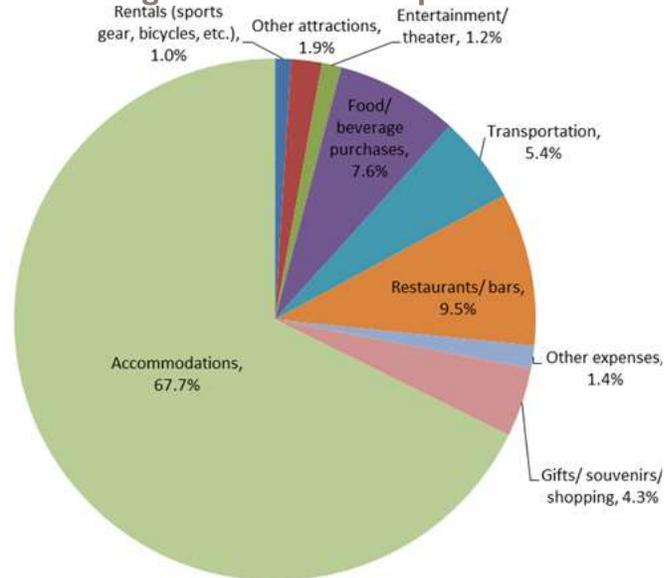
Table 3.4.1.E: Visitor Population Estimates						
	Jockey's Ridge		Whalebone Visitor's Center		Jennette's Pier	
	2012	2015	2012	2015	2012	2015
January	20,239	28,457	n/a	n/a	1,460	2,293
February	18,198	19,620	n/a	n/a	1,887	1,132
March	43,424	59,703	926	774	5,910	4,825
April	90,766	113,027	1,736	1,549	18,340	13,602
May	94,349	144,069	2,074	1,817	28,700	20,884
June	162,439	172,739	2,536	2,056	47,680	31,496
July	167,506	230,714	2,508	2,006	62,690	38,144
August	161,655	231,749	2,526	2,091	57,880	31,365
September	84,841	130,617	2,015	1,680	31,480	20,021
October	45,132	81,594	1,527	1,241	32,860	14,267
November	28,056	57,588	671	642	13,100	7,397
December	18,081	31,563	446	539	3,180	3,912
Total	936,698	1,303,455	16,965	14,395	307,179	191,353

Source- Outer Banks Visitors Bureau Attractions
 Site visits at Jennette's Pier are done by car counter and formula. The counter did not apply the formula previously but was reset in September 2014. The error contributes to the seemingly low number. As of March 2 2014, the Pier is still not able to provide accurate numbers for the pier visits. These were estimated through several factors before. Thus the lower number of visits to the pier.

F. Visitor Spending

The Outer Banks Visitors Bureau Visitor Survey - 2014-2015 found that the greatest share of visitor expenses (67.7 percent) is devoted to accommodations, followed by restaurants/bars (9.5 percent), food/beverage purchases in stores (7.6 percent), transportation (mostly to and from the Outer Banks) (5.4 percent), and gifts/souvenirs/shopping (4.3 percent). This is a fairly typical distribution of expenses for a primarily drive-to destination,

Figure 10. Visitor Expenses





except that the percentage spent in restaurants/bars would normally be higher (e.g., 15% or more). The survey findings hypothesize that this is due to the high percentage of visitors staying in rental homes that prepare and consume meals at their rental properties.

The typical trip expenses for visitors are described in the table below. The overall average of expenses per visiting party for the top three expense areas are: \$1,775 for accommodations, \$302 for restaurants/bars, and \$249 for food/beverage purchases in grocery stores. This information is supportive of the breakdown of jobs and industries seen in the town.

Table 3.4.1.F: Average Trip Expenses in Dollars

Category	Total Expenses Reported	Total # of Respondents	Avg Expense/ Visiting Party [1]	Total Visitors Included in Expenses Reported [2]	Avg Expense/ Visitor	Total Number of Visitors [3]
Accommodations	\$13,060,741	7,360	\$1,775	36,705	\$355.83	37,694
Restaurants/ bars	\$1,827,188	6,041	\$302	25,918	\$70.50	26,974
Food/ beverage purchases in grocery stores	\$1,467,305	5,893	\$249	28,103	\$52.21	28,609
Transportation	\$1,049,726	4,710	\$223	19,428	\$54.03	21,870
Gifts/ souvenirs/ shopping	\$838,349	5,370	\$156	23,905	\$35.07	25,006
Other attractions	\$362,132	3,805	\$95	13,845	\$26.16	17,778
Other expenses	\$269,118	2,273	\$118	5,545	\$48.53	10,607
Entertainment/ theatre	\$234,593	3,372	\$70	8,657	\$27.10	16,001
Rentals (sports gear, bicycles, etc.)	\$184,075	2,850	\$65	5,919	\$31.10	14,439

NOTES:
 [1] Average party size is 4.2 and the average length of stay is 5.8 days
 [2] Number of visitors included in the reported expenses in the category (i.e. excludes \$0 responses).
 [3] The total number of visitors is the sum of visitors that were included in the expenditures reported (i.e. includes \$0 responses).

G. Visitor Activities

The Visitor Survey 2014-2015, conducted by the Outer Banks Visitors Bureau, asked visitors what activities they participated in while they were here on vacation. The top three activities during all seasons were beach, scenic drives, and lighthouses. Other common activities following the top three were dining at restaurants unique to the area, national



parcs, museums/historic sites, and shopping. Depending upon the season, these other activities change in terms of ranking. This feedback is supportive of the breakdown of jobs and industries seen in the town.

Table 3.4.1.G: OBVB Survey of Actual Activities During Visitation

Activity/Attraction	# Responses	% of Total Responses	Activity/Attraction	# Responses	% of Total Responses	Activity/Attraction	# Responses	% of Total Responses
Beach, ocean	9,682	87.7%	Beach driving	1,772	16.1%	Study/educational tour	442	4.0%
Scenic drives	7,621	69.1%	Kite flying	1,544	14.0%	Theater performance	427	3.9%
Lighthouses	7,311	66.3%	Biking	1,330	12.1%	Concert/musical performance	257	2.3%
Dining at restaurants unique to the area	5,773	52.3%	Kayaking/canoeing	1,007	9.1%	Parasailing	246	2.2%
National parks	5,436	49.3%	Art gallery	789	7.2%	Wedding	238	2.2%
Museums/historic sites	5,278	47.8%	Water sports	776	7.0%	Tennis	185	1.7%
Shopping	5,106	46.3%	Charter boat fishing	671	6.1%	Hang gliding	146	1.3%
Ferry	2,748	24.9%	Golf	656	5.9%	Competitive sports event	126	1.1%
Fishing from beach or pier	2,378	21.6%	Surfing	542	4.9%	Kite boarding	88	0.8%
Wildlife viewing/bird watching	2,361	21.4%	Camping	523	4.7%	Scuba diving	61	0.1%
Hiking	2,234	20.2%	Festival or other special event	515	4.7%			

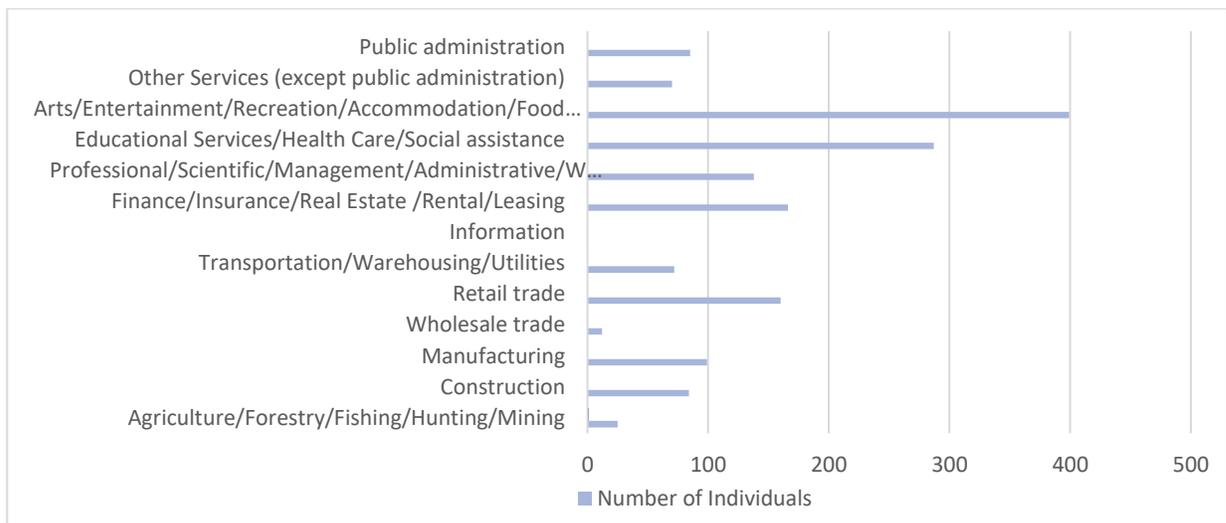


H. Employment

Dare County’s tourism sector generates 12,710 jobs, 50.480 million in state tax receipts, and 47.03 million in local tax receipts. Tourism encompasses the retail, arts, entertainment, recreation, accommodation, and food service industries.

Employment by Industry

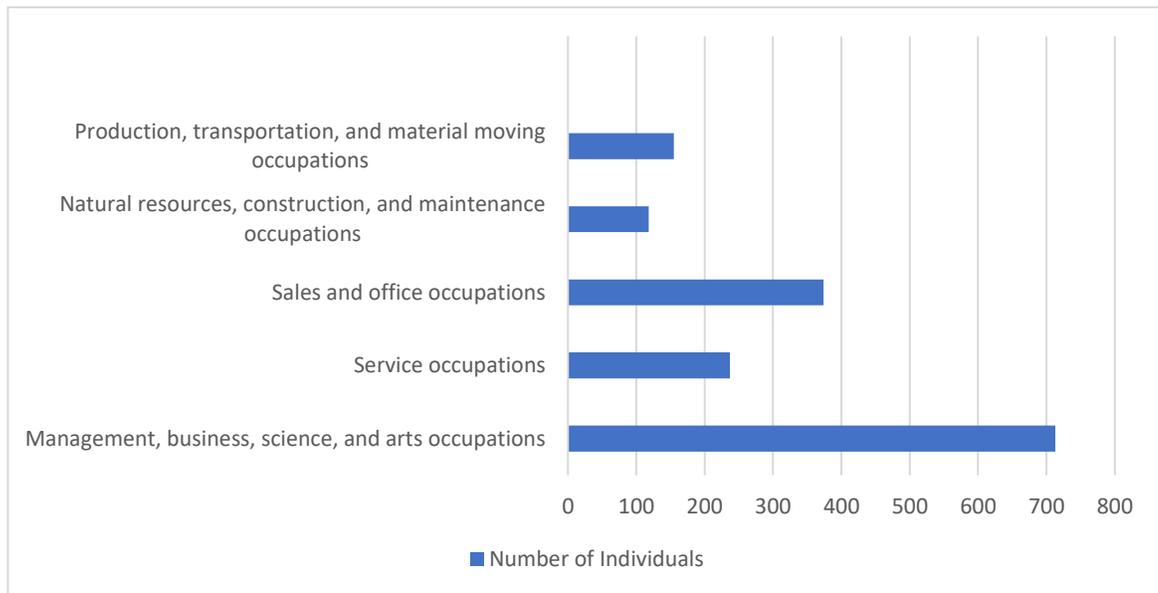
According to the US Census Bureau, information on industry relates to the kind of business conducted by a person's employing organization. For employed people the data shown below refers to the person's job during the reference week. For those who worked at two or more jobs, the data refer to the job at which the person worked the greatest number of hours. Some examples of industrial groups include agriculture, forestry, and fisheries; construction; manufacturing; wholesale or retail trade; transportation and communication; personal, professional and entertainment services; and public administration. In Nags Head, the arts, entertainment, recreation, accommodation, and food services industry comprise the largest employment industry type at 25% of the total of individuals in the Town. While the majority of employment is rooted in the service industry that supports the tourism based economy, Nags Head has seen an increase in employment opportunities in the health care and education sectors. Educational services, health care, and social assistance industry sectors now represent 18% of the total of individuals in the Town. In the last 15 years, Nags Head has become a hub for health care on the Outer Banks. The Outer Banks Hospital was built in 2002 followed by the Outer Banks Radiation Center in 2003. Nags Head also is home to two urgent care locations, Peak Resources Nursing and Rehab Center, many doctor offices, and the Community Care Clinic that offers basic healthcare services to the financially challenged. As people retire to the area and existing residents age, there will be a greater demand for health care in the area and potential growth in this industry.





Employment by Occupation

According to the US Census Bureau, occupation describes the kind of work the person does on the job. For employed people, the data represented below refers to the person's job during the reference week. For those who worked at two or more jobs, the data refers to the job at which the person worked the greatest number of hours. Some examples of occupational groups include managerial occupations; business and financial occupations; scientists and technicians; entertainment; healthcare; food service; personal services; sales; office and administrative support; farming; maintenance and repair; and production workers. In Nags Head, approximately 44.6% of individuals work in positions related to management, business, science, and arts. This is followed by the sales and office occupations at 23.4%. These two occupational categories comprise 68% of individuals in the town.



I. Local Benefit

Dare County and its municipalities greatly benefit from the tourism industry. Currently, visitors pay 12.75 % in taxes when they stay in a hotel, rental home, campground, cottage court, or bed & breakfast. In addition, the county collects sales and prepared food tax. These taxes collected are distributed between Dare County, the local municipalities, and the Outer Banks Visitors Bureau. The Outer Banks Visitors Bureau utilizes a portion of the money to market the Outer Banks as a destination but also offers grants and programs that support event development and capital projects within the county and all of the municipalities.

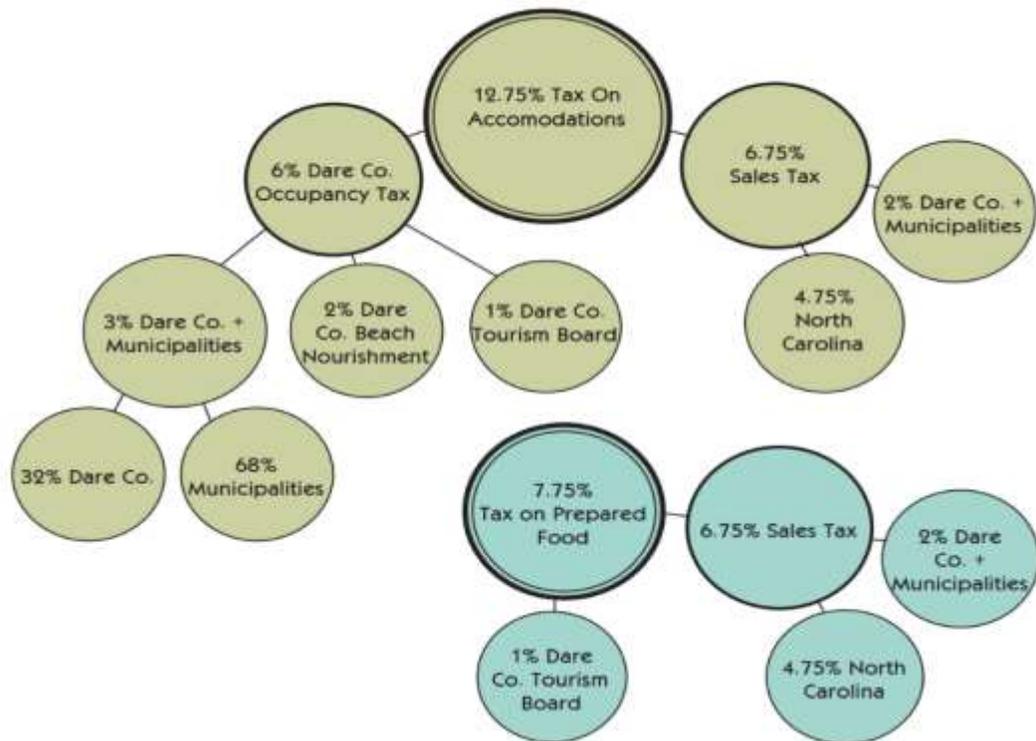


Occupancy tax is paid by the lodging business owner to the county on a monthly basis. Unlike sales tax, no occupancy tax revenue is directed to state government in North Carolina--100% remains at the local level. An \$8,000 a week cottage rental will generate \$1,020 in occupancy taxes. Of the 12.75% collected, 6.75% is sales tax and 6% is occupancy tax. In addition, to the occupancy tax, consumers are also taxed 7.75% on prepared foods.

The use of occupancy tax revenue is restricted to:

1. Tourism promotion.
2. Tourism-related expenditures, which includes uses varying from staging festivals and events to providing some municipal services.
3. Funding or debt support for tourism-related capital projects such as visitor centers or visitor attractions.
4. Tourism-related beach nourishment.
5. General fund revenue and other non-tourism uses.

How the Occupancy And Prepared Food Taxes Are Distributed





For Nags Head in 2013-2014, occupancy tax received was approximately \$2,492,045. Without this revenue, the town would have to choose to either reduce services or increase property taxes as much as 10.74 cents. The table below illustrates this for Dare County and its municipalities. In Nags Head, one penny of property tax generates approximately \$230,000 annually. The town should continue to educate citizens on the important of tourism revenues and how they work to support the town’s tax base.

Table 3.4.1.I: How Tourism Helps Local Taxpayers		
Town	How Much Each Town Received in Occupancy Tax in FY 2013/2014	Increase in the Town Property Tax Rate without Occupancy Tax Revenue
Duck	\$917,251	5.97 cents
Southern Shores	\$985,073	5.66 cents
Kitty Hawk	\$984,246	10.05 cents
Kill Devil Hills	\$2,144,644	10.34 cents
Nags Head	\$2,492,045	10.74 cents
Manteo	\$597,992	9.16 cents
Dare County	\$3,892,224	3.13 cents

3.4.2. TOURISM IN THE FUTURE

The Visitor Survey in 2014-2015 found that visitor satisfaction is very high and has been sustained at the same level of satisfaction since the last survey in 2006. The majority of visitors (64 percent) are repeat visitors, and the average repeat visitor is making their sixth trip to the Outer Banks.

Visitors taking the survey were asked for suggestions on how The Outer Banks could be improved as a destination. Approximately 2,471 respondents included the following suggestions:

- Don’t change anything /everything great/can't think of anything (306 respondents)
- Improved traffic situation (278)
- Recycling program improvement (123)
- Signage improvement (110)
- Improved ferry services (90)
- Additional bridge construction (77)
- No overbuilding/increased development (77)
- More dining options (58)



- More night life (58)

In addition to meeting the needs of current visitors and residents, it is wise to begin looking forward and exploring how to remain relevant in the future. The next visitor generation will be different in their desires and needs for travel. Millennials, born between 1980-2000, will outpace baby boomers in population in the next 20 years. Millennials desire authentic experiences, to know the story behind the place, and are outdoor enthusiasts. In addition, millennials have always known technology and access to Wi-Fi remains important. Since millennials desire authentic experiences, they are already geared more toward a preference of local businesses versus franchises. The Outer Banks is poised to serve this population well. The town should continue to partner with the Outer Banks Visitors Bureau to plan for and accommodate the needs of current and future visitors.

POLICIES & ACTIONS

- EC-1 Develop and promote a sustainable economy that supports a high quality of life for residents and visitors without compromising the integrity of natural and cultural resources and sense of place.
 - EC-1a: Develop a focused educational effort for citizens on the regional economy and importance of tourism revenues in supporting the town's tax base.
 - EC-1b: Utilize updated research and feedback from the Outer Banks Visitor studies and surveys to assist town staff in planning and budgetary efforts.
- EC-2 Encourage the continued promotion of Nags Head and the Outer Banks as a destination.
 - EC-2a: Promote cultural, educational, and recreational events that reflect community goals and values with an emphasis on extension of shoulder seasons.
 - EC-2b: Coordinate with the Outer Banks Visitors Bureau to better promote and advertise Nags Head.
- EC-3 Meet the infrastructure and service needs of the community at appropriate levels as the community continues to grow.
- EC-4 Advocate for the provision of high quality, responsive services, legislation, resources, and policies from government partners and other organizations that further the vision of the Town of Nags Head.



3.4.3. LOCAL BUSINESS DEVELOPMENT

Nags Head has a thriving, diverse business community comprised of both local businesses and national chains that meet the needs of visitors and residents. Nags Head is historically known for its small, local businesses that help define the family beach character known today. A 2011 study by the Small Business Administration's Office of Advocacy states that 60-80 percent of all new jobs come from small business. Small, local businesses not only create the most jobs, they also have greater allegiance to the local community. In addition, their diversity contributes to a stable economy.

As far back as the 1985 Land Use Plan Update, adopted town policy indicates a desire for the town to be primarily a single-family residential community with only limited commercial development. Previous plans indicate that the town preferred smaller scale, commercial businesses and clearly stated a desire not to develop a commercial district designed to serve a regional market. That desire for small scale, community serving businesses still exists today. During the community engagement process, the Advisory Committee noted that the presence of unique, locally owned businesses directly contributes to the overall quality of life, high quality family beach experience, and is reflective of the community's heritage and lifestyle. Furthermore, the community identified the loss of "mom & pop" stores and restaurants as one of town's greatest challenges in the future.

A. Local Business Committee

In February 2015, the town established the Local Business Committee with the goal of exploring ways to make Nags Head a more welcoming community for businesses, residents, and visitors. The Local Business Committee is comprised of local business owners in the town. It is the town's desire to create an atmosphere to support and foster small businesses by eliminating obstacles to their success. The Local Business Committee has focused on gathering feedback and input from local businesses owners in an effort to identify, remedy, and improve the overall government approach, including regulations, programs, and services, needed to enhance the community brand and serve to further develop the local economy. The committee was provided with a list of responses to the questions posed during the Local Business Workshop in early 2014. The committee agreed with the majority of issues identified at that meeting and has worked with staff during the past year to further vet these issues. These issues are outlined below.



Table 3.4.3.A: Issues Facing Local Businesses

Issue	Description	Action
1. Safety lighting on beach road	Safety concerns about bicyclists and pedestrians walking at night to businesses.	Was in the 2015-2016 budget, but removed due to implementation hurdles.
2. Shopping center signage	Tenants in shopping centers lack visibility. Currently how signage is delineated is dictated by the land lord. Staff follow up on square footage of free standing signage	No action to date. Signage factsheet pending.
3. Larger, more visible street name signs	Street name signs could be more visible with reflective lettering. Visitors having trouble orienting themselves at night.	No action to date.
4. Street addressing	Display street addresses- focus on business. Helps visitors locate businesses	Committee was provided with information.
5. Nonconforming signs	Repair threshold from 25% to 50%. Larger, older signs often go with older structures that are desirable.	Adopted language late 2015
6. Roof-top signs		Adopted
7. Flexibility in zoning	Build in flexibility in zoning ordinances to keep character of older structures and businesses viable.	Developed administrative adjustment language. Adopted 2016
8. More than one principal use	Allow more than one principal use per property	Adopted 2015
9. Landscaping	Revise landscape/buffer codes to allow flexibility for clustering so that businesses are not blocked by wall of vegetation.	Adopted 2015
10. Bike racks	Encourage businesses to install more bike racks so that people will consider biking/walking to businesses. Use an incentive to allow flexibility in parking. Would like to reduce parking requirements.	Currently have language- Sec. 48-165 (e) but want to do more.
11. Branding Nags Head	Develop a consistent brand (i.e. logo, lettering, color package) that can be used by businesses and town on social media, etc. that sets Nags Head apart from other towns.	No action to date.
12. Wayfinding signage	Develop a consistent signage system to orient visitors to destinations.	No action to date.



Table 3.4.3.A: Issues Facing Local Businesses

Issue	Description	Action
13. Development of a business association	Assist businesses in the town in developing an association to create a common voice.	Staff has completed a spreadsheet of all businesses with contacts.
14. Sign Factsheet	Develop and distribute a factsheet that explains what is allowed and not allowed for signage according to the town ordinances.	Factsheet is finished and distributed.
15. Mass transit	Develop a trolley system that will circulate throughout town making stops at beach/sound access points and other local destinations.	No action to date.
16. Public Education- Septic Health	Update businesses and citizens on septic health, density, pumping, incentives, and groundwater	Current send out mailer once a year but needs to reach people that have never pumped.
17. Property Purchase	Town purchase property for public parking	No action to date.
18. Connectivity	Supportive of projects in the Pedestrian Plan and the Soundside Boardwalk project that will better interconnect destinations.	Incorporated in the FOCUS comprehensive plan.
19. Administrative Adjustments	Provide flexibility to staff to approve minor modifications through administrative adjustment language. (Height, setbacks, landscaping, parking)	Adopted 2015
20. Speed limits	Reduce speed limit on US 158.	Resolution reviewed by NC DOT but not recommended.
21. Outdoor Display vs Outdoor Storage	The committee is concerned about the aesthetics of the corridor. Need to more clearly define what constitutes outdoor display vs outdoor storage.	Letter to business owners in lieu of regulation.
22. Rental Signage	Residential real estate signs that advertise homes for rent for properties that are set back more than 100' road. Signs were growing in size and creating a cluttered appearance along Highway 12.	Addressed in revised sign regulations, adopted July 6, 2016. Went from 6 sq. ft. to 3 sq. ft.

The town has implemented changes to address some of these issues. Since the Local Business Committee's inception the committee has worked, and continues to work, with staff to bring forward a number of modifications in the town's regulatory language.



B. Legacy Businesses

Nags Head's vision statement places a great emphasis on the town's legacy. The vision emphasizes preserving and protecting the Nags Head character, tourism based economy, and sense of place; "We uphold our legacy by protecting and promoting our small town character that includes a sustainable local economy based on family vacation tourism, a high quality beach experience, and small, locally owned businesses."

During the community engagement portion of the plan, the Advisory Committee recognized that many of the small businesses contribute to the sense of place, quality of life, and high quality visitor experience within the town. The committee referenced these establishments as legacy businesses and described them as nostalgic or a reminder of the past. They conveyed the idea that life here was different, and helped to tell the story of Nags Head's past.

The Advisory Committee further identified that legacy businesses typically have the following characteristics:

- The architecture is varied but the overall size and scale of the building is small and blends within the surrounding neighborhood.
- The building is low scale often with only one or 1 ½ stories.
- Multiple small buildings may be located on the same property with a mix of residential and business uses. However, the structures appear residential.
- The buildings are set in close proximity to the road.
- Parking is directly adjacent to the building or wraps the building.
- Restaurants often have walk up windows with outdoor seating.
- The area is highly walkable and businesses often have amenities such as outdoor seating and bike racks that cater to pedestrians and cyclists.
- Structures with legacy characteristics were typically constructed prior to 1980.
- Dining and retail establishments with legacy characteristics in Nags Head range on average between 3,000-5,000 square feet in size.

Further analysis and study should be completed to further define and preserve legacy businesses in the town. Additionally, this information can be used to encourage future development to construct similar to legacy type structures.

Since 2002, the town has seen a number of small, local businesses close, many along NC 12. These are being converted into residential development. The 2010 Land Use Plan recognizes this same concern but also points to businesses relocating to US 158 or going out of business due to large chain or "big box" stores. This is concerning since the Visitor's



Survey 2014-2015 indicates that 52.3% of respondents rank dining at restaurants unique to the area at 4th (out of 32) in the activities they participated in during their stay.

The town has made great strides and forward progress in the last two years working with local business owners to identify opportunities and constraints to their success and how the town can be a part of that. However, there are still policy questions related to retaining and maintaining legacy businesses in the long term that should be vetted. Preservation and upkeep of these legacy establishments is crucial in preserving the small town character that is central to the town's vision.

POLICIES & ACTIONS

- EC-5 Direct new commercial growth into neighborhood commercial nodes, activity centers, or areas currently zoned for commercial development with emphasis on reuse of existing structures.
- EC-6 Support and foster small, local businesses that preserve and uphold the vision and legacy of the town.
 - EC-6a: Continue to work with the Local Business Committee to further identify and remedy regulatory barriers for opening and operating businesses.
 - EC-6b: Develop and map an inventory of local businesses representing each sector of the town's economy.
 - EC-6c: Develop regulatory flexibility that allows existing small, local businesses to upgrade and maintain their facilities in order to remain relevant and competitive in the market.
 - EC-6d: Evaluate the impact of town processes, related to zoning and permitting, on businesses and streamline to meet the town's needs while supporting business investment.
 - EC-6e: Expand the availability of town services available on-line to better meet the needs of the businesses community.
 - EC-6f: Provide technical assistance through workshops, educational materials, or web based media to educate business owners on town processes and regulations related to owning and maintaining a business.
 - EC-6g: Develop a branded wayfinding, safety, and information signage plan to identify types and locations of signage for pedestrians, cyclists, and vehicles. Install appropriate signage. Signage should enable visitors to locate existing town parks, sound and beach access points and trailheads.



POLICIES & ACTIONS

- EC-7** Recognize the role and importance of the look and feel of legacy development in creating the distinctive heritage, unique lifestyle, and family beach character that is central to the town's vision.
- EC-7a: Develop more specific criteria for legacy businesses, based on research and data of existing legacy type buildings.
 - EC-7b: Inventory, research, and map businesses that fit within the legacy business criteria.
 - EC-7c: Develop incentives to encourage the preservation of commercial floor space.
 - EC-7d: Explore ways to aid in the development of cottage courts.
- EC-8** Enhance economic health and increase employment opportunities through business retention and expansion.
- EC-8a: Partner with the Outer Banks Chamber of Commerce to research and conduct discussions with local, small business owners in order to better understand factors contributing to the sale or loss of businesses.
 - EC-8b: Coordinate with the Outer Banks Chamber of Commerce to offer education and training for local, small business owners on succession planning.



3.4.4. ECONOMIC DIVERSIFICATION

The key to diversification of any economy is to first understand the demographics and assets within the community. Both Dare County and the Town of Nags Head's economy are based heavily on the tourism industry with particular concentrations of employment in accommodations, food service, retail, construction, and real estate. The tourism industry is directly linked to the area's high quality natural resources that include the town's beaches and water bodies. Dare County and Nags Head currently do not have the workforce nor the land to accommodate traditional large employers that would often be sought after to enhance the economic base. However, there are opportunities to better utilize the area's assets and existing markets to create greater stability in the local economy year-round. Due to the regional nature and interconnectedness of the economy in the Outer Banks, diversification and long-term economic sustainability will be difficult to accomplish without partnership between municipalities, the county, the Visitors Bureau, and the Chamber of Commerce.

The Outer Banks Chamber of Commerce Economic Development & Sustainability White Paper points out that of the 35,371 people who call Dare County home, 22,498 are employed in the area. Not surprising is that 27% of those are employed in the accommodations and food service industries, 19% in retail trade, and 15% in real estate. Smaller percentages are employed in construction, healthcare, arts/entertainment/recreation, education, administration, and public administration. The tourism economy brings cyclical unemployment that ranges from about 4% in-season to 15% in the off season. Greater focus and consideration should be given into how to add full-time, year-round jobs to supplement the seasonality of the employment market making it more stable.

There is also concern about the area's excessive reliance on retail services for employment. Of 22,500 employees in the county, 61% work in the accommodations and food businesses that serve tourism, according to the Chamber of Commerce. Changes in the Economic Census from 2002 to 2012 also reveal that the local economy is increasingly retail dependent. Meanwhile, the number of professional service jobs has declined. Making an effort to appeal to professionals, of all ages, working in higher income services and who can work from any location is one approach to addressing this employment imbalance. With a substantial number of visitors from Northern Virginia this may be a region to target in an economic development policy focused on remote workers.

Dare County is currently working on an Economic Diversification Plan with NC State University. The purpose of the plan is to explore options for stabilizing the cyclical nature of economy associated with tourism based employment. The study is in the research and data gathering phase with an anticipated adoption near the end of 2016. The town should continue to partner and engage in this effort as it moves forward.



A. Barriers in Economic Development and Diversification

In any community, barriers exist that hinder economic development and diversification. However, in order to truly be successful, open discussion surrounding potential barriers should be conducted in order to improve the long-term viability of existing businesses and grow our local economy. Local barriers include:

- Workforce housing (houses in the range of affordability for fire, EMS, police, and teachers)
- Cost of living
- Infrastructure
- Roads
- Bridges
- Utilities (water, wastewater, power)
- Bicycle and pedestrian connections
- Technology infrastructure
- Public Transportation
- Workforce issues (finding qualified candidates at appropriate skill levels)

These barriers are complex, but not new. However, by strengthening civic infrastructure, the community can come together to meet this challenge and become a more sustainable, vibrant place to live and visit. Civic infrastructure can be defined as the social connections, decision-making processes, difficult conversations and informal networks that influence how the people in a community function. Strong civic infrastructure can make the difference between a successful strategy and a series of unrelated independent actions that do not move the regional economy forward. As noted, economic development planning is best performed by a public-private partnership because economic development represents the nexus between public and private sector interests. The town sees economic activity as contributing to jobs and tax revenues and therefore, to the quality of life.



POLICIES & ACTIONS

- EC-9** Develop a partnership with Dare County, the Outer Banks Visitors Bureau, the Outer Banks Chamber of Commerce, the Albemarle Commission, and other municipalities to advance a regional approach for economic development.
- EC-9a:** Continue to support and participate in Economic Diversification Studies conducted by Dare County and other regional authorities.
- EC-9b:** Identify and discuss barriers to economic development and diversification. Develop strategies from these discussions that can be implemented within the town that work to bring economic sustainability.
- EC-9c:** Continue to partner with the Albemarle Commission on Workforce and Economic Development Initiatives.
- EC-9d:** Continue to partner with the College of the Albemarle to develop training opportunities for existing businesses and new enterprises.
- EC-10** Promote the growth of existing businesses and the recruitment of new business that are compatible with the town's vision which add full-time, year-round jobs that work stabilize the employment market.
- EC-10a:** Improve and expand local and regional transportation linkages, including roads, bridges, multi-modal connections, public transportation, and internet.



3.5. CULTURAL RESOURCES

Culture and art are essential to Nags Head's unique identity. Local culture not only provides a sense of place but significantly shapes development and contributes to the overall quality of life. An understanding of a community's history reflects past events that feed and help drive the demands and interests of the present. Focusing on the town's unique cultural resources, values, and traditions, fosters community spirit, social cohesion, and tolerance.

To that end, the Town of Nags Head prides itself on the authenticity and quality of the experience that its visitors receive seasonally and its residents enjoy year round. This is directly related to the abundance of natural and cultural resources in the town. While access to natural resources is plentiful and most sought after during the warm seasons, the town's cultural resources are vital to tourism during the shoulder seasons. These resources create opportunities for citizen engagement and participation, education, socialization and most importantly, the creation and continued growth of a sense of community.

From learning about maritime forests and pirate lore, to the fresh catch of the day and local cuisine, the variety of cultural resources within the Town of Nags Head is diverse. The town strives to support and nurture its existing resources while planning for the future trends and needs of the residents and enhancing the overall quality of life.

Other plans referenced in this element:

- Gallery Row Arts District Report
- VCU Study – Historic Cottage Row
- Community Organizations

Specific areas of Cultural Resource focus in the Comprehensive Plan include:

- 3.5.1 Cultural Resources
- 3.5.2 Cultural Initiatives, Events, & Activities
- 3.5.3 Community Organizations



3.5.1. CULTURAL RESOURCES

The most commonly recognized cultural resources are the tangible assets that make up the town, including museums, galleries, theaters and historic structures. Cultural resource management typically refers to preserving these assets, both the physical structures and their economic viability. Nags Head has an abundance of cultural resources that complement the town's natural resources and work together to create a unique sense of place and high quality of life.

As acknowledged in the town's vision, the town is committed to preserving the community's distinctive heritage and unique lifestyle. This is characterized by an environment that reflects the heritage of "old Nags Head" with unique and eclectic architectural styles, scenic views, and coastal landscapes. Preservation of the town's cultural resources is central to realizing this goal.

In recent years, the town has made great efforts toward protecting these resources through the following:

- Adoption of architectural design standards, paying homage to the Nags Head Historic Cottage Row.
- Acquiring and maintaining open space to include Nags Head Woods, Whalebone Park, Dowdy Park, and several properties on the causeway.
- Initiatives to assist the arts community including a study of the Gallery Row Arts District with recommendations in reviving this area and promoting arts throughout the town. Other efforts include signage for this district and events such as the annual Roll and Stroll.
- Re-establishment of the town's Artwork Selection Committee to coordinate with the Nags Art is the Heart group on community art projects.
- Adopting codes to allow wind turbines at Jockeys Ridge and Jennette's Pier – which are educational, environmentally relevant, and symbols of our local climate.

