

TOWN OF SOUTHERN SHORES TOWN COUNCIL REGULAR MEETING

5375 N. Virginia Dare Trail, Southern Shores, NC 27949 Phone 252-261-2394 / Fax 252-255-0876 www.southernshores-nc.gov

PITTS CENTER

Tuesday, September 05, 2023 at 5:30 PM

MINUTES

Call Meeting to Order

Pledge of Allegiance Moment of Silence

Present

Mayor Elizabeth Morey
Mayor pro tem Matt Neal
Council Member Leo Holland
Council Member Paula Sherlock
Council Member Mark Batenic

Amendments to / Approval of Agenda

Motion made by Council Member Holland to approve the agenda as presented, Seconded by Council Member Sherlock. The motion passed unanimously.

Voting Yea: Mayor Morey, Mayor pro tem Neal, Council Member Holland, Council Member Sherlock, Council Member Batenic

Consent Agenda

Motion made by Council Member Sherlock to approve the consent agenda as presented, Seconded by Council Member Holland. The motion passed unanimously.

Voting Yea: Mayor Morey, Mayor pro tem Neal, Council Member Holland, Council Member Sherlock, Council Member Batenic

- Resolution #2023-09-01 Resolution In Support Of The National Flood Insurance Reauthorization And Reform Act Of 2023
- 2. Minutes Approval
- 3. Surplus-Radar Units
- 4. Budget Amendments #13 #16
- 5. Proclamation Declaring September 18-24, 2023 as Diaper Need Awareness Week

Presentations

6. Police Department Presentation-Active Shooter Training, Deputy Chief Slegel

Deputy Chief Slegel presented a PowerPoint presentation highlighting the Police Department recent Active Shooter Training, [Presentation Attached as exhibit]

7. Police Department-Presentation/Demo "Project Lifesaver" -Officer Jason Thompson
Officer Jason Thompson provided an explanation and demonstration of equipment used for "Project Lifesaver".

Staff Reports

Deputy Town Manager/Planning Director presented the Planning Department's permit report for August and an update on the Planning Board.

<u>Planning Board--</u>The Town Planning Board's next regular meeting is to be held on September 18th at 5:00 p.m. here in the Pitts Center. The purpose of the meeting is for the Board to consider SUP-23-01, a Special Use Permit application submitted by Quible & Associates, P.C. on behalf of Ginguite LLC for a mixed-use group development of commercial and residential buildings at 6195 N. Croatan Hwy. The Board may also consider amendments to the Board's Rules of Procedure.

Police Chief David Kole presented the Police Department report for the month of August.

Fire Chief Ed Limbacher presented the Fire Department report for the month of August and a PowerPoint summarizing the calls and responses from several recent fires.

Mayor Morey expressed her gratitude for all first responders and what they do for the community.

Town Manager

<u>Juniper/Trinitie Culvert Update</u>- Council approved 5 tasks under the Kimley Horn contract and it is now at a point to move forward, staff will present the remaining tasks to council for consideration at the October meeting.

<u>Walking Path/Sidewalk Update</u>-a citizen input form can be found on the town website. Four contractors attended the pre-bid meeting for the path along NC 12 (triangle to east dogwood). Staff recommend applying for a Tourism Impact Grant and staying on this path and extending it to Hickory or Hillcrest. Town Manager Ogburn stated the town could apply for a grant to the sidewalk all the way to Hillcrest or break it up into sections. Another project is the cut through on Skyline to NC12 and Food Lion on Juniper to NC158.

Council Member Batenic stated general funds would be used for Skyline and Juniper and the grant would be just for the sidewalks along NC12. Town Manager Ogburn stated that was correct.

Mayor Morey suggested continuing the sidewalk/walking path discussion after public comment.

<u>Public Works Facility</u>-Town Manager Ogburn went through all the much-needed improvements that have been completed at the Public Works building. He also recognized the entire department for all the hard work they put into maintaining and beautifying Southern Shores' facilities and town.

Mayor Morey and Council Member Sherlock both recently took a tour of the improved Public Works facility and met with the staff, commending them for all they do for the Town.

Town Attorney Robert Hobbs addressed the acquisition of 13 Skyline Rd.

13 Skyline-Property Acquisition Action Items-3 Skyline Road-The town is under contract to purchase 13 Skyline Rd. A final version of an encroachment agreement easement that pertains to the situation where the building on this property slightly encroaches over into the adjoining property and this is a customary way of addressing that it recognizes the existence of the

encroachment but doesn't require the structure to be moved or changed in any way. The way this is worded is that it would remain in place for as long as the building is there. If the building is demolished or if it is substantially destroyed, then the permission would terminate. Mr. Hobbs stated the council would need to finalize closing with motions. Attorney Robert Hobbs read the proposed motion.

Motion acknowledged and made by Mayor Morey that the town proceed with the closing of its purchase of the property located at 13 Skyline Road in Southern Shores from the Outer Banks Community Foundation, that the purchase contract and all amendments are hereby approved and ratified, that the mayor and town manager are hereby authorized to approve and sign any documents relating to the closing of the purchase of the property, that the encroachment easement between the town and Southern Shores Realty is hereby approved -subject any final so non-substantive wording changes which the town manager is hereby authorized to approve and that the town managers shall authorized a contract for the removal of the existing underground fuel tank that was formerly used by with the property by former owner of the property, Seconded by Council Member Holland. The motion passed unanimously.

Voting Yea: Mayor Morey, Mayor pro tem Neal, Council Member Holland, Council Member Sherlock, Council Member Batenic

Council Member Holland inquired about the closing date. Attorney Robert Hobbs stated the tentative closing date is Thursday, September 7th.

General Public Comment

<u>Jim Gould</u>-213 S. Woodland -spoke in favor of sidewalks and as they are already available on NC12, he would like to see them deeper into the interior of the community. He commented that civilians should not be considered traffic calming measures.

Mark Blank-#9 Tenth Ave-spoke in favor of sidewalks and was surprised by the opposition at the Town Hall meeting to receive input from residents. He felt that holding the meeting seeking input at 5pm was not a good selection. He would hope the town would be supportive of parents' needs and concerns. He suggested offering sidewalks on the roads that lead to the ocean, playgrounds, and school.

<u>Bill Ferretti</u>- felt that an important criterion for sidewalks should be sidelines and some areas of town sidewalks may be appropriate due to safety issue with sidelines. His example was Hickory coming up the hill from east dogwood. Congratulated the Town and its Police Department for becoming a project Lifesaver agency.

<u>Allison Berryman</u> -spoke in favor of sidewalks and was excited and encouraged to hear of the possibility of a sidewalk at the cut through on Skyline Rd to NC12. Thew town needs to keep our children safe.

Lulu Berryman-spoke in favor of sidewalks, particularly the proposed one on Skyline Rd.

Old Business

8. Beach Nourishment Maintenance and Monitoring Plan

The agenda summary read as, the 2022/2023 project was designed using an assumed rate of loss based on a per cubic yard a foot per year average. Assuming a 5-year nourishment cycle, the Town's project is anticipated to require approximately 375,000 cy of sand in 2027.

Success of a beach nourishment project is often determined by how long the project lasts before maintenance is required. Regular monitoring is necessary to document and evaluate whether the project is performing as designed, to identify maintenance and re-nourishment requirements, and to evaluate project impacts.

This Maintenance Plan serves as documentation that the Town of Southern Shores' Beach Nourishment Project meets the criteria established by 44 CFR 206.226(j)(2), making us eligible for reimbursement for sand lost under certain conditions.

§ 206.226 Restoration of damaged facilities. - Work to restore eligible facilities on the basis of the design of such facilities as they existed immediately prior to the disaster and in conformity with the following is eligible:

- (j) Beaches.
- (2) Improved beaches. Work on an improved beach may be eligible under the following conditions:
- (i) The beach was constructed by the placement of sand (of proper grain size) to a designed elevation, width, and slope; and
- (ii) A maintenance program involving periodic renourishment of sand must have been established and adhered to by the applicant.
- The Maintenance Plan allows the Town to be eligible for the Public Assistance. Replacement of sand on beaches is only eligible under certain conditions. A beach is considered an eligible facility when all of the following conditions exist:
- The beach is not a federally constructed shoreline under the specific authority of USACE
- The beach was constructed by the placement of imported sand—of proper grain size—to a designed elevation, width, and slope; and
- The Applicant has established and adhered to a maintenance program involving periodic renourishment with imported sand to preserve the original design or a specific engineered design that is justified and clearly stated in the maintenance program.

This Maintenance Plan will be updated regularly to reflect results of monitoring, construction of additional projects, maintenance events and changes in schedules.

Town Manager Ogburn stated that staff recommends that the Town Council approve a motion to adopt the Town of Southern Shores Beach Nourishment Project Maintenance Plan as written.

Council Member Sherlock stated FEMA wants the town to have a maintenance plan.

Mayor pro tem Neal asked if the November 22 is the static line or is it updated with each survey? Town Manager Ogburn stated it is updated with each survey.

Motion made by Mayor Morey to adopt the Southern Shores Beach Nourishment Plan as written, Seconded by Council Member Sherlock. The motion passed unanimously.

Voting Yea: Mayor Morey, Mayor pro tem Neal, Council Member Holland, Council Member Sherlock, Council Member Batenic

New Business

9. Referral of Draft Comprehensive Land Use Plan to Division of Coastal Management

Andrea Radford of Stewart Inc. presented a PowerPoint of the Draft Comprehensive Land Use Plan to Division of Coastal Management. [Exhibit attached] and called on council for questions.