A. Existing Cultural Resources

1) Town of Nags Head, Town Hall Art Collection

In 1997, a group of Nags Head residents and elected officials began to envision a collection of art that would not only compliment the town's new municipal building, but also celebrate art and the artists of Northeastern North Carolina. The Town of Nags Head has purchased more than 100 works of fine art by local artists over the course of many years. This collection is displayed at Town Hall and open to the public during regular business



hours to view the artworks. A self-tour features creations by the area's best artists. There are a variety of works including paintings, drawings, sculpture, fiber and ceramic art, mixed media, hand-carved wood work, and old and new photographs. There is a special emphasis on regional themes varying from the realistic to the abstract.

2) Historic Cottage Row

Located just east of Jockey's Ridge State Park there lies a mile long stretch of oceanfront beach cottages that display a remarkable and reminiscent image of the Nags Head lifestyle of the late Nineteenth and early Twentieth Centuries. This row of approximately 41 contributing homes, including two complimentary structures on the west side of the NC 12, was named to the National Register of Historic Places in 1977. The architectural designs of these historic structures have since become the model for what the town currently desires in modern architecture. Large wraparound porches to give the inhabitants a cool spot to sit, built in benches, propped shutter windows, full width dormers and gabled roofs were most characteristic along with wood cedar shakes that remain weathered and unpainted. This is a visually distinct and historical area within the town attracting and intriguing both visitors and locals. More detailed information about the district and the individual houses can be found at websites maintained by the U.S. National Park Service pertaining to the National Register of Historic Places.



In 2008, a Beach Cottage Row Historic District Local Historic District Plan was developed by the Graduate Urban and Regional Planning Program at Virginia Commonwealth University at the request of Nags Head Property Owner Bill Flowers. The plan included



recommendations and guidance needed to prepare for and implement a local historic district. While this plan was not adopted by the Nags Head Board of Commissioners, it contains useful and interesting information about the history, geography, architecture, and threats to the district. At a minimum, the town should review its zoning standards related to the areas adjacent to the Historic Cottage Row to ensure compatible development. More details on this recommendation are included in chapter two related to the Historic District character area.

3) Beachcomber Museum

This treasure tucked away around Milepost 13 is also known as the Mattie Midgett store. It once was a local Nags Head grocery store, and home to Nellie Myrtle Pridgen, but is now the home of an extraordinary and diverse collection of seaside relics. The Mattie Midgett Store was built in 1914 on the soundside and moved to its current location in 1932. It is listed on the National Register of Historic Places. The store has been converted into a museum displaying shells, sea glass, and many other rare treasures collected by Nellie Pridgen during her lifetime in Nags Head.

4) USS Huron Historic Shipwreck Preservation Site

On November 24, 1877 the USS Huron, one of the last American naval vessels to be built of iron rather than steel and to be equipped with sails to supplement its steam engines, ran aground approximately 200 yards from the beach due to a heavy storm and an error in the ship's compass. The crew of 16 officers and 118 enlisted men were unable to swim to shore due to heavy surf, strong currents and cold temperatures. Today, the USS Huron Shipwreck can be found approximately 250 yards from the beach between Mileposts 11 & 12 in Nags Head. During summer months, buoys mark the bow and stern of the wreck attracting snorkelers to explore the remains of the ship. Preservation of this historic shipwreck is administered cooperatively by the North Carolina Department of Cultural Resources, the Town of Nags Head, and the United States Navy.

5) Fishing Piers

Nags Head is home to more fishing piers than any other community on the Outer Banks with three of the five piers located in the northern portion of the Outer Banks.

Jennette's Pier has a long history dating back to its original construction in 1939 as the Outer Banks first fishing pier. In September 2003, Hurricane Isabel all but destroyed Jennette's Pier with over 540' of the 754 ft. pier falling into the ocean. Now under the ownership of the North Carolina Aquarium Society and the North Carolina Department of Cultural Resources, reconstruction of the modern day pier was completed in May 2011. The pier is 1,000 feet in length making it one of the longest on the Outer Banks with a pier house containing a tackle shop as well as an educational center with ocean classrooms and numerous educational exhibits. The second floor contains a gathering space utilized for a



variety of public and private events. Today, Jennette's is one of the most popular fishing piers on the Outer Banks, attracting anglers, visitors, and families from all over that are interested in learning more about the Outer Banks coast through the many educational programs.

In addition to Jennette's Pier there are two other fishing piers in the town. Nags Head Fishing Pier, in the northern portion of Nags Head, which is approximately 750 feet in length and the Outer Banks Fishing Pier, in South Nags Head is approximately 600 feet in length. In addition to a tackle shop, both of these piers contain restaurants that serve as a gathering space for visitors and locals alike.

B. Local Art

1) Gallery Row District

This unique and distinct district, located in and around the 10.5 milepost has great history and significance within the Town of Nags Head. The district has historically been

considered to encompass the area that runs from Bonnett Street to Driftwood Street between NC 12 and US 158. Over the course of time its boundaries have expanded to include not only galleries but a larger perimeter of businesses which directly support the galleries. Included in this area are well-known galleries such as Seaside Art Gallery, Glenn

Eure's Ghost Fleet Gallery, Morales Art Gallery and Jewelry by Gail. Now located outside of Gallery Row, Yellow House Gallery was a well-known and prominent gallery in this district for many years. This district flourished in the 60's, 70's and 80's however in the late 90's Gallery Row began to struggle with maintaining a sense of place. In 2012 the Town of Nags Head along with many gallery and local business owners began efforts to return Gallery Row to its initial success. Efforts undertaken to date include numerous formal and informal gatherings with gallery owners and supporting businesses to discuss revitalization efforts, completing a Gallery Row Arts District Report identifying potential future





revitalization strategies, designing and installing the Gallery Row District signage along NC 12, and participating in the annual Gallery Row Roll and Stroll event. This area is rich in history and the town desires to continue efforts to help this area thrive once more.

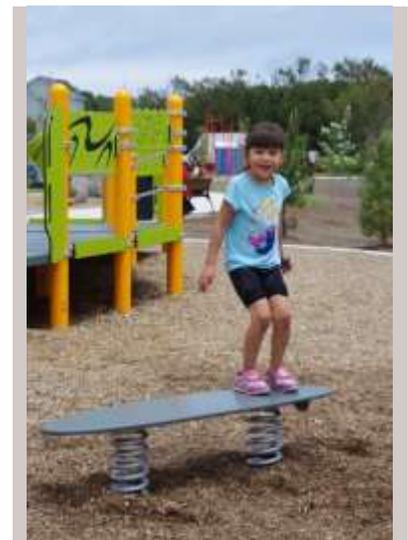
C. Parks

1) Soundside Event Site

The Soundside Event site is an expansive 15-acre property abutting the Roanoke Sound in Nags Head owned by the Dare County Tourism Board and the Town of Nags Head and managed by the Outer Banks Visitors Bureau. This one of a kind property hosts a variety of events throughout the year drawing crowds from all over enhancing both in-season and off-season tourism. The Soundside Event Site is proposed to be constructed in phases over the course of several years. This property is an asset to the Town of Nags Head and the Outer Banks as a whole serving as a central gathering space, a community hub for entertainment and education, and passive recreation.

2) Dowdy Park

Dowdy Park is a five acre property owned by the Town of Nags Head and situated adjacent to US 158 and surrounded by the Nags Head Elementary School, the YMCA, and the Bonnett Street Beach Access. The site was previously home to Dowdy's Amusement Park. After its closure, the town purchased the property and began a community based design process to create a neighborhood scale inclusive play and gathering space for people of all ages and all abilities. Upon completion, the park will include an events plaza which can accommodate craft fairs and farmer's markets, a pavilion for small scale performances, fitness stations, walking trails, sport court, community garden, multi-use playing field, restrooms, and parking. This park is envisioned to be a community center and space for both programmed and impromptu events.



D. State & Federal Parks & Other Conservation Areas

1) Nags Head Woods Ecological Preserve

Nags Head Woods Ecological Preserve is a unique treasure comprised of over of 1,100 acres of conservation land located within Dare County and managed by The Nature Conservancy. In addition to the diverse population of plants and wildlife, the Preserve is also rich in cultural history. Nags Head Woods was a thriving community with



approximately 13 home sites during the 19th century and through the 1930's. It is believed that, in addition to these home sites, there were two churches, a school, a store, farms, a gristmill, and a shingle factory. Remnants and artifacts of these elements remain throughout the preserve. Visitors can hike through several trails to explore both the natural and cultural resources of the Preserve.

2) Jockey's Ridge State Park

While largely considered one of Nags Head's most notable natural resources, this state park also serves as a valuable cultural resource. In addition to the available recreational opportunities, the facility also offers a wide variety of educational events and programs designed to showcase the park's unique ecosystem including the Roanoke Sound, the dune system and maritime forest. The park's visitor center features a museum about the cultural and natural history of the park including information on the dunes, plant life, wildlife, weather, and local maritime history.

3) Cape Hatteras National Seashore

Stretching from Bodie Island to Ocracoke Island, the Cape Hatteras National Seashore is a federally owned national recreation area maintained by the National Park Service. A portion of the seashore is directly adjacent to Nags Head from Whalebone Junction to the southern town limits. This is nationally significant park resource and draws visitors nationwide and internationally.

4) Outer Banks National Scenic Byway

The Outer Banks National Scenic Byway traverses one of the nation's great wild and scenic coastal landscapes encompassing the unique maritime culture of 21 coastal villages. The U. S. Department of Transportation found the traditional maritime culture along the Byway worthy of the National Byway designation in October, 2009. The Outer Banks National Scenic Byway is one of only 150 nationally designated byways. The Byway follows the North Carolina coastline as it juts east into the Atlantic Ocean stretching over 138 driving miles and 25 ferry-riding miles along barrier islands, Pamlico Sound and two inlets and through coastal villages.

The Byway encompasses two national seashores, Cape Hatteras and Cape Lookout National Seashores are homes for four iconic lighthouses, including the nation's tallest brick lighthouse (Cape Hatteras) and its second oldest operating lighthouse (Ocracoke) as well as the stately and picturesque Bodie Island and Cape Lookout lighthouses. Two national wildlife refuges, Pea Island and Cedar Island, highlight this coastal region's world famous stopover for migrating song birds and waterfowl.



Section 3: ELEMENTS
3.5. Cultural Resources
3.5.1. Cultural Resources



Locally, The Outer Banks National Scenic Byway begins in the north at Whalebone Junction, the joining of US 64-264, US 158, and NC 12, in Nags Head, Dare County. Byway travelers following the Byways NC 12 south are flanked by the Atlantic Ocean on the east and Pamlico Sound on the west.



- National Scenic Byway
- Other Byway
- Historic Character Area
- Cape Hatteras National Seashore
- National Register Historic District
- Significant Natural/Scenic Area
- Recreation Site/Access
- Extraterritorial Jurisdiction
- Town Street
- Beach Road Corridor
- Bypass Corridor
- Causeway

FOCUS
NAGS HEAD
CONSERVING THE BEAUTY

**Significant Natural, Scenic
and Cultural Areas**



3.5.2. CULTURAL INITIATIVES, EVENTS, & ACTIVITIES

The town and a number of community based organizations work to advance the number and variety of cultural offerings in the town. These include cultural initiatives, events and activities. It is the goal of the town to promote arts and culture to expand these opportunities within the town and surrounding communities. Below is a description of notable current initiatives and events related to promoting arts and culture. Moving forward, it will be necessary for the town to identify opportunities for partnerships with other organizations to increase the community's capacity to embrace and develop the arts.

A. Art

1) Nags Head Committee for Arts and Culture

In 2016, the town established a Committee for Arts and Culture to assist the Board of Commissioners in promoting, encouraging, and increasing support for the town's artistic and cultural assets as well as working to integrate arts and culture into community life. The committee's role includes the following activities:

- To provide suggestions to the town staff to support public art projects, cultural activities, and events.
- To work with the Town Manager and staff to plan and program budgeted activities.
- To work as an independent group with authority to solicit proposals from local artists to design and construct public art projects within the town using budgeted funds, grant funding, or other donations provided to the town.
- To select works of art to add to the town's art collection.
- To work with other organizations and individuals to promote the arts and culture.
- To explore methods to receive grant funding, donations, or in-kind services to match budgeted funds to complete art projects or other cultural activities and events.
- To recommend policy, program and legislative changes to the Board of Commissioners to further the committee's primary objectives.

Previously the town had the Nags Head Art Selection Committee, which was established in the late 1990's to acquire and display local artwork throughout the town's municipal complex. While the town has not purchased art in recent years, the town's collection of over 110 local works of art is currently on display to the public at the Nags Head Town Hall. The Committee for Arts and Culture will replace the former Art Selection Committee however it will retain the duties of the former committee as one of its primary responsibilities.



2) “Art is the Heart” of Nags Head

In late 2015, a group of Nags Head artists and supporters of the arts came together to create “Art is the Heart of Nags Head.” This group was organized as a result of a common desire to promote the arts within the town. The focus of this group is to generate discussion and help identify how the town and artist community can make the Nags Head arts community stronger, richer, more vibrant, and vital. This group continues to meet and supports public art, cultural events, and encourages the use of open spaces and town parks and facilities for the promotion of the arts.

3) The Don & Catharine Bryan Cultural Series

Founded in 2012, this series stemmed from a desire of former Nags Head Mayor and retired Air Force Colonel Don Bryan and his wife to help make the Outer Banks a cultural center for locals and visitors. This series strives to inspire, educate and challenge through all forms of the performing arts. This group develops cultural events using a variety of venues within Dare County. Events include music, literary readings and discussions, visual arts, and performing arts.

4) Dare County Arts Council (DCAC)

The Dare County Arts Council is a nonprofit 501(c)(3) organization dedicated to encouraging the arts in Dare County through advocacy, enrichment and opportunity. The Dare County Arts Council strongly believes that the Arts are essential to the creation and sustenance of a thriving, vital community. In addition to the fine arts and craft gallery for both emerging and established local artists, the DCAC holds a variety of events, programs and workshops to encourage and support all forms of art including visual arts, performing arts, film and media and music. They are involved in the Nags Head Art is the Heart committee and other regional arts initiatives. More information on the Dare County Arts Council can be found at <http://darearts.org/>.

5) Outer Banks Forum

The Outer Banks Forum is a nonprofit organization whose mission is to promote the appreciation and involvement in the performing arts on the Outer Banks and nearby areas by presenting a series of outstanding diverse concerts, integrated with activities of other community organizations. In addition, the Outer Banks Forum helps promote arts education for local high school students by inviting students to participate in master classes with Forum performers and awarding scholarships for college level study in the arts.

6) KDH Cooperative

An artist operated gallery featuring works of art in oil, acrylic, watercolor, pastels, photography, ceramics, jewelry, fibers, wood, pottery, glass, mosaic and metal from over 40 juried members. Member artists frequently teach workshops and classes on-site. The



KDH Cooperative building is currently located in Kill Devil Hills. Many members of the Dare County Arts Council also maintain membership in the KDH Cooperative gallery.

7) Theatre of Dare

Theatre of Dare is a community theatre for the Outer Banks that has been operating as a nonprofit volunteer organization since 1991. The importance of this resource is in the name, a community theatre promoting the arts throughout Dare County and helping provide annual scholarships to Dare County students.

B. Community Events

1) Gallery Row District Roll and Stroll

Each summer the businesses and Galleries of Gallery Row organize and promote a roll and stroll event which attracts residents and visitors on a walking tour of the businesses in this area. Each business provides a special offering, usually an activity, food or music, to enhance the experience for patrons at each stop. This has helped develop a sense of community between the businesses in this area and with the town. It is the desire of the town to assist with facilitating additional activities like this in the future. It is important to note that many of the participating business owners are also involved with the Nags Head Art is the Heart, which share many of the same goals.

2) Outer Banks Seafood Festival

Each year in October, the Outer Banks Visitors Bureau and a number of sponsors team up to conduct a regional seafood festival at the Outer Banks (Soundside) Event Site. This is an opportunity to showcase fresh local seafood and the Outer Banks and North Carolina Catch programs which promote seafood harvested in North Carolina. As many as 5,000 people attend each year and numerous local seafood harvesters and restaurants provide food and drink. This is a signature shoulder season and destination event for visitors.

3) National Safe Routes to School Program

A program established to promote and encourage safely walking and bicycling to school to encourage healthy lifestyles. Funds are also made available through the Federal Highway Administration to be used for both infrastructure projects and non-infrastructure activities. The Town of Nags Head partners with other community organizations to participate annually in the Safe Routes Programs such as Walk to School Day, Bike to School Day, and an annual Bicycle Rodeo at the Nags Head Elementary School.

4) National Night Out

National Night Out is an annual event where the community is invited to come out and join the Nags Head Police Department and the Nags Head Community Watch for an



evening of education and entertainment. Information on crime prevention, safety, health and the importance of police and community collaboration are emphasized and celebrated.

5) **Nags Head Fire Department Youth Open House Night**

Nags Head Youth's Open House is an annual family-oriented event held by the Nags Head Fire Department to educate children and parents alike about the importance of fire safety, smoke alarm testing, fire escape plans and much more.

6) **Surfing Competitions**

The Outer Banks and Nags Head area known for its surf. With its many piers, Nags Head is a prime location for numerous surfing events including Eastern Surfing Association events and the annual Outer Banks Pro held at Jennette's Pier Labor Day weekend.

7) **Recreation Fishing/Various Fishing Tournaments**

The ocean beaches in Nags Head and the Outer Banks are well known for the fishing opportunities they afford. Many visitors, as well as residents, plan their vacations around the recreational fishing season. The town is host to one of the oldest fishing clubs on the east coast – the Nags Head Surf Fishing Club which holds its annual tournament in the fall of each year.

8) **Dowdy Park**

During the community involvement phase of park development, the town received over 700 survey responses related to ideas for the park. The top requested activities were community events such as farmer's markets, craft fairs, performances, and other activities. Dowdy Park was therefore designed with an events plaza and a pavilion for small scale performances.

C. **Future Activities and Events**

The town will need to consider the level at which it seeks to sponsor and manage events at its facilities and engage in other cultural related programs. Partnerships with other organizations such as the Don Bryan Cultural Series or the Dare County Arts Council present great opportunities to develop activities in town parks and elsewhere. These partnerships increase the overall capacity of the community to promote culture and arts. A regular schedule of events may involve staff and financial resources to support. The town has established a Committee for Arts and Culture to encourage and promote the arts within the town. With the assistance of this committee, the town should continue to evaluate the commitment to utilizing its various venues for cultural events with internal and external resources. The town should engage in a strategic planning activity to consider the level and commitment it wishes to make to directly or indirectly promote arts and culture in the community.



3.5.3. COMMUNITY ORGANIZATIONS

A more intangible but important aspect of cultural resources are the many groups and organizations providing cultural opportunities to the community. Nags Head has a number of community based organizations who enhance the quality of life for both residents and visitors.

These community organizations include:

- Outer Banks Relief Foundation
- Nature Conservancy
- Outer Banks Hotline
- Community Care Clinic of Dare
- NC Aquariums (Jennette's & Roanoke Island)
- Outer Banks Sporting Events
- YMCA
- Network for Endangered Sea Turtles (NEST)
- Dare Coalition Against Substance Abuse (Dare CASA)
- GEM Adult Day Services, Inc.
- Children and Youth Partnership of Dare County
- Children at Play (Museum)
- Outer Banks Room at the Inn
- Friends of Jockeys Ridge
- Food for Thought, Inc.
- Ruthie's Kitchen
- Ark International Church
- Mano Al Hermano
- Dare Challenge

Partnerships with these organizations to address specific community needs or to develop cultural initiatives will be important to the town moving forward. To date, the town has relationships with some of these organizations for specific purposes. These organizations also support individual and community needs in the town and in Dare County. An overall strategy to enhance cultural resource opportunities will involve strategic partnerships with these outside organizations.



POLICIES & ACTIONS

- CR-1** Recognize the importance of cultural resources and the arts in creating a sustainable, local economy and high quality of life.
- CR-1a:** Engage in a strategic planning activity, with the assistance of the Committee for Arts and Culture, to develop a vision for arts and culture in Nags Head. This should consider the level and commitment the town wishes to make to directly or indirectly promote arts and culture in the community. This should involve the following:
- A discussion of the types of cultural resource and arts initiatives the town wishes to be involved in as well as the staff and financial resources necessary to achieve this.
 - A discussion of the partnership opportunities available to leverage town commitments for these opportunities.
 - A community engagement process to define what culture and arts means to the community including where the town should apply its resources.
 - An evaluation of the commitment to utilizing town venues, including Dowdy Park, for cultural events with internal and external resources.
- CR-1b:** Enhance marketing of cultural resources and opportunities to residents and visitors by improving communications and collaborations within community organizations.
- CR-1c:** Support and/or provide programming and events for residents and visitors that enhance the quality of life and sense of place.
- CR-2** Preserve assets of cultural, architectural, archeological, historic, or social significance.
- CR-2a:** Engage the community in identifying community assets that should be considered for protection.
- CR-2b:** Develop incentives that can be incorporated in the town code that work to preserve key assets.
- CR-2c:** Review zoning standards for areas of architectural significance, including the commercially zoned area adjacent to the Historic Cottage Row, to ensure compatible development. (Refer to chapter two for additional policy guidance on the Historic District character area.)
- CR-2d:** Explore the development of a voluntary historic designation program.



POLICIES & ACTIONS

- CR-3 Encourage partnerships with the public, private, and nonprofit sectors to foster stronger, more visible leadership in culture and the arts making opportunities and programs more available.
 - CR-3a: Continue to work with Art is the Heart, the Dare County Arts Council, and other organizations to develop strategies, activities, and events to promote culture and arts in the community.
 - CR-3b: Partner with the Outer Banks Visitors Bureau to assist in promoting character areas within the town.
- CR-4 Promote and sustain the Gallery Row Arts District.
 - CR-4a: Identify regulatory barriers that stifle development of local and neighborhood serving businesses along the beach road and within the Gallery Row Arts District.
 - CR-4b: Maintain an inventory of existing cultural and art venues and identify new sites for future venues.





3.6. PARKS AND RECREATION

Parks and Recreation opportunities are a vital part of quality of life and directly linked to the town’s natural and cultural resources. In fact, concern about recreation has been an integral part of town planning and focus going back to the town’s first adopted “Land Development Plan” in 1964, and is reflected in subsequent town plans and policies throughout its history. As the adopted 1972 Land Development Plan states:

“Nags Head contains over 11 miles of sandy ocean beach and nearly six miles of coastline along the calm Roanoke Sound. It stands as a “gateway” to the great Cape Hatteras National Seashore which extends 50 miles separating the Atlantic Ocean from the huge Pamlico Sound. While Nags Head has traditionally been a family resort community there are more and more facilities and accommodations being provided for the general vacationing public. (p.11)”

Both residents and non-resident property owners place a high level of importance on the quality of the natural environment, including access to beaches and the protection of open space. Since its founding 50 years ago, the town has worked deliberately to respond to this desire and to advance its stewardship of the land as a resource to be protected and enjoyed by visitors and residents alike. The conservation of Nags Head Woods, Jockey’s Ridge, and Jennette’s Pier are examples of the town’s success to preserve recreational resources. Additionally, the town must provide recreational amenities and attractions that appeal to a broad spectrum of age groups in order to help them maintain a healthy lifestyle. The town must be a good place to live before it can be a good place to visit.

Other plans referenced in this section include:

- Nags Head Parks and Recreation Plan, 2012
- Albemarle Regional Bicycle Plan, 2014
- Nags Head Pedestrian Plan, 2014
- 2010 Land Use Plan
- The Outer Banks Visitors Bureau Visitor Survey 2014-2015
- Economic Function and Population, Land Development Plan, 1964

Specific areas of the Parks and Recreation focus in the Comprehensive Plan include:

- 3.6.1 Parks and Recreation Mission, Vision, and Core Values
- 3.6.2 Community Engagement
- 3.6.3 Specific Parks and Recreation Planning Issues



While recreation has always been of high value to the community, in the last five years there has been a tremendous focus on parks and recreation planning in the town. The town completed its first stand-alone Parks and Recreation Plan in 2012. Previously, the town had a Comprehensive Ocean and Estuarine Access and Recreational Plan (1989). In addition to the Parks and Recreation Plan, the town completed a Pedestrian Plan (2014) and participated in a larger regional bicycle planning effort, the Albemarle Regional Bicycle Plan (2014). These planning documents and the Land Use Plan form the foundation for policy and the future of parks and recreation in the town.

In addition to the focus on recreational planning efforts, the town has already completed several large, milestone projects outlined in both the 2012 Parks and Recreation Plan and the 2014 Pedestrian Plan. These include:

- 2013-2014 Whalebone Park
Continued multi use path construction along US 158 between Windjammer Street and Hollowell Street at the entrance to Jockey's Ridge State Park (0.34 mile segment)
- 2014 Purchase of Dowdy property for the purposes of a park
- 2015 Improved kayak launch on the 64/264 Causeway
- 2015 Improvements to the Skate Park
- 2017 Construction of Phase I of Dowdy Park
Construction of a Dog Park

The 2012 Parks and Recreation Plan recommends 33 implementation actions. Currently, the town has completed 11 of the 33 actions and another four of the actions are in process. In just four years the town has completed or has underway 45% of the actions adopted in the Plan. Additionally, seven of the remaining actions are ongoing tasks that town staff will address as opportunities arise. The remaining 11 actions should be assessed to determine their relevancy and included in future budget processes as funding becomes available. These items will be addressed later in this section.

Currently, the town has completed 11 of the 33 actions and another four of the actions are in process. In just four years the town has completed or has underway 45% of the actions adopted in the Parks and Recreation Plan.

The Pedestrian Plan created in 2014, outlines 24 pedestrian projects, 16 intersection improvements, and several other program recommendations. The total for the proposed multi use and sidewalk projects represents 12.28 miles (64,819 feet) of multi-use path or side walk improvement. Since there is a substantial cost for design and installation of these types of projects, the town should plan



for implementation of the recommended projects and integrate them into the capital improvement planning process. Additional discussion on future bike and pedestrian improvements and their tie to transportation improvements is located Element 3.7, which is the Transportation Element of this Section. Additionally, specific project recommendations can be found in the 3.7 Transportation and in chapter two related to the character areas.

3.6.1. PARKS AND RECREATION MISSION, VISION, AND CORE VALUES

The mission, vision, and core values for recreation in the town, developed as part of the 2012 Parks and Recreation Plan, states:

A. Parks and Recreation Mission

We are working to create a Town of Nags Head where there are abundant quality parks and recreation opportunities for all ages, both resident and visitor. The Town is blessed with special natural resources and a unique assortment of recreation facilities within its borders that we work to protect. We strive for Nags Head to be both a world class recreation resort that attracts active visitors and families, as well as a desirable place to live and work. We recognize that the wellness and fitness of our residents of all ages are essential to Nags Head being a good place to live. We aim for Nags Head to be internationally renowned for our clean, unique, and accessible recreation opportunities, and for our town government to effectively and pro-actively balance preservation of resources with vibrant and creative town planning. Carrying out this mission will require resourceful coordination with government, non-profit, business and industry partners.

B. Parks and Recreation Vision

The Town of Nags Head will continuously improve, expand and maintain its world class barrier island recreational opportunities.

C. Parks and Recreation Core Values

“Core Values” represent the ideas and beliefs that are assumed to be shared by the community.

A great place to live. Nags Head strives to be the leader in promoting healthy living among its residents through diverse recreation and natural resource opportunities that are fun for all. Programming strives to get children, teens, young adults and older adults involved in activities and to serve them in ways that promote health, reduce stress and prevent loneliness.

A great place to visit. Nags Head maintains a healthy environment, protecting our beaches, sound, woods, and park space for all to enjoy, and boasts many recreational amenities that appeal to visitors of all ages and interests.



A great place to play. Surf, swim, boat, bike, run, kite board, kayak, hang glide, fish, crab, hike, relax - a wide variety of recreational opportunities are available, many with world class programs, instruction and programming.

A great place to thrive. Nags Head has a parks and recreation system that connects our citizens to each other and the outdoors, adding value to our economy and our community. Through conservation, parks planning, and recreational programming, our town strives to promote health, reduce stress, and eliminate loneliness in our all of our population ages.

In conjunction with the vision for the town, the Parks and Recreation Mission, Vision, and Core Values should be utilized to guide future decisions regarding parks and recreation in the town. The 2012 Parks and Recreation Plan as well as the Pedestrian Plan (2014) are seen as an extension of this sub-element and should be referenced for greater detail on specific project, program, or policy recommendations, or if needed for budget or grant funding purposes.

3.6.2. COMMUNITY ENGAGEMENT

A. FOCUS Feedback

At a community meeting in September 2015, the community was asked, “In the next 10-20 years as Nags Head continues to grow and change, what is important to you?”

Respondents identified the following parks and recreation related responses as being important: beaches, neighborhood connections, pedestrian and bike friendliness, family friendliness, protection of natural resources, and green space/open areas. Additionally, citizens were asked to identify the most positive changes in the community in recent years. Participants responded:

- 4 out of 5 groups responded: Jennette’s Pier
 Multi Use Paths, sidewalks, or walkability
 Outer Banks Event Site
- 3 out of 5 groups responded: Dowdy Park, Parks, or commitment to green space
- 2 out of 5 groups responded: Beach Accesses

A common theme of discussion at the Advisory Committee meetings was related to bike and pedestrian issues. The group desired overall improved walkability and safety in the town with a focus on improved connections in the character areas. Furthermore, connection between neighborhoods and the commercial and cultural destinations as well as beach and sound accesses were important. Connectivity works to improve safety, benefit local businesses, and create a high quality of life.



B. Parks and Recreation Plan

During the development of the Parks and Recreation Plan, two citizen surveys were conducted. The majority of respondents stated the town should support nature parks and trails, swimming and wading areas, fishing and crabbing opportunities and public restroom facilities. When asked what they would be willing to pay higher taxes for, respondents stated ocean and beach access areas and curbside collection of recyclables were very important. The survey respondents also stated the growth rate of the town between 2004 and 2009 was a little too fast but recreational facilities had kept up with the growth rate and were in good condition. Most participated in walking, running, bicycling and fishing on a regular basis and used Jockey's Ridge, Nags Head Village facilities, the YMCA, Nags Head Woods and the west side multi-use path as well as the ocean and the sound for recreation purposes. When asked how close respondents lived to a park or recreational facility, besides the ocean and sound, a majority stated 2.5 miles or less.

In the 2009 Survey respondents were also asked to name recreational facilities that they would like to see in Nags Head. The responses are summarized below. Soundside enhancement, beach enhancements, and pathway enhancements were the top 3.

In 2011, a second survey was conducted that was focused on younger adults and children. Most respondents enjoyed going to the beach, swimming, going to the sound, bicycling, live musical performances and running and walking. Below is a list of recreational facilities the survey respondents stated they would like to see in Nags Head:

- Playgrounds
- Music festivals
- Open green areas
- Extend US 158 multi-use path
- Ball fields
- Ice skating rink
- West side neighborhood interconnectivity
- Shopping

Several respondents also stated that the town needs to better communicate the recreational facilities it has available as well as involve young people in making decisions regarding recreational facilities.



What Types of Recreation Facilities Would You Like To See In Nags Head?

Summary of Top Categories of Responses to Question 13*

1. Soundside Enhancements (30 responses) – Includes soundside access (18), boat launch (7), kiteboard launch (2), kayak access, crabbing (2), fishing (2), pier (2), boat dock (2). Bathroom, showers, and parking. Soundside path is separate below.
2. Beach Enhancement (28 responses) - Includes beach widening (12), beach access, restrooms, showers, trash cans, parking, lifeguard, artificial reef/snorkel kiteboard launch.
3. Pathway Enhancement (26 responses) – Includes walking/biking/hiking/exercise and multiuse path and sidewalk (9). Significant numbers mentioned soundside and woods trails.
4. Dog Park (12)
5. Tennis Courts (10)
6. Playground (9)
7. Pools (9) – Includes mention of YMCA and desired for reduced rates.
8. Open space/natural areas (8)
9. Picnic/pavillion (6)
10. Golf course/driving range (5)
11. Skate park (4)
12. Amusement park (4)
13. More ball fields (3)
14. Open field space (3)
15. Public Multi-use Park next to Nags Head Elementary School or Windmill Point (3)
16. Similar performance and park space to Duck (2) at Windmill Point or other location.

**Some categorizations are subjective and duplicative due to the nature of the narrative response.*

Other items specifically mentioned in the narrative part of the survey include:

- Walking trails
- Hiking trails
- More dedicated open/green space
- Water/amusement park
- Picnic areas
- Golf course
- Handicapped beach/sound access
- Ball fields
- Wetland/nature centers
- Community gardens
- Convention/conference center
- Sound side walking path
- Extend US158 multi-use path



In addition to the surveys, a Community forum was held on May 16, 2011. The feedback from the meeting is summarized below:

1. What are the recreational activities and resources people enjoyed the most in Nags Head? What is working well?

- It's an essential part of living here
- Connection to the outdoors
- Nags Head Woods
- Jockey's Ridge
- Water sports
- Beach access
- Multi-use path/ bike path
- Sound access
- YMCA skate park
- YMCA an integral part of community
- The Beach
- Town Parks
- County and town cooperation
- County Community Centers/Baum Center
- Events that bring visitors (marathon, tournaments)
- Walking; walking on trail
- Golf
- Fishing, Boating
- Community Parks
- Natural Areas
- Surfing
- Running and Biking
- The Sound – sailing, kayaking, sunsets

2. Changes or improvements people would like to see and needs that should be addressed:

- Recreational opportunities for everyone (all ages, interests)
- Connectivity among west-side neighborhoods and throughout town
- Safe ways to cross the by-pass
- Connections between the Sound and the Beach
- Improve bike paths so that they are safe, well lit, and add amenities like water fountains and restrooms.
- More sidewalks on the west side
- Update and address maintenance needs on existing facilities (Town Park, beach/sound access restrooms, multi-use path in S. Nags Head)
- Skating rink (some skating provided at the Ark)
- Update YMCA Skate Park
- More playgrounds; playgrounds integrated into development
- Playground area or passive park space at Bonnet St. access near trail
- Other small park facilities at access points
- More restrooms at access points
- Beach on the sound side (sound access at Jockey's Ridge has limited facilities and behind Village has obstacles and needs to be cleaned up)
- Create a way to walk along the Sound
- Provide a better boat ramp and kayak launch
- More open field spaces for general use and un-programmed use
- Event Center and Concert Space – create interaction opportunities and work with local businesses (similar to Duck)
- Beach events (sand soccer, volleyball, lacrosse, surfing)
- Public tennis courts (6 courts would allow us to host tournaments)
- Basketball court
- Place to hang out for kids
- Repair Barnes Street Playground and provide directional signage
- Zip line
- Disc golf
- Pavilion, support Go-Karts, mini golf, and other areas for kids



- Dog Park
- Expand Harvey Access and create other sound access areas
- Swimming pool or sound-side area roped off for swimmers only
- Passive grassy sports areas (bocce ball, horseshoes, croquet, corn hole etc.)

3. Parks and Recreation Planning Priorities:

- Recognize that local and tourists needs are the same
- Playgrounds and/or play equipment for younger kids and families
- Provide resources and activities for youth that provide options to drug and alcohol use
- Provide events and a gathering place for community interaction
- Improve ways town can interact with county program and address community
- Recreation needs for all ages – maybe a recreation liaison or coordinator
- Upgrade and expand current facilities and let people know about them; expand bike paths and multi-use trail system
- Expansion of soundside facilities such as pier, canoe/kayak/other launches, and swimming areas
- Provide more ball fields, and open space for pick-up games and un-programmed activities
- Provide areas lighted for night use (fields, trails, skate park)
- Incorporate educational activities as part of programming
- Promote community wellness through use of facilities and exercise



3.6.3. SPECIFIC PARKS AND RECREATION PLANNING ISSUES

A. Soundside Boardwalk

For several years, there has been low interest in developing a boardwalk along the sound as part of the commercial outdoor recreation overlay district. The concept was identified in the Town's Parks and Recreation Plan. The area of interest for the boardwalk extends between W. Forbes Street and Sugar Creek Restaurant. The area includes the Outer Banks Event site, Harvey Town Soundside Access, and several commercial recreational businesses and restaurants.