Mayor Morey asked Ms. Radford to confirm that the Division of Coastal Management is getting through their reviews fairly quickly, as opposed to the previous understanding that they were delayed. Ms. Radford confirmed that lately the Division of Coastal Management has been much quicker with their reviews.

Council Member Holland asked if there was an advantage or disadvantage to referencing other towns in the plan. Ms. Radford stated you typically look to other towns as a guide when you're making updates to any ordinance. It's not suggesting you copy and paste everything from their zoning ordinance, or the way they manage storm water or any programs that they have, but it's a good idea to look and see what other communities are doing and kind of take ideas from those communities and make them fit your community.

Mayor Morey stated there is a reference on page 36 to where the Southern Shores bicycle and pedestrian plan from 2014 and the Albemarle Regional Bicycle Plan from 2013 are presented but then there's no context. She felt since the Council is seemingly talking about sidewalks and pedestrian safety and bicycle safety, maybe add some context to those reports and what they mean, and what the town is going to do about them.

Andrea Radford with Stewart, Inc. stated she would work with staff on that item.

Mayor Morey stated that on page 58 there is a reference that the Town of Southern Shores is located on an island. Southern Shores is not located on an island and that word would need to be changed.

Council Member Sherlock stated there is a massive amount of historic information, storm surge information, events, etc. and felt she needed more time to review.

Mayor pro tem Neal agreed and would like more time to review.

Council Member Holland stated this draft has not changed much and was in favor of submitting it to CAMA for review.

Mayor pro tem Neal inquired as to the easiest way to submit specific comments about the draft. Ms. Radford stated if he was to provide specific comment and page numbers to staff, that would be beneficial and can make the revisions.

The mayor pro tem asked the local concern section that was cut out and then integrated into other sections, what rove that? Ms. Radford answered mainly the goals.

MOTION: Mayor Morey suggested a compromise and made a **Motion** to authorize staff to incorporate comments from Town Council and submit that version to DCM for review and approval, Seconded by Council member Holland. the motion passed unanimously., Seconded by Council Member Holland.

Voting Yea: Mayor Morey, Mayor pro tem Neal, Council Member Holland, Council Member Sherlock, Council Member Batenic

10. Walking Path/Sidewalk Update

Town Manager Ogburn asked for council's input to the sidewalks/walking paths discussed earlier in his report. He stated there is always a do-nothing option but would like to have council direction. He added that he would like to do the maintenance of the current walking path on NC12 this fiscal year.

Mayor Morey asked the manager if he was suggesting adding on the maintenance to the current contract that is out to bid. Town Manager Ogburn confirmed that was correct.

Mayor pro tem inquired if the maintenance areas would be replaced with concrete. Town Manager Ogburn confirmed.

Council Member Sherlock felt it was important to have some connectivity through town.

Manager's Report: Four contractors attended the pre-bid meeting for the path along NC 12 (triangle to east dogwood). Staff recommend applying for a Tourism Impact Grant and staying on this path and extending it to Hickory or Hillcrest. Town Manager Ogburn stated the town could apply for a grant to the sidewalk all the way to Hillcrest or break it up into sections. Another project is the cut through on Skyline to NC12 and Food Lion on Juniper to NC158.



Please rank your top 5 projects in order of priority. Please list other segments of pedestrian improvements you feel are important and include those in your ranking.

Current cank, your priority

	Current rank	your priority
NC 12 Triangle Park to E Dogwood Tr (currently in progress)	1A	n/a
NC 12 E Dogwood Tr to 13th Ave	1 B	
Hickory E Dogwood Tr to Hillcrest Dr	2A	
Hickory Hillcrest Dr to NC 12	2 B	
Hillcrest Hickory Tr to NC 12	3	
Sea Oats E Dogwood Tr to Hillcrest Dr	4A	
Sea Oats Hillcrest Tr to NC 12	4B	
Wax Myrtle E Dogwood Tr to Hillcrest Dr	5	
Chicahauk Tr cul-de-sac to Trinitie Tr	6	-
Skyline Rd full length	7	
Ocean Blvd Triangle Park to E Dogwood Tr	8A	
Ocean Blvd E Dogwood Tr to Hickory Dr	8B	

Consensus of all council to direct staff to put together a Tourism Board Impact Grant for the "B" project listed and revisit the others at a later date.

Mayor Morey stated she particularly didn't like spending people's money but did like the idea of putting the tourism board money to work in our community because so much of it is being put into other parts of our lovely County and she would like Southern Shores to see a share.

Council Member Batenic was very concerned about the solar lights along NC12 and asked if they could be replaced or placed into the budget for next year.

General Public Comment

Len Schmitz with Better Beaches encouraged the Council to keep pressing for the Mid Currituck Bridge, expressing it is a much-needed evacuation route.

Council Business

Mayor Morey stated the next meeting is October 3rd and will not be in attendance. She expressed her gratitude to the Police Department and Fire Department for all they do for the community.

Council Member Holland provided a Tourism Board report for the month of June. Occupancy was up .23%, year to date, .22%. Meals up 9%, year to date 6.32%. The state reported 33.3 billion visitors spending in 2022.

Adjourn

Motion made by Council Member Holland to adjourn the meeting at 7:31 p.m., Seconded by Council Member Sherlock. The motion passed unanimously.

Voting Yea: Mayor Morey, Mayor pro tem Neal, Council Member Holland, Council Member Sherlock, Council Member Batenic

ATTEST:

A. Elizabeth Morey, Mayor

Respectfully submitted,

Silella Kalle, Town Clerk

The attached documents are incorporated herewith and are hereby made a part of these minutes.

Item 1.



Town of Southern Shores

5375 N. Virginia Dare Trail, Southern Shores, NC 27949 Phone 252-261-2394 / Fax 252-255-0876 www.southernshores-nc.gov

RESOLUTION IN SUPPORT OF THE NATIONAL FLOOD INSURANCE REAUTHORIZATION AND REFORM ACT OF 2023

RESOLUTION #2023.09.01

WHEREAS the National Flood Insurance Program has been the subject of twenty-five short term reauthorizations since 2017 with the latest short-term reauthorization set to expire on September 30, 2023, and

WHEREAS Senator Bob Menendez (R-NJ) has introduced the NATIONAL FLOOD INSURANCE REAUTHORIZATION AND REFORM ACT OF 2023 which proposes to reauthorize the National Flood Insurance Program (NFIP) program for five years until September 30, 2028, and to significantly reform the NFIP to provide better consumer protection and to address the long-term solvency of the NFIP, and

WHEREAS these proposed reforms include an annual 9% cap on flood insurance premium increases, continued funding of grant programs for mitigation of flood risks, more accurate mapping of flood hazards, updated claims appeal processes, and suspension of interest payments of the NFIP debt to the US Treasury for five years, and

WHEREAS this bill has received bipartisan co-sponsorship from elected officials from the coastal states of New York, Maryland, Florida, and Louisiana, and

WHEREAS flooding is the most frequently occurring natural disaster and affects all areas of the United States therefore flood insurance is an essential tool for property owners to protect their homes and businesses from flood damages, and

WHEREAS the Southern Shores Town Council recognizes the importance of ensuring the dress



Town of Southern Shores

5375 N. Virginia Dare Trail, Southern Shores, NC 27949 Phone 252-261-2394 / Fax 252-255-0876 info@southernshores-nc.gov

A Resolution Authorizing the Disposition of Certain Personal Property by Private Sale Resolution # 2023-09-02

WHEREAS, the Southern Shores Town Council desires to dispose of certain surplus property of the Town of Southern Shores; and

WHEREAS, this personal property, described as follows:

(3) Stalker radar units, \$300.00 per unit

is hereby declared to be surplus to the needs of Southern Shores of as it is no longer needed by the Town for its operations; and

WHEREAS, the Middlesex County Sherriff's Office, has expressed interest in purchasing this property, and the Middlesex County Sherriff or an authorized representative has been authorized to negotiate on behalf its interests; and

WHEREAS, N.C.G.S. §160A-279, Sale of property to entities carrying out a public purpose; procedure – notes that the procedural provisions of N.C.G.S. §160A-267, Private sale – shall apply; and

WHEREAS, N.C.G.S. §160A-267 is as follows:

"When the council proposes to dispose of property by private sale, it shall at a regular council meeting adopt a resolution or order authorizing an appropriate city official to dispose of the property by private sale at a negotiated price. The resolution or order shall identify the property to be sold and may, but need not, specify a minimum price. A notice summarizing the contents of the resolution or order shall be published once after its adoption, and no sale shall be consummated thereunder until 10 days after its publication.;" now, therefore, be it

RESOLVED by the Southern Shores Town Council:

- 1. That the Town Manager or his designee is authorized to dispose of the property by private sale at a negotiated price,
- 2. The Town Clerk shall publish notice summarizing this Resolution in accordance with N.C.G.S. §160A-267, and
- 3. The sale may be consummated not earlier than 10 days from the date of publication.