The town allocated planning funds in the 2013/2014 budget to conduct outreach to key property owners, to research environmental permitting, and to develop a feasible alignment. To assist in this process, the Board of Commissioners appointed a committee of key stakeholders in February 2013. In working on a possible alignment for the project, the committee communicated with property owners to discuss how the boardwalk could best interact with their site and identify possible concerns that should be addressed in the design process. Based on property owner feedback, a potential alignment was drafted. Staff will continue work to refine the alignment for the northern section of the boardwalk (from Tanger north) and will meet with property owners to discuss easements to allow for permitting and construction if funds become available in the future.



ELEMENTS



B. Bicycle and Pedestrian Safety and Connectivity

In community engagement conducted during the 2012 Parks and Recreation Plan, the 2014 Pedestrian Plan, and the FOCUS Comprehensive Plan, pedestrian and bicycle connectivity and safety were identified as a critical need. Visitors and both older and younger residents often prefer, or are limited to, walking or cycling to the beach or other destinations. Currently, there is a lack of connectivity and safe crossing points to parks, recreation opportunities, beach and sound accesses, and other commercial and cultural destinations. The popularity of the NC 12 multi-use path reflects the desire of locals and visitors to walk and bicycle for recreation, health, and transportation. The multi-use trail along US 158 has been well received; it provides access for west side neighborhoods to the YMCA, Nags Head Elementary School, and a safe crossing point. However, east to west connections from the beach road to US 158 and the west side neighborhoods are limited and directed to a few crosswalks. The town should continue to seek opportunities to increase safe crossing points and east to west connections.

In September of 2011, the North Carolina Department of Transportation's Traffic Safety Unit conducted a road safety review of US 158. US 158 has one of the highest rates of bicycle and pedestrian fatalities in the state. The Traffic Safety Unit was tasked with identifying and recommending improvements to roads with high vehicle to vehicle as well as vehicle to pedestrian crash rates but particular attention was paid to improving the safety for bicyclists and pedestrians moving along and across the highway. Several recommendations were suggested including low cost signage, improved crosswalks and continuation of the multi-use trail the length of US 158.

Since 2012, the town has collaborated with NC DOT through the Safe Routes to School Program to facilitate a Bike to School Day and Bike Rodeo. Volunteers from the community meet with children at central points to ride as a group to school. Each year participation has grown. In addition, the town's Police Department facilitates a bike rodeo where children learn about bike and pedestrian safety. After a short presentation on safety, the kids get to grab a bike and maneuver through a safety course. Each participant receives a bike helmet. The town should continue to organize and facilitate bike and pedestrian safety programs for children.

The town adopted a Pedestrian Plan in 2014. This plan worked to improve walking conditions in Nags Head by increasing pedestrian safety, improving pedestrian access to community destinations, and creating opportunities for active and healthy lifestyles. The plan identified bike and pedestrian projects, intersection improvements, and program improvements that would work together to make bicycling and walking in Nags Head safer. In the future, the town should implement the projects identified during this planning



process and incorporate them into the budgetary and capital improvement planning process.

C. Older Adults

The majority of the Nags Head population falls into a “middle age” or older bracket. Over half (52%) of the total permanent population of Nags Head is 45 years or older. During the 2012 Parks and Recreation Plan process, a large need for recreational opportunities for the “over 50” age group was identified. Nags Head’s natural resources including the ocean and sound, multi-use paths, and parks and playgrounds are opportunities for recreational activity for this population group. However, improved ADA access is needed to better accommodate these groups especially at beach and sound accesses.

Other available services include the Dare County Center and the Baum Center which offer many free amenities such as a library, dance classes, card and board games, yoga, arts and crafts and exercise equipment among other activities. Transportation is also available for free or at reasonable rates. The majority of programs offered are targeted for active older adults and not geared toward the physically disabled or shut-ins. The town should continue to support existing older adult recreational programs provided by local and state government and non-profits by publicizing those programs within Nags Head. In addition, the town should research and explore how to expand recreational opportunities to meet the needs of segments of the older adult population that are currently being overlooked or excluded.

D. Existing Facilities

During the development of the 2012 Parks and Recreation Plan, maintenance of existing facilities was identified as priority. The town should continue to support on-going maintenance and improvement opportunities in existing facilities prior to developing new initiatives. Replacement of the Town Park playground, integration of a playground and other recreational elements at Satterfield Park, continued improvement of bicycle and pedestrian facilities and general directional signage to all parks were recommended focus areas.

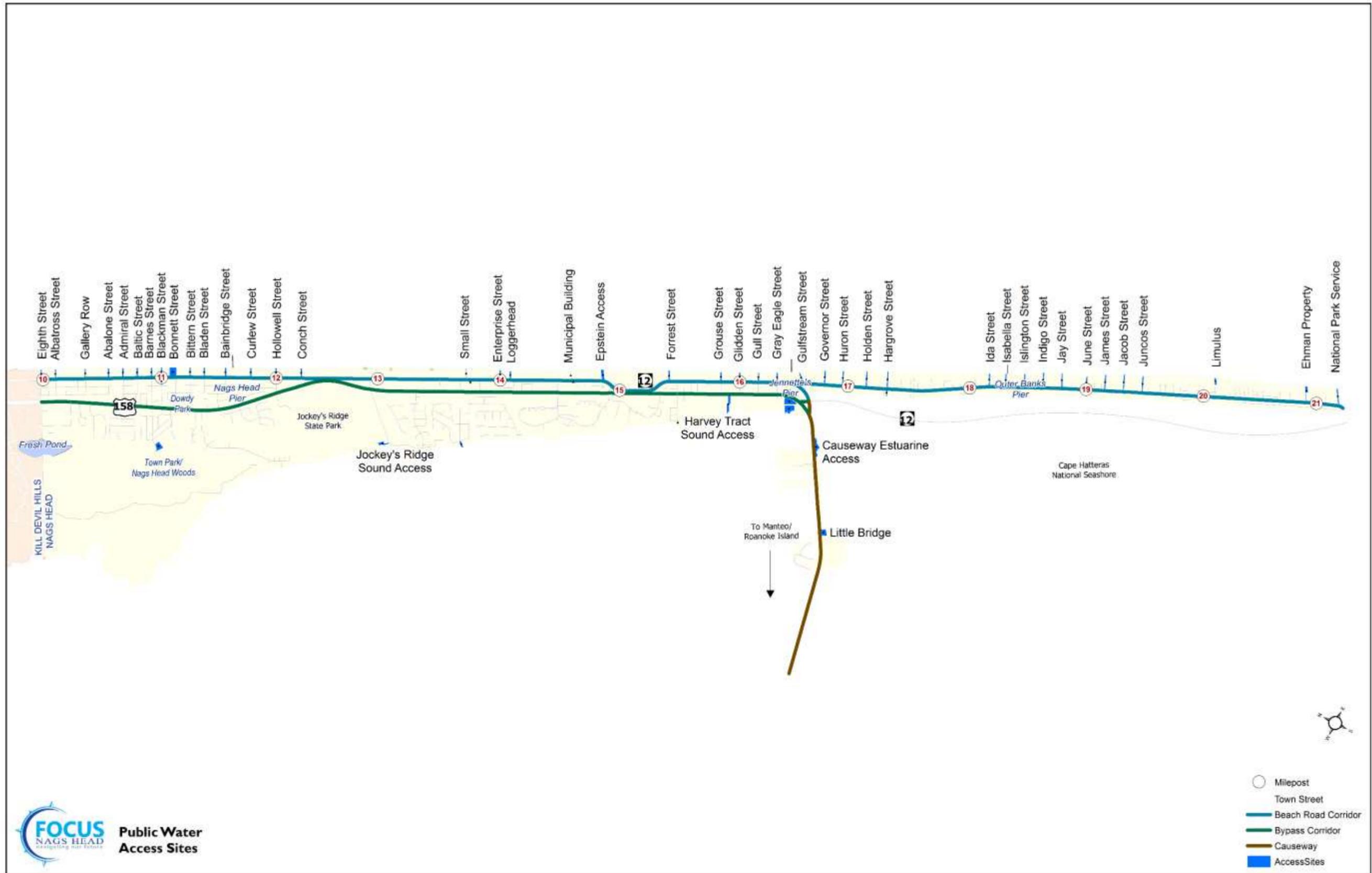
E. Public Access & the Beach

Historically, the most important recreational opportunity in the town has been public access to the town’s shorelines. The town boasts 11.29 miles of oceanfront shoreline and 17.28 miles of estuarine shoreline. Beaches are recognized as the single greatest asset within the town. The continued sustainability and success of the town as a tourist vacation destination depends, in part, on the continued use and access to the ocean and estuarine shorelines. The recent beach nourishment program has widened and replenished the town’s beaches, providing continued opportunities for both active and passive recreation along the coast.



The town currently has 43 beach public beach accesses. Four of the access points offer restroom and shower facilities- Epstein, Jennette's Pier, Hargrove, and Bonnett. The town's Ocean Rescue Service offers fixed lifeguard stations at 15 of the access points and roving beach patrol for the remaining ocean shoreline. In addition to beach access, the town has five estuarine access points- Harvey Sound Access, W. Danube Street, Nags Head Estuarine Site, Little Bridge, and Jockey's Ridge State Park. These accesses offer a variety of opportunities ranging from observation areas, kayak launching, and estuarine beach access.

Improving handicap access is an important concern at the town's public beach accesses. In addition to handicap access, the town has beach wheel chairs that are available for public use. However, even with the availability of beach wheel chairs, there are still requests for wheel chair assistance. The wheel chairs can be utilized on the ramps up to the dune peak but cannot descend the stairs onto the beach. Thus, vehicle access points have become default wheel chair access points as well. The town should work to offer greater ADA accessibility at existing facilities and prioritize ADA accessibility for new beach and sound access facilities.





During peak season, there are 45 seasonal, full-time lifeguards and 10 part-time lifeguards on staff that monitor and patrol the beaches using a combination of fixed stands at improved beach accesses and roving all-terrain vehicles. As the shoulder seasons become more extended and greater numbers of people are out on the town's beaches later in the year, additional staffing may be needed. As another way to approach the safety of beach goers, the town should support the expansion of educational information and programs that teach visitors about rip currents, water safety, marine life, and the safety flag system. These materials and programs work in conjunction with beach monitoring and patrol to proactively educate visitors on safety issues that could save their life.

POLICIES & ACTIONS

- PR-I Serve residents and visitors of all ages and physical abilities through increased availability of ADA accessible and age appropriate recreational facilities and opportunities.
 - PR-Ia: Improve and increase both the number of playgrounds and features available for younger children.
 - PR-Ib: Increase activities and available recreational space for youth and teens, including use of park space in the evenings.
 - PR-Ic: Create recreational opportunities in the evenings that appeal to working adults and teens.
 - PR-Id: Research and explore recreational opportunities that would meet the needs of segments of the older adult population that are currently excluded. This may be accomplished through partnerships.



POLICIES & ACTIONS

- PR-2 Create opportunities for unstructured community interaction and new recreational opportunities.
 - PR-2a: Make park space available for un-programmed and spontaneous activities; particularly allow open field space to be used by the general public (not just reserved for organized leagues).
 - PR-2b: Support the use of the public beach for event programming and sports opportunities (such as beach soccer, volleyball, etc.).
 - PR-2c: Develop community events and programs during the off-season, especially during the “shoulder-seasons” to support local businesses and serve year-round residents.
 - PR-2d: Explore incentives that would encourage future development and redevelopment to include areas that encourage community interaction such as sidewalks, trails, open space, park facilities, pedestrian plazas, public accesses, and outdoor seating areas.
 - PR- 2e: Research the feasibility and location of a dog park in Nags Head.
 - PR-2f: Research the feasibility, cost, and location of lighted public tennis courts.
 - PR-2g: Identify and support additional indoor recreational opportunities within the town.
 - PR-2h: Explore the feasibility of park development on the town lot at the end of Forbes Street.
 - PR-2i: Research powerboat launching and docking on the sound.
- PR-3 Expand and develop public access to ocean and estuarine shorelines that accommodate different user types, age groups, and needs.
 - PR-3a: Develop an ocean and estuarine shoreline management plan that explores opportunities for additional public accesses and facilities that includes maintenance and staffing needs, increased ADA accessibility, and additional site features such as parking, shade and picnic structures, water source, and bathroom elements.
 - PR-3b: Develop a prioritized list of existing public access facilities that outline needed improvements necessary to achieve greater ADA accessibility as well as the potential costs for improvements.



POLICIES & ACTIONS

- PR-3c: Conduct a study, to be incorporated as part of the public access plan, to identify and determine typical staffing needs, on-going maintenance costs, and any needed facility renovations and costs for existing public access facilities.
- PR-3d: Develop a Master Plan for a sound side boardwalk.
- PR-3e: Increase fishing and crabbing access opportunities along the sound.
- PR-4 Improve pedestrian and bicycle access, connectivity, and safety.
 - PR-4a: Incorporate identified pedestrian and bicycle projects into the town's capital improvement plan. Design and construct projects recommended in the Pedestrian Plan (2014).
 - PR-4b: Continue construction of the multi-use trail along US 158 with pedestrian and bicyclist safety as priority.
 - PR-4c: Coordinate with NCDOT and the Albemarle Rural Planning Organization (ARPO) to plan, design, and implement pedestrian and bicycle improvements.
 - PR-4d: Plan, organize, and facilitate bike and pedestrian safety programs for children and adults.
 - PR-4e: Interconnect neighborhoods with crosswalks on the west side of US 158.
 - PR-4f: Expand and sign hiking path from Town Park through Nags Head Woods.
 - PR-4g: Evaluate alternate paving materials in an effort to reduce impervious surfacing where possible and appropriate.
- PR-5 Commit to continual improvement and maintenance of parks and recreational facilities that reflects the level and value of private investment in the community.
 - PR-5a: Conduct a study of parks and recreational facilities to be incorporated into the town's capital improvement plan (CIP), to identify and determine typical staffing needs, on-going maintenance costs, and any needed facility renovations and costs.
 - PR-5b: Update existing facilities, when renovations are undertaken, to be compliant with where feasible for ADA standards and any new local, state, and federal regulations.



POLICIES & ACTIONS

- PR-5c: Conduct an assessment of existing parks and recreational facilities and identify opportunities to incorporate other recreational or site amenities such as horseshoe pits, corn hole, bocce areas, picnic tables, grills, bike racks, trash/recycling containers, water (shower facilities or water fountains), and WIFI where appropriate. This is including but not limited to Satterfield Landing Park, Whalebone Park, and Town Park.
- PR-5d: Replace Playground Equipment at Town Park with a design consistent with Nags Head's architectural aesthetic. Equipment should be made of materials which perform better than traditional materials (such as metal or wood) in our environmental conditions and which attract children.
- PR-5e: Repair the Beach Road multi-use trail as needed with asphalt and improve drainage where possible. Install signage to promote safety for all users. (Note: asphalt is the preferred material for the NC 12 and South Oregon Inlet Road trails sections).
- PR-6 Explore and develop a wayfinding signage system for visitors to better orient themselves to commercial and cultural destinations and beach and sound access points.
 - PR-6a: Develop a branded wayfinding, safety, and information signage plan to identify types and locations of signage for pedestrians, cyclists, and vehicles and install appropriate signage. Signage should enable visitors to locate existing town parks, sound and beach access points and trailheads.
- PR-7 Ensure that all development, redevelopment, neighborhoods, and commercial areas connect to existing or planned public recreational improvements and facilities to promote a high quality of life and healthy living.
 - PR-7a: Research and explore incentives or amendments to town ordinances to incorporate standards that incentivize or require development to provide publicly availability connections to existing or planned recreational improvements and facilities.
- PR-8 Commit to the continuous implementation of the mission, vision, and actions of the parks and recreation element.
 - PR-8a: Continue active monitoring and pursuit of local, state and federal grant opportunities for plan implementation.
 - PR-8b: Incorporate capital projects and program recommendations into the town's budgetary and capital improvement plan process.



POLICIES & ACTIONS

- PR-8c: Acquire property for the purpose of parks, open space, and conservation including:
- Purchase of properties with opportunities for park development, multi-use trail and beach and sound access including parking.
 - Purchase of undeveloped lots within neighborhoods to preserve green space for “pocket park” or trail uses as permitted.
 - Purchase of land for the purposes of conservation or open space.
- PR-9 Promote parks and recreational facilities, events, and programs within the town.
- PR-9a: Provide an interactive map available on the town website and other forms of media that display all parks and recreational facilities and beach and sound accesses.
- PR-9b: Promote the town’s Adopt-a-Bench and Adopt-a-Beach program.
- PR-9c: Promote recreational opportunities and other events with the YMCA and other nonprofit and private sector providers.
- PR-9d: Enhance educational materials and programs on beach safety issues such as the safety flag system, rip currents, and marine life.
- PR-10 Collaborate with partners to develop a diversity of innovative programs, facilities, events, and spaces to achieve the mission and vision for parks and recreation.
- PR-10a: Develop a system for coordinated communications with Dare County Parks and Recreation to inform older adults and families with special needs of programs and resources through the town website, Facebook page and other town communications.
- PR-10b: Publicize activities for older adults.
- PR-10c: Coordinate with the Outer Banks Bicycle and Pedestrian Safety Coalition to develop education materials, programs, and events to address bike and pedestrian safety.
- PR-10d: Encourage Dare County to replace all or a portion of the playing fields at Satterfield Landing to artificial turf and incorporate a playground within the site.
- PR-10e: Participate in Dare County Parks and Recreation Planning efforts that involve future county parks and recreation needs.





3.7. TRANSPORTATION

Nags Head's transportation planning efforts are guided by several plans/planning efforts external to this document:

- Dare County Comprehensive Transportation Plan (2014)
- Town of Nags Head Pedestrian Plan (2014)
- Town of Nags Head Parks and Recreation Plan
- Albemarle Regional Bicycle Plan
- Albemarle Rural Planning Organization (ARPO) Strategic Prioritization Process
- NCDOT State Transportation Improvement Program
- Outer Banks Transportation Task Force – Outer Banks Transportation Study Final Report (2006)
- NCDOT – Traffic Safety Unit, Road Safety Audit of US 158, 2011

These plans can be found at the following location - www.focusnagshead.com. Reference to these documents may be required when conducting planning activities for specific transportation elements.

Important elements of the Nags Head transportation system:

- Streets
- Highways
- Bridges
- Ferries
- Sidewalks/Multi-use paths
- Transportation services (bus, paratransit etc.)

This plan covers the following Transportation Sub Elements:

- 3.7.1 Regional Planning and Highways
- 3.7.2 Town Streets
- 3.7.3 Bicycle and Pedestrian Improvements
- 3.7.4 Transit
- 3.7.5 Safety and Roadway Access Management
- 3.7.6 Transportation Planning Process

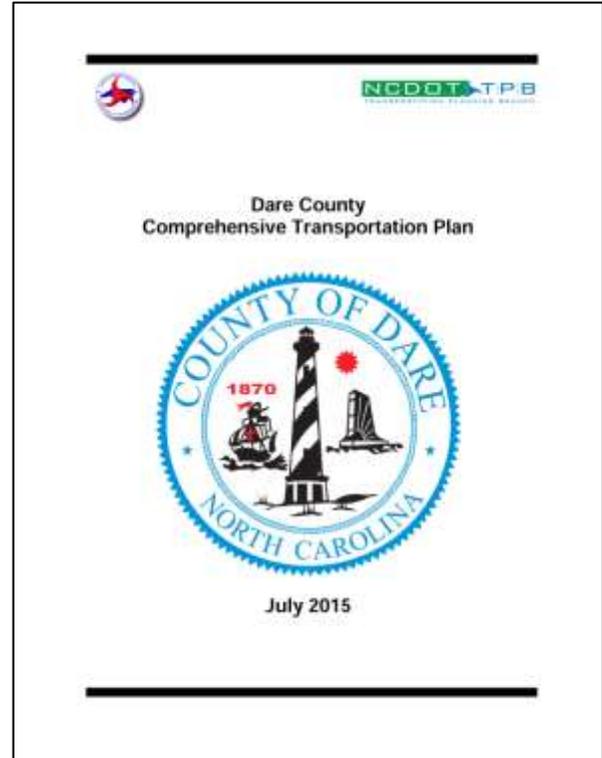


3.7.1. REGIONAL PLANNING AND HIGHWAYS

Nags Head is part of the Albemarle Rural Planning Organization (ARPO) which serves a ten county region in North Carolina, including Dare County and its six municipalities. ARPO is the regional transportation coordinating agency and is responsible for working with the North Carolina Department of Transportation and the counties in its region to develop the State Transportation Improvement Program (STIP). The STIP identifies the projects that will receive funding for planning and construction during a 10-year period and is updated every two years. The STIP is developed according to the state’s Strategic Mobility Formula which utilizes a data driven process to distribute transportation funding at the state, regional, and division levels. The ARPO region is within NCDOT’s division one office. Funding distributed for division one is shared between 14 counties. State transportation funding is distributed by population. Division One is the smallest division and the funding levels reflect this status.

Regional transportation planning is important to Nags Head since the regional network of roadways and bridges is the primary method by which residents and visitors reach this area. Efficient travel to Dare County, particularly from the north and west along US 158/168 and US 64, is vital to maintaining the regional and local economies. Visitors to the area must travel through Currituck County and the towns of Southern Shores, Kitty Hawk and Kill Devil Hills to reach Nags Head. Maintaining efficient traffic flow through each of these areas will strengthen the popularity of the Outer Banks as a travel destination. It is also important to maintain key transportation corridors within Dare County including NC 12 to Hatteras as disruptions to this facility in the past have created impacts for the entire county and region.

Key projects currently being considered through the regional transportation planning process include the Mid-Currituck bridge, replacement of the Alligator River Bridges on US 64, widening to four lanes of US 64 from Columbia to Stumpy Point, and the Bonner Bridge replacement and

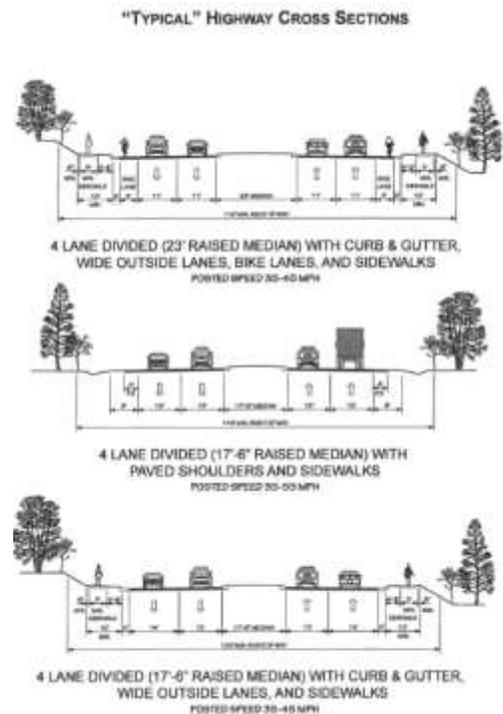




associated work to NC 12 from the Bonner Bridge to Rodanthe. Funding, operation, and maintenance of non-tolled ferries within the region are also particularly important to the region. Nags Head strongly supports these projects and mechanisms to identify funding sources to accelerate their construction.

In 2014, Dare County adopted a Comprehensive Transportation Plan (CTP), which establishes a 20-year vision for transportation within Dare County. The CTP serves as the NCDOT Transportation Plan and/or Thoroughfare Plan. The plan lists specific projects for Dare County and its six municipalities. However, it lacks a regional transportation element. Therefore, the STIP process managed through the ARPO is the primary mechanism for regional transportation planning. In some cases, a county in the region may strongly favor a project in another county over a project in its own county. However, there is no mechanism in the regional scoring process to acknowledge this and the point assignment through the regional prioritization process makes this difficult. Additionally, transportation is inadequately funded at the state level and the scoring criteria tends to favor projects in urbanized areas due to its emphasis on overall transportation system usage and congestion reduction. Therefore, many of the projects important to the region do not receive funds at the state or regional levels and compete for limited division level funds. During the first two-year cycle of the new Strategic Mobility Formula process, no projects within the town were prioritized for funding in the STIP. The scoring system is data driven and the criterion to score projects is developed by the state's SPOT office (Strategic Prioritization Office of Transportation) in conjunction with regional working groups. The ARPO does not have a representative on the regional working group and several important criteria, primarily hurricane evacuation and seasonal traffic data, do not receive adequate consideration in the scoring process. The ARPO is actively working to provide input on the scoring criteria and lobby for a regional representative to serve on the working group.

The CTP does not identify any transportation facilities within the Town as having unacceptable levels of service; however, the CTP does identify US 158 within the Town as being "near capacity." This highway corridor is the focus of one priority highway project in the Town identified in the CTP. This project, R-3419, involves converting US 158 from the



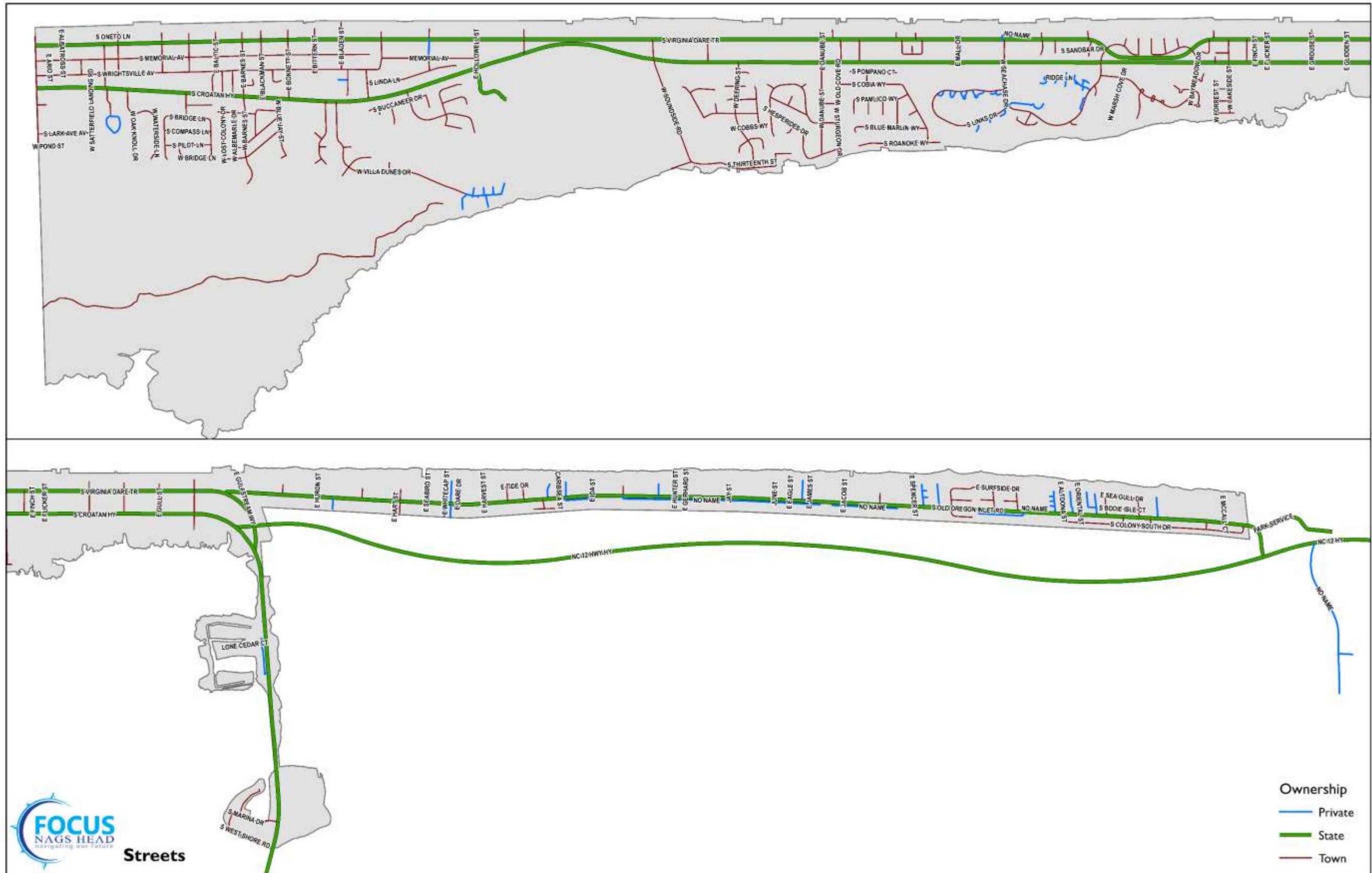


Wright Memorial Bridge to the Washington Baum Bridge from its current configuration to a four-lane divided roadway (boulevard) due to projected near capacity limited, as identified in the CTP. Project R-3419 is summarized in greater detail in 5.1. CAMA Matrix and Compliance Materials. This primary purpose of this project is to improve traffic flow, reduce crashes, and enhance overall safety along the length of this corridor. This would involve converting the existing center turn-lane to a median which will eliminate left-turning movements except at designated side streets or selected locations. The plan recommends that a corridor study be conducted to determine that the appropriate design is identified for each segment of the roadway considering business and side street access, right-of-way constraints, physical constraints, safety considerations, and public involvement. The corridor study would also consider the redesign of key intersections. Of particular note would be the intersection of US 158 and NC 12 in Kitty Hawk. The town will continue to coordinate with Dare County and its other municipalities to move this project forward and request development of the recommended corridor study. During the corridor study process, the town will want to ensure that the design addresses the town's complete streets policy which was adopted by the Town's Board of Commissioners as Resolution No. 12-10-017.

3.7.2. TOWN STREETS

The North Carolina Department of Transportation owns and maintains three major roadways within the town – US 158 (the Bypass), NC 12 – Virginia Dare Trail (the Beach Road), and SR 1243 (South Old Oregon Inlet Road). Except for private subdivision streets, Nags Head maintains the remainder of streets within the town. The Town of Nags Head has 37 miles of streets in its system. There are a total of 63 miles of streets and highways in the town including NCDOT roads. A map depicting the town's streets and highways categorized by maintenance responsibility is included below.

The town currently receives funding for street maintenance through Powell Bill funds distributed annually by NCDOT. As of the date of this plan, this was approximately \$115,000. No other state funding is currently being received for town projects. The town has been using a combination of Powell Bill funds and town stormwater funds to conduct street maintenance and drainage projects. It is recommended that the town complete maintenance plans for town-owned transportation assets at regular intervals. At a minimum, this should include preparation of a pavement condition survey every ten years to assist with prioritization of Powell Bill expenditures for street overlay projects. Depending on the cost of the recommended maintenance program as well as the cost of implementing other town transportation priorities, primarily the development of multi-use paths, the town board may wish to consider establishment of an additional dedicated funding source for transportation system maintenance and development.





3.7.3. BICYCLE AND PEDESTRIAN IMPROVEMENTS

Nags Head has 2.4 miles of sidewalk and 12.4 miles of paved multi-use trails. Approximately 11 miles of those trails run along NC 12. There are also walkways linking pedestrians to the town's 43 public beach access locations. These paths are popular with residents and visitors and are used for walking, jogging, and bicycling. However, the ratio of multi-use trails and sidewalks to streets is still low. Sidewalks and multi-use trails do not connect all areas of the town with key destinations including Jockey's Ridge State Park, the Soundside Event Site, the entrance to Cape Hatteras National Park, and to all of the ocean and sound access points. Policy going forward should increase the extent of pedestrian and multi-use trails creating a more inter-connected fabric of pedestrian accessible infrastructure.

The CTP identifies major pedestrian improvements within the town including the addition of a 10-foot wide multi-use path on the west side of US 158 from Eighth Street to Gull Street. In 2014, the Town of Nags Head also completed a Pedestrian Plan with funding assistance from the NCDOT and established a series of recommended pedestrian enhancements throughout the town. This plan also formulated a prioritization of these projects as well as other programs and policies the town could implement to improve the pedestrian transportation system. Table 3.7.3 depicts segments of multi-use trail and sidewalk to be developed as well as the priority given to each of these projects. It should be noted that the project list including the priorities has been updated to reflect changes that have occurred since the pedestrian plan was completed as well as projects that have been suggested in the FOCUS process that weren't considered during the pedestrian plan. This includes areas along the beach road in the established character areas described in chapter two, where additional pedestrian improvements on the west side of NC 12 are necessary to fully realize the vision for these individual areas. This would acknowledge the required connectivity for the businesses which are located primarily of the west side of the road in these areas. While these were prioritized based on a set of specific criteria, funding for these projects has not been established. It is critically important that the town begin to consider the implementation of this plan in its long-term and short-term capital improvement planning process and establish its anticipated implementation horizon for these projects based on available resources.

The Pedestrian Plan also establishes a series of recommended intersection and crosswalk improvements to address connectivity, safety and accessibility. As the town develops its pedestrian infrastructure, coordination with NCDOT will be necessary to establish safe, accessible and appropriate street crossings that are consistent with local, state, and federal policies related to pedestrian infrastructure development.



Section 3: ELEMENTS
 3.7. Transportation
 3.7.3. Bicycle and Pedestrian Improvements

Table 3.7.3: Pedestrian Project List

Rank	Start/End Point	Street Name	Length (Feet)	Length (Miles)	Planning-Level Cost Estimate	Location (recommended)	Facility Type	Intersection Improvement Key	Notes
1	US 158/Wrightsville Ave	Admiral (MP 10.5 Shoppes Access)	400	0.08	\$ 30,000	North	Sidewalk	C	Split into two projects from Ped Plan
2	Deering to Dune	US 158	770	0.15	\$ 57,750	East	Sidewalk	None	Alternative Route to get Southridge residents to Beach Road
3	Soundside to Deering	US 158	2,020	0.38	\$ 244,083	West	Multi-Use Trail/Sidepath	H, I	Split into two projects from Ped Plan
4	Deering to Danube	US 158	2,040	0.39	\$ 246,500	West	Multi-Use Trail/Sidepath	H, I	Split into two projects from Ped Plan
5	Soundside Event Site to Gull	US 158	1,700	0.32	\$ 205,417	West	Multi-Use Trail/Sidepath	N	Two projects split from Ped Plan - provides access from JP and Village to Event Site
6	Baymeadow to Soundside Event Site	US 158	2,800	0.53	\$ 338,333	West	Multi-Use Trail/Sidepath	N	Two projects split from Ped Plan - provides access from JP and Village to Event Site
7	Danube to Epstein	US 158	4,400	0.83	\$ 531,667	West	Multi-Use Trail/Sidepath	I, J, K,L,M	Formerly Danube to Lakeside - Split into two projects
8	NC 12 to Wrightsville	Bonnett	720	0.14	\$ 54,000	North	Sidewalk	None	
9	US 158 to existing sidewalk on W. Barnes	Barnes St	0	0.00		South	Sidewalk	D	
10	Wrightsville to NC 12	Admiral	720	0.14	\$ 54,000	North	Sidewalk	None	Split into two projects from Ped Plan
11	Gull Street to Whalebone Park	NC 12	1,600	0.30	\$ 120,000	West	Sidewalk	None	
12	Bonnett to Driftwood	NC 12	4,480	0.85	\$ 336,000	West	Sidewalk	None	New project from FOCUS - connecting west side business in CC Character area
13	Curlew to Bonnett	NC 12	3,400	0.64	\$ 255,000	West	Sidewalk	None	New project from FOCUS - connecting west side business in CC Character area



Section 3: ELEMENTS
 3.7. Transportation
 3.7.3. Bicycle and Pedestrian Improvements

Table 3.7.3: Pedestrian Project List

Rank	Start/End Point	Street Name	Length (Feet)	Length (Miles)	Planning-Level Cost Estimate	Location (recommended)	Facility Type	Intersection Improvement Key	Notes
14	Soundside Road/NC 12 to Drifting Sands Ct	US 158/Deering/Soundside	2,100	0.40	\$ 157,500	East	Sidewalk	G, H	Alternative Route to get Southridge residents to Beach Road (excludes Deering to Dune Segment)
15	Epstein to Baymeadow	US 158	4,650	0.88	\$ 561,875	West	Multi-Use Trail/Sidepath	I, J, K,L,M	Formerly Danube to Lakeside - Split into two projects
16	Hollowell to Soundside	US 158	4,400	0.83	\$ 531,667	West	Multi-Use Trail/Sidepath	F, G	
17	US 158 to Baymeadow	Seachase	500	0.09	\$ 37,500	North	Sidewalk	M	
18	NC 12 to existing sidewalk on Seachase	Epstein	920	0.17	\$ 69,000	North	Sidewalk	L	
19	US 158 to walkway in front of shopping center	Mall	360	0.07	\$ 27,000	TBD	Sidewalk	K	
20	NC 12 to Lark Ave	Driftwood /Satterfield Landing	2,480	0.47	\$ 186,000	South	Sidewalk	B	
21	US 158 to NC 12	Grouse	550	0.10	\$ 41,250	TBD	Sidewalk	[Traffic Study]	Could be moved up if NCDOT approved pedestrian light at event site
22		Short connections between neighborhoods	0	0.00		TBD	TBD	None	
23	Gull to Lone Cedar	US 158	4,750	0.90	\$ 573,958	West & North	Multi-Use Trail/Sidepath	N	Causeway projects moved down due to difficult construction and long distances
24	Lone Cedar to NC 12	US 158/Gulfstream	2,840	0.54	\$ 343,167	South	Multi-Use Trail/Sidepath	P	
25	Lone Cedar to Little Bridge Fishing Area	US 158	2,800	0.53	\$ 210,000	South	Sidewalk	O	
26	Gull to Whalebone Park & NPS Info Center	US 158 / NC 12	3,200	0.61	\$ 386,667	East & West	Multi-Use Trail/Sidepath	N, P	



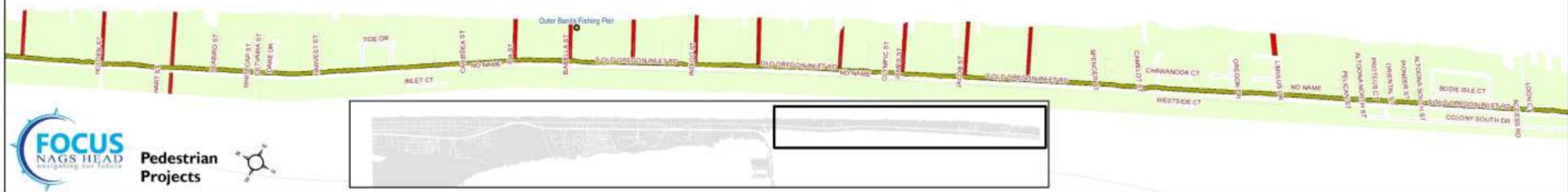
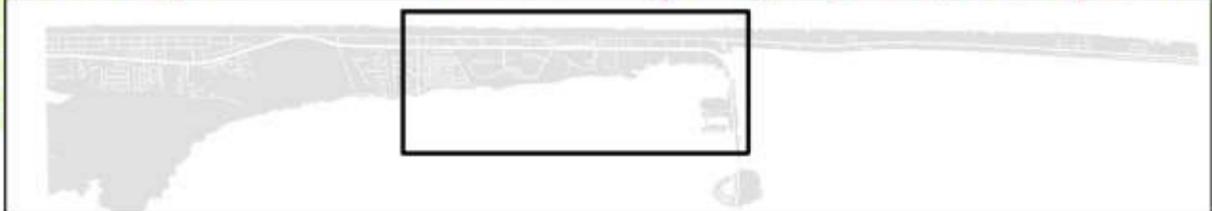
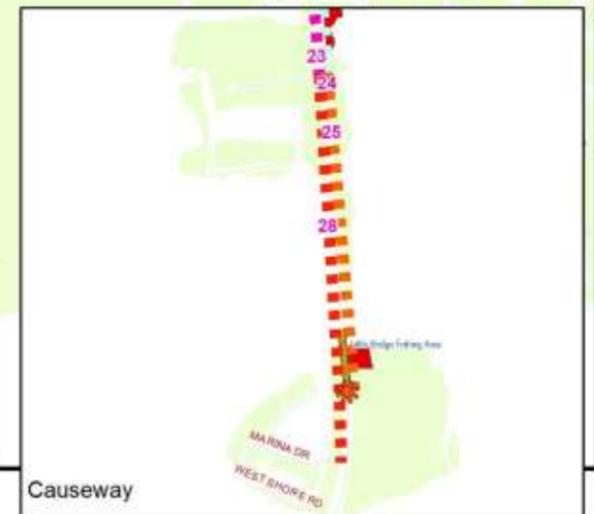
Section 3: ELEMENTS
 3.7. Transportation
 3.7.3. Bicycle and Pedestrian Improvements

Table 3.7.3: Pedestrian Project List

Rank	Start/End Point	Street Name	Length (Feet)	Length (Miles)	Planning-Level Cost Estimate	Location (recommended)	Facility Type	Intersection Improvement Key	Notes
27	Existing sidewalk near Jennette's Pier to Gulfstream	NC 12	860	0.16	\$ 64,500	North	Sidewalk	P	
28	Lone Cedar to W Marina Dr	US 64	4,282	0.81	\$ 517,408	North	Multi-Use Trail/Sidepath	O	
29	Eighth to NC 12	Wrightsville/Bainbridge	8,380	1.59	\$ 628,500	West & South	Sidewalk	None	Low speed residential street fairly safe for bike/walk traffic
N/A	Windjammer to Hollowell (Jockey's Ridge)	US 158	1,770	0.34	\$ 167,614	West	Multi-Use Trail/Sidepath	F	Already completed
N/A	Bonnett to Nags Head Elementary	US 158	1,000	0.19	\$ 94,697	North	Multi-Use Trail/Sidepath	E	Duplicate route to Dowdy Park interior walkways

*New Project from FOCUS, Not in Pedestrian Plan

**Intersection improvement key corresponds to Table 3.2 of the Nags Head Pedestrian Plan. Intersection improvements would be conducted in conjunction with the pathway project to which they are associated.





3.7.4. TRANSIT

The Dare County CTP also recommends establishing a bus route linking Nags Head with Manteo including park and ride areas at key locations as well as a loop circulator system connecting the northern beach Towns of Nags Head, Kill Devil Hills, and Kitty Hawk. There would also be a circulator system connecting Kitty Hawk with Southern Shores and Duck. The town is supportive of a transportation system however no funding or process has been developed to study the implementation or feasibility of initiating such a service. The lack of available state level funding and the competition between projects for this funding makes the initiation of this service complex. In 2006, the Outer Banks Transportation Task Force, with the assistance of NC State's Institute for Transportation Research (ITRE), completed a study of transportation improvements within Dare County to improve the overall transportation system. This included recommendations to the US 158/NC 12 corridors as well as the establishment of a locally funded and operated public transportation system. This would have involved a formula to fund the project with revenue from Dare County and each of the towns as well as the establishment of a county transportation authority. In lieu of state funding for such a system, this model would serve as an appropriate starting point to begin studying the feasibility and establishment of such a system. This is likely a long-term priority for the town and county given the current transportation funding climate however there is currently no discussion at the local level on planning for such a system.

3.7.5. SAFETY AND ROADWAY ACCESS MANAGEMENT

According to Nags Head's Parks and Recreation Plan, US 158 has one of the highest rates of bicycle and pedestrian fatalities in the state. In September of 2011, the North Carolina Department of Transportation's Traffic Safety Unit conducted a road safety review of US 158 because of its high rate of bicycle and pedestrian incidents. Findings indicate:

- Approximately 85% of bicycle and pedestrian crashes were crossing type crashes involving a bicycle or pedestrian crossing US 158, a side street, or a driveway.
- The following breaks down the location of the bicycle or pedestrian during a "crossing crash" along the study corridor:
 - Approximately 29% involved in crossing a side street (both signalized and un-signalized intersections.)
 - Approximately 27% involved crossing US 158 at an uncontrolled location.
 - Approximately 24% involved crossing US 158 at a signalized location.
 - Approximately 20% involved crossing a driveway.

In the Outer Banks, bicycle and pedestrian involved crashes represent only 3% of total crashes. However, they accounted for 67% of fatal injury crashes. Because of this, the study



recommended improved crosswalks, signage, access management, and continuation of the multi-use trail along the length of US 158, recognizing the need for improved pedestrian conditions through town. The town should ensure that these recommendations are incorporated into the corridor study for US 158. Coordination with NCDOT to implement high priority improvements from the US 158 safety study will be a required action of this plan. The Outer Banks Bicycle and Pedestrian Safety Coalition is an identified community partner that can assist with the development of additional safety improvements within the town as well as educational campaigns that will improve transportation safety awareness.

Access management continues to be a priority of the town and is a particularly important component of the town's zoning and subdivision policies. Existing policies establish limitations on new driveways and the number of driveways that connect to town and NCDOT streets with new development. Regulations require turnarounds to limit vehicles backing into roadways with high volumes of traffic. These policies should be maintained and strengthened as the town moves forward with revisions to its ordinances. For individual site developments, it is important to develop specific policies or standards to control access, including turning movements to and from sites as well as adequate separation distances from driveways and adjacent street intersections where conflicts can occur.

3.7.6. TRANSPORTATION PLANNING PROCESS

The Town Board of Commissioners has a designated representative serving as the town's liaison to the ARPO Technical Advisory Committee to participate in regional planning efforts including the STIP process. However, the Board has not established a specific area of interest related to transportation planning. At a minimum, town staff, with assistance from the Board, should develop a process to identify and prioritize transportation projects for which the town will be responsible for financing and constructing as part of its CIP process. This should involve an annual review of plan implementation, project prioritization, and available funding to determine how these projects will be constructed.

The town currently receives funding for street maintenance through Powell Bill funds distributed by NCDOT annually. Currently this amount is approximately \$115,000. No other state funding is currently being received for town projects. The town has been using a combination of Powell funds and town stormwater funds to conduct street maintenance and drainage projects. Additionally, due to lack of state funding, bicycle and pedestrian projects are being funded with grant funding, primarily at the county level, as well as dedicated town funding for parks and paths (one cent which generates approximately \$230,000 annually). It is recommended that the town complete maintenance plans for town-owned transportation assets at regular intervals. At a minimum, this should include preparation of a pavement condition survey every ten years to assist with prioritization of Powell Bill expenditures for street overlay projects. Depending on the cost of the maintenance program as well as the cost of implementing town transportation priorities,



including development of multi-use paths, the town board may wish to consider establishment of additional dedicated funding sources for transportation system maintenance and development.

POLICIES & ACTIONS

- TP-1 Provide local transportation infrastructure that is safe, efficient, and designed to accommodate all modes of transportation consistent with the town's Complete Streets policy.
 - TP-1a: Complete maintenance plans for town-owned transportation assets at regular intervals. At a minimum, this should include preparation of a pavement condition survey every ten years to assist with prioritization of Powell Bill expenditures for street overlay projects.
 - TP-1b: Utilize grant opportunities when available to construct facilities and/or upgrade existing facilities to address safety and accessibility issues.
 - TP-1c: Establish an internal process to annually identify and prioritize transportation improvements for which the town is responsible for financing and constructing. This could be part of the CIP process but would be more effective as a separate activity. This should primarily include prioritization of bicycle and pedestrian facilities and maintenance of town owned streets using Powell Bill funds and other identified resources.
 - TP-1d: Consider the establishment of a dedicated funding source or revenue stream for transportation improvements.
 - TP-1e: Revise policies and ordinances as appropriate to maintain and strengthen the town's goal for access management onto major roadways within the town.
 - TP-1f: Continue to work with groups such as the Outer Banks Bicycle and Pedestrian Safety Coalition to improve bicycle and pedestrian safety and community awareness.
- TP-2 Reduce the reliance on personal transportation by providing additional transportation choices through a combination of public and private services.
 - TP-2a: Explore the feasibility of a trolley service or bus circulator to connect the Town of Nags Head with the other northern beach communities.



POLICIES & ACTIONS

- TP-3** Provide comprehensive bicycle and pedestrian connectivity within the town and to the larger Outer Banks Community.
- TP-3a:** Conduct an annual review of recommendations from the Nags Head Pedestrian Plan and prioritize projects based on available funding and anticipated external revenue sources.
 - TP-3b:** Identify grant funds and other external revenue sources to support implementation of the Pedestrian Plan.
 - TP-3c:** Coordinate with NCDOT to incorporate pedestrian and bicycle projects into planned state maintenance projects.
- TP-4** Support the development and maintenance of regional transportation infrastructure that allows residents and visitors to travel to the Outer Banks in the safest, most efficient manner.
- TP-4a:** Participate in the ARPO regional transportation planning efforts including the SPOT process.
 - TP-4b:** Improve coordination within Dare County for prioritization of transportation improvements and transportation system development. This could include a county and town working group to discuss priorities at the county level in preparation for the regional prioritization process as well as to discuss public transportation and funding of local projects.
 - TP-4c:** Advocate for revisions to the Strategic Mobility Formula to recognize the seasonal nature of our community, the importance of transportation for Hurricane Evacuation, and the use of accurate local data in the analysis phase of the scoring.
 - TP-4d:** Advocate for additional transportation funding at the state level and a method to equitably distribute funds to non-urbanized areas of the state.
 - TP-4e:** Coordinate with Dare County and the other Dare County towns to accelerate the timeline for implementation of the R-3419 TIP project (conversion of US 158 to a four-lane divided facility and associated intersection improvements) as well as other projects within the CTP.



3.8. MUNICIPAL SERVICES

The mission of the Town of Nags Head is to serve the citizens, property owners, businesses, and visitors of the Town of Nags Head through a government organization that acts in the public interest at all times. This mission is lead and carried out by professionally trained staff and decision makers who value the needs of all residents, businesses, and visitors of the town.

The Nags Head town government provides the following core services to its constituents:

- Sanitation and Recycling
- Planning, Zoning, and Environmental Protection
- Building Inspections
- Code Enforcement
- Tax Collections
- Water Supply and Distribution
- Police
- Fire
- Ocean Rescue
- Parks and Recreation Facilities and Maintenance of Public Assets
- Shoreline Management
- Stormwater Management/Drainage Infrastructure
- Septic Health
- Transportation – Streets and Pedestrian Facilities
- Conservation

The town has seven departments with 112 full-time employees, 44 seasonal part-time employees, and two permanent part-time employees (as of June 2016). These departments include:

- Administration – Town Manager’s Office, Town Clerk, Public Information Officer, Human Resources, Town Engineer.
- Administrative Services – Finance, Tax Collections, Payroll, Accounting, Water Billing and Collections.
- Fire and Ocean Rescue.
- Information Technology.
- Planning and Development – Zoning and Environmental Protection, Building Inspections, Code Enforcement, Septic Health, Long-Range Planning.
- Police.
- Public Works – Sanitation and Recycling, Public Facilities Maintenance, Fleet Maintenance, Water Operations, Water Distribution.

Many of the departments and services listed above are addressed in previous sections of this plan. This section will focus on core services including Fire and Ocean Rescue, Police, Public Works, and Stormwater Management.



Specific areas of the Municipal Service focus in the Comprehensive Plan include:

- 3.8.1 Good Governance
- 3.8.2 Public Safety – Fire, Ocean Rescue, & Police
- 3.8.3 Public Works
- 3.8.4 Water Operations and Distribution
- 3.8.5 Stormwater Management

3.8.1. GOOD GOVERNANCE

The town’s mission and goals are best achieved under the overarching umbrella of good governance.

Good governance is about having processes in place for making and implementing decisions that result in the best outcomes for the community. Good governance means utilizing a process for decision making that embodies the following principles:

- Accountability- responsible for the decision being made by reporting.
- Transparency- clear decision making process.
- Responsiveness- responding to the needs of both internal (staff) and external (boards, property owners, businesses owners, contractors) customers in a timely manner.
- Comprehensiveness- community engagement that is open, equitable, inclusive, and participatory.
 - Equitable and inclusive- all groups and stakeholders, including the most vulnerable, are represented and have the ability to participate in the decision making processes that impact them.
 - Participatory- anyone affected or interested in a decision should have the opportunity to participate in the decision making process.
- Effectiveness and efficiency- making the best use of staff, resources, and time to ensure the best possible result for the community. This includes developing the capacity within the organization by developing the capabilities of individuals within the organization.
- Visionary and Sustainable- Implementing the vision of the town through clearly defined outcomes that promotes a sustainable economy, environment, and quality of life.
- Ethical- strong commitment to integrity, ethical values, and rule of law.



- Managing risks and performance- implementing best practices and reporting in order to deliver the highest service possible. This includes clearly defined outcomes and determining interventions necessary to optimize the achievement of intended outcomes.

POLICIES & ACTIONS

- MS-1 Provide effective governance to the Town of Nags Head’s citizenry, property owners, business owners, and stakeholders to advance the town’s mission and vision.
- MS-1a: Draft and distribute an annual report that demonstrates the results of the measurable goals and objectives of each department to the Board of Commissioners and all citizens.
- MS-1b: Develop, fund, and prioritize the Capital Improvement Plan annually that provides for the infrastructure, equipment, and facility needs of the community.
- MS-2 Maintain a trained workforce capable of carrying out the statutory requirements of municipal government and the requirements established by the Board of Commissioners.
- MS-2a: Assist department heads in developing clearly defined, measurable goals for each department.
- MS-2b: Develop and implement a performance review process that accomplishes departmental goals and meets job competencies.
- MS-2c: Provide employees with a platform that allows for objective discussion of innovative ideas that result in continuous improvement of individual job functions and the overall ability of the town to serve customers.
- MS-3 Provide timely dissemination of information and data to internal (staff) and external (citizens, boards, committees, applicants) customers through increased use of website, social media, email, and other forms of technology.
- MS-3a: Update the town’s website to make it more user friendly and searchable.
- MS-3b: Provide a “self-serve” mechanism on the town’s website that allows the public to search information for public records requests.
- MS-3c: Provide an employee self-service mechanism to access pay stubs, W-2’s, and additional personnel information.
- MS-3d: Create automated online processes for applications and permits.



POLICIES & ACTIONS

- MS-4 Provide friendly and accommodating customer service.
- MS-4a: Develop goals and metrics for providing friendly, accommodating customer service.
- MS-5 Ensure that all employees understand the mission, vision, and goals of the town and see themselves as contributors in achievement of these.
- MS-5a: Develop employee engagement programs and strategies that establish meaningful contact and connection with employees as well as educates them on the mission, vision, and goals of the town.
- MS-6 Involve and engage the public in decision making at all levels of town governance where appropriate and during other relevant times of design and decision making processes.
- MS-6a: Conduct community input opportunities that inform stakeholders and seek their input during town decision making processes.
- MS-6b: Continue outreach efforts to promote conversations with the community, promoting awareness on issues important to the town.
- MS-7 Manage the town's wages and benefits in a manner that retains high quality employees and keeps operational costs down. It is the policy of the Town of Nags Head to compensate its employees at a level sufficient to encourage excellence of performance and to maintain the labor market competitiveness necessary to recruit, retain, and develop a competent and diverse workforce.
- MS-7a: Research and assess current wages of neighboring towns every 3 years to ensure the town remains competitive. Present findings of the assessment to the Board of Commissioners in a formal report.
- MS-7b: Research and assess benefit options on a yearly basis ensuring that employees receive maximum benefit for their care while keep costs down. Present findings of assessment to the Board of Commissioners in a formal report.
- MS-7c: Review the pay plan every 2-3 years and present recommendations to the Town Manager. All final recommendations will be presented to the Board of Commissioners.
- MS-7d: Conduct a full position classification study, with a third party vendor, every 9-10 years. This will ensure proper maintenance of job responsibilities and that each individual job has a proper pay grade assignment based on the current job market.



3.8.2. PUBLIC SAFETY – FIRE, OCEAN RESCUE, & POLICE

As the Town of Nags Head grows, the need for additional fire and police protection will increase. Heightened development patterns, such as larger rental cottages with increased occupancies into the thirties and large commercial structures, have created new and different fire and police protection needs. These larger houses, coupled with the increase in visitors to Nags Head, have resulted in an increased number of emergency calls responded to by the Fire and Police Departments. In addition, as visitation continues to grow countywide, an increase in traffic on US 158 and NC 12 as well as related traffic accidents is expected.

An important concern generated by our coastal environment is the effect that actual development or design has on fire and police safety. Given the town's particular coastal weather conditions (i.e. strong winds) and the fact that certain types of development, such as oceanfront hotels and motels present a formidable task in fire protection, additional fire protection measures may be needed. For example, fighting a hotel structure fire on the oceanfront from the sand beach represents challenges to the firefighting capabilities of the town. To address some of these concerns the town has adopted zoning regulations which would require that a paved access be provided around hotel, motel and multifamily development throughout the town. The materials used in construction, the design and layout of structures, e.g., sprinkler systems, all impact the level of protection in the town, and the need for expanded fire service staffing and equipment. Similar observations apply to police protection. Residential and commercial developments can be planned and designed to achieve various levels of security and personal protection. For instance, adequate lighting and the orienting of structures can provide better visibility and security. As with fire protection, projects can also be designed to facilitate conventional police protection, such as enhancing the ability of the police to move from one neighborhood to the next, and requiring landscaping which does not obstruct the view of police patrol officers.

A. Fire and Emergency Response

Nags Head Fire Rescue is a full-time, professional department consisting of 27 full-time firefighters and 20 volunteers. The department ensures that emergency response to fires, medical emergencies, technical rescues, and other natural/man-made disasters is conducted in the safest and most efficient manner possible. Collaboration with other local and state emergency organizations to provide a unified and coordinated response to emergencies enhances the department's capacity. Fire Rescue also works to deliver quality fire and life safety education to citizens, business owners, and visitors, thereby promoting the preservation of human life and protection of property. Fire mitigation programs, voluntary home inspections, and an active commercial fire inspection program are additional services the department provides to better serve the community. The department operates within



an "Enhanced 911 System" through Dare County Central Communications, located in Manteo, NC.

Nags Head Fire Rescue operates from a headquarters station located at 5314 South Croatan Highway (Station 16). Fire Rescue has an additional station located at 8806 South Old Oregon Inlet Road in South Nags Head (Station 21) to improve emergency response times and provide service to the southern part of the community. Both stations are staffed 24 hours a day with career firefighter/EMT's and supplemented with reserve members. The department employs three, eight hour shifts at each station to maintain continuous coverage to the community.



Nags Head Fire & Rescue is comprised of the following units:

- Administration,
- Fire Operations including career and reserve staff, and
- Ocean Rescue

B. Ocean Rescue

The Ocean Rescue Division operates under the command of the Nags Head Fire Department and provides ocean rescue services throughout the town. The Ocean Rescue Division provides water rescue service from April through October. During the summer, Nags Head beaches are patrolled by lifeguards on all-terrain vehicles as well as at fixed stands at some of the more heavily used access sites.

The old fire station across from Jockey's Ridge State Park, at 3719 S Croatan Highway, is the operational hub of Nags Head's Ocean Rescue service. The division also has remote facilities at the Bonnett Street and Hargrove Street Bathhouses to provide storage and work space for on-duty lifeguards. Fixed lifeguard stand locations are listed below.



Table 3.8.2.B: Fixed Lifeguard Stand Locations		
Street/Beach Access	Address	Milepost
Albatross	2121 South Virginia Dare Trail (SVDT)	MP 10
Abalone	2439 SVDT	MP 10.5
Bonnett	2919 SVDT	MP 11
Hollowell	3600 SVDT	MP 12
Enterprise	4800 SVDT	MP 13.75
Town Hall	5315 SVDT	MP 14.25
Epstein Bathhouse	5701 SVDT	MP 14.75
Forrest	6317 SVDT	MP 15.5
Gray Eagle	7200 SVDT	MP 16.25
Gulfstream	8000 SOOIR (South Old Oregon Inlet Road)	MP 16.5
Hargrove	8337 SOOIR	MP 17.5
Ida	8800 SOOIR	MP 18.25
Indigo	9100 SOOIR	MP 18.75
Juncos	9601 SOOIR	MP 19.5
Limulus	10000 SOOIR	MP 20

The Ocean Rescue Division continuously monitors beach patron volumes and concentrations and adjusts stand locations and service levels accordingly. The division employs a full-time Ocean Rescue Captain that manages a seasonal workforce of 42 lifeguards. From Memorial Day to Labor Day lifeguard services are provided from 10 am to 6 pm, seven days a week. The division utilizes 15 lifeguard towers, six patrolling ATV's, with four supervisors and one Captain. From Labor Day to September 30th, two trucks and six ATV's patrol the beach however no fixed stand service is provided. From October 1st to October 15th, two trucks and two ATV's patrol the beach.

In recent years, the town has experienced an increase in the amount of personal items that are left on the beach during the evening hours and overnight. Often these items are never collected or end up in the ocean due to high winds or storm conditions. The town has initiated a program to require removal of all personal items from the beach at the end of



each day. Ocean Rescue Division staff monitors this condition and tag items for removal on a routine basis. Tagged items not collected are removed by Public Works staff.

C. Police

The Nags Head Police Department is a full-service community-oriented law enforcement agency consisting of 23 full-time staff and two civilian staff. The department strives to create a better quality of life through proactive policing with an emphasis on community relations and education. The preservation of human life, the protection of property, and service to humankind are key principles by which the department operates. The mission of the department is outlined below:

We, the members of the Nags Head Police Department, are committed to being responsive to community in the delivery of quality services. We recognize our responsibility to maintain order, protect and serve the public, while affording dignity and respect to every individual. Our objective is to improve the quality of life through a community partnership which promotes safe and secure neighborhoods.

The Police Department is comprised of the following units:

- Administration
- Patrol
- Criminal Investigations
- Animal Control

The Patrol Unit is responsible for preventative patrol, traffic enforcement and response to calls for service. This unit also includes two Police K-9's capable of drug detection and search and rescue. The Criminal Investigation Unit provides in-depth investigations of felony and serious misdemeanor crimes in order to build successful cases for prosecution. This unit also investigates violations of the State and Federal Controlled Substance Act and prepares cases for prosecution in both State and Federal Courts. The Animal Control Unit maintains animal control, animal protection, and rabies mitigation programs. The full-time animal control/law enforcement officer investigates animal bites, animals running at-large, feral animal colonies, and nuisance animal problems. The Unit provides for the placement and monitoring of animal traps and the transport of animals taken into the custody to the Dare County Animal Shelter. In addition, Animal Control returns domestic animals to their rightful owner(s) and investigates animal-related complaints to ensure the public's safety. The Police Department also employs a School Resource Officer at Nags Head Elementary School in partnership with Dare County Schools.

One of the department's main goals is to enhance community policing and community partnerships throughout Nags Head. There are several programs and activities that accomplish this. Nags Head is active in establishing and collaborating with neighborhood



community watch programs. Additionally, the Police Department now hosts an annual Citizen's Police Academy to train and educate citizens on the role and operation of the Town's Police Department. The Citizen's Police Academy (CPA) is designed after a traditional police academy curriculum and teaching methods. During eight (8) weekly 3-hour sessions, participants are introduced to a variety of legal, community and public safety topics. These topics are designed to orient participants into the police department's functional and operational procedures. The goal is to strengthen community relationships by giving town citizens an up-close look into the daily operations of the police department and explore the many opportunities citizens can create a safer community. The department has now reestablished its bike patrol program to provide an additional street presence and further opportunities to engage citizens. The school resource officer is active in developing relationships with parents and children and uses this venue to further awareness of the department's mission. The department also hosts forums and with businesses and citizens to share information such as Coffee with a Cop and Nags Head Police 101.

In recent years, pedestrian and bicycle safety has become an increased concern for Nags Head and the entire Outer Banks community. The Police Department is involved in a variety of activities to enhance bicycle and pedestrian safety including participation the Dare County Bicycle and Pedestrian Safety Coalition, coordination with NCDOT in its Watch for Me NC educational programs, and bicycle and pedestrian education programs through Nags Head Elementary School including Bike to School and Walk to School days as well as the annual bicycle rodeo.



Modernization is a primary objective for the department and several key projects have been identified in support of this including replacement of the 800 MHz radio system, implementing an in-car video camera system, and the use of body cameras.

For both the Police and Fire Departments, the town has experienced growth in the number of special events that are being held throughout the year. This has become increasingly noticeable in fall and spring shoulder seasons. With the construction of Jennette's Pier and the Soundside Event Site, large crowds require a Police and Fire presence to provide traffic control, security, fire inspections, and EMS services. These events are being planned year round and require significant planning and operational resources. In 2015, there were 47 events including the Outer Banks Marathon, the Outer Banks Seafood Festival, several running and sporting events, surf competitions, concerts,



and festivals. These departments continue to coordinate with event organizers regarding their ability to service individual events. This has created competition for available resources and the town will need to examine its capacity to service these activities as demand increases.

D. Funding Fire and Police Capital Improvements

To help meet the capital needs resulting from growth for both the Fire and Police Departments, the town instituted facility fees in 1989. These fees, which are authorized by special legislation through the North Carolina General Assembly, are required for new development to pay a proportional share of projected, new capital needs. Both departments also plan for additional needs through the Capital Improvements Program. To satisfy the future fire and police protection needs created by growth, the town annually funds capital improvement projects through the Capital Improvements Program (CIP), periodic review of facility fees, and other municipal funds.



POLICIES & ACTIONS

- MS-8** Protect citizens and visitors from the perils of fire and crime, and ensure safe oceanfront beaches by providing well-equipped and prepared public safety personnel.
- MS-8a:** Continually assess the police, fire and rescue needs of the town and make personnel and resources expenditures commensurate with the needs created by development, special events, and the changing nature of the social environment.
- MS-8b:** Seek community involvement and cooperation in the provision of Police and Fire services through the Volunteer Fire Department, the Community Watch program, the Citizen’s Police Academy, school based initiatives, and proactive community outreach in all divisions of the Police and Fire Departments.
- MS-8c:** Ensure the ocean beach is a safe environment for family vacation tourism by constantly monitoring beach populations and concentrations, adjusting personnel and resources as needed to meet increases in demand for service.
- MS-8d:** Provide fire and life safety education programming.
- MS-8e:** Strengthen the proactive functions of the commercial fire inspection program by:
- Remaining responsive to the commercial business community and seeking their input with respect to scheduling and completion of annual commercial fire inspections.
 - Initiating and supporting progressively advanced code enforcement staff certification levels.
 - Integrating new and progressive code officials training, in diverse platforms, as they become available.
 - Researching and pursuing technology based solutions for fire prevention education and enforcement for commercial occupancies in order to improve customer service levels,
 - Continuing to work with fire staff and emphasize the cultural importance of the commercial fire inspections program as a vital component of fire prevention in Nags Head.



POLICIES & ACTIONS

- MS-8f: Complete progressive staff trainings, qualifications, and certifications necessary to perform the duties of public safety officials including but not limited to police officers, detectives, animal control, ocean rescue personnel, fire inspectors, fire public education specialists, child car seat technicians, CPR instructors, and fire support personnel.
- MS-8g: Utilize all web based, published, broadcast, e-mail, and social media outlets to deliver and distribute timely public safety messages. This will include exploring mechanisms to provide emergency notifications to the public through cell phone and landline message services.
- MS-8h: Explore and employ appropriate new technologies, including but not limited to body cameras and in-car cameras, to increase accountability and reduce risk to Police Department personnel and the public.
- MS-9 Meet the public safety needs of the community at appropriate levels as the community continues to focus growth and public investment in areas identified as activity centers.
 - MS-9a: Develop incentives to encourage the use of important fire prevention structures and systems such as sprinkler systems.
- MS-10 Support continued planning to eliminate uncontrolled wildfires.
 - MS-10a: Annually maintain and update the Nags Head Woods Fire Protection Plan through engagement of the North Carolina Forest Service, Nature Conservancy, and the Town of Kill Devil Hills.
 - MS-10b: Maintain the necessary personnel training and equipment to prevent wildfires and loss of life and property.
 - MS-10c: Support the Cape Hatteras National Seashore in conducting prescribed burns to prevent wildfires and loss of life and property.
- MS-11 Evaluate the impacts of development on public safety during the permitting, site plan review, and text amendment processes and prioritize public safety through best management practices for land use planning and site design.

3.8.3. PUBLIC WORKS

The Nags Head Public Works Department maintains the town's physical assets including buildings, parks, beach accesses, vehicles, streets, and drainage infrastructure. Additionally, the department collects residential and commercial solid waste and recycling and provides water supply and distribution services to all town property owners. Nags Head Public Works consists of six divisions employing 29 staff:

- Administration
- Public Facilities Maintenance
- Fleet Maintenance
- Sanitation
- Water Operations
- Water Distribution

A. Public Works Administration

Public Works Administration provides departmental coordination, technical assistance, and support for the Department. Administration also manages citizen complaints; oversees budget preparation; generates all contracts and monitors the contract approval process; provides expenditure control; coordinates the expansion of the town's waste diversion efforts; conducts studies and prepares reports; manages record keeping; provides coordination of personnel evaluation, discipline, safety, training and outfitting; and acts as a liaison to other departments.

B. Public Facilities Maintenance

The primary purpose for the Public Facilities Maintenance Division is to maintain and service town infrastructure, facilities, and assets. This includes town parks, beach accesses, public buildings including Town Hall and two Fire Stations, and other town properties. This division is responsible for providing general maintenance and repair of the town-maintained streets and right-of-ways including drainage ways and stormwater facilities.





Activities include asphalt repairs of all types, concrete repair of limited size, sweeping of roadways, street sign installation, specialty street pavement markings, installation and maintenance of storm drainage structures, mowing right-of-ways, trimming and/or removal of vegetation on right-of-ways, and hauling and grading duties as required. The division also completes carpentry projects and assists with asset storage. During summer months, Public Facilities Maintenance also maintains trash receptacles on the ocean beaches, removes trash from beach accesses, and collects debris left on the beach tagged by Ocean Rescue staff. As the town adds facilities, such as the new Dowdy Park, Nags Head Skate Park, and the Town Dog Park, the Public Facilities Maintenance Division will be required to assess staff and equipment resources in order to maintain its capacity to service and maintain these facilities. This is done annually through the CIP budget process. The department should continue to develop mechanisms to track its workload and required man hours to support requests for personnel or equipment.

C. Fleet Maintenance

Fleet Maintenance maintains, repairs, and services all town vehicles and heavy equipment. Regular preventative maintenance of this equipment is essential to providing uninterrupted service to the community. This is performed through careful operation, timely servicing, systematic inspection, and detection/correction of potential equipment problems before major breakdowns occur. The town maintains a fleet of 94 vehicles including sanitation trucks, heavy equipment, police and fire vehicles and apparatus and other departmental vehicles. In recent years, major vehicle rehabilitation to increase service years has been added. With the assistance of the Public Works Director, the Fleet Maintenance Division makes annual recommendations for the replacement of fleet vehicles and equipment and maintains a replacement schedule that is incorporated into the town's budget and CIP.

D. Sanitation

The Sanitation Division manages trash and recycling collection and bulk item/yard brush disposal for residential and commercial customers in Nags Head. In addition, Sanitation also provides chipping and mulching services for citizens.

Nags Head currently serves over 4,300 residential customers with curbside solid waste collection using its own automated vehicles and 95-gallon carts. Each residence is required to have one cart however rental units are required to have one cart for every three bedrooms. It is estimated that the town collects 10,000 residential solid waste carts as of FY 2016. Additionally, in February of 2016 the town converted its curbside subscription recycling service to a town-wide service. Prior to this conversion, the town's contractor serviced approximately 1,378 residences (this includes 483 regular subscribers and 895 homes that were on a seasonal pilot program). The town's ordinance was changed in 2017 to require one recycling cart for every three bedrooms for rental houses. The town now collects recycling from 4,300 residences with one cart per residence. In total, the town



collects 14,300 carts through its solid waste and recycling curbside services. A breakdown of sanitation tonnages for the past five years is included in the table below.

Table 3.8.3.D: Summary of Sanitation Tonnages

FY	Residential	Commercial	Recycling	C&D/Bulk
11/12	4,117	4,462	283	457
12/13	3,950	4,375	300	477
13/14	3,860	4,379	681	488
14/15	3,909	4,316	801	704
15/16	3,853	4,400	925	424
Total	7,762	8,716	1,726	2,550

NOTES:

- 11/12 and 12/13 includes recycling subscribers only
- Recycling pilot program started 13/14
- 14/15 C&D includes major storm
- Town-wide recycling started in February of 2016. 15/16 numbers reflect five months of town-wide service.

There has been a notable increase in recycling tonnage collected since the initiation of the pilot and town-wide services. Recycling not only reduces the percentage of the waste stream that is landfilled, it also decreases the tipping fees the town pays since the recycling tonnage generally does not require a disposal fee. The town will continue to monitor the distribution between solid waste and recycling tonnage and make concerted efforts to increase participation in the recycling service.

The town also provides solid waste collection of commercial businesses and certain residential communities that require dumpster service. A total of approximately 450 stops are included on the commercial routes. Commercial sites are collected four days a week in the summer months and three days a week in the winter months. Currently the town offers only limited recycling service to commercial properties. The town provides cardboard and ABC glass collection at nine sites. The town’s goal is to initiate commercial recycling service within the next three years. Currently, the town is exploring the manpower, resources, and revenue that will be required to provide this service.