This the 5th day of September 2023.	
OP AT	
SEAL	A. Elizabeth Morey, Mayor
ATTEST:	
Sheila Kane Town Clerk	

Revenues/Streets

Revenues/Streets

	Increases			Decreases	
Account Number	<u>Description</u>	<u>Amount</u>	Account Number	Description	<u>Amount</u>
40-39907	Revenues Powell Bill FB Appropriated	\$131,134.38	40-39909	Revenues Unassigned Fund Balance Appropriated	\$131,134.38
	TOTAL			TOTAL	\$ 131,134

Explanation: Money was obligated in FY 22-23 but work had not started by June 30, 2023.					
This will spend the Powell Bill money that is reserved in Fund Balance instead of using Unassigned Fund Balance					
Recommended By:	Approved By: Town Council				
Cliff Ogburn, Town Manager	Elizabeth Morey, Mayor				
	Date				

Admin

	Increases			Decreases	
Account Number	<u>Description</u>	<u>Amount</u>	Account Number	<u>Description</u>	<u>Amount</u>
	<u>Revenues</u>	d1 450			
40-39914	Insurance Proceeds	\$1,459			
	<u>Expenditures</u>				
42-50124	Computer Services	\$1,459			
12 30121	computer services	Ψ1, 133			
					<u>_</u>
	TOTAL			TOTAL	\$ -

	TOTAL	_		TOTAL	\$ -		
Explanation: Replace Town Manager's laptop							
Recommended By:				Approved By: Town Council			
Cliff Ogburn, 1	Town Manager			Elizabeth Morey, Mayor			
						_	
				Date			

Public Works

	Increases			Decreases	
Account Number	<u>Description</u>	<u>Amount</u>	Account Number	<u>Description</u>	<u>Amount</u>
	<u>Revenues</u>				
40-39909	Unassigned Fund Balance	\$13,600			
	Expenditures				
59-50927	Town Bldgs Maint & Repair	\$13,600			
	TOTAL			TOTAL	\$ -
	TOTAL			TOTAL	\$ -
<u></u>	act to raplace signs on Bitts Con		L		

Explanation: Cost to replace signs on Pitts Center and the Welcome Sign at KHES.

Recommended By: Approved By: Town Council

Cliff Ogburn, Town Manager Elizabeth Morey, Mayor

Date

CEMETERY FUND

	Increases			Decreases	
Account Number	<u>Description</u>	<u>Amount</u>	Account Number	<u>Description</u>	<u>Amount</u>
	Revenues				
30-40-39909	Unassigned Fund Balance	42 FF0			
	Cemetery Fund	\$3,550			
	<u>Expenditures</u>				
30-06-50908	Cemetery Beautification	\$3,550			
30-00-30908	Cernetery beautification	φ5,550			
	TOTAL			TOTAL	\$ -
Explanation: Co	ost to replace damaged head st	ones.		•	•
•					

	TOTAL			TOTAL	\$	-
Explanation: Cost to replace damaged head stones.						
Recommended By:			Approved By: Town Council			
Cliff Ogburn, 1	Fown Manager		,	Elizabeth Morey, Mayor		
			į			
				Date		



Town of Southern Shores

5375 N. Virginia Dare Trail, Southern Shores, NC 27949 Phone 252-261-2394 / Fax 252-255-0876 www.southernshores-nc.gov

A PROCLAMATION Diaper Need Awareness Week, September 18-September 24, 2023

WHEREAS, diaper need, the condition of not having a sufficient supply of clean diapers to keep babies and toddlers clean, dry, and healthy, can adversely affect the health and well-being of babies, toddlers, and their families; and

WHEREAS, the latest study from the National Diaper Bank Network reports that one in two families struggles with diaper need, an increase from previous studies done in 2010 and 2017; and

WHEREAS, purchasing enough diapers to keep a baby or toddler clean, dry, and healthy can consume 14 percent of a low-wage family's post-tax income, making it difficult to obtain a sufficient supply; and

WHEREAS, a daily or weekly supply of diapers is generally an eligibility requirement for babies and toddlers to participate in child care programs and quality early-education programs; and

WHEREAS, without enough diapers, babies and toddlers risk infections and health problems that may require medical attention, and may prevent parents from attending work or school, thereby hurting the family's economic prospects and well-being; and

WHEREAS, the Southern Shores community recognizes that diaper need is a public health issue, and addressing diaper need can lead to economic opportunity for our families and community and improved health for children, thus ensuring all children and families have access to the basic necessities required to thrive and reach their full potential; and

WHEREAS, the Town of Southern Shores is proud to be home to trusted community-based organizations including Children & Youth Partnership for Dare County that recognize the importance of diapers in ensuring health and providing economic stability for families and thus distribute diapers to families through various channels.

WE, THE TOWN OF SOUTHERN SHORES do hereby proclaim the week of September 18-September 24, 2023 as **DIAPER NEED AWARENESS WEEK**.

We thank Children & Youth Partnership, their staff and donors for their service through CYP's Diaper Bank, and encourage the citizens of our community to support CYP's Diaper Bank to help ensure that all Dare County children and families have what they need to thrive.
Elizabeth Morey, Mayor
Sheila Kane, Town Clerk



AGENDA ITEM SUMMARY Item # 8

MEETING DATE: September 5, 2023

ITEM TITLE: Beach Nourishment Maintenance and Monitoring Plan

ITEM SUMMARY: The 2022/2023 project was designed using an assumed rate of loss based on a per cubic yard a foot per year average. Assuming a 5-year nourishment cycle, the Town's project is anticipated to require approximately 375,000 cy of sand in 2027.

Success of a beach nourishment project is often determined by how long the project lasts before maintenance is required. Regular monitoring is necessary to document and evaluate whether the project is performing as designed, to identify maintenance and re-nourishment requirements, and to evaluate project impacts.

This Maintenance Plan serves as documentation that the Town of Southern Shores' Beach Nourishment Project meets the criteria established by 44 CFR 206.226(j)(2), making us eligible for reimbursement for sand lost under certain conditions.

§ 206.226 Restoration of damaged facilities. - Work to restore eligible facilities on the basis of the design of such facilities as they existed immediately prior to the disaster and in conformity with the following is eligible:

- (i) Beaches.
 - (2) Improved beaches. Work on an improved beach may be eligible under the following conditions:
 - (i) The beach was constructed by the placement of sand (of proper grain size) to a designed elevation, width, and slope; and (ii) A maintenance program involving periodic renourishment of sand must have been established and adhered to by the applicant.

The Maintenance Plan allows the Town to be eligible for the Public Assistance. Replacement of sand on beaches is only eligible under certain conditions. A beach is considered an eligible facility when all of the following conditions exist:

The beach is not a federally constructed shoreline under the specific authority of USACE

- The beach was constructed by the placement of imported sand—of proper grain size—to a designed elevation, width, and slope; and
- The Applicant has established and adhered to a maintenance program involving periodic renourishment with imported sand to preserve the original design or a specific engineered design that is justified and clearly stated in the maintenance program.

This Maintenance Plan will be updated regularly to reflect results of monitoring, construction of additional projects, maintenance events and changes in schedules.

REQUESTED ACTION: Staff recommends that the Town Council approve a motion to adopt the attached Town of Southern Shores Beach Nourishment Project Maintenance Plan as written.

ATTACHMENT: Town of Southern Shores Beach Nourishment Project Maintenance Plan



Town of Southern Shores

North Carolina

Town of Southern Shores Beach Nourishment Project



Photograph obtained by Coastal Protection Engineering of North Carolina, Inc. (October 21, 2022).

Beach Maintenance Plan

June 2023

Prepared By:

Coastal Protection Engineering of North Carolina, Inc. Engineering License Certificate #: C-2331 4038 Masonboro Loop Road Wilmington, NC 28409

TOWN OF SOUTHERN SHORES BEACH NOURISHMENT PROJECT MAINTENANCE PLAN

EXECUTIVE SUMMARY

The Town of Southern Shores has implemented a beach nourishment project aimed at: 1) provides a reasonable level of storm damage reduction; 2) mitigates long term erosion that could threaten public infrastructure and private property as well as recreational opportunities and biological resources, and 3) maintain a healthy beach that provides sufficient usable beach and supports valuable shorebird and sea turtle nesting habitat. A key aspect to the long term success of the program is the implementation of a maintenance program to document construction achievements and project performance. This document details the maintenance program established by the Town.

The Town successfully completed the initial construction of the townwide Beach Nourishment Project in May 2023. The project placed approximately 1,048,500 cy (gross quantity) of beach fill material in Southern Shores between Sta. 0+00 and -202+00. In 2022, 990,400 cy of material was placed along the Town of Southern Shores, followed by an additional 58,100 cy (gross quantity) placed between Sta. -169+00 and -199+00 to augment the width of usable beach constructed by the project. All material used to construct the project came from Borrow Area A located offshore of Kill Devil Hills and Nags Head.

Periodic maintenance or renourishment is included in the Town's maintenance plan for the Beach Nourishment Project. While post-construction surveys of Borrow Area A will not be completed until July 2023, a sufficient quantity of sand is anticipated to be available for at least one future maintenance event. That said, Dare County, in cooperation with the Towns of Kill Devil Hills, Duck, Southern Shores, and Kitty Hawk, was awarded a grant to provide 50% funding to conduct a regional sand investigation survey aimed at identifying up to 30-years of additional sand resources to support their programs. That work investigation is currently ongoing.

Project monitoring has been implemented to track performance of the placed material and is used to update nourishment requirements. The initial baseline monitoring event was conducted in November 2022. The baseline survey includes beach profile surveys at approximately 1,000 foot intervals. Additional data south and north of the project area, available from the neighboring Towns of Kill Devil Hills and Southern Shores, are also incorporated into the monitoring. The beach profile surveys have been designed and are conducted to capture changes along the active profile of the beach both within and adjacent to the project area.