Waste is taken to the transfer station in Stumpy Point and is then transported to Bertie County by the Albemarle Regional Solid Waste Management Authority. Nags Head is a member of the Albemarle Regional Solid Waste Management agreement and is required to take its solid waste to this facility. Nags Head pays \$73 per ton to dispose of residential and commercial waste.

The Town’s Public Works Department also provides curbside bulk item and vegetative debris pickup on request from October through April. The remaining portion of the year property owners can take these items to the bulk waste yard located on Lark Avenue. The



town generates a total of 600 tons of vegetative waste per year and 450 tons of C&D per year. Vegetative waste is mulched at the bulk waste yard and given away to property owners. Therefore the town does not pay tipping fees for this waste. Bulk items (C&D) are taken to the Dare County Landfill and the town pays \$65 per ton to dispose of this waste.

To provide the aforementioned services, the town employs nine sanitation drivers, two of which also serve in a supervisory capacity. Contracted services are used in the summer months to supplement town forces to collect recycling along the town's beach road area (Blue Route). There are three main residential routes (Blue, Green, Red). There are three commercial routes. Through the use of town forces, service is responsive and the town can react more quickly to changes in schedule and special circumstances.

The addition of services such as town wide recycling as well as continued growth in the number of homes and businesses continues to place additional demands on the Sanitation Division. Solid waste and recycling is currently one of the town's five primary areas of interest and a special committee has been established to review and plan for increases in service. The Committee, with staff assistance, develops recommendations for the Board as part of the CIP process which includes requests for contracted services, manpower, and the revenue necessary to implement its recommendations. It is anticipated that this Committee will stay active through the implementation of town wide recycling services for both residential and commercial customers. The Public Works Director, with the assistance of the Sanitation Superintendent, will continue to monitor community growth and demands for service and plan for recommended increases in manpower and equipment. Additional measures or benchmarks are needed to determine when demand exceeds the capacity of current resources to maintain service levels.

E. Solid Waste Management Plan

The Albemarle Regional Solid Waste Management Authority prepares a Solid Waste Management Plan for the town as part of its regional partnership agreement. This plan meets the statutory requirements of the Solid Waste Management Act of 1989 and subsequent amendments. The plan outlines the solid waste services provided by the town and establishes waste reduction goals in accordance with state requirements. The most recent plan was completed in 2012 and adopted by the Town of Nags Head Board of Commissioners. The plan sets a 10-year goal by 2022 for the town to achieve a 40 percent overall waste reduction. This is to be accomplished primarily through the establishment and continuation of increased recycling services, in-house waste reduction efforts, the town's current vegetative debris disposal programs, and educational efforts.





POLICIES & ACTIONS

- MS-12** Proactively provide maintenance of facilities including streets, rights-of-way, drainage infrastructure, public buildings, multi-use paths, parks and beach accesses, and other town facilities.
- MS-12a:** Develop mechanisms to track the departmental workload and required man hours to support requests for personnel or equipment, particularly as new facilities are developed.
- MS-12b:** Develop plans for maintenance to town facilities including schedules for repair and replacement. These plans should be updated every five years and should be used to establish projects for inclusion in the CIP.
- MS-12c:** Create a beach access development and maintenance plan to determine where new facilities are needed and when maintenance activities should occur to existing facilities.
- MS-12d:** Continue to employ strategies to schedule and track maintenance activities to manage the departmental workload in the most efficient manner possible as well as documentation of routine maintenance.
- MS-12e:** Seek and utilize grants where possible to fund infrastructure construction and replacement activities.
- MS-12f:** Conduct a pavement condition survey of town streets every ten years and utilize this information to schedule maintenance activities as part of the town's CIP.
- MS-13** Provide for the most effective and economical collection and disposal/recycling of commercial and residential solid waste that meets community expectations for cleanliness and appearance. The town should work to provide service to all generators of solid waste emphasizing reuse and recycling practices over disposal.
- MS-13a:** Explore expansion of the town's recycling program to add new types of waste items as recycling technology evolves and markets for recycled materials develop.
- MS-13b:** Research and plan for expansion of town-wide recycling service to commercial properties and/or those properties not serviced by the existing residential curbside service in order to meet the town's stated goal of 40 percent waste reduction by 2022 (from the Solid Waste Management Plan).



POLICIES & ACTIONS

- MS-13c: Monitor recycling tonnage from the town's residential program and employ methods such as education programs to improve recycling participation. This could include working with rental agencies, property owners associations, and directly with homeowners to provide marketing and educational materials on the town's program.
- MS-13d: Explore programs and/or develop and enforce regulations that limit the timeframe residential carts sit adjacent to roadways.
- MS-13e: Monitor community growth and demands for service and plan for recommended increases in manpower and equipment when necessary. Additional measures or benchmarks are needed to determine when demand exceeds the capacity of current resources to maintain service levels.
- MS-13f: Consider technologies including RFID tags to improve collections data which will provide the town with information that it can use to refine service levels.
- MS-13g: Actively engage staff in the update to the Solid Waste Management Plan and review its goals for recycling and waste reduction.
- MS-13h: Develop and conduct progressive educational programming aimed at reducing waste and promoting reuse and recycling.



3.8.4. WATER OPERATIONS AND DISTRIBUTION

Nags Head is served by the Dare County Regional Water System which provides treated water to the town's year-round population and seasonal populations. The town maintains a 2 million gallon water storage capacity and distribution facilities to receive water from the County and deliver it to customers through approximately 103 miles of distribution lines. Processed water comes from two County-owned water treatment plants which treat groundwater from wells located in the Upper and Middle Yorktown Aquifers. The groundwater from the Upper Yorktown Aquifer is processed at the Skyco water treatment plant from wells located in the Skyco area of Roanoke Island. This facility uses a cation/anion exchange to process and treat water. The groundwater from the Middle Yorktown Aquifer is taken from wells located in Kill Devil Hills and Nags Head and is processed at the North Reverse Osmosis water treatment plant located in Kill Devil Hills. The North Reverse Osmosis plant has recently completed an expansion and the county water system now supplies flow for peak demand without the Fresh Pond water treatment plant. As a result, the Town of Nags Head discontinued operation of the Fresh Pond as a supplemental drinking water source for Nags Head residents in 2009. Due to its status as a surface water supply, the Nags Head Fresh Pond is designated through CAMA as an Area of Environmental Concern. No development is allowed within 500 feet of the Pond and limited development is allowed between 500 and 1,200 feet from the boundaries of the pond. At this time, the town has no intentions of removing the Fresh Pond AEC designation.

Nags Head now maintains a 40 year agreement with Dare County for future water supply that automatically renews in 2036 and no longer provides raw water processing and treatment at its water plant facility. The town's allotment from the regional water system is 3.5 million gallons per day (MGD) or 2,300 gallons per minute (GPM). In the event that Nags Head exceeds its allotment for more than two consecutive days in the previous 12 month period, Nags Head is obligated through an agreement with Dare County to pay for an expansion to the reverse osmosis production facility in minimum increments of one million gallons per day. To date, Nags Head has not exceeded this threshold but continues to monitor usage and has developed a funding source and contingency plan to pay for this expansion should it become necessary. This expansion will be placed in the town's capital improvement program and funds held in reserve until such time that this becomes necessary.

The Division of Water Resources requires local communities to provide a Local Water Supply Plan documenting the water system information, water use, water supply sources, water supply planning, and water supply planning for the future. Nags Head's Plan is included in Appendix 5.1 CAMA Matrix and Compliance Materials. According to the Water Supply Plan and the population projections therein, the percentage of demand is projected to not exceed 41% of the supply going out to the year 2060. However, the



population projections contained in the Water Supply Plan are approximately 58% less than those population projections contained in this Plan, within Section I (see page I-29). The Local Water Supply Plan should be updated to reflect the updated projections. Applying those greater population projections to the water supply needs identified in the Water Supply Plan result in a 20-23% increase in demand projections in any given year identified, with demand not expected to exceed 64% of supply in any given year.

In addition to the public water supply, there are about a dozen private residences located in Nags Head Woods, on Pond Island, and in South Nags Head served by private wells. There are no private water supply systems located in the town, only individual wells. The town operates a “purchased” water system, in which water is purchased in bulk from Dare County and retailed to the businesses, institutions and residences within the town. Nags Head Public Works Department’s Water Distribution division maintains over 103 miles of water distribution lines, ranging from 2 inches to 14 inches in diameter, and 4,838 metered connections.

Dare County owns three (3) public wells that are utilized to supply the public water system. These wells are located adjacent to Fresh Pond, adjacent to Highway 158 at Jockey’s Ridge, and in the vicinity of Nags Head Post Office. The area around these wells has been designated as a Wellhead Protection Area. The Safe Drinking Water Act (SDWA) defines a Wellhead Protection Area as: "the surface and subsurface area surrounding a water well or wellfield, supplying a public water system, through which contaminants are reasonably likely to move toward and reach such water well or wellfields". The size of the WHPA will vary from site to site depending on a number of factors, including the geologic and hydrogeologic features of the area. The Safe Drinking Water Act Amendments of 1986 established requirements for states to develop Wellhead Protection Programs (WHPPs). A WHPP is a pollution prevention and management program used to protect underground sources of drinking water. These programs were intended by Congress to be a key part of a national groundwater protection strategy to prevent contamination of groundwaters that are used as public drinking water supplies. In North Carolina, development of a local Wellhead Protection Plan is not mandatory but, rather, is viewed as a valuable supplement to existing state groundwater protection programs. North Carolina's WHPP is intended for city and county governments and water supply operators who wish to provide added protection to their local groundwater supplies. The Wellhead Protection Plan, once implemented, reduces (but does not eliminate) the susceptibility of wells to contaminants. The Wellhead Protection Plan is administered by Dare County.

The Nags Head Water Department includes two divisions: Water Operations and Water Distribution. These divisions work to ensure that water received from Dare County is properly stored, treated, and distributed to water customers in Nags Head. The



Department maintains water storage and pumping infrastructure, water distribution lines, as well as other infrastructure including valves, hydrants, taps and meters.

Water Operations staff is responsible for monitoring the levels and pressures of water service for the residents and visitors of the Town of Nags Head. The staff must ensure adequate levels of water to the town as well as compliance with state and federal regulations concerning water quality. As of the time of development of this plan, there have been no documented overflows, bypasses or other problems with the public water supply system that may degraded water quality or constitute a threat to public health. In addition to the monitoring program, Water Operations staff operates the water plant seven days a week. Responsibilities at the water plant include laboratory analysis of processed water as well as water sampling from representative points in the distribution system. The town is served by two 500,000 gallon pedosphere (elevated) water storage tanks – one just north of MP 20, on land leased from the US National Park Service at the end of Westside Court, and a tank at the north end of town (MP 10) behind the Public Works Complex on Lark Avenue.

The town also operates two 500,000-gallon concrete ground storage tanks. One is located at the Eighth Street Water Plant (adjacent to the Fresh Pond) and the second is at the Gull Street Pump Station, near MP 16, across the Bypass from Tanger Outlet Mall. Two pump stations, one at each of the ground storage tank locations, take water from the Dare County Regional System and pump it into the Nags Head distribution system. Average pressure in the town's system is approximately 50 p.s.i.

The Water Distribution Division is responsible for maintaining water distribution infrastructure, which serves a dual purpose in providing a potable water supply for water consumption by its residents and an adequate and reliable supply for public and private fire protection.





Water Distribution Technicians read all town water meters, install new services, locate water mains and service lines for underground utility contractors, maintain and repair all town water mains (2" through 12"), fire hydrants, and valves. Staff also inspect new water main extension projects, flush the town's water system, and maintain a 24 hours a day-365 days a year response to emergencies. The Water Distribution Division is responsible for the overall quality of the town's water after it leaves the water plant. This division consists of one supervisor and four technicians, all of which require state certification.



Satisfying the requirements of ever increasing federal and state regulations, upgrading the distribution system to provide better domestic quality and fire flows, and replacing aging portions of the system provide continuous challenges. Meeting these needs requires periodic expansion and improvements to the water system. A comprehensive water system master plan is prepared periodically to evaluate and analyze the capital needs of the Nags Head water system and to provide recommendations to the town for short-term and long-term improvements. These recommendations serve as the plan for the town to meet future water needs and to stage the necessary construction and associative financing in an efficient manner. At a minimum, a comprehensive water system master plan is recommended to be conducted every ten years reviewing the following objectives; evaluation of the existing water system operation, assessment of the reliability of the existing infrastructure, distribution system analysis for water consumption and fire protection, regulatory water quality requirements, source water evaluation, development of a 10-yr Capital Improvement Plan and a water system rate study. Intermediate updates may be conducted at shorter intervals to focus on specific objectives of the water system master plan. It is anticipated that the next water system master plan update will occur in FY 17/18, which will be a comprehensive study of the system. Carrying out these long-range plans while maintaining the high level of service expected by the town customers, requires a substantial and sustained financial commitment.



POLICIES & ACTIONS

- MS-14** Provide sufficient levels of potable water to accommodate water demand at build-out through an economical and efficient means and in an environmentally sensitive manner.
- MS-14a:** Continually monitor the town's water processing capacity and make necessary system improvements when needed.
- MS-14b:** Continue to loop the water supply system when opportunities and funding permits as the town recognizes the importance of a dual or looped water supply system for pressure, service and fire supply.
- MS-14c:** Develop mechanisms to anticipate when the town may exceed its water allotment from Dare County and make financial provisions to meet contractual obligations to expand the reverse osmosis water treatment plant capacity when necessary.
- MS-14d:** Prepare a comprehensive water system master plan every 10 years to evaluate and analyze the capital needs of the Nags Head water system and to provide recommendations to the town for short-term and long-term improvements. These recommendations serve as the plan for the town to meet future water needs and to stage the necessary construction and associative financing in an efficient manner. The comprehensive water system master plan should examine the following; evaluation of the existing water system operation, assessment of the reliability of the existing infrastructure, distribution system analysis for water consumption and fire protection, regulatory water quality requirements, source water evaluation, development of a 10-yr Capital Improvement Plan and a water system rate study. Intermediate updates may be conducted at shorter intervals to focus on specific objectives of the water system master plan. It is anticipated that the next comprehensive water system master plan update will occur in FY 17/18.
- MS-14e:** Coordinate with the National Park Service and the affected entities to seek funds for improvement to the water supply line serving Park Service property and the Oregon Inlet Fishing Center.
- MS-14f:** Develop an educational program highlighting the beneficial effects of conserving potable water.
- MS-14g:** Maintain the status of the Fresh Pond as a CAMA Area of Environmental Concern to protect the Fresh Pond watershed for future water supply use.



3.8.5. STORMWATER MANAGEMENT

Stormwater management in Nags Head is a complex balancing act between several competing factors such as, economic development, natural resource preservation, flood control, and water quality. Development and redevelopment create a feedback loop with respect to stormwater runoff. As development occurs, stormwater runoff increases from the additional impervious surfaces reducing the amount of pervious surfaces available for infiltration. Evapotranspiration decreases as vegetation is removed and trees are cleared. Furthermore, groundwater elevations tend to increase when vegetation and trees are removed. As groundwater elevations increase, developers are more likely to fill lots to make them buildable thereby eliminating natural drainage features and areas of infiltration. More stormwater runoff enters the system, thus continuing the cycle.

Frequent flooding can curtail investment and tourism in a town where tourism is a critical part of the economy. The desire to limit flooding must be tempered by the need to limit pollutant loads to critical waterbodies such as the Roanoke Sound and Atlantic Ocean. Degradation of the waterways can lead to beach closures and shellfishing closures, which can also have an impact on tourism and the economy.

The Stormwater Management Program provides the town with a prioritized list of flood control and water quality capital improvement projects as well as oversight of private development that will help the town balance competing stormwater management issues and respond to an increasingly strict regulatory environment.

The mission of the Stormwater Management Program is to enhance the collection and transport of stormwater through publicly owned infrastructure and, where feasible, implement treatment prior to discharging this stormwater to receiving waters. Elements of the program include maintenance and repair of existing facilities, construction of new facilities where warranted, public education, stormwater studies, and regulation of development. These studies would include, but not be limited to, quantity determinations and water quality analyses during various times of the year. The overall functions of the program are carried out utilizing town personnel and equipment, contractors, engineering and scientific consultants, and by working with other local governments and appropriate State agencies.

The town, in 2016, replaced its stormwater utility fee with a stormwater tax. The one cent tax generates approximately \$230,000 and supports programs and infrastructure to mitigate localized flooding and enhance water quality within the town.

A. Stormwater Infrastructure

The existing stormwater drainage system for the town relies heavily on five (5) ocean outfalls maintained by the North Carolina Department of Transportation (NCDOT). Four of the outfalls are located within town limits and the fifth is located immediately south of



the town boundary. The outfalls were originally constructed to provide drainage for ocean overwash events when the storm surge from the ocean overtopped the dunes. In addition (12) outfalls exist along the western portion of the town draining either to the Roanoke Sound or to the marsh areas west of South Nags Head. Approximately 55 miles of drainage ditches, pipes, swales and structures are located in the town and work to support the overall drainage system in the town. Approximately 36% or 20 miles of the drainage system is contained within the NCDOT rights-of-way.

B. Drainage Problem Areas

Acute or nuisance flooding predominately occurs in roadways, yards, and garages or crawl spaces. However, flooding of finished floor spaces has occurred at times during large rain events or from continued wet periods. Typically, significant ponding will occur during rainfall events due to limited drainage features and flat topography. This ponding creates a public safety hazard making driving conditions hazardous, forcing bicyclists and pedestrians in the roadway, and providing an ideal environment for mosquito habitat. In areas where stormwater drainage system exists, property owners often fill the swales in their front yard for aesthetic purposes creating a disjointed drainage system that doesn't efficiently convey runoff. Other areas suffer from high groundwater elevations that can significantly limit infiltration during periods of frequent rainfall.



C. Capital Improvement Plan

Master planning is a proactive response to stormwater management for the town through infrastructure improvements, maintenance, and ordinance revisions. An important component of master planning is stakeholder involvement as this type of engagement can significantly improve the level of service for managing stormwater. The Capital Improvement Plan includes specific infrastructure improvements throughout the town to reduce flooding and improve water quality. The most recent Town of Nags Head Stormwater Management Plan update was prepared by W.K. Dickson and completed in 2006. This document included a 10-year prioritization list which is reviewed and reprioritized annually based on recent flood events, regulatory updates, funding opportunities, etc.





D. Stormwater Working Group

Stormwater has been identified as one of the town's five primary areas of interest and a working group meets regularly to develop and update a strategic plan for stormwater management. This effort focuses on three main objectives:

- Establish an affordable long-range action plan for progressively improving the town's stormwater drainage infrastructure
- Commit town resources toward execution of the plan
- Maintain town-wide visibility of the plan's progress and effectiveness.

E. Stormwater Regulation

The town manages stormwater runoff of development by establishing requirements and procedures to control the adverse effects of fill, land disturbance and increased post-development stormwater runoff for the purposes of both flood prevention and water quality protection. The goals of these regulations are:

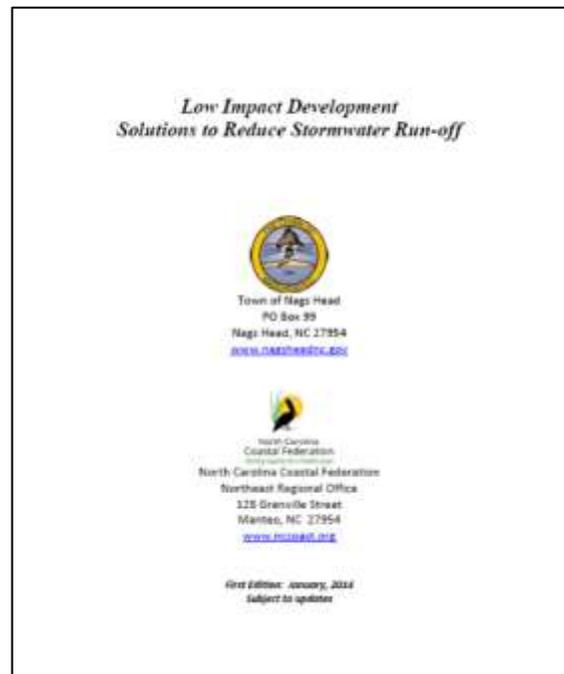
- Control and minimize impacts associated with stormwater runoff from all development and redevelopment.
- Mitigate current stormwater problems and prevent future problems associated with stormwater runoff.
- Preserve water quality through proactive management practices.
- Facilitate public understanding of stormwater management.
- Encourage the use of pilings and open foundations and minimize the use of fill, consistent with FEMA's coastal construction recommendations.
- Improve stormwater management through use of low impact development techniques.
- Establish requirements for on-going management and maintenance of stormwater management practices.
- Establish application and enforcement procedures that address land disturbance, sedimentation and erosion control, the use of fill, and stormwater management practices consistent with associated town ordinances and state and federal laws and regulations.
- Establish public awareness of potential surface and subsurface water drainage problems recognizing that development potential of some land may be limited.
- Regulate development and redevelopment which may create additional stormwater related burdens to the town or adjacent properties.



- Cause every development and redevelopment employing stormwater management practices to develop a maintenance plan, and place responsibility for maintenance with the property owners.

Stormwater review is conducted for both residential and commercial development during the building permitting process. For residential development, fill and lot coverage determine the treatment methods available to property owners. The greater the lot coverage and fill, the stricter the standards become. The standards range from installation of swales to engineered stormwater plans. For commercial development, an engineered stormwater plan is required and depending on the location and level of disturbance, a state stormwater permit could be required as well.

In addition to commercial and residential building regulations, the town has also developed a Low Impact Development manual. In 2013, the Town of Nags Head began work with the N.C. Coastal Federation to develop a Low Impact Development manual as a reference document for local citizens and developers as part of town efforts to improve stormwater management and as a technical resource for application of town stormwater regulations. This manual is a guide for property owners who want to improve stormwater management on their site and for those who seek low cost practices to achieve compliance with the Town of Nags Head Stormwater Ordinance, Chapter 34 of the Town Code of Ordinances.





POLICIES & ACTIONS

- MS-15 Ensure that stormwater runoff is properly managed to reduce nuisance flooding and pollution of sensitive environmental areas.
 - MS-15a: Develop an affordable, long-range plan for progressively improving the town's stormwater drainage infrastructure.
 - MS-15b: Complete and continually update a town-wide drainage infrastructure plan that maps type, size, and location of existing drainage features within the town including rights-of-way and outfalls.
 - MS-15c: Update the Stormwater CIP concentrating on potential improvements to the main drainage routes and working back upstream through neighborhoods identifying areas of concern and the evaluation of potential alternatives.
 - MS-15d: Evaluate and document existing nuisance and problem areas for identification of potential corrective action.
 - MS-15e: Replace inadequate town-owned critical drainage facilities.
- MS-16 Improve town drainage infrastructure through planning, maintenance, or new construction, where appropriate and as identified in long range plans.
 - MS-16a: Purchase equipment to necessary to conduct systematic annual maintenance, on-demand maintenance, and post- storm maintenance.
 - MS-16b: Continue to coordinate with the local, state, and federal agencies such as the North Carolina Department of Transportation and the National Park Service to conduct annual maintenance activities within the main drainage arteries to maintain and/or improve drainage ways.



POLICIES & ACTIONS

MS-16c: Develop a level of service that accounts for future development, redevelopment and changes in surrounding environmental conditions.

MS-16d: Perform hydraulic and hydrologic analyses of identified areas of concern for appropriate infrastructure sizing, when required.

MS-16e: Monitor and evaluate performance and condition of existing drainage infrastructure through on-site review and observations.

MS-16f: Continue to refine and update project prioritization based upon the following criteria:

- Frequency and duration of occurrences and extent of flooding conditions observed
- Project Benefit
 - Tributary Area Served
 - Number of Properties Served
- Public Safety
- Flood Control & Water Quality
- Project Cost/Available Funding
- Regulatory permitting constraints and coordination
- Other applicable limiting factors

MS-17 Ensure that financial resources are available to provide adequate levels of service and desired capital improvements.

MS-17a: Maintain an adequate fund reserve for operation of equipment and materials to perform necessary maintenance on existing drainage infrastructure.

MS-17b: Seek additional funding opportunities from local, state and federal agencies to assist with future stormwater planning and construction efforts.

MS-18 Educate and involve the public in stormwater management.

MS-18a: Develop public educational materials on stormwater and the town's stormwater drainage system that can be made available on social media and the town's website.

MS-18b: Engage stakeholders affected by town projects to inform them of the project purpose, timeline, areas, how the project may impact them, and how they can engage in project planning (if appropriate).



3.9. FUTURE LAND USE

3.9.1. INTRODUCTION

The Future Land Use Map works to apply the vision and policies of the plan by visually showing where growth is directed. The map should be used in conjunction with the entire plan and not weighted as more important than the vision, policies, or other recommendations. The future land use map is a guide that outlines a desired general pattern of development. The boundaries of the different land uses shown are definitive and reflect transitions from one land use to another.

Successful transitions mitigate incompatibilities between adjacent and nearby land uses. Incompatibilities arise when nearby uses differ significantly in terms of intensity, bulk, and/or scale. Tools such as change in scale, attention to architectural detail, increase in landscaping, distance between buildings or uses, and compatibility in intensity and bulk can allow successful transitions between properties with dissimilar characteristics. Where incompatibility arises from use, an intermediate use can serve as a buffer.

The Future Land Use Map works in conjunction with the Character Areas to implement the vision of the town. The Character Areas in Section 2 represent areas where more detailed planning and implementation are needed. Section 2 describes the overall vision for each unique area, desired uses, design considerations, recommended infrastructure, and other elements that should be considered in order to achieve the desired goals of each area. The policies and actions referenced by the character areas section is located in Section 3, Elements and Policies.

3.9.2. DESIGNATIONS

The town's desired future land use designations and patterns are shown on the future land use map. There are 13 designations that express desires for the future land uses. Public ocean and estuarine accesses are compatible with any future land use designation. The future land use designations are described below:

A. Residential

The Residential designation is intended to accommodate low density, single family residential.

B. Oceanfront Residential

The Oceanfront Residential designation is intended to be a residential, oceanfront designation of buildings less than 5,000 square feet. Development in this designation is heavily influenced by the ocean and structures are encouraged to be small scale and adaptable for future conditions.



C. Planned Unit Development (PUD) Residential

The Planned Unit Development (PUD) residential designation is intended to accommodate residential development in the Village at Nags Head Planned Unit development.

D. Oceanfront Historic Residential

The Oceanfront Historic Residential designation recognizes the historic nature of the residential structures in the designation. The buildings in this designation were placed in a district on the National Register of Historic Places in 1977. Development in this designation is heavily influenced by the ocean and structures are encouraged to be small scale and adaptable for future conditions.

E. Oceanfront Mixed Use

The Oceanfront Mixed Use designation is intended to be a mix of residential and commercial uses on the oceanfront. The uses in this designation serve the needs of neighboring residents and buildings will be less than 5,000 square feet in size. Due to the ocean influence, structures are encouraged to be small scale and adaptable for future conditions.

F. Neighborhood Commercial

Neighborhood Beach Road Commercial development activities are intended to be small scale and low impact in nature while serving the needs of the immediate residential area. The intent of allowing neighborhood commercial uses within selected areas is to offer neighborhoods opportunities to have needed goods and services within walkable distances. Typical uses in this designation include restaurant (walk-up or sit down), commercial, office, retail, personal services establishments, gallery/museum, equipment rentals, cottage courts, hotel (boutique/small scale), and single family residential (5,000 square feet or less). Neighborhood commercial uses are intended to peacefully coexist with neighborhoods in order to ensure compatibility and harmony of scale and character. All neighborhood commercial uses must be designed in use, scale, character, and intensity to be compatible with, and to protect, the abutting and surrounding residential areas as well as natural resources and scenic view sheds.

G. Beach Road Historic Commercial

The Beach Road Historic Commercial designation is intended to be a mix of commercial and residential uses with a higher degree of design and architectural control. Commercial and residential development should reflect a residential scale and character as well as blending with the surrounding natural environments. Special consideration should be given to natural building material and colors for commercial structures. Multiple, smaller structures are preferred and encouraged over larger strip development. Development



should be designed so that that viewsheds of the ocean and sound are maintained and individual buildings do not dominate adjacent development.

H. General Commercial

General Commercial designation is located throughout the town paralleling US 158 and US 64. The General Commercial designation is intended to foster a thriving commercial business community with a variety of retail, service, office, restaurant, institutional, and recreational, uses. Form is as important as use within this designation and there should be a high degree of design quality for the building facade. Planned, mixed use developments are encouraged. Best practices for all types of corridors include: driveway consolidation, bicycle/pedestrian accommodations, traffic calming, and buffering/landscaping.

I. Commercial Services

The Commercial Services designation accommodates utilities, light industrial uses such as processing/fabricating facilities, warehousing, storage bulk storage, municipal facilities, studio (dance/gymnasium, martial arts), and commercial service buildings (20,000 or less). This area is intended to provide higher intensity land uses related to immediate community needs that are not compatible with other areas of the town. There is no desire for the boundaries of this designation to expand in the future.

J. Waterfront Commercial Recreation

The Waterfront Commercial Recreational designation recognizes and capitalizes on the unique natural resources and viewsheds in this area. This designation is intended to accommodate high quality development with a focus on small, low scale hotel type development and regional point of community gatherings and events. Other appropriate uses include multi-family, commercial, retail, restaurant (walk-up/sit down), personal service establishments, indoor entertainment, indoor/outdoor recreation, water dependent uses, gallery/museum, institutional uses, and gymnasium/fitness studio. Planned, mixed use development with an emphasis on pedestrian connectivity is highly desirable. Development should be oriented not only to the road but the water as well. Additionally, access to the water and protection of viewsheds is important.

K. Institutional

The Institutional land use designation is used to designate lands that are intended for use by federal, state, and local government agencies or nonprofit community services such as the YMCA, hospital, or other similar medical uses.

L. Conservation

The Conservation designation offers protection to significant, limited, or irreplaceable sensitive areas. This designation encompasses wetlands, estuarine and coastal shorelines, public trust and estuarine waters, Significant Natural Heritage Areas (as designated by the



State Natural Heritage Program), and other similar lands that are environmentally significant because of their natural role in the integrity of the coastal region as significant natural areas in Section 2.9 Significant Natural Areas. Conservation areas should be preserved and not developed.

The provision of infrastructure and services in this area should not stimulate or intensify development in these fragile areas. Proper management of these areas is needed to conserve the natural, cultural, recreational, scenic, or biologically productive value of these areas. While limited residential development is allowed, such development is governed in accordance with the provisions of the Special Planned Development, SPD-20, and Special Environmental, SED-80 zoning districts of the Town's Unified Development Ordinance (UDO).

M. Recreation

The Recreation designation is intended for public and private recreational opportunities including public beach and sound access points, public parks, golf courses, and other private recreational opportunities.

3.9.3. ACTIVITY NODE DESCRIPTIONS

A. Neighborhood Commercial Activity Node

Neighborhood Commercial Activity Nodes are focal points of activity and neighborhood commercial scale development in the community. These are anticipated to have future concentrations of uses that serve as destinations or hubs of activity for the surrounding neighborhoods. Neighborhood Commercial Activity Nodes are characterized by low impact, small scale design with compact development patterns, walkability, and a higher standard of architectural and site design. A variety of neighborhood oriented uses are commonly found in activity centers including but not limited to retail, parks, civic facilities, beauty shops, drug stores, hardware stores, and restaurants. Amenities, on private commercial development, that provide shading and seating areas are encouraged. Areas designated as activity centers should be planned in a way to allow for pedestrian and bicycle movement within the activity center. Design in each node should be very pedestrian-oriented, with strong, walkable connections between different uses with direct connections to existing and planned sidewalk and multi-use path connections or recreation areas. Road edges should be clearly defined by locating buildings at roadside with parking on the sides and rear. Care should be taken to ensure transitions are successful between activity centers and less intense uses and designations.

B. General Commercial Activity Node

General Commercial Activity Nodes are focal points of activity and higher intensity development in the town. These are areas that are anticipated to have future concentrations of uses that serve as destinations or hubs of activity for the town and are



appropriate for shopping centers or larger footprint retail stores. General Commercial Activity Nodes are envisioned to be planned commercial development with a range of uses including retail, office, restaurant, banking, personal service establishments, gymnasium, indoor entertainment, gallery/museum, hotel (boutique/small scale), institutional uses, and multi-family. Future development is characterized by compact development patterns, walkability, and a higher standard of architectural and site design. Multiple, smaller structures are preferred over large strip development. Future development should accommodate pedestrian access from existing pedestrian infrastructure to storefronts. Further, adequate pedestrian infrastructure should be provided to safely traverse and interconnect commercial sites.

C. Waterfront Commercial Recreation Activity Node

The Waterfront Recreational Commercial Recreation Activity Node is a focal point of activity and higher intensity development in the town. Areas in this designation are anticipated to have future concentration of uses that serve as destinations or hubs of activity for the town. This designation is intended for a higher intensity of commercial mixed use, hotel, and recreation, shopping, and dining. Compatibility among the mix of uses with the areas natural resources and scenic views should be maintained through development patterns that preserve open space, natural resources, and scenic viewsheds.

3.9.4. FUTURE LAND USE MAP

The Future Land Use Map is based on the policies and assumptions contained in the Comprehensive Plan. The Future Land Use Map shows the general land use recommended and includes a range of potentially appropriate land uses and intensities within each land use category.

While the Future Land Use Map will influence future zoning, it does not alter current zoning or affect the right of property owners to use the land for its purpose as zoned at the time of this Plan's adoption. However, the Future Land Use Map will be utilized during the review of development plans.

The future land use categories should not be interpreted to support nor preclude developments without consideration of the policies and intent of the Comprehensive Plan. Determination of the conformance of a proposed use with the Comprehensive Plan should include consideration of the following questions:

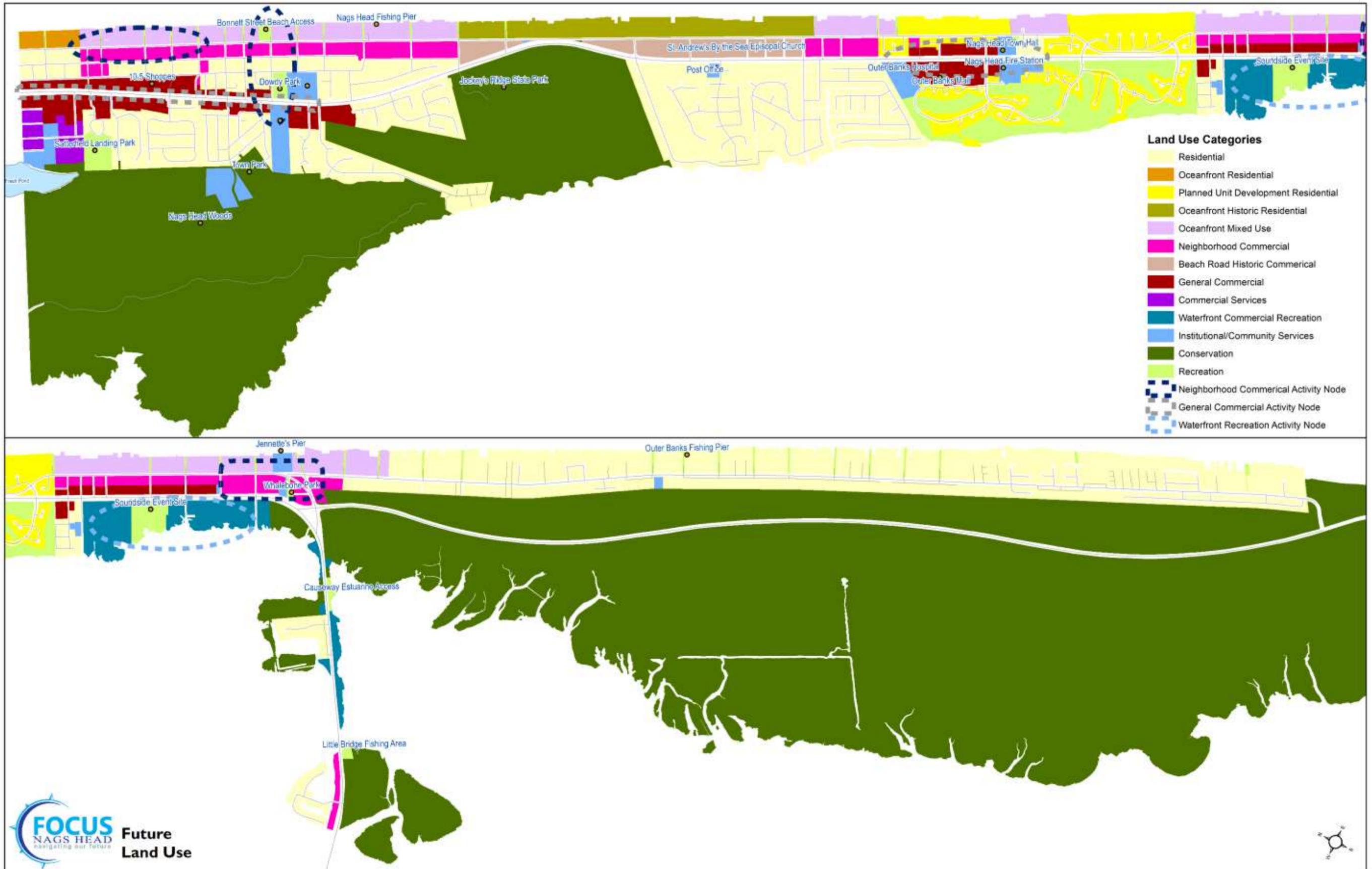
- Is the proposal consistent with the vision, goals, themes, and policies contained in the Comprehensive Plan?
- Is the use being considered specifically designated on the Future Land Use Map in the area where its location is proposed?