This Maintenance Plan serves as documentation that the Town of Southern Shores' Beach Nourishment Project meets the criteria established by 44 CFR 206.226(j)(2). The Maintenance Plan has been developed in a way consistent with the Public Assistance Program and Policy Guide (Version 4). This Maintenance Plan will be updated regularly to reflect results of monitoring, construction of additional projects, maintenance events and changes in schedules.

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Figure 1. Map showing the extent of the Kitty Hawk construction project (2017) includ Southern Shores fill area, the northern taper, the Kitty Hawk main fill area, and the consbaseline.	struction
Figure 2. Map showing the location of offshore borrow area used for the construction o 2017 and 2022/2023 projects.	
Figure 3. Map showing the extent of the 2022/2023 project including the main fill constemplate and the construction baseline (1/2).	
Figure 4. Map showing the extent of the 2022/2023 project including the main fill const template and the construction baseline (2/2).	
Figure 5. Map of Southern Shores Beach Nourishment Project Monitoring Beach Profil	les 10

INTRODUCTION

The Town of Southern Shores has implemented a beach nourishment project aimed at: 1) provides a reasonable level of storm damage reduction; 2) mitigates long term erosion that could threaten public infrastructure and private property as well as recreational opportunities and biological resources, and 3) maintain a healthy beach that provides sufficient usable beach and supports valuable shorebird and sea turtle nesting habitat.

A Vulnerability Assessment and Beach Management Plan was completed for the Town of Southern Shores in 2018 (CPE-NC, 2018). This initial Plan was updated in 2020 (CPE-NC, 2020). The beach management plan evaluated several different beach fill options focused on achieving goals established by the Town, which are stated in the preceding paragraph. The options included various designs focused on addressing storm vulnerability and the need for sufficient usable beach.

In 2020, the Town Council voted to move forward with the permitting and design of a beach nourishment project along the full extent of the Town's ocean shoreline. As stated in the resulting Erosion & Shoreline Management Design Report (CPE, 2021C), the final recommended beach fill included two different designs for the beach south and north of 4th Avenue (Sta. -153+05). South of 4th Avenue, the recommended design focused on providing a reasonable level of storm damage reduction to public and private development and mitigating long-term erosion impacts. North of 4th Avenue, the recommended design focused on providing sufficient usable beach for recreation and wildlife.

Initial construction of the beach nourishment project was completed in May 2023. The project placed approximately 1,048,500 cy (gross quantity) of beach fill material in Southern Shores. The project included placement of 990,400 cubic yards (gross quantity) of beach compatible sand in October and November 2022. An additional 58,100 cy (gross quantity) was placed on the north end in May 2023 between Sta. -169+00 and Sta. -199+00. Following the construction of the project, the Town implemented a maintenance program to monitor the performance of the Beach Nourishment Project and determine when periodic renourishment is needed to maintain the goals of the project.

Documentation of the construction and subsequent monitoring events has been archived as evidence of the Town's commitment towards maintaining the Beach Nourishment Project. This information is required for eligibility under the Public Assistance (PA) program administered by FEMA. If the project is impacted by a presidentially declared disaster or emergency, justification that the maintenance plan has been implemented must be provided to receive federal aid. This stipulation is mandated by 44 CFR 206.226(j)(2), which states:

Work on an improved beach may be eligible under the following conditions:

- (i) The beach was constructed by the placement of sand (of proper grain size) to a designed elevation, width, and slope; and,
- (ii) A maintenance program involving periodic renourishment of sand must have been established and adhered to by the applicant.

The amount of sand replacement eligible for FEMA funding is limited to the material volume lost as a result of the declared disaster or emergency. Pre- and post-storm profiles, when available, are used to determine the eligible volume of sand. If pre-storm profiles are not available, the estimated erosion from the design study and renourishment history can be used to determine a pre-storm condition. Surveys collected during the monitoring can also be used to determine the pre-storm condition.

This Maintenance Plan serves as documentation that the Town of Southern Shores' Beach Nourishment Project meets the criteria established by 44 CFR 206.226(j)(2). The Maintenance Plan has been developed in a way consistent with FEMA's Public Assistance Program and Policy Guide (Version 4). The Maintenance Plan includes a description of the project design, construction activities to date, anticipated volume and cost for maintenance, schedule of maintenance and the monitoring protocols being employed by the Town of Southern Shores. This Maintenance Plan will be updated regularly to reflect results of monitoring, construction of additional projects, maintenance events, and changes in schedules.

CONSTRUCTION EVENTS

Beach Fill

Sand Placement (2017):

In the summer of 2016, prior to project construction, an erosional hotspot was observed within the northern taper section of the Kitty Hawk project. The Town of Southern Shores approached both Kitty Hawk and the Town's engineering firm regarding the possibility of designing and permitting a beach fill project that would cover the approximately 1,500-foot long hotspot area in Southern Shores. In January 2017, the Town of Kitty Hawk agreed to modify their USACE permit to allow for the modification of the project to include the 1,500 ft. portion of the Town of Southern Shores as well as a 1,000 ft. taper. This resulted in a 2,500 ft. section of the project being located within the Town of Southern Shores. A 1,500 ft. berm only fill section was constructed from Sta. 0+00 to Sta. -15+08 in Southern Shores to account for an erosion hot spot. The project also included a 1,000-foot long taper on the north end, which extended from Sta. -15+08 to -25+08. construction was started and was completed in August 2017, and included placement of 80,500 cy of beach compatible sand, which equates to an average fill density of approximately 54 cy/lf, along 1,500 feet of beach (between Sta. 0+00 and Sta. -15+08). Approximately 32,000 cy was also placed in the taper between -15+08 and -25+08, but this volume is associated with the Kitty Hawk project and was paid for by the Town of Kitty Hawk. Figure 1 shows the extent of the project including the Southern Shores fill section, the northern taper, the Kitty Hawk main fill area, and the construction baseline. Sand used to construct the project was dredged from the permitted offshore borrow area referred to as Borrow Area A, using trailing suction hopper dredges (Figure 2).

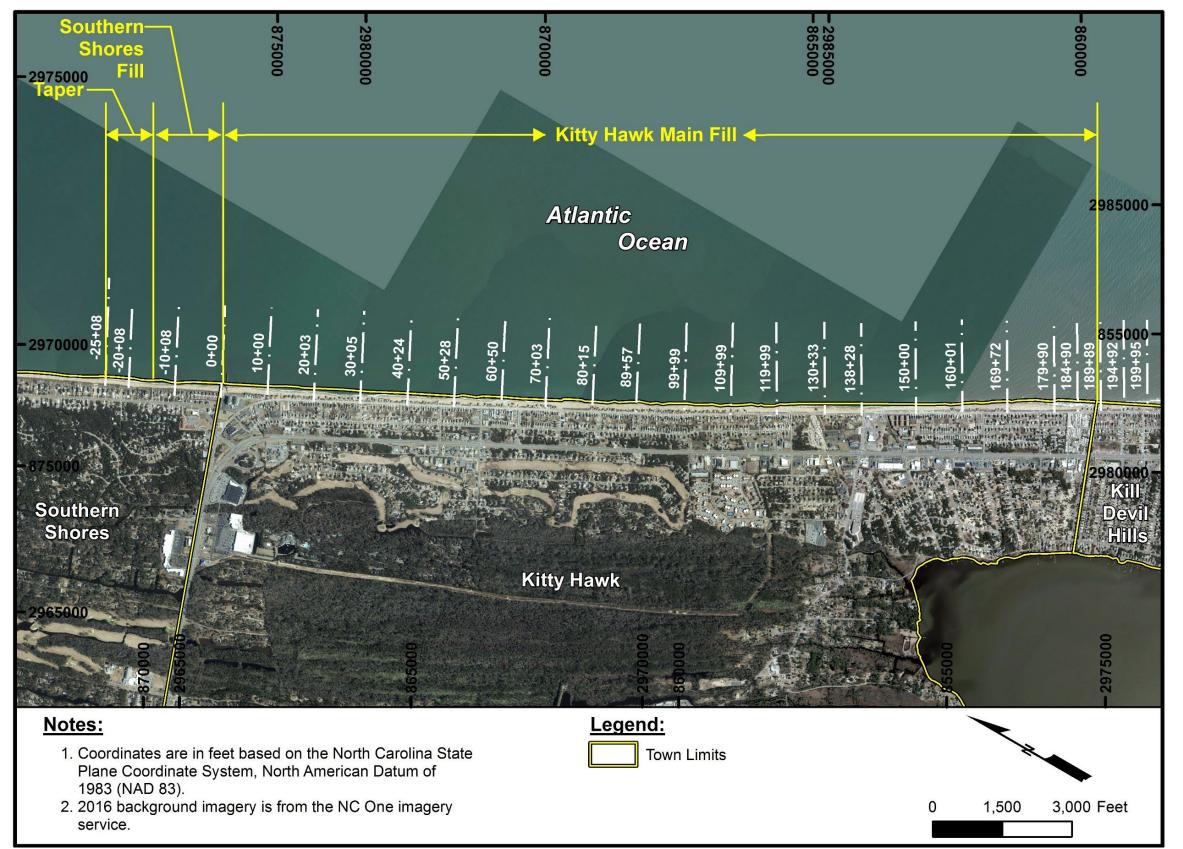


Figure 1. Map showing the extent of the Kitty Hawk construction project (2017) including the Southern Shores fill area, the northern taper, the Kitty Hawk main fill area, and the construction baseline.