Section 3: ELEMENTS
3.9. Future Land Use
3.9.4. Future Land Use Map

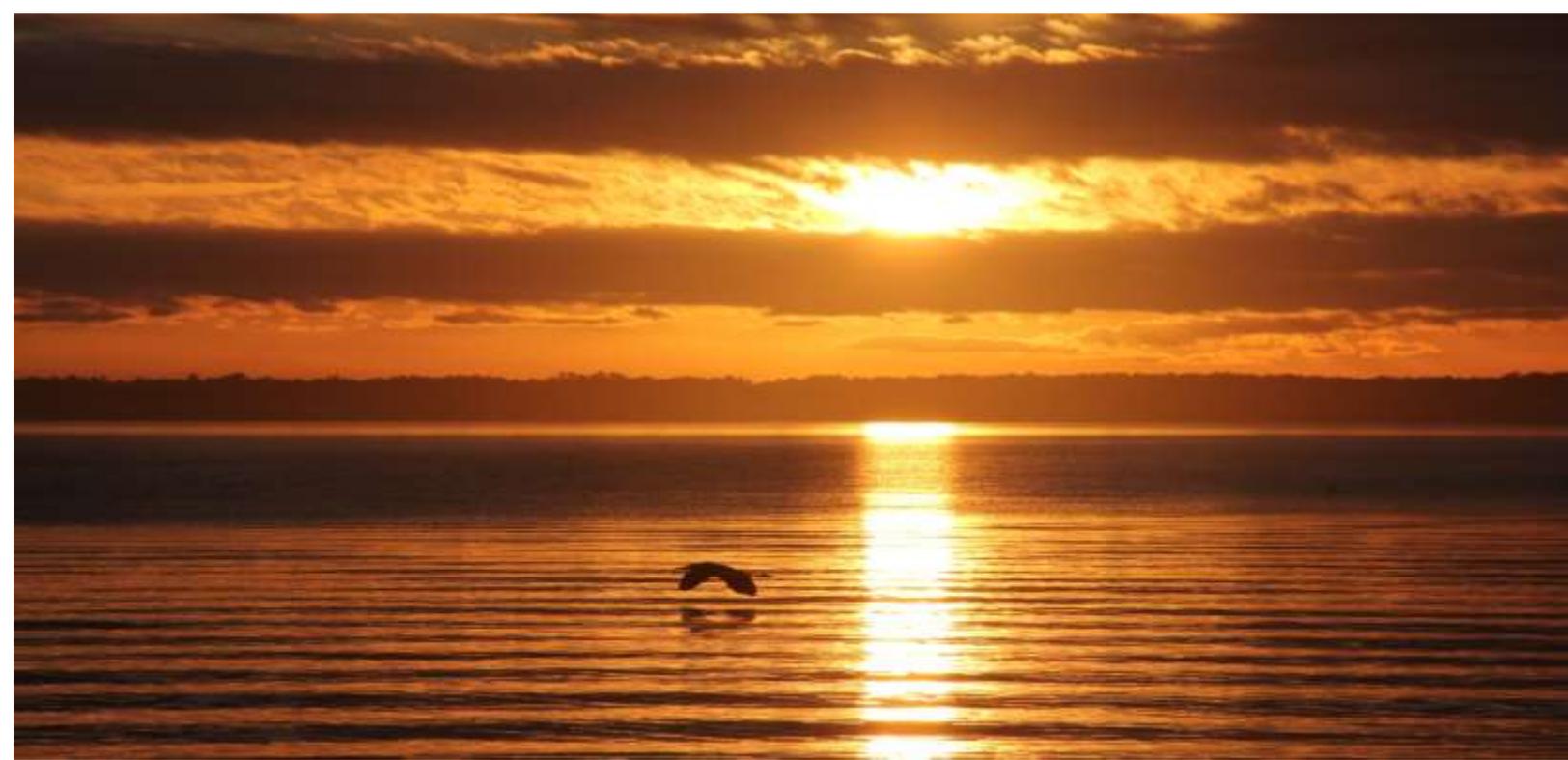


- If the use is not specifically designated on the Future Land Use Map in the area where its location is proposed, is it needed to service such a planned use, or could it be established without adversely altering the recommended land use and character of the area?



SECTION 4: IMPLEMENTATION

The FOCUS Nags Head Comprehensive Plan is an official policy document that is intended to guide the actions of town officials, staff, and all community stakeholders as they move forward to achieve the vision and overarching goals set forth in Section I of the plan.





4.1. INTRODUCTION

The Comprehensive Plan is a document focused on action. This section further links the goals, character areas, and planning elements with their corresponding policies and appropriate implementation strategies for each policy.

The policies and actions described in Section 3 of the Comprehensive Plan are compiled into an implementation matrix contained in this Section 4. This matrix is a useful reference for the community to review the different actions of plan implementation. The implementation matrix takes the policies and actions from Section 3 of the Comprehensive plan and consolidates them into a central location. The implementation matrix will be updated when plan updates are performed however the town will want to refer to and track plan progress on more regular intervals. To accomplish this, section 4.3 references a working action matrix, which is available on the town's website and is maintained by town staff and the Board of Commissioners throughout the year as goals, policies, and actions are prioritized and scheduled for implementation. The implementation matrix provides the town a means for understanding the most effective approach to achieving town goals and ultimately the community's vision for Nags Head.

4.2. PLAN UPDATES

Moving forward it is crucial to monitor progress toward the plan's goals. Town staff should review progress on an annual basis, at minimum, and provide a report to the Board of Commissioners. The Board of Commissioners can then use the updates and remaining actions in setting priorities for implementation during each budget cycle. Continuous review ensures that the budget accounts for plan implementation needs, that responsible parties are identified, resources are allocated for success, and priorities are achieved in appropriate time frames. As part of yearly updates, the town should work to establish a process for minor updates and amendments. This type of yearly process should provide an opportunity for the community and town departments to propose minor amendments to address changing social and market conditions, updated plans and studies, and revisions to departmental work plans. To maintain the plan's currency in the long term, the town should undertake a major re-evaluation and update, at least, every ten years.



4.3. IMPLEMENTATION MATRIX COMPONENT DESCRIPTIONS

The implementation matrix, in the subsequent pages, includes all of the policies and actions for Section 3 of the plan. Actions are specific tasks to be completed after plan adoption and become a “work plan” for town staff. The actions implement the policies they are associated with.

Policies are broad statements that give insight and direction into the plan goals. These policies are utilized by staff, town boards, and elected officials to determine if development is consistent with the town’s vision. These policies can also be utilized by the development community to assess the town’s desires for future growth.

The plan goals, found in Section 1.3, are broad statements that describe key elements or areas that the town hopes to preserve, protect, maintain, or enhance.

The vision is a statement of what is important and valued as the town continues to grow and develop in the future. The goals, policies, and actions collectively work together to incrementally accomplish the vision.

4.3.1. POLICIES AND ACTIONS

This column includes the policies and actions from Section 3 of the comprehensive plan that were derived from research of current conditions and input from the community. Each policy and action can be related back to a town goal.

4.4. ACTION WORKING MATRIX

The working action matrix is an expanded version of the policy and action matrix contained in the adopted plan. The working action matrix is maintained by staff, and available to the public, on the town’s website as a spreadsheet document for ease of maintenance and update. It is incorporated into this document by reference and can be downloaded on the Planning and Development Department’s website.

The following sub sections outline the key elements that will be contained in the action working matrix.

4.4.1. RELATED GOALS

The Related Goals column of the action working shows how the specific policies and actions relate to and accomplish the plan goal. The five goals, contained in Section 1.3, are represented by icons. The goals include: Preserving Nags Head’s distinctive heritage and unique lifestyle; Protecting Nags Head’s critical natural resources and coastal eco-system; Building a sustainable year-round economy; Planning for orderly growth and redevelopment; and Maintaining a well-run and efficient government.



4.4.2. FINANCIAL RESOURCES

The Financial Resources column in the action working matrix represents the level of financing necessary to complete the actions. The table uses the dollar symbol to indicate a theoretical range of needed capital. Actual resources could be more or less depending on the final scope of the project and the CIP process. The ranges, though not precise, however, are jumping off points for further financial discussion and review. The ranges are as follows:

- \$ Less than \$50,000
- \$\$ \$50,000 to \$100,000
- \$\$\$ \$100,000 to \$300,000
- \$\$\$\$ More than 300,000

Additionally, if an action or project requires planning, a “P” will be utilized in this column to reflect that need.

4.4.3. REVENUE TYPE

The Revenue Type column suggests the type of revenue stream rather than the amount required. Options include grant funding, staff time, facility fees, and capital reserves.

4.4.4. TIME FRAME

The Time Frame column provides a time frame within which each action should be addressed. Expected completion of short-term projects is as follows: Generally, shorter timeframes imply a higher priority. However, due to availability of funds, staff resources, or policy changes, intermediate or long-term actions may take priority over short-term actions.

- Short 0-2 Years; commence no earlier than FY18-19, complete no later than FY20-21
- Intermediate 2-5 Years; commence no earlier than FY20-21, complete no later than FY23-24
- Long 5+ Years; commence no earlier than FY23-24, complete no later than FY28-29

4.4.5. RESPONSIBLE PARTIES

The Responsible Parties column identifies parties associated with the town that are responsible for completion of the action step.



4.4.6. PRIORITY LEVEL

The Priority Level column sets a level of urgency to the action. Due to resource constraints, the priority level guides the town toward achieving the most crucial actions. Priority level is either 'high', 'medium' or 'low' with 'high' being the most pressing. However, since some high priority actions have longer time frames and budgets, it is possible that lower priority items are more readily achieved. As resources become available or community needs and desires change, the priority level may also change.



4.5. POLICY AND ACTIONS MATRIX

Table 4.3.1 Policy and Action Matrix

Land Use			
Policy #	Policy		Timeframe
	Action #	Action	
LU-1		<p>Ensure that the character of Nags Head is preserved as a single-family residential beach community with ties to its natural environment. This character is defined by:</p> <ul style="list-style-type: none"> ▪ Development that blends with the landscape, preserving natural vegetation, dunes, open spaces, and environmental quality. ▪ A visible and dark night sky maintained by lighting that is minimal and carefully designed. ▪ Views from the ocean beach of dunes and vegetation and structures that are low in height, blend with the landscape, and don't shade the beach. ▪ Buildings with a residential scale and appearance with low heights and small footprints that are designed to reflect the heritage of Nags Head. ▪ Commercial development that serves the needs of residents and visitors but respects the goals of the community related to design and appearance. ▪ Land uses that are compatible with the community and with adjacent properties that don't create excessive noise, light, unsafe conditions, or other nuisances. ▪ A land use pattern that preserves residential neighborhoods and establishes walkable nodes of commercial development that attract patrons and strengthen business opportunity. ▪ Signage that provides adequate communication but does not dominate the landscape. ▪ Development of low density and intensity served primarily with on-site wastewater systems 	Short
LU-2		Develop separate zoning districts and regulations that recognize the appropriate scale and pattern of development for the US 158 and NC 12 corridors.	
	LU-2a	Conduct an inventory of buildings sizes and types for commercial areas and use this information to define desired development characteristics and regulations for each corridor. This should include a review of site	Intermediate

IMPLEMENTATION



Table 4.3.1 Policy and Action Matrix

Land Use		
Policy #	Policy	Timeframe
Action #	Action	
	development regulations, with particular focus on Beach Road activity centers, to ensure that buildings address the street and relate to the pedestrian environment.	
LU-2b	Develop pedestrian facilities in defined activity centers on the west side of NC 12 to connect businesses and create a walkable environment.	Long
LU-2c	Focus on activating the front of commercial structures along the NC 12 corridor with uses that blend the private sphere of the business with the public sphere of the sidewalk and street. This can be accomplished through outdoor seating or dining.	Long
LU-3	Recognize a low-density pattern of development for the oceanfront that is characterized by small scale, adaptable structures.	
LU-3a	Develop incentives or regulations that limit individual building sizes to 5,000 square feet and 35 feet in height for new oceanfront development. Any new town regulations should not preclude existing structures greater than 5,000 square feet from making improvements, renovations, or repairs.	Complete
LU-3b	Regulate accessory structures in the active, oceanfront environment where frequent damage occurs to protect private property and limit storm damage and debris. This may include additional regulations applicable to oceanfront pools, dune decks, walkovers, and gazebos.	Short
LU-3c	Maintain current regulations regarding free of obstruction and the prohibition of ground floor enclosures along the oceanfront.	Short
LU-4	Encourage a balance of land uses along the Beach Road characterized by a diversity of accommodations and small, neighborhood serving businesses.	

IMPLEMENTATION



Table 4.3.1 Policy and Action Matrix

Land Use		
Policy #	Policy	Timeframe
Action #	Action	
LU-4a	Direct commercial development to activity centers or nodes through incentives or modifications to zoning regulations consistent with the development plans described in Section 2.	Long
LU-4b	Explore incentives and develop regulations to encourage pedestrian friendly, human scale development along the Beach Road.	Long
LU-4c	Explore ways to create cohesiveness in commercial activity centers by limiting certain types of residential uses (single-family) or allowing single-family or residential uses only as accessory to commercial uses. This could include utilizing vertical or horizontal mixed use or detached accessory residential structures	Long
LU-4d	Identify existing cohesive residential areas that are currently zoned commercial and consider rezoning to residential to preserve their integrity and limit future land use compatibility issues.	Long
LU-4e	Develop regulations that prevent incompatible commercial development adjacent to areas with historical designations or significance.	Long
LU-5	Promote contiguous and cohesive nodes of commercial development of appropriate size and massing for the surrounding area.	
LU-5a	Conduct a study to inventory existing commercial buildings along each corridor or character area in order to determine the appropriate size/massing and scale of structures in these areas.	Intermediate
LU-5b	Establish regulations to define maximum sizes and/or address the scale and massing of new commercial buildings based on the study of building sizes/types for each corridor or character area. These regulations should address the desired scale and massing for both the US 158 and NC 12 corridors. Careful consideration should be given to this approach as there may be competing goals, such as future hotel development, which may need special attention when addressing this issue. The town should consider	Complete

IMPLEMENTATION



Table 4.3.1 Policy and Action Matrix

Land Use			
Policy #	Policy		Timeframe
Action #	Action		
	whether the C-1 or C-4 zoning classifications should replace the current C-2 zoning classification in certain areas such as along NC 12 where smaller building sizes may be more appropriate.		
LU-6	Limit destruction and clearing of the maritime forest in Nags Head Woods to maximum extent possible, allowing only the minimum clearing and land disturbance necessary to make reasonable use of property.		
LU-6a	Maintain and enforce regulations for the continued protection of the Nags Head Woods ecosystem.		Complete
LU-6b	Evaluate allowed land uses in the SED-80 and SPD-20 zoning districts and determine if the listed uses are compatible with the goals and objectives of preserving Nags Head Woods and the surrounding area. In particular, the SED-80 district includes a provision for cluster housing which allows more than one dwelling unit on a lot. The town has been previously concerned about the overall compatibility of this type of use in the SED-80 district. The town should pay close attention to this when conducting its review of appropriate land uses.		Complete
LU-7	Review regulations in the Ocean and Sound Waters Overlay District and the Commercial Outdoor Recreation Overlay District to ensure proper use of the ocean and sound waters, including islands that adjoin the town, to ensure the continued scenic, conservation and recreational value that these waters provide to the town, its residents, visitors and the surrounding area.		
LU-7a	Review regulations for commercial boating and personal watercraft to maintain compatibility with adjacent uses and the estuarine environment.		Short
LU-8	Ensure proposals for future commercial uses in the sound are not detrimental to the marsh, sound bottom, and submerged aquatic vegetation. Compatible sound uses will not increase turbidity in the water and will maintain overall water quality. The town will not support upland excavations for the development of canals that will destroy significant areas of wetlands or marsh.		



Table 4.3.1 Policy and Action Matrix

Land Use		
Policy #	Policy	Timeframe
Action #	Action	
LU-9	Encourage land uses that serve the needs of both year-round and seasonal residents in support of the town's overall vision for the community.	
LU-9a	Evaluate land uses specified in each zoning district and further clarify which uses are appropriate based on the intent of each district, their overall compatibility with current land uses, and desired future development patterns.	Complete
LU-9b	Evaluate all current commercial zoning districts, based on this plan and the future land use map, to determine if they are functioning as envisioned and make necessary modifications. This should include review of the existing C-2 district and determination if the C-1 and C-4 districts would be better suited than the current C-2 zoning along NC 12, between the highways, and along US 158 (excluding major shopping center developments).	Complete
LU-10	Discourage high intensity land uses that produce significant noise, light, heavy vehicle traffic, noxious fumes or poor air quality, are unsightly, encourage unsafe behavior, or require large amounts of land for heavy industrial uses, processing, or storage of materials or equipment.	
LU-10a	Evaluate land uses specified in each zoning district and further clarify which uses are appropriate based on the intent of each district, their overall compatibility with current land uses, and desired future development patterns.	Complete
LU-10b	Maintain the current boundaries of the C-3 district and do not expand these uses to other parts of the town.	Complete
LU-11	Support mixed use development or accessory residential dwellings that combine commercial and residential uses along NC 12 and in designated commercial activity centers located between US 158 and NC 12.	

IMPLEMENTATION



Table 4.3.1 Policy and Action Matrix

Land Use		
Policy #	Policy	Timeframe
Action #	Action	
LU-11a	Create incentives and zoning tools to encourage mixed residential and commercial development at appropriate locations including activity centers (both vertical, horizontal and detached mixed use) which would enhance the opportunity for locally owned and neighborhood serving businesses.	Intermediate
LU-11b	Promote and infill mixed use commercial development in designated activity centers using available zoning, incentives, and regulatory tools.	Intermediate
LU-11c	Ensure new mixed use development provides opportunities for healthy and active lifestyles by requiring bicycle and pedestrian circulation/parking, sidewalks, and pedestrian plazas and/or seating areas.	Intermediate
LU-12	Utilize on-site wastewater systems as the preferred method of wastewater treatment as long as they remain viable to effectively treat effluent and protect water quality.	
LU-13	Maintain the overall regulatory scheme for residential and commercial zoning districts as a means to avoid overall increases in development intensity or density.	
LU-13a	Consider incentives that would encourage infill development in commercial activity centers and nodes in accordance with the character area development plans outlined in Section 2. Incentives could include increases in density or lot coverage or additional site design flexibility.	Intermediate
LU-14	Limit the scale and mass of single family residential dwellings to support the town's vision for low density and intensity residential neighborhoods.	
LU-14a	Maintain current regulations that control maximum house size based on lot size.	Long



Table 4.3.1 Policy and Action Matrix

Land Use		
Policy #	Policy	Timeframe
Action #	Action	
LU-14b	<p>Review the town’s development standards to address proportionality of residential structures to lot size and to address the overall character of residential development. At a minimum, this review should examine:</p> <ul style="list-style-type: none"> ▪ Building height requirements as they relate to setbacks. ▪ Alternative approaches to the current building to lot size ratio (i.e. floor area ratio or consideration of lot width as a factor in limiting building sizes). ▪ Overall approaches to regulating height. ▪ Current standards for regulating the length-to-width ratio of buildings. ▪ Factoring decking and/or porches and other unheated spaces in the building to lot size ratio and/or the building length-to-width ratio. ▪ Existing lot coverage incentives for providing engineered stormwater management. ▪ Methods to discourage monotony in building design, particularly for residential dwellings. 	Complete
LU-15	Promote architectural standards for commercial development in keeping with the Nags Head style architecture.	
LU-15a	Examine buildings constructed since the architectural requirements were established and determine if the regulations have created the desired scale and appearance for commercial development. Identify examples of favorable design projects and determine how the regulations or guidelines should be modified to achieve this.	Complete
LU-15b	Consider evaluating other regulatory approaches for commercial architectural design. An alternative approach could involve utilizing design guidelines and a discretionary (board) review process to provide some flexibility to the design of commercial buildings. The town should consider creating a pre-application or pre-design review process to help applicants understand what is expected in terms of site and building design.	Complete



Table 4.3.1 Policy and Action Matrix

Land Use		
Policy #	Policy	Timeframe
Action #	Action	
LU-15c	Encourage creativity in the design of smaller commercial buildings to accommodate the historically varied and eclectic architectural styles within the town. The town may consider exemptions from the architectural requirements for buildings below a certain size and/or height to accommodate this.	Complete
LU-16	Preserve the dark night sky through implementation and enforcement of quality lighting fixtures and codes, dark sky education, and citizen support.	
LU-16a	Evaluate and modernize the lighting ordinance to reflect best practices for being a dark sky community.	Long
LU-16b	Research and consider applying to the IDA for the Dark Sky designation.	Long
LU-16c	Explore the feasibility of minimum regulations for residential properties that limit nuisance lighting to adjacent properties or town rights-of-way associated with glare or light trespass.	Long
LU-16d	Explore efficient low-level lighting along multi-use pathways and at crosswalks to promote safety while preserving the night sky. The town should resist proposals to provide overhead lighting along roadway corridors.	Short
LU-17	Maintain current regulations which prohibit lighting of the ocean beach or estuarine waters to protect marine species and limit unnecessary intrusions into natural areas.	
LU-18	Encourage signage that is designed to serve the needs of residents and visitors but respects the goals of the community related to design and appearance.	
LU-18a	Develop appropriate freestanding sign standards based on the desired character of each area, particularly along roadway corridors.	Complete



Table 4.3.1 Policy and Action Matrix

Land Use		
Policy #	Policy	Timeframe
Action #	Action	
LU-18b	Ensure that future revisions to signage regulations remain content neutral.	Long
LU-19	Support signage that provides adequate communication but does not dominate the landscape. The town will not permit signs or attention getting devices that flash, spin, rotate, blink, or are digital. Signs shall not be directed to or face the ocean beach or sound waters.	
LU-20	Protect and preserve existing vegetation until necessary for development. Avoid clearing lots prior to the actual preparation of sites for development.	
LU-20a	Develop and conduct educational efforts for property owners, landscapers, and the development community on the importance of preserving the unique coastal vegetative landscape.	Intermediate
LU-20b	Evaluate the effectiveness of vegetation preservation ordinances in order to improve their overall success.	Long
LU-21	Protect and preserve mature vegetation where possible on development sites rather than removing vegetation and replanting.	
LU-21a	Strengthen existing regulations or develop incentives that work to preserve mature vegetation and prioritize retention of existing vegetation over replanting. Seek to limit removal of mature vegetation outside of required development footprint areas and within rights-of-way.	Complete
LU-22	Improve the overall success and survivability of landscape plantings through careful selection of vegetation that will withstand the anticipated exposure to wind and salt.	
LU-22a	Amend town ordinances to provide examples of appropriate and compliant landscaping plans in order to assist with the overall success and survivability of required landscaping and buffering.	Complete

IMPLEMENTATION



Table 4.3.1 Policy and Action Matrix		
Land Use		
Policy #	Policy	Timeframe
Action #	Action	
LU-23	Require sufficient parking for commercial businesses with parking area design regulations that limit impacts on neighbors and surrounding land uses.	
LU-23a	Explore incentives or regulations that encourage bike and pedestrian infrastructure to be incorporated into site design.	Intermediate
LU-23b	Monitor the use of parking and utilize this information to evaluate changes in parking standards.	Long
LU-23c	Establish maximum limits on the number of parking spaces for each land use.	Long
LU-24	Support land use compatibility and business development through flexibility in the application of design standards that achieves project goals and preserves the overall spirit and intent of the town's ordinances and land use goals.	
LU-24a	Explore methods to allow greater flexibility in the application of design standards that achieves project goals without compromising the spirit and intent of the town's ordinances. This may include administrative sign offs, incentives, and other discretionary review mechanisms.	Complete
LU-25	Support continued use and improvement of non-conforming properties.	
LU-26	Support access management strategies for individual developments that are appropriate based on a roadway's functional characteristics, surrounding land uses, and users (location and spacing of permitted driveways).	
LU-26a	Develop standards to control access for individual developments including turning movements to and from sites and separation distances from driveways and adjacent street intersections where conflicts can occur.	Complete

IMPLEMENTATION



Table 4.3.1 Policy and Action Matrix

Land Use		
Policy #	Policy	Timeframe
Action #	Action	
LU-27	Promote and expand the types of housing and accommodations for varying income levels, aging populations, and the seasonal workforce within the town.	
LU-27a	Explore incentives and remove regulatory barriers to encourage cottage court development along the oceanfront and beach road areas. The size and scale of individual buildings within cottage court developments should generally be limited to small scale structures (no greater than 2,000 square feet) that are consistent with the size and appearance of traditional cottage court development within the town.	Complete
LU-27b	Research and examine barriers that may be inhibiting hotel development in the town.	Complete
LU-27c	Research and explore other options to diversify the types of housing and accommodations available within the town. This could include creating allowances for accessory dwelling units and housing appropriate for seasonal populations within the town. The town should ensure that any regulations for accessory dwelling units are consistent with the town's size limitations for large residential dwellings.	Short
LU-27d	Review existing policies and ordinances to remove regulatory barriers preventing accessible housing for the aging population.	Short
LU-28	Maintain the policy to restrict tie-ons to the Village wastewater system to only those properties that were part of the original Village master plan.	
LU-29	Maintain coordination with the Village at Nags Head property owner's association and Architectural Control Committee on changes to the Village at Nags Head zoning ordinance or regarding development projects which are reviewed by both entities.	
LU-30	Prevent the conversion of recreational or open spaces in the Village.	



Table 4.3.2 Policy and Action Matrix

Natural Resources & Resiliency

Policy #	Policy	Timeframe
Action #	Action	
NR-1	Protect natural estuarine shorelines for their capacity to absorb and filter runoff and ability to provide habitat.	
NR-1a	Develop incentives for the protection of natural shorelines.	Long
NR-1b	Develop an estuarine shoreline management plan that establishes policies, procedures, and overall management strategy for the town's estuarine shoreline.	Long
NR-2	Utilize constructed "living" shorelines to stabilize and restore estuarine shorelines when feasible.	
NR-2a	Research, identify and map marsh loss, "soft" stabilization methods that are appropriate for Nags Head's estuarine shoreline, potentially restorable wetlands, and mitigation measures for unavoidable impacts to submerged aquatic vegetation (SAV).	Intermediate
NR-2b	Develop incentives for utilizing constructed "living" shoreline methods that encourage improved water quality and ecological integrity while reducing shoreline erosion.	Long
NR-2c	Develop partnerships with non-profits and universities to design and construct living shoreline demonstration projects within the town.	Long
NR-3	Support partnerships and programs that work to educate the public on the benefits of natural shorelines.	
NR-3a	Establish partnerships with NC Sea Grant, the Coastal Studies Institute, the Nature Conservancy, Jockey's Ridge State Park, and the Coastal Federation to develop and offer education on the benefits of natural shorelines.	Intermediate

IMPLEMENTATION



Table 4.3.2 Policy and Action Matrix

Natural Resources & Resiliency

Policy #	Policy	Timeframe
Action #	Action	
NR-3b	Develop and distribute educational materials and offer training on natural shorelines. The educational materials should describe how living shorelines are a viable alternative to hardened structures, explain the benefits that natural shorelines provide, and discuss construction methods and permitting guidance.	Long
NR-4	Preserve important estuarine waterfront viewsheds along the Causeway and in the Whalebone area that contribute to the overall quality of life and sense of place.	
NR-4a	Identify key waterfront viewsheds and develop incentives or regulations to protect them.	Long
NR-5	Engage the public in sustained and coordinated efforts to increase awareness and encourage individual stewardship of Nags Head Woods Preserve through educational efforts.	
NR-5a	Develop a joint education and outreach effort to develop greater awareness of rules of use and boundaries of Nags Head Woods Preserve in an effort to maintain ecosystem function.	Long
NR-5b	Conduct targeted environmental education efforts regarding sustainable use, habitats, and ecosystem services of Nags Head Woods Preserve.	Long
NR-5c	Promote educational and recreational opportunities in Nags Head Woods Preserve through social media.	Long
NR-6	Protect important natural habitats and ecosystems ensuring improvements associated with development minimize impacts to natural resources and Areas of Environmental Concern (AEC's).	
NR-6a	Seek dedicated nature preserve status or regulatory conservation protection for town owned property in Nags Head Woods Preserve.	Long

IMPLEMENTATION



Table 4.3.2 Policy and Action Matrix		
Natural Resources & Resiliency		
Policy #	Policy	Timeframe
Action #	Action	
NR-6b	Partner with the Nature Conservancy to purchase or preserve through easements the remaining vacant parcels in private ownership in Nags Head Woods Preserve.	Long
NR-7	Enhance the partnership between the town and the Nature Conservancy in order to achieve mutual goals for the protection and promotion of the Nags Head Woods Ecosystem.	
NR-7a	Partner with the Nature Conservancy to explore additional opportunities for passive recreation in Nags Head Woods. This includes a coordinated effort between the Towns of Nags Head and Kill Devil Hills and the Nature Conservancy to allow limited access to the Fresh Pond for passive recreation while maintaining water quality through protection of the water source.	Long
NR-7b	Coordinate with the Nature Conservancy to update a Fire Management Plan for Nags Head Woods.	Long
NR-7c	Promote the cultural, historical, and natural resources in Nags Head Woods through wayfinding and interpretive signage or interpretive apps or other innovative media by partnering with the Nature Conservancy to develop and install appropriate signage.	Long
NR-7d	Establish an annual meeting with the Nature Conservancy to discuss mutual goals and management issues.	Short
NR-7e	Engage in dialogue with TNC and other education partners to continue successful education programs in Nags Head Woods Preserve.	Intermediate
NR-8	Enhance the partnership with Jockey's Ridge State park in order to achieve mutual goals for the protection and promotion of the park.	
NR-8a	Conduct maintenance as needed for the upkeep of the sound access off of Soundside Road.	Long

IMPLEMENTATION



Table 4.3.2 Policy and Action Matrix

Natural Resources & Resiliency

Policy #	Policy	Timeframe
Action #	Action	
NR-8b	Partner with Jockey’s Ridge State Park to identify common education efforts and work together to conduct environmental education as opportunities arise.	Long
NR-9	Preserve Nags Head Woods and Fresh Pond in their natural state and allow only limited public use for passive recreation. This shall include only limited walk-in only access to Fresh Pond and no improved facilities for boating, parking, or swimming. The town will not allow or introduce public access and/or uses into the town-owned portions of Nags Head Woods and/or the Fresh Pond AEC which will degrade and/or supersede the ability to maintain the existing public uses such as the Police Shooting range and the Fresh Pond public water supply.	
NR-10	Protect the public health and safety of the town from natural and manmade hazards through proactive planning and mitigation efforts.	
NR-10a	Partner with the county, state, and local agencies to develop a special needs registry list.	Intermediate
NR-10b	Coordinate with the Outer Banks Hospital, the Peak Resources nursing care facility, and other special needs populations to develop a policy and procedure for evacuation procedures. Ensure that yearly contact is made, prior to an event, to verify the town’s role.	Intermediate
NR-10c	Explore the feasibility of developing a Local Emergency Preparedness Committee (LEPC) to assist in planning, preparedness, response, and mitigation for potential hazards that could affect the town.	Intermediate
NR-11	Ensure that the town is a disaster resilient community that can survive, recover from, and thrive after a natural or man-made disaster event.	
NR-11a	Engage the community in the update of the town’s Emergency Operations Plan.	Short

IMPLEMENTATION



Table 4.3.2 Policy and Action Matrix

Natural Resources & Resiliency

Policy #	Policy	Timeframe
Action #	Action	
NR-11b	Ensure that an emergency transportation route, parallel to US 158, is maintained to provide an alternate route to NC 12 and US 158.	Long
NR-11c	Obtain pre-storm authorization from the NC Department of Transportation (NCDOT) to clear DOT maintained roads after storm events.	Short
NR-11d	Enter into an agreement prior to storm events to secure the use of the helipad at the hospital for pre- and post-disaster event needs.	Short
NR-11e	Maintain mutual aid agreements and reevaluate as necessary to continue post-storm assistance with building inspections, damage assessment, utilities repair, public facilities maintenance, and additional public safety personnel. This includes continued participation in the Statewide Mutual Aid Compact.	Long
NR-11f	Obtain debris removal and monitoring agreements on a yearly basis and seek pre-approved temporary disaster-debris management sites with the North Carolina Department of Environmental Quality (NCDEQ).	Short
NR-11g	Continue to exercise inter-local agreements with Dare County and other municipalities for debris management and monitoring.	Long
NR-11h	Identify and implement methods to streamline the damage assessment process to provide information to Dare County, the state, and any other agencies assisting the town with recovery efforts. This includes methods to expedite the availability of damage and condemnation information to town staff and the public.	Complete
NR-11i	Explore resilient construction techniques and higher regulatory standards to protect existing and future development from frequent localized flooding events.	Short

IMPLEMENTATION



Table 4.3.2 Policy and Action Matrix

Natural Resources & Resiliency

Policy #	Policy	Timeframe
Action #	Action	
NR-11j	Monitor areas of frequent flooding during regular and major storm events. Maintain and utilize this information to ensure accurate floodplain mapping, educational efforts, and the application of higher regulatory standards (if needed).	Short
NR-12	Support mitigation projects that reduce the potential damaging effects of hazards on the town.	
NR-12a	Update and maintain a map of properties that are considered repetitive loss.	Short
NR-12b	Assist home and businesses owners in mitigating hazards to their structures through grant funding opportunities, educational efforts, or one-on-one opportunities as they seek permits to complete work.	Short
NR-12c	Develop a program to identify businesses and material storage areas where significant amounts of toxic or hazardous products are stored which would be subject to flooding.	Intermediate
NR-13	Support the town's continued participation in the National Flood Insurance Program (NFIP) and Community Rating System (CRS). Participation in the NFIP is key in making federally backed flood insurance available within the town and to improve the town's CRS rating.	
NR-14	Promote public awareness of risks from natural and manmade hazards through public education programs.	
NR-14a	Partner with Dare County's Joint Information Section and other neighboring municipalities to develop a process and protocol for informing visitors, residents, and special needs populations of potential hazard events prior, during, and after events. This includes storm-related information as well as evacuation and re-entry. The policy should explore alternative non-traditional methods of information dissemination.	Complete



Table 4.3.2 Policy and Action Matrix

Natural Resources & Resiliency

Policy #	Policy	Timeframe
Action #	Action	
NR-14b	Enhance and expand the internal processes for providing public information pre, during, and post storm. This includes automated voice messaging system and other means of social media with storm damage and re-entry information, a Mayor’s radio broadcast, email broadcasts, improved real-time website information with relevant local contact information, available information at traffic stops, and designation of a post-storm public information officer.	Complete
NR-14c	Develop a comprehensive educational outreach program to inform the public and increase awareness on hazards, how to develop and retrofit their properties against hazards, and individual tasks that can help them better prepare and respond to hazards. This should also include targeted educational strategies for repetitive loss properties. Staff should explore alternative options to traditional on-site meetings This may include increased use of social media, the public access channel, and short videos or handouts.	Intermediate
NR-15	Foster partnerships with universities and non-profits to assist the town in identifying risks and making sound scientific based decisions that increase the town’s resiliency.	
NR-15a	Continue to partner with NC Sea Grant to finalize the VCAPS process and study on Sea Level Rise and Climate Adaptation.	Complete
NR-15b	Seek additional partners to assist the town in carrying out the actions of the VCAPS study including the scenario based vulnerability analysis.	Short
NR-16	Minimize impacts of future sea level rise.	
NR-16a	Conduct a vulnerability analysis to determine the town’s risk to hazards including sea level rise. This analysis should include future sea level rise scenarios.	Short
NR-16b	Research and map estuarine marsh migration along Roanoke Sound.	Intermediate

IMPLEMENTATION



Table 4.3.2 Policy and Action Matrix

Natural Resources & Resiliency

Policy #	Policy	Timeframe
Action #	Action	
NR-16c	Develop a plan for adaptation that includes a suite of SLR scenario/probability distributions (more up-to-date than CRC).	Long
NR-16d	Develop a comprehensive education and outreach program for K-12 and residents/property owners that includes the follow topics: SLR, storms, sound side & oceanfront erosion, beach nourishment, and CRS.	Long
NR-16e	Maintain and expand the Septic Health Initiative by providing government assistance for septic retrofits, assisting homeowners in maintaining their septic systems, conducting more groundwater sampling, securing additional wells for sampling, developing partnerships to assist with the peer review of existing data, transitioning to a mandatory septic inspection program with incentives, and mapping of groundwater.	Short
NR-16f	Develop an estuarine shoreline management plan that establishes policies, procedures, and an overall management strategy for the town’s estuarine shoreline. This plan will work to develop projects and strategies to prevent estuarine flooding in the future. The plan should research, identify and map marsh loss, “soft” stabilization methods that are appropriate for Nags Head’s estuarine shoreline, potential opportunities for land acquisition, potentially restorable wetlands, and mitigation measures for unavoidable impacts to submerged aquatic vegetation (SAV). Additionally, it should develop incentives that can be utilized for the protection of natural shorelines.	Long
NR-17	Maintain an ocean shoreline that provides a high level of recreational, aesthetic, natural, and storm protective value that is free of structures, debris, and litter.	