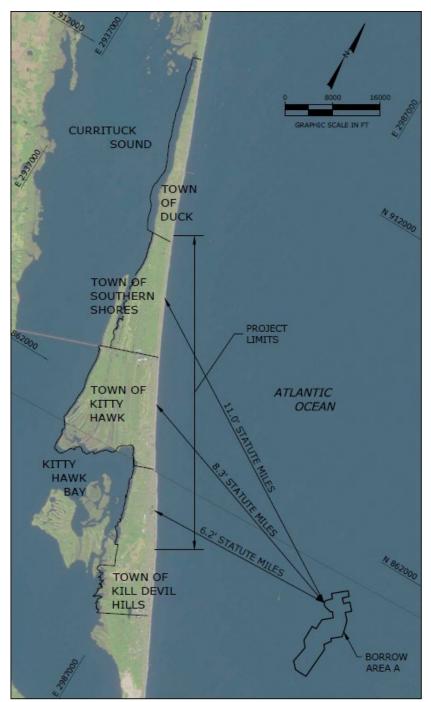


Figure 2. Map showing the location of offshore borrow area used for the construction of the 2017 and 2022/2023 projects.

Initial Construction of Townwide Project (2022/2023): Placement of beach fill associated with the initial construction of the townwide Town of Southern Shores Beach Nourishment Project was completed in May 2023. The overall goal of the project focused on providing a reasonable level of storm damage reduction to public and private development, mitigating long-term erosion

impacts, and providing sufficient usable beach for recreation and wildlife (CPE, 2021C). The project included the construction of a beach nourishment project along the entire shoreline of Southern Shores. Figure 3 and Figure 4 show the extent of the project. Sand used to construct the project was dredged from the permitted offshore borrow area referred to as Borrow Area A, using trailing suction hopper dredges (Figure 2).

The design for the 2022 renourishment aimed to provide a sufficient level of storm damage reduction south of 4th Avenue and sufficient usable beach north of 4th Avenue (Sta. -153+00). The project design called for the uniform distribution of approximately 49 cy/ft. south of 4th Avenue to provide a reasonable level of storm damage reduction and to account for anticipated background erosion and diffusion over 5-years. The design also included additional fill (10 cy/lf) to mitigate the potential for hot spot erosion in the central 3,900 feet of the project area between Sta. -70+00 and Sta. -110+00. North of 4th Avenue, the project design called for the distribution of approximately 22 cy/ft. of beach fill. This volume was based on the design goal of achieving an average usable beach width of at least 84 feet along the beach north of 4th Avenue. Usable beach width is defined as the linear distance between the +12 ft. NAVD88 contour and the +4 ft. NAVD88 contour. The volume estimated to be placed north of 4th Avenue was based on conditions observed in April 2021.

The beach fill constructed in 2022/2023 included placement of approximately 1,048,500 cy (gross quantity) of beach compatible sand. Between October and November 2022, approximately 990,400 cy of sand was placed along 20,100 feet of beach (approximately 3.8 miles) between Sta. 0+00 and -202+00. This equates to an average fill density of approximately 49.3 cy/lf. South of 4th Avenue, approximately 924,500 cy of beach fill were placed in 2022, which equates to an average fill density of 60.7 cy/lf. The 2022/2023 project achieved the design goals of constructing the design berm to provide a reasonable level of storm damage reduction and placement of material to mitigate anticipated erosion and diffusion over a 5-year maintenance cycle.

North of 4th Avenue, approximately 65,900 cy of beach fill were placed in November 2022, which equates to an average fill density of 13.6 cy/lf. The goal of the beach fill north of 4th Avenue was to re-establish a usable beach of 84 ft. as defined by the linear distance between the +12 ft. NAVD88 and +4 ft. NAVD88 contour. The design was based on beach conditions measured in May 2021. At that time, the design called for 22 cy/ft. to achieve the desired width. Between May 2021 and August 2022 surveys showed that the area north of 4th Avenue gained approximately 9 cy/ft. on average. When combined with the 13.6 cy/ft. placed north of 4th Avenue in November 2022, the target fill volume of 22 cy/ft. was achieved. However, the distribution of the fill north of 4th Avenue in November 2022 was not uniform.

In May 2023, an additional volume of approximately 58,100 cy of beach compatible sand was placed between Sta. -169+00 and -199+00 to complete the 2022/2023 project. This equates to an average fill density of approximately 19.0 cy/lf. This additional sand was placed to augment the width of the usable beach within this section of the overall project. The location of the sand placed in May 2023 is shown in Figure 4.

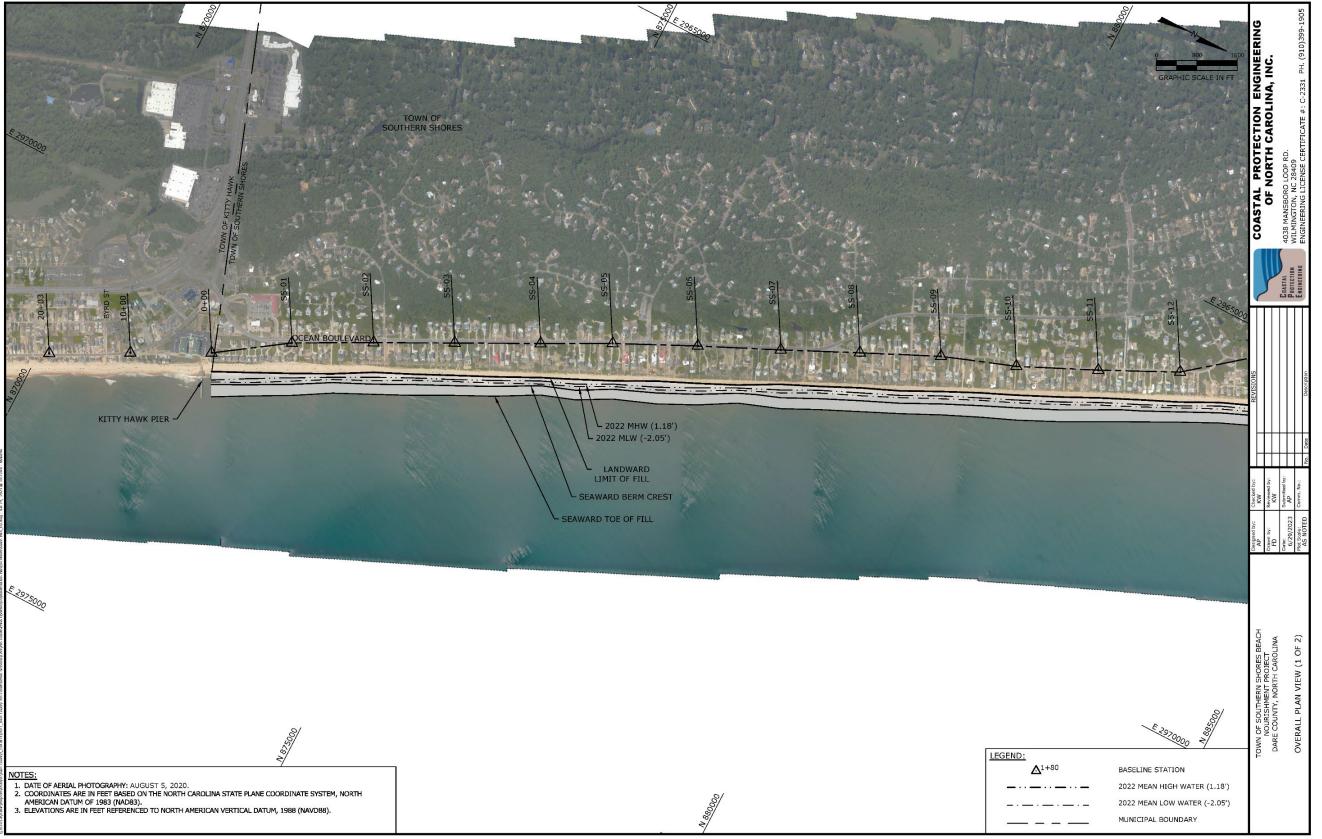


Figure 3. Map showing the extent of the 2022/2023 project including the main fill construction template and the construction baseline (1/2).



Figure 4. Map showing the extent of the 2022/2023 project including the main fill construction template and the construction baseline (2/2).

Sand Fencing

As part of the 2022 project, approximately 1,985 sections of sand fence were installed along the entire project area as needed to replace damaged fencing and to help control landward sand migration by catching wind-blown sand on the seaward face of the dune. One (1) row of angled 10-foot sand fencing sections was installed, staggered along the dune and oriented at 45-degree angles from the shoreline.

Dune Vegetation

NEED INFORMATION FROM THE TOWN

Funding

The initial construction was funded through revenue derived from the Dare County Beach Nourishment Fund and the Town of Southern Shores. The Town of Southern Shores portion of the project was raised through a combination of General Fund appropriation and Municipal Service Districts (MSDs). In essence, the Town of Southern Shores portion of the cost of the project was funded by a contribution from all of the taxpayers in Southern Shores with additional funding provided by property owners in two (2) municipal service districts (MSDs).