Table 4.3.2 Policy and Action Matrix

Natural Resources & Resiliency

Policy #	Policy	Timeframe
Action #	Action	
NR-17a	<p>Develop a long-term shoreline management plan that considers the environmental, legal, financial, physical, and regulatory issues and constraints that will need to be addressed to conduct ocean shoreline management over a 30-year time horizon. The plan should consider the following:</p> <ul style="list-style-type: none"> ▪ Multiple strategies including nourishment, structure relocation, sand fencing, dune vegetation, alternative shoreline stabilization techniques, and the potential for structure acquisition in limited circumstances. This includes agreement from the public and elected leaders on a target beach condition which becomes the town’s goal to achieve through consecutive nourishment cycles. ▪ A streamlined and programmatic approach to permitting that allows for a shorter window for construction projects. ▪ Best practices for dune management including minimum disturbance by property owners (i.e. cutting away dunes to enhance views or significant dune removal to clear structures), regular sand fencing and dune vegetation planting, and proper siting and construction of structures. ▪ An improved design utilizing dune vegetation, sand fencing, and adjustments to the beach and dune nourishment profile to limit impacts to oceanfront property owners from migrating sand. ▪ Appropriate trigger points for maintenance cycles that address project goals. ▪ A long-term funding strategy that provides consistent revenue for the town and reasonable and predictable tax rates for oceanfront and non-oceanfront property owners. ▪ A coordinated approach with Dare County and other municipalities on a long-term funding approach to nourishment which provides a consistent and predictable source of revenue for maintenance and construction projects. ▪ A coordinated approach with Dare County and other municipalities to determine if and how regional planning can improve project efficiencies and achieve cost savings. 	Intermediate

IMPLEMENTATION



Table 4.3.2 Policy and Action Matrix

Natural Resources & Resiliency

Policy #	Policy	Timeframe
Action #	Action	
NR-17b	Incorporate appropriate policies in shoreline management planning to account for estimated impacts associated with sea level rise. This should acknowledge that a long-term approach may involve shifting strategies in areas of the shoreline where it is cost prohibitive to continue beach nourishment. This should also acknowledge that other strategies will require additional financial and legal resources including outside assistance to succeed.	Long
NR-17c	Develop legal and financial resources to manage the shoreline.	Intermediate
NR-17d	Develop a comprehensive communication strategy to educate town property owners and residents on the importance of the beach and the strategies the town is utilizing to maintain the beach and provide public access.	Long
NR-17e	Develop regulations to protect marine species habitat, including turtle nests, and prohibit harassment of wildlife or marine life.	Long
NR-18	Support and retain the public's right to use the wet and dry sand beach while respecting the rights of individual property owners. This includes limiting the ability of groups or parties to restrict the use of the beach by other individuals.	
NR-18a	Review ordinance language to limit conflicts between different user groups of the beach and nearshore waters and ensure the safety of beach users (i.e. fisherman, bathers, surfers).	Short
NR-18b	Modify ordinance language for crowd gatherings to clarify that groups or parties using the beach for events cannot limit access to the beach by other parties or individuals.	Intermediate
NR-19	Provide substantial opportunity for the public to access the beach. This includes beach accesses with adequate parking at regular intervals for the length of the town with accessible facilities.	

IMPLEMENTATION



Table 4.3.2 Policy and Action Matrix

Natural Resources & Resiliency

Policy #	Policy	Timeframe
Action #	Action	
NR-19a	Develop a public access plan to consider opportunities for additional public accesses and facilities and establish a prioritized maintenance plan for existing public access facilities. This plan should also address an accessibility standard for public accesses where feasible.	Long
NR-19b	Acquire oceanfront property when the opportunity arises to meet other shoreline management or public access goals.	Long
NR-20	Preserve and enhance dunes and native dune vegetation for the role they play in property and infrastructure protection.	
NR-20a	Identify and strengthen regulations and educational efforts that promote the preservation of dunes, vegetation and topography.	Long
NR-20b	Protect structures from erosion by considering additional setbacks beyond the minimum, where possible. This may involve exploration of a “build-to” line, which requires buildings to be located within a certain distance of the front yard setback line.	Long
NR-20c	Clarify and strengthen the town’s policies for low-density oceanfront development and adaptability of structures, recognizing that smaller structures can more easily be removed or relocated when threatened by erosion.	Complete
NR-20d	Develop a policy approach regarding the town’s role in managing the loss of public infrastructure including streets and utilities.	Long
NR-20e	Investigate mitigation programs and grants to assist property owners with structure relocation.	Short

IMPLEMENTATION



Table 4.3.2 Policy and Action Matrix

Natural Resources & Resiliency

Policy #	Policy	Timeframe
Action #	Action	
NR-20f	Investigate innovative programs and seek funds for mitigation measures such as relocation of threatened structures and more stringent building codes for high hazard areas that support the growth management policies of the town.	Short
NR-21	Prevent the use of sandbags, seawalls, bulkheads and other hard structures as an approach to erosion protection for private property along the oceanfront shoreline. This does not include public protection projects such as a terminal groin which are an integral component of a community wide erosion abatement strategy.	
NR-21a	Clarify and strengthen regulations that address appropriate erosion protection approaches.	Long
NR-22	Prevent commercialization of the ocean beaches.	
NR-22a	Clarify and strengthen regulations on non-commercialization of the ocean beaches to include the activities that are prohibited.	Intermediate
NR-23	Seek cooperation on shoreline management activities from local, state and federal agencies.	
NR-23a	Advocate for the establishment of a statewide beach management strategy and policy along with a dedicated funding (state or federal) program designed specifically for beach restoration and nourishment projects.	Short
NR-23b	Advocate for legal and administrative enforcement assistance from state and other local agencies to remove structures and debris from the ocean beaches. This includes advocating for expanded state and federal programs to remove structures on the beach.	Short



Table 4.3.2 Policy and Action Matrix

Natural Resources & Resiliency

Policy #	Policy	Timeframe
Action #	Action	
NR-23c	Lobby for Federal funding to remove/relocate threatened structures by supporting the reinstatement of the Upton-Jones amendment which modified the National Flood Insurance Program. (The amendment did not require a homeowner to wait for destruction of their home by erosion but to submit claims and be re-compensated if occurrence of damage was imminent.) (Resolution adopted March 5, 2008)	Short
NR-23d	Advocate for the expansion of local authority to construct alternative erosion control structures in key locations as part of a community wide strategy for erosion abatement.	Long
NR-23e	Work with state agencies to improve the inventory of data that will be beneficial to planning and development of shoreline management projects.	Short
NR-24	Preserve, protect, and improve water quality and natural estuarine functions to ensure public health, protection of natural resources and habitats, and recreational use.	
NR-24a	Develop and map the surface drainage system in Nags Head to enable a better understanding of the impacts on-site systems have on surface waters.	Complete
NR-24b	Coordinate with Dare County Environmental Health to utilize septic permit data to develop a dataset of existing ground water elevations.	Short
NR-24c	Monitor proposed regulations that could potentially affect water quality within the town and within the Pasquotank River Basin.	Long
NR-24d	Lobby for adequate safeguards from upstream land uses.	Long
NR-25	Increase public understanding of the relationship between water quality, ecosystem health, and human health advisories relating to water quality.	

IMPLEMENTATION



Table 4.3.2 Policy and Action Matrix

Natural Resources & Resiliency

Policy #	Policy	Timeframe
Action #	Action	
NR-25a	Further develop partnerships with the UNC Coastal Studies Institute, the Dare County Cooperative Extension and Health Department, the Nature Conservancy, Jockey’s Ridge State Park, the Cape Hatteras National Park Service, and the Coastal Federation to encourage research and education opportunities related to water quality, ecosystem health, and human health.	Short
NR-25b	Develop a focused educational outreach plan for the Septic Health Initiative that can be implemented, with the assistance of partnerships.	Intermediate
NR-25c	Work with Dare County Health Department, real estate agents, and property managers to educate property owners on the maintenance needs of septic systems.	Intermediate
NR-26	Maintain and expand the Septic Health Initiative.	
NR-26a	Centralize all septic health program data and water quality data into a single database, available on the town’s website, that allows staff to easily search and manipulate data. This should include data from: the town’s water quality monitoring program, the NC Division of Shellfish Sanitation, septic permit data from Dare County, town inspections and pump outs, and repair/loan data.	Intermediate
NR-26b	Develop improved administrative management tools for implementing the program. This includes: <ul style="list-style-type: none"> ▪ An efficient way to email reports to owners directly from permitting software. ▪ A streamlined process for how inspections are received, coordinated, scheduled, and a report of the inspection sent back to the homeowner. 	Intermediate
NR-26c	Refine the town’s permitting software to determine how to track more detailed inspection and pump out data.	Complete



Table 4.3.2 Policy and Action Matrix

Natural Resources & Resiliency

Policy #	Policy	Timeframe
Action #	Action	
NR-26d	Identify properties through septic health data that have never had an inspection or pump out. Make contact with those property owners to inform them of the program and offer services. If feasible, map vulnerable areas based on their proximity to major drainage features and target those areas for outreach.	Intermediate
NR-26e	Identify properties through mapping efforts with older OWTS (pre 1980) to inform them and offer loan program for repairs or replacement.	Intermediate
NR-26f	Update and maintain the septic health program's website monthly to provide program information and current water quality data.	Short
NR-26g	Update the Decentralized Wastewater Management Plan to evaluate the overall effectiveness of the program and recommend additional measures as necessary.	Short
NR-26h	Provide annual updates to the Board of Commissioners on the program status.	Short
NR-26i	Conduct peer reviewed scientific analysis of the program every three years.	Long
NR-27	Develop and enhance relationships with the county, state, federal, non-profit, and Institutional partners to assist in research and educational efforts. This includes, but is not limited to, the Dare County Health Department, the Dare County Cooperative Extension, Jockey's Ridge State Park, the National Park Service, the Nature Conservancy, the Coastal Federation, the UNC Coastal Studies Institute, and other partners in the university system.	
NR-27a	Ensure water quality testing results are peer reviewed through partnerships with universities.	Short
NR-28	Preserve and protect groundwater aquifers from depletion and contamination.	
NR-28a	Update the town code to prevent fracking or deep well injection of wastewater.	Long

IMPLEMENTATION



Table 4.3.3 Policy and Action Matrix
Economic Development & Tourism

Policy #	Policy	Timeframe
Action #	Action	
EC-1	Develop and promote a sustainable economy that supports a high quality of life for residents and visitors without compromising the integrity of natural and cultural resources and sense of place.	
EC-1a	Develop a focused educational effort for citizens on the regional economy and importance of tourism revenues in supporting the town's tax base.	Long
EC-1b	Utilize updated research and feedback from the Outer Banks Visitor studies and surveys to assist town staff in planning and budgetary efforts.	Short
EC-2	Encourage the continued promotion of Nags Head and the Outer Banks as a destination.	
EC-2a	Promote cultural, educational, and recreational events that reflect community goals and values with an emphasis on extension of shoulder seasons.	Short
EC-2b	Coordinate with the Outer Banks Visitors Bureau to better promote and advertise Nags Head.	Short
EC-3	Meet the infrastructure and service needs of the community at appropriate levels as the community continues to grow.	
EC-4	Advocate for the provision of high quality, responsive services, legislation, resources, and policies from government partners and other organizations that further the vision of the Town of Nags Head.	Short
EC-5	Direct new commercial growth into neighborhood commercial nodes, activity centers, or areas currently zoned for commercial development with emphasis on reuse of existing structures.	
EC-6	Support and foster small, local businesses that preserve and uphold the vision and legacy of the town.	

IMPLEMENTATION



Table 4.3.3 Policy and Action Matrix
Economic Development & Tourism

Policy #	Policy	Timeframe
Action #	Action	
EC-6a	Continue to work with the Local Business Committee to further identify and remedy regulatory barriers for opening and operating businesses.	Complete
EC-6b	Develop and map an inventory of local businesses representing each sector of the town's economy.	Long
EC-6c	Develop regulatory flexibility that allows existing small, local businesses to upgrade and maintain their facilities in order to remain relevant and competitive in the market.	Complete
EC-6d	Evaluate the impact of town processes, related to zoning and permitting, on businesses and streamline to meet the town's needs while supporting business investment.	Complete
EC-6e	Expand the availability of town services available on-line to better meet the needs of the businesses community.	Short
EC-6f	Provide technical assistance through workshops, educational materials, or web based media to educate business owners on town processes and regulations related to owning and maintaining a business.	Short
EC-6g	Develop a branded wayfinding, safety, and information signage plan to identify types and locations of signage for pedestrians, cyclists, and vehicles. Install appropriate signage. Signage should enable visitors to locate existing town parks, sound and beach access points and trailheads.	Long
EC-7	Recognize the role and importance of the look and feel of legacy development in creating the distinctive heritage, unique lifestyle, and family beach character that is central to the town's vision.	
EC-7a	Develop more specific criteria for legacy businesses, based on research and data of existing legacy type buildings.	Intermediate
EC-7b	Inventory, research, and map businesses that fit within the legacy business criteria.	Intermediate

IMPLEMENTATION



Table 4.3.3 Policy and Action Matrix
Economic Development & Tourism

Policy #	Policy	Timeframe
Action #	Action	
EC-7c	Develop incentives to encourage the preservation of commercial floor space.	Intermediate
EC-7d	Explore ways to aid in the development of cottage courts.	Short
EC-8	Enhance economic health and increase employment opportunities through business retention and expansion.	
EC-8a	Partner with the Outer Banks Chamber of Commerce to research and conduct discussions with local, small business owners in order to better understand factors contributing to the sale or loss of businesses.	Long
EC-8b	Coordinate with the Outer Banks Chamber of Commerce to offer education and training for local, small business owners on succession planning.	Long
EC-9	Develop a partnership with Dare County, the Outer Banks Visitors Bureau, the Outer Banks Chamber of Commerce, the Albemarle Commission, and other municipalities to advance a regional approach for economic development.	
EC-9a	Continue to support and participate in Economic Diversification Studies conducted by Dare County and other regional authorities.	Long
EC-9b	Identify and discuss barriers to economic development and diversification. Develop strategies from these discussions that can be implemented within the town that work to bring economic sustainability.	Long
EC-9c	Continue to partner with the Albemarle Commission on Workforce and Economic Development Initiatives.	Long



Table 4.3.3 Policy and Action Matrix
Economic Development & Tourism

Policy #	Policy	Timeframe
Action #	Action	
EC-9d	Continue to partner with the College of the Albemarle to develop training opportunities for existing businesses and new enterprises.	Long
EC-10	Promote the growth of existing businesses and the recruitment of new business that are compatible with the town's vision which add full-time, year-round jobs that work stabilize the employment market.	
EC-10a	Improve and expand local and regional transportation linkages, including roads, bridges, multi-modal connections, public transportation, and internet.	Long



Table 4.3.3 Policy and Action Matrix

Cultural Resources

Policy #	Policy	
Action #	Action	
CR-1	Recognize the importance of cultural resources and the arts in creating a sustainable, local economy and high quality of life.	
CR-1a	Engage in a strategic planning activity, with the assistance of the Committee for Arts and Culture, to develop a vision for arts and culture in Nags Head. This should consider the level and commitment the town wishes to make to directly or indirectly promote arts and culture in the community. This should involve the following: <ul style="list-style-type: none"> ▪ A discussion of the types of cultural resource and arts initiatives the town wishes to be involved in as well as the staff and financial resources necessary to achieve this. ▪ A discussion of the partnership opportunities available to leverage town commitments for these opportunities. ▪ A community engagement process to define what culture and arts means to the community including where the town should apply its resources. ▪ An evaluation of the commitment to utilizing town venues, including Dowdy Park, for cultural events with internal and external resources. 	Short
CR-1b	Enhance marketing of cultural resources and opportunities to residents and visitors by improving communications and collaborations within community organizations.	Short
CR-1c	Support and/or provide programming and events for residents and visitors that enhance the quality of life and sense of place.	Short
CR-2	Preserve assets of cultural, architectural, archeological, historic, or social significance.	
CR-2a	Engage the community in identifying community assets that should be considered for protection.	Short

IMPLEMENTATION



Table 4.3.3 Policy and Action Matrix

Cultural Resources

Policy #	Policy	
Action #	Action	
CR-2b	Develop incentives that can be incorporated in the town code that work to preserve key assets.	Long
CR-2c	Review zoning standards for areas of architectural significance, including the commercially zoned area adjacent to the Historic Cottage Row, to ensure compatible development. (Refer to chapter two for additional policy guidance on the Historic District character area.)	Long
CR-2d	Explore the development of a voluntary historic designation program.	Long
CR-3	Encourage partnerships with the public, private, and nonprofit sectors to foster stronger, more visible leadership in culture and the arts making opportunities and programs more available.	
CR-3a	Continue to work with Art is the Heart, the Dare County Arts Council, and other organizations to develop strategies, activities, and events to promote culture and arts in the community.	Short
CR-3b	Partner with the Outer Banks Visitors Bureau to assist in promoting character areas within the town.	Short
CR-4	Promote and sustain the Gallery Row Arts District.	
CR-4a	Identify regulatory barriers that stifle development of local and neighborhood serving businesses along the beach road and within the Gallery Row Arts District.	Short
CR-4b	Maintain an inventory of existing cultural and art venues and identify new sites for future venues.	Intermediate

IMPLEMENTATION



Table 4.3.3 Policy and Action Matrix

Parks & Recreation

Policy #	Policy	Timeline
Action #	Action	
PR-1	Serve residents and visitors of all ages and physical abilities through increased availability of ADA accessible and age appropriate recreational facilities and opportunities.	
PR-1a	Improve and increase both the number of playgrounds and features available for younger children.	Long
PR-1b	Increase activities and available recreational space for youth and teens, including use of park space in the evenings.	Long
PR-1c	Create recreational opportunities in the evenings that appeal to working adults and teens.	Long
PR-1d	Research and explore recreational opportunities that would meet the needs of segments of the older adult population that are currently excluded. This may be accomplished through partnerships.	Long
PR-2	Create opportunities for unstructured community interaction and new recreational opportunities.	
PR-2a	Make park space available for un-programmed and spontaneous activities; particularly allow open field space to be used by the general public (not just reserved for organized leagues).	Complete
PR-2b	Support the use of the public beach for event programming and sports opportunities (such as beach soccer, volleyball, etc.).	Long
PR-2c	Develop community events and programs during the off-season, especially during the “shoulder-seasons” to support local businesses and serve year-round residents.	Long
PR-2d	Explore incentives that would encourage future development and redevelopment to include areas that encourage community interaction such as sidewalks, trails, open space, park facilities, pedestrian plazas, public accesses, and outdoor seating areas.	Long

IMPLEMENTATION



Table 4.3.3 Policy and Action Matrix

Parks & Recreation

Policy #	Policy	Timeline
Action #	Action	
PR-2e	Research the feasibility and location of a dog park in Nags Head.	Complete
PR-2f	Research the feasibility, cost, and location of lighted public tennis courts.	Long
PR-2g	Identify and support additional indoor recreational opportunities within the town.	Long
PR-2h	Explore the feasibility of park development on the town lot at the end of Forbes Street.	Long
PR-2i	Research powerboat launching and docking on the sound.	Intermediate
PR-3	Expand and develop public access to ocean and estuarine shorelines that accommodate different user types, age groups, and needs.	
PR-3a	Develop an ocean and estuarine shoreline management plan that explores opportunities for additional public accesses and facilities that includes maintenance and staffing needs, increased ADA accessibility, and additional site features such as parking, shade and picnic structures, water source, and bathroom elements.	Intermediate
PR-3b	Develop a prioritized list of existing public access facilities that outline needed improvements necessary to achieve greater ADA accessibility as well as the potential costs for improvements.	Short
PR-3c	Conduct a study, to be incorporated as part of the public access plan, to identify and determine typical staffing needs, on-going maintenance costs, and any needed facility renovations and costs for existing public access facilities.	Intermediate
PR-3d	Develop a Master Plan for a sound side boardwalk.	Intermediate
PR-3e	Increase fishing and crabbing access opportunities along the sound.	Long

IMPLEMENTATION



Table 4.3.3 Policy and Action Matrix

Parks & Recreation

Policy #	Policy	Timeline
Action #	Action	
PR-4	Improve pedestrian and bicycle access, connectivity, and safety.	
PR-4a	Incorporate identified pedestrian and bicycle projects into the town's capital improvement plan. Design and construct projects recommended in the Pedestrian Plan (2014).	Long
PR-4b	Continue construction of the multi-use trail along US 158 with pedestrian and bicyclist safety as priority.	Short
PR-4c	Coordinate with NCDOT and the Albemarle Rural Planning Organization (ARPO) to plan, design, and implement pedestrian and bicycle improvements.	Long
PR-4d	Plan, organize, and facilitate bike and pedestrian safety programs for children and adults.	Short
PR-4e	Interconnect neighborhoods with crosswalks on the west side of US 158.	Short
PR-4f	Expand and sign hiking path from Town Park through Nags Head Woods.	Long
PR-4g	Evaluate alternate paving materials in an effort to reduce impervious surfacing where possible and appropriate.	Short
PR-5	Commit to continual improvement and maintenance of parks and recreational facilities that reflects the level and value of private investment in the community.	
PR-5a	Conduct a study of parks and recreational facilities to be incorporated into the town's capital improvement plan (CIP), to identify and determine typical staffing needs, on-going maintenance costs, and any needed facility renovations and costs.	Long
PR-5b	Update existing facilities, when renovations are undertaken, to be compliant with where feasible for ADA standards and any new local, state, and federal regulations.	Intermediate

IMPLEMENTATION



Table 4.3.3 Policy and Action Matrix

Parks & Recreation

Policy #	Policy	Timeline
Action #	Action	
PR-5c	Conduct an assessment of existing parks and recreational facilities and identify opportunities to incorporate other recreational or site amenities such as horseshoe pits, corn hole, bocce areas, picnic tables, grills, bike racks, trash/recycling containers, water (shower facilities or water fountains), and WIFI where appropriate. This is including but not limited to Satterfield Landing Park, Whalebone Park, and Town Park.	Intermediate
PR-5d	Replace Playground Equipment at Town Park with a design consistent with Nags Head’s architectural aesthetic. Equipment should be made of materials which perform better than traditional materials (such as metal or wood) in our environmental conditions and which attract children.	Intermediate
PR-5e	Repair the Beach Road multi-use trail as needed with asphalt and improve drainage where possible. Install signage to promote safety for all users. (Note: asphalt is the preferred material for the NC 12 and South Oregon Inlet Road trails sections).	Long
PR-6	Explore and develop a wayfinding signage system for visitors to better orient themselves to commercial and cultural destinations and beach and sound access points.	
PR-6a	Develop a branded wayfinding, safety, and information signage plan to identify types and locations of signage for pedestrians, cyclists, and vehicles and install appropriate signage. Signage should enable visitors to locate existing town parks, sound and beach access points and trailheads.	Long
PR-7	Ensure that all development, redevelopment, neighborhoods, and commercial areas connect to existing or planned public recreational improvements and facilities to promote a high quality of life and healthy living.	
PR-7a	Research and explore incentives or amendments to town ordinances to incorporate standards that incentivize or require development to provide publicly availability connections to existing or planned recreational improvements and facilities.	Short



Table 4.3.3 Policy and Action Matrix

Parks & Recreation

Policy #	Policy	Timeline
Action #	Action	
PR-8	Commit to the continuous implementation of the mission, vision, and actions of the parks and recreation element.	
PR-8a	Continue active monitoring and pursuit of local, state and federal grant opportunities for plan implementation.	Long
PR-8b	Incorporate capital projects and program recommendations into the town’s budgetary and capital improvement plan process.	Long
PR-8c	Acquire property for the purpose of parks, open space, and conservation including: <ul style="list-style-type: none"> ▪ Purchase of properties with opportunities for park development, multi-use trail and beach and sound access including parking. ▪ Purchase of undeveloped lots within neighborhoods to preserve green space for “pocket park” or trail uses as permitted. ▪ Purchase of land for the purposes of conservation or open space. 	Long
PR-9	Promote parks and recreational facilities, events, and programs within the town.	
PR-9a	Provide an interactive map available on the town website and other forms of media that display all parks and recreational facilities and beach and sound accesses.	Long
PR-9b	Promote the town’s Adopt-a-Bench and Adopt-a-Beach program.	Long
PR-9c	Promote recreational opportunities and other events with the YMCA and other nonprofit and private sector providers.	Short

IMPLEMENTATION



Table 4.3.3 Policy and Action Matrix

Parks & Recreation

Policy #	Policy	Timeline
Action #	Action	
PR-9d	Enhance educational materials and programs on beach safety issues such as the safety flag system, rip currents, and marine life.	Short
PR-10	Collaborate with partners to develop a diversity of innovative programs, facilities, events, and spaces to achieve the mission and vision for parks and recreation.	
PR-10a	Develop a system for coordinated communications with Dare County Parks and Recreation to inform older adults and families with special needs of programs and resources through the town website, Facebook page and other town communications.	Long
PR-10b	Publicize activities for older adults.	Short
PR-10c	Coordinate with the Outer Banks Bicycle and Pedestrian Safety Coalition to develop education materials, programs, and events to address bike and pedestrian safety.	Intermediate
PR-10d	Encourage Dare County to replace all or a portion of the playing fields at Satterfield Landing to artificial turf and incorporate a playground within the site.	Long
PR-10e	Participate in Dare County Parks and Recreation Planning efforts that involve future county parks and recreation needs.	Long



Table 4.3.3 Policy and Action Matrix

Transportation

Policy #	Policy	
Action #	Action	
TP-1	Provide local transportation infrastructure that is safe, efficient, and designed to accommodate all modes of transportation consistent with the town's Complete Streets policy.	
TP-1a	Complete maintenance plans for town-owned transportation assets at regular intervals. At a minimum, this should include preparation of a pavement condition survey every ten years to assist with prioritization of Powell Bill expenditures for street overlay projects.	Intermediate
TP-1b	Utilize grant opportunities when available to construct facilities and/or upgrade existing facilities to address safety and accessibility issues.	Long
TP-1c	Establish an internal process to annually identify and prioritize transportation improvements for which the town is responsible for financing and constructing. This could be part of the CIP process but would be more effective as a separate activity. This should primarily include prioritization of bicycle and pedestrian facilities and maintenance of town owned streets using Powell Bill funds and other identified resources.	Intermediate
TP-1d	Consider the establishment of a dedicated funding source or revenue stream for transportation improvements.	Intermediate
TP-1e	Revise policies and ordinances as appropriate to maintain and strengthen the town's goal for access management onto major roadways within the town.	Long
TP-1f	Continue to work with groups such as the Outer Banks Bicycle and Pedestrian Safety Coalition to improve bicycle and pedestrian safety and community awareness.	Long
TP-2	Reduce the reliance on personal transportation by providing additional transportation choices through a combination of public and private services.	Long

IMPLEMENTATION



Table 4.3.3 Policy and Action Matrix

Transportation

Policy #	Policy	
Action #	Action	
TP-2a	Explore the feasibility of a trolley service or bus circulator to connect the Town of Nags Head with the other northern beach communities.	Long
TP-3	Provide comprehensive bicycle and pedestrian connectivity within the town and to the larger Outer Banks Community.	
TP-3a	Conduct an annual review of recommendations from the Nags Head Pedestrian Plan and prioritize projects based on available funding and anticipated external revenue sources.	Long
TP-3b	Identify grant funds and other external revenue sources to support implementation of the Pedestrian Plan.	Long
TP-3c	Coordinate with NCDOT to incorporate pedestrian and bicycle projects into planned state maintenance projects.	Short
TP-4	Support the development and maintenance of regional transportation infrastructure that allows residents and visitors to travel to the Outer Banks in the safest, most efficient manner.	
TP-4a	Participate in the ARPO regional transportation planning efforts including the SPOT process.	Long
TP-4b	Improve coordination within Dare County for prioritization of transportation improvements and transportation system development. This could include a county and town working group to discuss priorities at the county level in preparation for the regional prioritization process as well as to discuss public transportation and funding of local projects.	Long
TP-4c	Advocate for revisions to the Strategic Mobility Formula to recognize the seasonal nature of our community, the importance of transportation for Hurricane Evacuation, and the use of accurate local data in the analysis phase of the scoring.	Long

IMPLEMENTATION



Table 4.3.3 Policy and Action Matrix

Transportation

Policy #	Policy	
Action #	Action	
TP-4d	Advocate for additional transportation funding at the state level and a method to equitably distribute funds to non-urbanized areas of the state.	Long
TP-4e	Coordinate with Dare County and the other Dare County towns to accelerate the timeline for implementation of the R-3419 TIP project (conversion of US 158 to a four-lane divided facility and associated intersection improvements) as well as other projects within the CTP.	Long



Table 4.3.3 Policy and Action Matrix

Municipal Services

Policy #	Policy	
Action #	Action	
MS-1	Provide effective governance to the Town of Nags Head’s citizenry, property owners, business owners, and stakeholders to advance the town’s mission and vision.	
MS-1a	Draft and distribute an annual report that demonstrates the results of the measurable goals and objectives of each department to the Board of Commissioners and all citizens.	Intermediate
MS-1b	Develop, fund, and prioritize the Capital Improvement Plan annually that provides for the infrastructure, equipment, and facility needs of the community.	Long
MS-2	Maintain a trained workforce capable of carrying out the statutory requirements of municipal government and the requirements established by the Board of Commissioners.	
MS-2a	Assist department heads in developing clearly defined, measurable goals for each department.	Intermediate
MS-2b	Develop and implement a performance review process that accomplishes departmental goals and meets job competencies.	Intermediate
MS-2c	Provide employees with a platform that allows for objective discussion of innovative ideas that result in continuous improvement of individual job functions and the overall ability of the town to serve customers.	Intermediate
MS-3	Provide timely dissemination of information and data to internal (staff) and external (citizens, boards, committees, applicants) customers through increased use of website, social media, email, and other forms of technology.	
MS-3a	Update the town’s website to make it more user friendly and searchable.	Complete



Table 4.3.3 Policy and Action Matrix		
Municipal Services		
Policy #	Policy	
Action #	Action	
MS-3b	Provide a “self-serve” mechanism on the town’s website that allows the public to search information for public records requests.	Short
MS-3c	Provide an employee self-service mechanism to access pay stubs, W-2’s, and additional personnel information.	Complete
MS-3d	Create automated online processes for applications and permits.	Short
MS-4	Provide friendly and accommodating customer service.	
MS-4a	Develop goals and metrics for providing friendly, accommodating customer service.	Intermediate
MS-5	Ensure that all employees understand the mission, vision, and goals of the town and see themselves as contributors in achievement of these.	
MS-5a	Develop employee engagement programs and strategies that establish meaningful contact and connection with employees as well as educates them on the mission, vision, and goals of the town.	Intermediate
MS-6	Involve and engage the public in decision making at all levels of town governance where appropriate and during other relevant times of design and decision making processes.	
MS-6a	Conduct community input opportunities that inform stakeholders and seek their input during town decision making processes.	Long
MS-6b	Continue outreach efforts to promote conversations with the community, promoting awareness on issues important to the town.	Long



Table 4.3.3 Policy and Action Matrix

Municipal Services

Policy #	Policy	
Action #	Action	
MS-7	Manage the town's wages and benefits in a manner that retains high quality employees and keeps operational costs down. It is the policy of the Town of Nags Head to compensate its employees at a level sufficient to encourage excellence of performance and to maintain the labor market competitiveness necessary to recruit, retain, and develop a competent and diverse workforce.	
MS-7a	Research and assess current wages of neighboring towns every 3 years to ensure the town remains competitive. Present findings of the assessment to the Board of Commissioners in a formal report.	Long
MS-7b	Research and assess benefit options on a yearly basis ensuring that employees receive maximum benefit for their care while keep costs down. Present findings of assessment to the Board of Commissioners in a formal report.	Long
MS-7c	Review the pay plan every 2-3 years and present recommendations to the Town Manager. All final recommendations will be presented to the Board of Commissioners.	Long
MS-7d	Conduct a full position classification study, with a third party vendor, every 9-10 years. This will ensure proper maintenance of job responsibilities and that each individual job has a proper pay grade assignment based on the current job market.	Long
MS-8	Protect citizens and visitors from the perils of fire and crime, and ensure safe oceanfront beaches by providing well-equipped and prepared public safety personnel.	
MS-8a	Continually assess the police, fire and rescue needs of the town and make personnel and resources expenditures commensurate with the needs created by development, special events, and the changing nature of the social environment.	Long



Table 4.3.3 Policy and Action Matrix

Municipal Services

Policy #	Policy	
Action #	Action	
MS-8b	Seek community involvement and cooperation in the provision of Police and Fire services through the Volunteer Fire Department, the Community Watch program, the Citizen’s Police Academy, school based initiatives, and proactive community outreach in all divisions of the Police and Fire Departments.	Long
MS-8c	Ensure the ocean beach is a safe environment for family vacation tourism by constantly monitoring beach populations and concentrations, adjusting personnel and resources as needed to meet increases in demand for service.	Long
MS-8d	Provide fire and life safety education programming.	Long
MS-8e	Strengthen the proactive functions of the commercial fire inspection program by: <ul style="list-style-type: none"> ▪ Remaining responsive to the commercial business community and seeking their input with respect to scheduling and completion of annual commercial fire inspections. ▪ Initiating and supporting progressively advanced code enforcement staff certification levels. ▪ Integrating new and progressive code officials training, in diverse platforms, as they become available. ▪ Researching and pursuing technology based solutions for fire prevention education and enforcement for commercial occupancies in order to improve customer service levels, ▪ Continuing to work with fire staff and emphasize the cultural importance of the commercial fire inspections program as a vital component of fire prevention in Nags Head. 	Intermediate
MS-8f	Complete progressive staff trainings, qualifications, and certifications necessary to perform the duties of public safety officials including but not limited to police officers, detectives, animal control, ocean rescue personnel, fire inspectors, fire public education specialists, child car seat technicians, CPR instructors, and fire support personnel.	Intermediate



Table 4.3.3 Policy and Action Matrix

Municipal Services

Policy #	Policy	
Action #	Action	
MS-8g	Utilize all web based, published, broadcast, e-mail, and social media outlets to deliver and distribute timely public safety messages. This will include exploring mechanisms to provide emergency notifications to the public through cell phone and landline message services.	Long
MS-8h	Explore and employ appropriate new technologies, including but not limited to body cameras and in-car cameras, to increase accountability and reduce risk to Police Department personnel and the public.	Long
MS-9	Meet the public safety needs of the community at appropriate levels as the community continues to focus growth and public investment in areas identified as activity centers.	
MS-9a	Develop incentives to encourage the use of important fire prevention structures and systems such as sprinkler systems.	Long
MS-10	Support continued planning to eliminate uncontrolled wildfires.	
MS-10a	Annually maintain and update the Nags Head Woods Fire Protection Plan through engagement of the North Carolina Forest Service, Nature Conservancy, and the Town of Kill Devil Hills.	Long
MS-10b	Maintain the necessary personnel training and equipment to prevent wildfires and loss of life and property.	Long
MS-10c	Support the Cape Hatteras National Seashore in conducting prescribed burns to prevent wildfires and loss of life and property.	Long
MS-11	Evaluate the impacts of development on public safety during the permitting, site plan review, and text amendment processes and prioritize public safety through best management practices for land use planning and site design.	