MAINTENANCE REQUIREMENTS

Sand Volume

During the design of the 2022/2023 Southern Shores Beach Nourishment Project, Coastal Protection Engineering of North Carolina, Inc. (CPE) conducted an analysis of background erosion losses and diffusion losses to determine the volume of advanced fill to include in the project design. Advanced fill refers to the volume of sand anticipated to be lost over a maintenance cycle that is placed in addition to the design volume needed to achieve an established project goal. The 2022/2023 project was designed using an assumed rate of loss of 3.0 cy/ft/yr. (CPE, 2021C). The design also called for an additional 39,200 cy to be placed along the central portion of the Town between Sta. -70+00 and -110+00 to mitigate hot spot erosion (CPE, 2021C). The portion of the project constructed north of 4th Avenue, had exhibited a long-term positive volumetric change rate, and thus no advanced fill was included in the beach fill design for that section. Assuming a 5-year nourishment cycle and other variables, the Southern Shores project is anticipated to require approximately 375,000 cy of sand in 2027.

Cost

CPE has estimated that the cost to conduct maintenance of the Southern Shores Beach Nourishment project in 2027 would be \$6,734,900. This cost estimate accounts for the construction cost to place 375,000 cy of sand, design and permitting, construction soft costs, environmental monitoring, and a 5% contingency. The cost estimate assumes renourishment of the Southern Shores Project would occur simultaneously with the Kill Devil Hills, Kitty Hawk, and Duck renourishment projects and that the mobilization and demobilization costs were allocated based on the percentage of the total renourishment volumes.

For planning purposes, CPE has also estimated costs to conduct maintenance of the Southern Shores Beach Nourishment project in 2027 assuming the 2027 maintenance project would be

designed for a 6-year and 7-year maintenance cycle. These estimates assume that the 2027 project would place the equivalent volume to last 6 years or 7 years, respectively. Initial estimates suggest increasing the maintenance cycle from 5-years to 6-years, for the 2027 project, could save approximately \$141,200 per year in future maintenance costs, starting in 2027. Furthermore, increasing the maintenance cycle from 5-years to 7-years could save approximately \$240,500 per year in future maintenance costs. These estimates are based on transitioning all four northern Dare County Town projects (Duck, Southern Shores, Kitty Hawk, and Kill Devil Hills) to 6-year and 7-year maintenance cycles in 2027. However, it has not yet been determined whether all four projects could be extended to a 6-year or 7-year maintenance cycle. In the event that the 2027 project could be designed to include a 7-year maintenance cycle, the estimated cost would be \$7,745,300. Constructing a project in 2027, assuming a 6-year maintenance cycle, is estimated to cost \$7,234,400. These estimated costs are provided as preliminary planning numbers for comparison to the previously stated cost of \$6,734,900, which reflects a volume that assumes a 5-year nourishment cycle.

Borrow Areas

In 2014/2015, CPE conducted a comprehensive marine sand search and borrow area design (CPE-NC, 2015B). Two borrow sites, referred to as Borrow Areas A and C, were designed during the investigation. Borrow Area A, shown in Figure 2, is located on the Outer Continental Shelf (OCS) between 5.0 and 6.5 miles offshore of the Towns of Kill Devil Hills and Nags Head in water depths between 50 and 60 ft. (NAVD88). The borrow area covers 1,173 acres and initially contained approximately 16,335,000 cy of sand. The mean grain size of the sand was found to be 0.36 mm with a sorting value of 0.90. The sand in the borrow area was characterized as fine to medium grained quartz sand with trace silt, shell hash, and shell fragments. The average wet Munsell color value was determined to be 5 and dry color value 6. The borrow area was broken up into 6 different cuts with cut depths ranging from -58.5 to -68.0 ft. NAVD88. Multi-beam survey data collected in January 2023 indicated that Borrow Area A contained approximately 10,722,500 cy of beach compatible sand; however, it should be noted that this was prior to the construction of the 2023 Duck project and the 2023 placement of sand on Southern Shores.

A marine sand search investigation was conducted in October 2020 to locate an additional source of beach compatible material other than Borrow Area A (CPE, 2021A). The investigation concluded that there was material in the reconnaissance area, however, the material was determined to have a finer grain than the material in Borrow Area A.

The Dept. of the Army (USACE) and North Carolina Division of Coastal Management issued permits for the Town of Southern Shores to use Borrow Area A for the initial construction of the Southern Shores Beach Nourishment Project. Furthermore, since the borrow area is located in Outer Continental Shelf (OCS) waters, the Town was required to obtain a lease from the Bureau of Ocean Energy Management (BOEM) to use the sand in the permitted borrow area. Individual leases were issued by BOEM for the 2022 project.

Post-construction surveys of Borrow Area A are expected to be finalized in July 2023. Based on preliminary assessments following the dredging of Borrow Area A in 2022 and 2023 to construct beach nourishment projects in Duck, Southern Shores, Kitty Hawk, and Kill Devil Hills, a

sufficient quantity of sand is anticipated to be available for the 2027 maintenance event. That said, Dare County, in cooperation with the Towns of Duck, Southern Shores, Kitty Hawk, and Kill Devil Hills was awarded a grant to provide 50% funding to conduct a regional sand investigation survey aimed at identifying up to 30-years of sand resources to support their programs. This sand resource investigation is currently ongoing.

MONITORING PROTOCOL

A monitoring plan has been designed and implemented for the Southern Shores Beach Nourishment Project. An initial baseline post-construction survey of the 2022/2023 project was conducted in October/November 2022. Topographic and hydrographic surveys of the beach profiles are conducted to monitor project performance and potential impacts. Annual monitoring surveys are conducted along beach profiles at approximately 1,000-foot intervals along the fill area and the shoreline adjacent to the project. Figure 5 shows the location of these beach profiles.

Annual monitoring is used to assess the volume of sand in place compared to the initial beach fill design configuration. The analysis of the monitoring data also provides rates of volume change, which are used to identify erosion 'hot spots' and to estimate sediment needs for future maintenance events. Reports for each monitoring event are archived by the Town. The reports contain volumetric and shoreline change calculations to describe how the project is performing. The first annual monitoring event (Year-1) was conducted in June 2023. Supplemental beach profile surveys may also be required following significant storm events.



Figure 5. Map of Southern Shores Beach Nourishment Project Monitoring Beach Profiles.

CONCLUSION

The Town of Southern Shores has implemented a beach nourishment project aimed at: 1) provides a reasonable level of storm damage reduction; 2) mitigates long term erosion that could threaten public infrastructure and private property as well as recreational opportunities and biological resources, and 3) maintain a healthy beach that provides sufficient usable beach and supports valuable shorebird and sea turtle nesting habitat. Part of the project includes implementing this maintenance program to document construction achievements and project performance. Anticipated future costs have been estimated and are also included in the maintenance plan.

The Town successfully completed the initial construction of the Beach Nourishment Project in May 2023. The renourishments are expected to occur on a 5-year cycle and will involve dredging of Borrow Area A offshore Kill Devil Hills and Nags Head and/or additional offshore sand sources currently being evaluated.

Project monitoring has been implemented to track performance of the placed material and is used to update nourishment requirements. An initial baseline monitoring event was conducted in November 2022. The beach profile surveys were designed and are conducted to capture changes along the active profile of the beach both within the project area and adjacent to the project.

This Maintenance Plan serves as documentation that the Town of Southern Shores' Beach Nourishment Project meets the criteria established by 44 CFR 206.226(j)(2). The Maintenance Plan has been developed in a way consistent with FEMA's Public Assistance Program and Policy Guide (Version 4). This Maintenance Plan will be updated regularly to reflect results of monitoring, construction of additional projects, maintenance events and changes in schedules.

REFERENCES

- CPE (2021 A) Coastal Protection Engineering of North Carolina, Inc. Borrow Area Investigation and Sediment Compatibility Analysis Report: Town of Duck, Southern Shores, Kitty Hawk, and Kill Devil Hills, North Carolina. Wilmington, NC.
- CPE (2021 B) Coastal Protection Engineering of North Carolina, Inc. Town of Duck, Southern Shores, Kitty Hawk, and Kill Devil Hills, North Carolina Borrow Area Investigation and Sediment Compatibility Analysis Addendum B Borrow Area Infilling Assessment, North Carolina, NC.
- CPE (2021 C) Coastal Protection Engineering of North Carolina, Inc. Town of Southern Shores, North Carolina Erosion & Shoreline Management Design Report, North Carolina, NC.
- CPE-NC (2015 B) Coastal Planning & Engineering of North Carolina, Inc. Comprehensive Marine Sand Search and Borrow Area Design Report. Prepared For: The Towns of Duck Kitty Hawk and Kill Devil Hills, North Carolina, 49 pgs.

- CPE-NC (2018) Coastal Planning & Engineering of North Carolina, Inc. Town of Southern Shores Vulnerability Assessment & Beach Management Plan. Prepared For: The Town of Southern Shores, North Carolina, 41 pgs.
- CPE-NC (2020) Coastal Planning & Engineering of North Carolina, Inc. Town of Southern Shores Beach Management Plan Addendum A. Prepared For: The Town of Southern Shores, North Carolina, 7 pgs.
- FEMA (2020) Public Assistance Program and Policy Guide (PAPPG), Version 4, Effective June 1, 2020. (FP 104-009-2).