IMPLEMENTATION



Table 4.3.3 Policy and Action Matrix		
Municipal Services		
Policy #	Policy	
Action #	Action	
MS-12	Proactively provide maintenance of facilities including streets, rights-of-way, drainage infrastructure, public buildings, multi-use paths, parks and beach accesses, and other town facilities.	
MS-12a	Develop mechanisms to track the departmental workload and required man hours to support requests for personnel or equipment, particularly as new facilities are developed.	Complete
MS-12b	Develop plans for maintenance to town facilities including schedules for repair and replacement. These plans should be updated every five years and should be used to establish projects for inclusion in the CIP.	Long
MS-12c	Create a beach access development and maintenance plan to determine where new facilities are needed and when maintenance activities should occur to existing facilities.	Long
MS-12d	Continue to employ strategies to schedule and track maintenance activities to manage the departmental workload in the most efficient manner possible as well as documentation of routine maintenance.	Long
MS-12e	Seek and utilize grants where possible to fund infrastructure construction and replacement activities.	Long
MS-12f	Conduct a pavement condition survey of town streets every ten years and utilize this information to schedule maintenance activities as part of the town's CIP.	Long
MS-13	Provide for the most effective and economical collection and disposal/recycling of commercial and residential solid waste that meets community expectations for cleanliness and appearance. The town should work to provide service to all generators of solid waste emphasizing reuse and recycling practices over disposal	
MS-13a	Explore expansion of the town's recycling program to add new types of waste items as recycling technology evolves and markets for recycled materials develop.	Long



Table 4.3.3 Policy and Action Matrix

Municipal Services

Policy #	Policy	
Action #	Action	
MS-13b	Research and plan for expansion of town-wide recycling service to commercial properties and/or those properties not serviced by the existing residential curbside service in order to meet the town's stated goal of 40 percent waste reduction by 2022 (from the Solid Waste Management Plan).	Long
MS-13c	Monitor recycling tonnage from the town's residential program and employ methods such as education programs to improve recycling participation. This could include working with rental agencies, property owners associations, and directly with homeowners to provide marketing and educational materials on the town's program.	Long
MS-13d	Explore programs and/or develop and enforce regulations that limit the timeframe residential carts sit adjacent to roadways.	Short
MS-13e	Monitor community growth and demands for service and plan for recommended increases in manpower and equipment when necessary. Additional measures or benchmarks are needed to determine when demand exceeds the capacity of current resources to maintain service levels.	Long
MS-13f	Consider technologies including RFID tags to improve collections data which will provide the town with information that it can use to refine service levels.	Long
MS-13g	Actively engage staff in the update to the Solid Waste Management Plan and review its goals for recycling and waste reduction.	Long
MS-13h	Develop and conduct progressive educational programming aimed at reducing waste and promoting reuse and recycling.	Short
MS-14	Provide sufficient levels of potable water to accommodate water demand at build-out through an economical and efficient means and in an environmentally sensitive manner.	

IMPLEMENTATION



Table 4.3.3 Policy and Action Matrix		
Municipal Services		
Policy #	Policy	
Action #	Action	
MS-14a	Continually monitor the town's water processing capacity and make necessary system improvements when needed.	Long
MS-14b	Continue to loop the water supply system when opportunities and funding permits as the town recognizes the importance of a dual or looped water supply system for pressure, service and fire supply.	Long
MS-14c	Develop mechanisms to anticipate when the town may exceed its water allotment from Dare County and make financial provisions to meet contractual obligations to expand the reverse osmosis water treatment plant capacity when necessary.	Long
MS-14d	Prepare a comprehensive water system master plan every 10 years to evaluate and analyze the capital needs of the Nags Head water system and to provide recommendations to the town for short-term and long-term improvements. These recommendations serve as the plan for the town to meet future water needs and to stage the necessary construction and associative financing in an efficient manner. The comprehensive water system master plan should examine the following; evaluation of the existing water system operation, assessment of the reliability of the existing infrastructure, distribution system analysis for water consumption and fire protection, regulatory water quality requirements, source water evaluation, development of a 10-yr Capital Improvement Plan and a water system rate study. Intermediate updates may be conducted at shorter intervals to focus on specific objectives of the water system master plan. It is anticipated that the next comprehensive water system master plan update will occur in FY 17/18.	Complete
MS-14e	Coordinate with the National Park Service and the affected entities to seek funds for improvement to the water supply line serving Park Service property and the Oregon Inlet Fishing Center.	Long
MS-14f	Develop an educational program highlighting the beneficial effects of conserving potable water.	Long
MS-14g	Maintain the status of the Fresh Pond as a CAMA Area of Environmental Concern to protect the Fresh Pond watershed for future water supply use.	Long



Table 4.3.3 Policy and Action Matrix

Municipal Services

Policy #	Policy	
Action #	Action	
MS-15	Ensure that stormwater runoff is properly managed to reduce nuisance flooding and pollution of sensitive environmental areas.	
MS-15a	Develop an affordable, long-range plan for progressively improving the town's stormwater drainage infrastructure.	Short
MS-15b	Complete and continually update a town-wide drainage infrastructure plan that maps type, size, and location of existing drainage features within the town including rights-of-way and outfalls.	Complete
MS-15c	Update the Stormwater CIP concentrating on potential improvements to the main drainage routes and working back upstream through neighborhoods identifying areas of concern and the evaluation of potential alternatives.	Short
MS-15d	Evaluate and document existing nuisance and problem areas for identification of potential corrective action.	Short
MS-15e	Replace inadequate town-owned critical drainage facilities	Short
MS-16	Improve town drainage infrastructure through planning, maintenance, or new construction, where appropriate and as identified in long range plans.	
MS-16a	Purchase equipment to necessary to conduct systematic annual maintenance, on-demand maintenance, and post- storm maintenance.	Short
MS-16b	Continue to coordinate with the local, state, and federal agencies such as the North Carolina Department of Transportation and the National Park Service to conduct annual maintenance activities within the main drainage arteries to maintain and/or improve drainage ways.	Short

IMPLEMENTATION



Table 4.3.3 Policy and Action Matrix

Municipal Services

Policy #	Policy	
Action #	Action	
MS-16c	Develop a level of service that accounts for future development, redevelopment and changes in surrounding environmental conditions.	Intermediate
MS-16d	Perform hydraulic and hydrologic analyses of identified areas of concern for appropriate infrastructure sizing, when required.	Short
MS-16e	Monitor and evaluate performance and condition of existing drainage infrastructure through on-site review and observations.	Short
MS-16f	Continue to refine and update project prioritization based upon the following criteria: Frequency and duration of occurrences and extent of flooding conditions observed <ul style="list-style-type: none"> ▪ Project Benefit <ul style="list-style-type: none"> ○ Tributary Area Served ○ Number of Properties Served ▪ Public Safety ▪ Flood Control & Water Quality ▪ Project Cost/Available Funding ▪ Regulatory permitting constraints and coordination ▪ Other applicable limiting factors 	Short
MS-17	Ensure that financial resources are available to provide adequate levels of service and desired capital improvements.	



Table 4.3.3 Policy and Action Matrix			
Municipal Services			
Policy #	Policy		
Action #	Action		
MS-17a	Maintain an adequate fund reserve for operation of equipment and materials to perform necessary maintenance on existing drainage infrastructure.		Long
MS-17b	Seek additional funding opportunities from local, state and federal agencies to assist with future stormwater planning and construction efforts.		Short
MS-18	Educate and involve the public in stormwater management.		
MS-18a	Develop public educational materials on stormwater and the town's stormwater drainage system that can be made available on social media and the town's website.		Short
MS-18b	Engage stakeholders affected by town projects to inform them of the project purpose, timeline, areas, how the project may impact them, and how they can engage in project planning (if appropriate).		Short



SECTION 5: APPENDICES

The appendices to this document are available in a separate document, entitled Comprehensive Plan Appendices, which can be downloaded from the town website.

Appendix 5.1 CAMA Matrix and Compliance Materials

Appendix 5.2 Maps



5.1. CAMA MATRIX AND COMPLIANCE MATERIALS



CAMA Matrix

	Page Reference(s)	
Organization of the Plan		
Matrix that shows the location of the required elements as set forth in this Rule	See Section 5.1 CAMA MATRIX AND COMPLIANCE MATERIALS	
Community Concerns and Aspirations		
Description of the dominant growth-related conditions that influence land use, development, water quality and other environmental concerns in the planning area	Page 1-33	
Description of the land use and development topics most important to the future of the planning area, including:		
· Public Access	1-17	
· Land Use Compatibility	1-14 - 1-15	
· Infrastructure Carrying Capacity	1-16 - 1-17	
· Natural Hazard Areas	1-15	
· Water Quality	1-15 - 1-16	
Community Vision		
·Description of the general physical appearance and form that represents the local government’s plan for the future. It shall include objectives to be achieved by the plan and identify changes that may be needed to achieve the planning vision.	1-20	
Existing and Emerging Conditions		
Population, Housing and Economy		
Discussion of the following data and trends:		
·Permanent population growth trends using data from the two most decennial Censuses	1-27	
·Current permanent and seasonal population estimates	1-27 - 1-28	
·Key population characteristics including age and income	1-29	
·Thirty-year projections of permanent and seasonal population in five-year increments	1-28	



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5.1. CAMA Matrix and Compliance Materials

· Estimate of current housing stock, including permanent and seasonal units, tenure, and types of units (single-family, multifamily, and manufactured)	1-30 - 1-31
· Description of employment by major sectors and community economic activity	3-130 - 3-131
Natural Systems	
Description of natural features in the planning jurisdiction to include:	
· Areas of Environmental Concern (AECs) as set forth in Subchapter 15A NCAC 07H	2-53 - 2-55, 3-41 - 3-42; 3-53 - 3-59
· Soil characteristics, including limitations for septic tanks, erodibility, and other factors related to development	3-56, 3-62, 3-98, 3-109 - 3-111
· Environmental Management Commission (EMC) water quality classifications and related use support designations	3-107 - 3-108
· Division of Marine Fisheries (DMF) shellfish growing areas and water quality conditions	3-113 - 3-115
· Flood and other natural hazard areas	3-56; 3-68- 3-76; 3-89 - 3-92
· Storm surge areas	3-68 -3-71; 3-76; 3-82
· Non-coastal wetlands, including forested wetlands, shrub-scrub wetlands and freshwater marshes	3-41 - 3-42; 3-46;
· Water supply watersheds or wellhead protection areas	3-51 - 3-53; 3-57; 3-213 - 3-214
· Primary nursery areas	3-46
· Environmentally fragile areas, such as wetlands, natural heritage areas, areas containing endangered species, prime wildlife habitats, or maritime forests	2-50 -2-55; 3-40 - 3-46, 3-51 - 3-53
Natural Systems, contd.	Page Reference(s)
· Additional natural features or conditions identified by the local government	3-82 - 3-87
Environmental Conditions	
Discussion of environmental conditions within the planning jurisdiction to include an assessment of the following conditions and features:	
· Status and changes of surface water quality; including:	



Section 5: APPENDICES
5.1. CAMA Matrix and Compliance Materials

- Impaired streams from the most recent Division of Water Resources (DWR) Basin Planning Branch Reports	3-114
- Clean Water Act 303 (d) List	3-114 - 3-116
- Other comparable data	NA
·Current situation and trends on permanent and temporary closures of shellfishing waters as determined by the Report of Sanitary Survey by the Shellfish Sanitation and Recreational Water Quality Section of the DMF	3-113 - 3-114
· Areas experiencing chronic wastewater treatment malfunctions	3-111
·Areas with water quality or public health problems related to non-point source pollution	3-107
·Areas subject to recurrent flooding, storm surges and high winds	3-68 -3-76; 3-220
·Areas experiencing significant shoreline erosion as evidenced by the presence of threatened structures or public facilities	3-89 - 3-92
·Environmentally fragile areas (as defined in Part (c)(2)(A)(ix) of this Rule) or areas where resources functions are impacted as a result of development	3-42
·Natural resource areas that are being impacted or lost as a result of incompatible development. These may include, but are not limited to the following: coastal wetlands, protected open space, and agricultural land.	3-54
Existing Land Use and Development	
MAP of existing land use patterns	1-34
·Description of the existing land use patterns	1-32 – 1-33; 3-7
·Estimates of the land area allocated to each land use category	1-31, Table 1.2.1.EI: Land Use Acreage by Type
·Characteristics of each land use category	1-32 - 1-33
MAP of historic, cultural, and scenic areas designated by a state or federal agency or by the local government	3-152
·Descriptions of the historic, cultural and scenic areas	2-16 - 2-18, 2-40, 2-50 - 2-55, 3-146 - 3-151
Community Facilities	



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5.1. CAMA Matrix and Compliance Materials

Evaluation of existing and planned capacity, location and adequacy of community facilities to include:	
MAP of existing and planned public and private water supply service areas	3-216
·Description of existing public and private water supply systems to include:	
- Existing condition	3-215; Appendix 5.1 Water Supply Plan
- Existing capacity	3-213 – 3-217; Appendix 5.1 Water Supply Plan
- Documented overflows, bypasses or other problems that may degrade water quality or constitute a threat to public health as documented by the DWR	3-215
- Future water supply needs based on population projections	3-214; Appendix 5.1 Water Supply Plan
MAP of existing and planned public and private wastewater service areas	3-118
·Description of existing public and private wastewater systems to include:	
- Existing condition	3-110 -3-111; 3-119 - 3-120
- Existing capacity	3-119 - 3-120
- Documented overflows, bypasses or other problems that may degrade water quality or constitute a threat to public health as documented by the DWR	3- 119 – 3-120
- Future wastewater system needs based on population projections	NA
MAP of existing and planned multimodal transportation systems and port and airport facilities	3-184; 3-189
·Description of any highway segments deemed by the NC Department of Transportation (NCDOT) as having unacceptable service as documented in the most recent NCDOT Transportation and/or Thoroughfare Plan	3-182
Community Facilities, contd.	Page Reference(s)
·Description of highway facilities on the current thoroughfare plan or current transportation improvement plan	3-182 - 3-183
·Description of the impact of existing transportation facilities on land use patterns	2-44 - 2-46; 3-4; 3-7



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5.1. CAMA Matrix and Compliance Materials

·Description of the existing public stormwater management system	3-219 - 3-223	
·Identification of existing drainage problems and water quality issues related to point-source discharges of stormwater runoff	3-107	
	Policy Citation(s)	Page Reference(s)
Future Land Use		
Policies		
Policies that exceed the use standards and permitting requirements found in Subchapter 7H, State Guidelines for Areas of Environmental Concern	NR-21	3-104
Policies that address the Coastal Resources Commission's (CRC's) management topics:		
Public Access Management Goal:		
<i>Maximize public access to the beaches and the public trust waters of the coastal region.</i>		
The planning objectives for public access are local government plan policies that:		
·Address access needs and opportunities	NR-19; PR-2; PR-3	3-103; 3-175
·Identify strategies to develop public access	PR-2 ; PR-3	3-175
·Address provisions for all segments of the community, including persons with disabilities	PR-3	3-175 - 3-175
·For oceanfront communities, establish access policies for beach areas targeted for nourishment	NR-19	3-103
Land Use Compatibility Management Goal:		
<i>Ensure that development and use of resources or preservation of land balance protection of natural resources and fragile areas with economic development, and avoids risks to public health, safety, and welfare.</i>		
The planning objectives for land use compatibility are local government plan policies that:		



Section 5: APPENDICES
5.1. CAMA Matrix and Compliance Materials

·Characterize future land use and development patterns	LU-1, LU-3, LU-6, LU-7, LU-8, LU-10, LU-14, NR-17, Section 2.2.2 Development Plan, Section 2.3.2. Development Plan, Section 2.4.2. Development Plan, Section 2.5.2. Development Plan, Section 2.6.2. Development Plan, Section 2.7.2. Development Plan, Section 2.8.2. Development Plan, Section 2.9.2. Development Plan	3-8, 3-10, 3-16, 3-16, 3-16, 3-20, 3-25, 3-102, 2-11 - 2-15, 2-19 - 2-21, 2-25 - 2-27, 2-29 - 2-30, 2-36 - 2-39, 2-41 - 2-42, 2-47 - 2-49, 2-55 - 2-58
·Establish mitigation criteria and concepts to minimize conflicts (buffer/setback)	LU-12, LU-13, LU-17, LU-20, LU-21, LU-22, LU-24, LU-30, NR-1, NR-2, NR-3, NR-6, NR-10, NR-11, NR-12, NR-13, NR-14, NR-15, NR-16, NR-20, NR-21, NR-24, NR-25, PR-8,	3-22, 3-22, 3-26, 3-30, 3-30, 3-30, 3-32, 3-38, 3-50, 3-60, 3-79, 3-80, 3-88, 3-104, 3-121, 3-177
Infrastructure Carrying Capacity Management Goal:		
<i>Ensure that public infrastructure systems are sized, located, and managed so the quality and productivity of AECs and other fragile areas are protected or restored.</i>		
The planning objectives for infrastructure carrying capacity are local government plan policies that:		
·Establish service criteria	NR-26, MS-14, MS-16, MS-17	3-121, 3-218, 3-224, 3-225
·Ensure improvements minimize impacts to AECs and other fragile areas	NR-9, MS-15, MS-18	3-61, 3-224, 3-225
Natural Hazard Areas Management Goal:		
<i>Conserve and maintain barrier dunes, beaches, floodplains, and other coastal features for their natural storm protection functions and their natural resources</i>		



Section 5: APPENDICES
5.1. CAMA Matrix and Compliance Materials

<i>giving recognition to public health, safety, and welfare issues.</i>		
The planning objectives for natural hazard areas are local government plan policies that:		
·Establish mitigation and adaptation concepts and criteria for development and redevelopment, including public facilities	LU-3, LU-13, LU-14, LU-20, LU-21, NR-10, NR-11, NR-12, NR-13, NR-16, NR-20	3-10, 3-22, 3-25, 3-30, 3-30, 3-79, 3-80, 3-88, 3-104
·Minimize threats to life, property and natural resources resulting from erosion, high winds, storm surge, flooding, or other natural hazards	LU-3, LU-13, LU-14, LU-20, LU-21, NR-1, NR-2, NR-10, NR-11, NR-12, NR-13, NR-14, NR-16, NR-20	3-10, 3-22, 3-25, 3-30, 3-30, 3-50, 3-50, 3-79, 3-80, 3-88, 3-104
Water Quality Management Goal:		
<i>Maintain, protect and where possible enhance water quality in all coastal wetlands, rivers, streams, and estuaries.</i>		
The planning objectives for water quality are local government plan policies that:		
·Establish strategies and practices to prevent or control nonpoint source pollution	LU-6, LU-7, LU-8, LU-20, LU-21, LU-22, NR-24, NR-25, NR-26, NR-27, PR-8, MS-15, MS-16	3-16, 3-16, 3-16, 3-30, 3-30, 3-30, 3-121, 3-122, 3-177, 3-224
·Establish strategies and practices to maintain or improve water quality	LU-6, LU-7, LU-8, LU-20, LU-21, LU-22, NR-24, NR-25, NR-26, NR-27, PR-8, MS-15, MS-16	3-16, 3-16, 3-16, 3-30, 3-30, 3-30, 3-121, 3-122, 3-177, 3-224
Future Land Use Map	Page Reference(s)	
MAP of future land uses that depicts the policies for growth and development and the desired future patterns of land use and development with consideration given to natural system constraints and infrastructure	3-232	
·Descriptions of land uses and development associated with the future land use map designations	3-226 - 3-230	
Tools for Managing Development		



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5.1. CAMA Matrix and Compliance Materials

·Description of the role of plan policies, including the future land use map, in local decisions regarding land use and development	1-3 - 1-4; 1-6 - 1-7; 3-226, 3-230
·Description of the community's development management program, including local ordinances, codes, and other plans and policies	1-3 - 1-5; 1-7 - 1-8
Action Plan and Implementation Schedule	
·Description of actions that will be taken by the local government to implement policies that meet the CRC's management topic goals and objectives, specifying fiscal year(s) in which each action is anticipated to start and finish	4-1 - 4-57
·Identification of specific steps the local government plans to take to implement the policies, including adoption and amendment of local ordinances, other plans, and special projects	4-1 - 4-57



Section 5: APPENDICES
5.1. CAMA Matrix and Compliance Materials

Local Water Supply Plan

10/7/2019

Local Water Supply Planning - North Carolina Division of Water Resources

Nags Head

2018 ▼

The Division of Water Resources (DWR) provides the data contained within this Local Water Supply Plan (LWSP) as a courtesy and service to our customers. DWR staff does not field verify data. Neither DWR, nor any other party involved in the preparation of this LWSP attests that the data is completely free of errors and omissions. Furthermore, data users are cautioned that LWSPs labeled **PROVISIONAL** have yet to be reviewed by DWR staff. Subsequent review may result in significant revision. Questions regarding the accuracy or limitations of usage of this data should be directed to the water system and/or DWR.

1. System Information

Contact Information

Water System Name: **Nags Head** PWSID: **04-28-010**
 Mailing Address: **P.O. Box 99** Ownership: **Municipality**
Nags Head, NC 27959
 Contact Person: **Nancy Roop Carawan** Title: **Water Supt.**
 Phone: **252-449-4210** Cell/Mobile: **252-305-6066**
 Secondary Contact: **Ralph Barile** Phone: **252-449-4205**
 Mailing Address: **PO Box 99** Cell/Mobile: **252-305-6062**
Nags Head, NC 27959

Complete

Distribution Systems

Line Type	Size Range (Inches)	Estimated % of lines
Asbestos Cement	3-8	8.00 %
Cast Iron	6-12	25.00 %
Ductile Iron	6-14	20.00 %
Polyvinyl Chloride	2-12	47.00 %

What are the estimated total miles of distribution system lines? **101 Miles**
 How many feet of distribution lines were replaced during 2018? **910 Feet**
 How many feet of new water mains were added during 2018? **0 Feet**
 How many meters were replaced in 2018? **65**
 How old are the oldest meters in this system? **15 Year(s)**
 How many meters for outdoor water use, such as irrigation, are not billed for sewer services? **0**
 What is this system's finished water storage capacity? **2,0000 Million Gallons**
 Has water pressure been inadequate in any part of the system since last update? *Line breaks that were repaired quickly should not be included.* **No**

replaced 910' of 2" PVC line on Sea Gull Drive
 installed 1 hydrant in South Nags Head @ 1994 OGI Rd.

Programs

Does this system have a program to work or flush hydrants? **Yes, Annually**
 Does this system have a valve exercise program? **Yes, Annually**
 Does this system have a cross-connection program? **Yes**
 Does this system have a program to replace meters? **Yes**
 Does this system have a plumbing retrofit program? **Yes**
 Does this system have an active water conservation public education program? **No**
 Does this system have a leak detection program? **Yes**

We have a Cross Connection program. Back check valves are installed on any meter (up to 2") that is found without one (Plumbing retro fit program). Water mains, service lines, meters are checked for leaks while doing monthly meter reading. NC Rural Water personnel has used their leak detector equipment to detect leaks in our water system.

Water Conservation

What type of rate structure is used? **Increasing Block**
 How much reclaimed water does this system use? **0.0000 MGD** For how many connections? **0**
 Does this system have an interconnection with another system capable of providing water in an emergency? **Yes**

https://www.ncwater.org/Water_Supply_Planning/Local_Water_Supply_Plan/report.php?pwsid=04-28-010&year=2018

1/4



Section 5: APPENDICES

5.1. CAMA Matrix and Compliance Materials

10/7/2019

Local Water Supply Planning - North Carolina Division of Water Resources

The Town of Nags Head has 5 inter connections with Dare County for emergency use only. West side of US 158 by-pass: Hollowell Street, Sound side Rd, Danube Street, and Lakeside Drive. East side of US 158: 8th Street. The Town has 1 connection with the Town of Kill Devil Hills for emergency use only, located on the NE of E 8th Street/ US 158 bypass.

2. Water Use Information

Service Area

Sub-Basin(s)	% of Service Population	County(s)	% of Service Population
Albemarle Sound (12-1)	100 %	Dare	100 %

What was the year-round population served in 2018? **3,125**

What was the seasonal population and months served in 2018? (if applicable) **22,415 (Jun Jul Aug)**

Has this system acquired another system since last report? **No**

Water Use by Type

Type of Use	Motorad Connections	Motorad Average Use (MGD)	Non-Motorad Connections	Non-Motorad Estimated Use (MGD)
Residential	4,548	0.6880	0	0.0000
Commercial	327	0.2310	0	0.0000
Industrial	0	0.0000	0	0.0000
Institutional	2	0.0188	0	0.0000

How much water was used for system processes (backwash, line cleaning, flushing, etc.)? **0.0738 MGD**

OBX hospital= Institutional Annual system flushing=8.4 MG; Cl2 analyzers=est. .2 MG; 6 automatic flushers=17.520 MG Fire training=est .7 MG Station 16 hydrant=est..120 MG Total=26.940 MG

Water Sales

Purchaser	PWSID	Average Daily Sold (MGD)	Days Used	MGD	Contract Expiration	Recurring	Required to comply with water use restrictions?	Pipe Size(s) (Inches)	Use Type
Town of Kill Devil Hills	04-28-015	0.0000	0	0.0000		No	No	16/24	Emergency

3. Water Supply Sources

Monthly Withdrawals & Purchases

	Average Daily Use (MGD)	Max Day Use (MGD)		Average Daily Use (MGD)	Max Day Use (MGD)		Average Daily Use (MGD)	Max Day Use (MGD)
Jan	0.7930	1.4590	May	1.3050	1.8550	Sep	1.2760	1.9280
Feb	0.6540	0.8920	Jun	1.6210	2.1360	Oct	0.9830	1.4240
Mar	0.7220	1.2290	Jul	1.9730	2.4300	Nov	0.6900	0.9800
Apr	0.9380	1.2230	Aug	1.8240	2.0470	Dec	0.5280	0.6910

Nags Head's 2018 Monthly Withdrawals & Purchases



Water Purchases From Other Systems

Seller	PWSID	Average	Days	Contract	Required to	Pipe Size(s)	Use
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5.1. CAMA Matrix and Compliance Materials

10/7/2019

Local Water Supply Planning - North Carolina Division of Water Resources

		Daily Purchased (MGD)	Used	MGD	Expiration	Recurring	comply with water use restrictions?	(Inches)	Type
Dare Co Regional	04-28-030	1.1090	365	3.5000	2036	Yes	Yes	24	Regular
Town of Kill Devil Hills	04-28-015	0.0000	0	0.0000		No	No	16/24	Emergency

The Town of Nags Head has 5 inter connections with Dare County for emergency use only. West side of US 158 by-pass: Hollowell Street, Sound side Rd. Danube Street, and Lakeside Drive. East side of US 158: 8th Street. The Town has 1 connection with the Town of Kill Devil Hills for emergency use only, located on the NE of E 8th Street/ US 158 bypass.

4. Wastewater Information

Monthly Discharges

	Average Daily Discharge (MGD)		Average Daily Discharge (MGD)		Average Daily Discharge (MGD)
Jan	0.0000	May	0.0000	Sep	0.0000
Feb	0.0000	Jun	0.0000	Oct	0.0000
Mar	0.0000	Jul	0.0000	Nov	0.0000
Apr	0.0000	Aug	0.0000	Dec	0.0000

Nags Head's 2018 Monthly Discharges



How many sewer connections does this system have? 0

How many water service connections with septic systems does this system have? 4,277

Are there plans to build or expand wastewater treatment facilities in the next 10 years? No

5. Planning

Projections

	2018	2020	2030	2040	2050	2060
Year-Round Population	3,125	3,172	3,330	3,497	3,672	3,855
Seasonal Population	22,415	22,751	23,889	25,083	26,337	27,654
Residential	0.6980	0.6980	0.7330	0.7690	0.8080	0.8480
Commercial	0.2310	0.2310	0.2430	0.2550	0.2680	0.2810
Industrial	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Institutional	0.0188	0.0190	0.0200	0.0210	0.0220	0.0230
System Process	0.0738	0.1320	0.1320	0.1320	0.1320	0.1320
Unaccounted-for	0.0974	0.1200	0.1250	0.1310	0.1370	0.1430

Demand v/s Percent of Supply

	2018	2020	2030	2040	2050	2060
Surface Water Supply	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Ground Water Supply	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Purchases	3.5000	3.5000	3.5000	3.5000	3.5000	3.5000
Future Supplies		0.0000	0.0000	0.0000	0.0000	0.0000
Total Available Supply (MGD)	3.5000	3.5000	3.5000	3.5000	3.5000	3.5000



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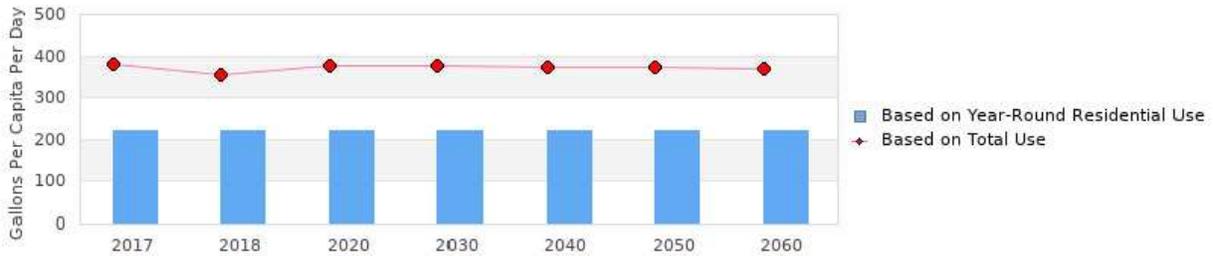
5.1. CAMA Matrix and Compliance Materials

10/7/2019

Local Water Supply Planning - North Carolina Division of Water Resources

Service Area Demand	1.1090	1.2000	1.2530	1.3080	1.3670	1.4270
Sales	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Future Sales		0.0000	0.0000	0.0000	0.0000	0.0000
Total Demand (MGD)	1.1090	1.2000	1.2530	1.3080	1.3670	1.4270
Demand as Percent of Supply	32%	34%	36%	37%	39%	41%

Nags Head's Projected Gallons Per Capita Per Day (GPCD) Over Time



The purpose of the above chart is to show a general indication of how the long-term per capita water demand changes over time. The per capita water demand may actually be different than indicated due to seasonal populations and the accuracy of data submitted. Water systems that have calculated long-term per capita water demand based on a methodology that produces different results may submit their information in the notes field.

Your long-term water demand is 220 gallons per capita per day. What demand management practices do you plan to implement to reduce the per capita water demand (i.e. conduct regular water audits, implement a plumbing retrofit program, employ practices such as rainwater harvesting or reclaimed water)? If these practices are covered elsewhere in your plan, indicate where the practices are discussed here.

Are there other demand management practices you will implement to reduce your future supply needs? We have a meter replacement program, retro plumbing program, does leak detection on water mains, and provides water conservation information in the annual Consumer Confidence Report. The long term water demand in per capita per day needs to be figured NON SEASONAL and SEASONAL. Formula = # of metered gallons divided by the # of days divided by the year round population.

What supplies other than the ones listed in future supplies are being considered to meet your future supply needs? There is a 1 MGD reverse osmosis train in our Capital Improvement Plan to be installed at the Dare county North Reverse Osmosis Plant if we exceed our allotment of 3.5 MG per day. It is in the 2024 budget if needed.

How does the water system intend to implement the demand management and supply planning components above? We have a Water Master Plan that was updated in 2018 and is updated every 5-10 years. We work with the guidance of the NC Rural Water Association.

Additional Information

Has this system participated in regional water supply or water use planning? Yes, The Town has a 40 Year Contract with Dare County for the purchase of water. This is an automatic renewal contract that will be renewed in 2036

What major water supply reports or studies were used for planning? We have a Water Master Plan was update in 2018 by Rivers and Associates. We have the Nags Head Annual Report, the Needs Assessment and the 2017 Comprehensive Plan

Please describe any other needs or issues regarding your water supply sources, any water system deficiencies or needed improvements (storage, treatment, etc.) or your ability to meet present and future water needs. Include both quantity and quality considerations, as well as financial, technical, managerial, permitting, and compliance issues:

The Division of Water Resources (DWR) provides the data contained within this Local Water Supply Plan (LWSP) as a courtesy and service to our customers. DWR staff does not field verify data. Neither DWR, nor any other party involved in the preparation of this LWSP attests that the data is completely free of errors and omissions. Furthermore, data users are cautioned that LWSPs labeled PROVISIONAL have yet to be reviewed by DWR staff. Subsequent review may result in significant revision. Questions regarding the accuracy or limitations of usage of this data should be directed to the water system and/or DWR.



Dare County Comprehensive Transportation Plan- US 158 Proposed Improvements

HIGHWAY

US 158 Proposed Improvements from US 64 to
Currituck County Line

Local ID: R-3419
Last Updated: 9/13/13

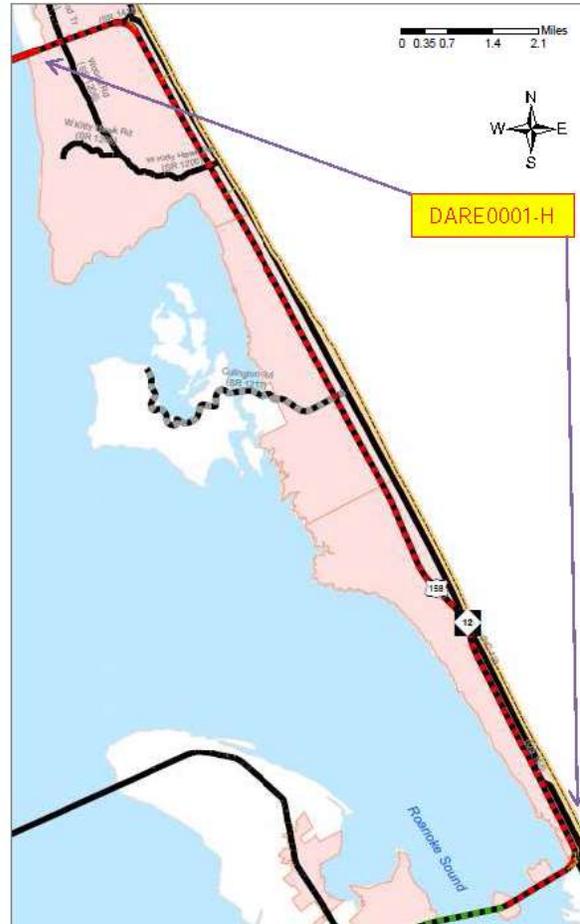
Identified Problem

Existing US 158 is projected to be over capacity by 2040 from the Currituck County line to 8th Street, and near capacity from 8th Street to US 64. There is significant congestion on this facility during the summer tourist season. The primary purpose of improving US 158 is to relieve congestion on the existing facility such that a minimum of Level of Service (LOS) D can be achieved, and to improve mobility of the facility through Dare County, consistent with the North Carolina Strategic Highway Corridor (SHC) Vision Plan. Another desired outcome of this improvement is safety.

Justification of Need

US 158 is a major corridor in Dare County that connects Currituck County in the north to US 64 on the southern end, which leads westward to Roanoke Island and the mainland. This facility is the primary north-south connector through the towns of Kitty Hawk, Kill Devil Hills and Nags Head, which comprise the more densely populated portion of the Outer Banks in Dare County. It also serves as a parallel alternative to a portion of NC 12, which is a 2-lane facility that runs along the coastline through the entire length of the Outer Banks.

By 2040 the facility is projected to be over capacity from the Currituck County line to 8th Street and near capacity from 8th Street to US 64, based on providing a LOS D. Summer weekday traffic counts are projected to increase in range from 20,800 to 34,500 vehicles per day (vdp) in 2012 to 27,500 to 45,500 vpd in 2040, compared to a LOS D capacity of 32,650 vpd for most of the facility.





5.2. MAPS