AGENDA ITEM SUMMARY FORM

MEETING DATE: September 5, 2023

ITEM TITLE: Referral of Draft Comprehensive Land Use Plan to Division of Coastal Management

ITEM SUMMARY:

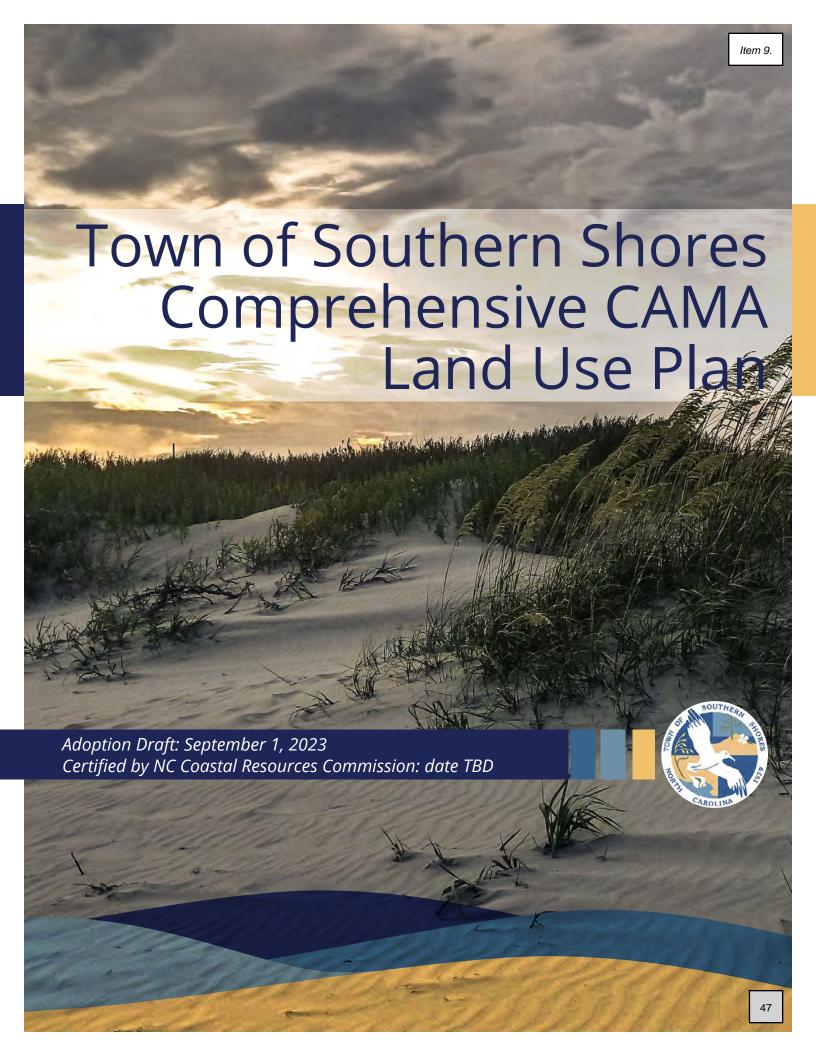
Andrea Radford with Stewart Inc. will present the most recent draft of the Comprehensive Land Use Plan and address questions and comments on the plan. The next step in the update process is to refer the plan to the N.C. Division of Coastal Management so that they can review and comment on the plan which could take up to 75 days or longer.

STAFF RECOMMENDATION:

Referral of the Draft Comprehensive Land Use Plan to the N.C. Division of Coastal Management.

REQUESTED ACTION:

Motion to refer the Draft Comprehensive Land Use Plan to the N.C. Division of Coastal Management.





ACKNOWLEDGMENTS

Planning Board/Steering Committee

Andy Ward, Chairperson
Tony DiBernardo, Vice
Chairperson
Robert McClendon
Dan Fink
Ed Lawler
Jan Collins

John Finelli

Town Council

Elizabeth Morey, Mayor Matt Neal, Mayor Pro tem Leo Holland Paula Sherlock Mark Batenic

Staff Liaisons

Cliff Ogburn, Town Manager Wes Haskett, Assistant Town Manager and Planning Director

Plan facilitated by:



Plan adopted by the Town:

<Date>

Plan certified by NC Coastal Resources Commission:

<Date>

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About the Plan



Whom we heard from

583

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Focus Group Meetings





A Few Participant Voices....



"I value the ambiance provided by the separation of the residential and commercial zones."

-Survey Respondent

"Beautiful natural beaches and family friendly environment."

-Survey Respondent

Planning Process

This Coastal Area Management Act (CAMA)-Certified Comprehensive Land Use Plan, functions as a comprehensive plan (per NCGS 160D) and the town's CAMA Land Use Plan (15A NCAC 07B.0702). It incorporates land use and transportation plans previously adopted by the Town of Southern Shores, while creating policy framework to guide responsible growth and natural resource conservation over a 25-year planning horizon.

As the Town's sixth CAMA land use plan, this plan includes an in-depth analysis of the Town's natural systems and policy recommendations to provide guidance on development decisions and infrastructure investments.

What's a Comprehensive Plan?

It is a document that contains a shared community vision to guide the growth, development, and natural resource conservation for the Town of Southern Shores. This comprehensive plan considers existing conditions and trends to envision the future community, a community vision created by the people of Southern Shores. It contains goals that define this vision and implementation strategies to achieve these goals. It provides an analysis of the forces that have shaped the Town of Southern Shores over time, as well as the current socioeconomic qualities of the Town of Southern Shores. Finally, the plan provides implementation strategies to achieve the vital elements that make the Town of Southern Shores unique.

The plan is one source of guidance that the Town may utilize in decision making, and should be paired with any and all adopted ordinances and policies when making decisions regarding land use. A reasonably maintained comprehensive plan is required by

the state as a condition to continue to enforce zoning.

Who's Been Involved

- Planning Board reviewed the plan regularly and provided direction over the lifespan of the project.
- Town Council reviewed the plan as a part of the formal adoption process.
- Town Staff facilitated meetings and outreach, internal review and coordination, provided perspective and background information.
- Members of the public participated in focus group meetings, public meetings, plan review, survey, and input through various methods.

Public Engagement

Public engagement included a series of steering committee meetings, a kickoff meeting, two public meetings, and a community survey.

In addition to the Planning Board reviewing and shaping all elements of the plan, the public also weighed in regularly.

Public Meetings

- Kickoff/Public Meeting #1 November 15, 2022 - introduced the community to the plan development process and reviewed preliminary information that had been collected and analyzed. Gathered community concerns and visions for the plan through feedback activities.
- Public Meeting #2: April 26, 2022introduced the community to the draft vision, goals, and recommendations in the draft plan document. Gathered feedback from community members about the draft.



Community Vision Statement

"The Town of Southern Shores is a quiet coastal community comprised primarily of low-density single-family homes interspersed with passive and active recreational facilities, navigable waterways, forests, and open space. The Town's identity is intimately tied to its natural resources, history, and residential nature. We strive to protect Southern Shores' environment, enhance the small commercial district located on the southern edge of town, and preserve the Town's unique qualities by maintaining the existing community appearance and form."

The vision statement above is included with plan goals in Chapter 5.

Focus Group Meetings

The project team met with community members from one of the homeowners associations and the civic association to identify community values, concerns, and opportunities.

- October 12, 2022 Chicahauk Property Owner's Association
 - » Values include large residential lots, maritime forest, relaxed atmosphere of Southern Shores.
 - » Concerns include loss of habitat and vegetation due to redevelopment, water quality in the Currituck Sound, and stormwater flooding near canals during storm events.
 - » Opportunities include the desire for a community center, pedestrian/bicyclist safety and the need for more local businesses.
- October 12, 2022 Southern Shores Civic Association
 - » Values include being a laid back community with few sidewalks and streetlights.
 - » Challenges include few commercial and/ or medical facilities in the area, beach erosion, and affordability and availability of housing.
 - » Opportunities include expanding EV charging station network and potential for coordinating with other jurisdictions to provide public transit system.

Survey

- Timeline: December 5, 2022 January 8, 2023 - gathered information on community values and vision.
- The survey was extensively advertised

and shared with the Southern Shores Civic Association, and the Chicahauk Homeowners Association. Southern Shores residents demonstrated their typical enthusiasm for their town on the survey, with 583 responses collected. See "Appendix B: Public Survey Results" on page 135

Schedule

The project kicked off in September 2022 by collecting valuable data from town staff. Next, the Stewart team visited the Town for a community tour and kickoff meetings with Town staff, Town representatives, and members of the community. This led to obtaining valuable insight and local perspectives related to land use and development in the town. Following the community tour, a vulnerability assessment was performed to identify areas of environmental concern, existing land use, transportation, infrastructure, water quality, stormwater, and other environmental concerns. Throughout the process, the project team met with Town staff and the steering committee to help guide the plan and address required topics by the Coastal Area Management Act. A combination of public meetings and a community survey were conducted to gain community insight on future growth, development, preservation, and conservation concerns. Updating the Town's CAMA-Certified Comprehensive Land Use plan is a year-long process that includes public engagement and analysis, followed by state review of the draft plan, which can take up to 75 days.

Introduction

Document Organization

This document follows a format that allows the reader to gain insight and background on the Town's standing, challenges, and aspirations, and then explores options for accomplishing goals. The first chapter provides an overview of the schedule, the planning process and document organization. Chapter 2 includes the community assessment that describes the town's history, the study area, previously adopted plans, and provides an analysis of demographics, the economy, transportation system, parks and natural resources, and land use trends. Chapter 3 discusses the existing conditions of the study area and goes into the overarching topics of population, housing, and the economy. Chapter 4 addresses environmental, natural, and cultural resources and infrastructure as specifically required by the Coastal Resources Commission's (CRC) planning requirements for a CAMA Land Use Plan. Chapter 5 includes the community vision statement, goals as determined by public

survey results, and the future land use map accompanied by the character areas. Chapter 6 discusses the land use management topics and includes the policy recommendations and implementation strategies.

Plan Structure

Recommendations are organized by goals which cover the following planning topic areas:

- Access to Public Trust Waters;
- Land Use Compatibility and Character;
- Infrastructure Carrying Capacity and the Natural Environment;
- Water Quality;
- Natural Hazards; and
- Transportation and Mobility.

Each planning topic area contains recommendations, which are policies that will guide decision-making, and actions.



Interpretation of Recommendations

Chapter 6 includes recommendations and implementation strategies. In which, the following words may be used to *consider*, *continue*, *encourage*, *enhance*, *identify*, *implement*, *maintain*, *prevent*, *promote*, *protect*, *support*, *and work*. If a word is not defined below it shall be interpreted as its ordinary and common meaning. The intent of these word is defined as follows:

- Consider: Think carefully about or evaluate at the board or staff level. This may require evaluating changes to ordinances, standards or policies.
- Continue: Follow past and present policy and procedure to maintain the desired goal.
- *Encourage*: Foster the desired goal through new or improved Town policies.
- Enhance: Improve on a current goal through Town policy.
- Identify: Take inventory of and confirm a resource or desired item(s) through Town staff.
- Implement: Take actions to accomplish the Plan recommendations
- Maintain: Keep the existing conditions of the desired state of affairs through the use of Town policies, actions, and finances, if needed.
- Prevent: Stop the identified event/practice through the use of appropriate policy, action, and finances.
- Promote: Advance the desired goal through Town policy, action, and or finances.
- Protect: Guard the current conditions or desired conditions through Town policy, action, and or finances.
- Support: Supply the necessary staff support,

- policy, and finances.
- Work: Cooperate and act in a manner through Town staff, policy, and actions to reach the desired goal.

Acronyms

The following list contains the key to all acronyms used throughout this plan.

- AADT: Annual Average Daily Traffic
- AEC: Areas of Environmental Concern
- CAMA: Coastal Area Management Act
- CTPW: Comprehensive Transportation Plan
- CRC: Coastal Resources Commission
- EPA: Environmental Protection Agency
- FEMA: Federal Emergency Management Agency
- FLUM: Future Land Use Map
- HLC: Historic Landmarks Commission
- ICC: Infrastructure Carrying Capacity
- LID: Low-Impact Development
- LUC: Land Use Compatibility
- MFC: North Carolina Marine Fisheries Commission
- MGD: Million Gallons per Day
- NCDOT/DOT: North Carolina Department of Transportation
- NHA: Natural Hazard Areas
- NOAA: National Oceanic and Atmospheric Administration
- PA: Public Access
- SGNA: Significant Natural Heritage Areas
- SLOSH: Sea, Lake, and Overland Surges from Hurricanes
- WRC: North Carolina Wildlife Resources Commission
- WQ: Water Quality

Item 9.

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Community Concerns and Aspirations



Top Concerns ■ Traffic congestion Preserving the natural environment, wetlands forest, beaches, wildlife, etc. Maintaining adequate public safety and emer response levels Increasing safe walking and bicycling options Expanding, upgrading, or maintaining public is water, stormwater, roads) Access to healthcare Improving or maintaining private parks, privat (beach and sound), and recreational opportur Reducing flooding and vulnerability to natural Increasing high speed internet or broadband Housing affordability and availability ■ Preserving historic and cultural resources Other (please specify) ■ Short term rentals Improving public programs and facilities (civic festivals, etc.) Lack of public parks, public water access (bear recreational opportunities

A Few Participant Voices....

Responses



"Fix the summer traffic on S. Dogwood Trail."
-Survey Respondent

"Keep Southern Shores low density and uncrowded."

-Survey Respondent

Significant Existing & Emerging Conditions

The following description of existing and emerging conditions is not exhaustive but does capture the general state of land use and development concerns in the Town and sets the stage for further discussion in the plan of relevant concerns. A discussion of Coastal Area Management Act (CAMA) related concerns is also included and is based on the information gathered from stakeholders, Town staff, background research, and the community survey.

Land Use

Context

The Town of Southern Shores is a quaint coastal community with scenic ocean, sound, and maritime forest views. The Town is characterized by its low density neighborhoods consisting of single-family homes on large lots with integrated recreational facilities, private beach accesses, walkways, and open space. These neighborhoods are served by private and public roads along the beach, in the dunes, or in the sound side maritime forest. The community is served by a small commercial district located on the southern edge of town.

Existing Land Use

Much of the land within Town limits is devoted to detached residential uses. These single-family land uses make up more than half of the incorporated land area. Nearly 1/3 of land is considered open space, parks, conservation, beaches, or vacant. Much of this area is not buildable due to the presence of coastal and non-coastal wetlands, and other environmentally sensitive areas. Institutional uses include Town Hall, the Police Station, the Public Works Department building, the Kern P. Pitts Center, Kitty Hawk Elementary School, the

Southern Shores Volunteer Fire Department station, and the Dare County EMS/Southern Shores Volunteer Fire Department station. An existing land use map and further breakdown of the categories is available on page 69.

Future Land Use

The Town's 2012 Future Land Use Map classifies the area within the Town's planning jurisdiction into the following categories:

- Commercial
- Conservation
- Educational
- Municipal
- Recreational
- Residential

Due to Southern Shores being mostly built-out, the future land use categories generally align with the existing land use. The largest category is the Residential Category. The Future Land Use component of this plan will build on the ideas from the 2012 Future Land Use map.



Southern Shores is a quiet coastal residential town located on the Outer Banks of Dare County.

Development Trends

Most of the land within Southern Shores' corporate limits is built-out with low-density residential development, with few significant undeveloped parcels remaining. These picturesque neighborhoods are interspersed with open space, forests, wetlands, and vegetation.

Nonresidential Uses

Southern Shores features few commercial and institutional uses mostly along N Croatan Highway (US 158), N Virginia Dare Trail, and NC Highway 12. Institutional uses include Town Hall, the Kern P. Pitts Center (Pitts Center), Kitty Hawk Elementary School, and a fire and EMS station. Commercial uses include a mix of large-scale and smallscale retail stores, neighborhood serving businesses, restaurants, and more along the southern edge of Southern Shores. Recent nonresidential development approvals outside of Southern Shores' planning jurisdiction has raised concerns about the appearance of new nonresidential development within the Town's planning jurisdiction.

Housing

Southern Shores features a variety of residential neighborhoods which are home to a mix of housing types and styles. Neighborhoods are found north of N Croatan Highway (US 158) from soundside to oceanside. The average year built is 1987, however, there have been a total of 216 homes constructed since the 2012 CAMA Land Use Plan. Residential lot sizes range from 9,000 square feet to over 40,000 square feet but the average lot size is 21,000 square feet.

Residents of Southern Shores have been concerned about the loss of tree canopy coverage, which includes maritime forests, due to new residential development and construction of large homes used for shortterm rentals. The Town of Southern Shores recently updated their zoning ordinance to prohibit large homes in all zoning districts and updated standards for vacation cottages in the RS-1 Single-Family Residential District, RS-10 Residential District, and R-1 Low Density Residential District. The Town should consider updating its ordinance to prevent the loss of a significant amount of tree canopy coverage and improve landscaping requirements along Highway 158.



Transportation

Roadways

The Wright Memorial Bridge and N Croatan Highway (US 158) serve as the entryway to the Town of Southern Shores. This four-lane highway is divided with a middle turning lane and provides access for residents and visitors to Southern Shores commercial district. NC 12 is the other main corridor in Southern Shores that runs north/south along the ocean side. In the summer months, South and East Dogwood Trail, Hickory Trail, Hillcrest Dr. and Wax Myrtle Trail are heavily congested with seasonal traffic during the summer months. Residents are eager for the construction of the MId-Currituck Bridge to help mitigate summer traffic issues.

Active Transportation and Recreation

Multi-use paths and sidewalks are located along N Croatan Highway (US 158) and NC 12. There is a desire to expand the current multi-use paths throughout the Town. Crosswalks along NC 12 provide access to private beach access areas. Improving pedestrian infrastructure was one of the top five priorities in the community survey.

Infrastructure

Water and Wastewater Treatment

The Town of Southern Shores purchases its water from the Dare County Water Department. The Water Department operates five water plants, four of which are reverse osmosis plants; located at Kill Devil Hills, Stumpy Point, Rodanthe, and Frisco. The fifth is a freshwater softening plant located on Roanoke Island.

The Town predominantly relies on individual septic tank systems for wastewater treatment,

including large-capacity septic systems for nonresidential uses. These systems are owned and maintained by private property owners. Southern Shores Landing has a private wastewater treatment plant that its homeowners association maintains.

Water Quality

Environmental water quality (not to be confused with drinking water quality) is very important locally, as it supports the economy as well as residents' quality of life.

Stormwater Management

The Town of Southern Shores' drainage system consists of hard and soft infrastructure. Hard infrastructure includes drains, curbs and flumes, and culverts. Soft infrastructure includes roadside swales. Stormwater flows through a series of pipes and swales that are



Multi-use paths and canals provide recreational benefits to residents in Southern Shores.

both publicly-owned and privately-owned.

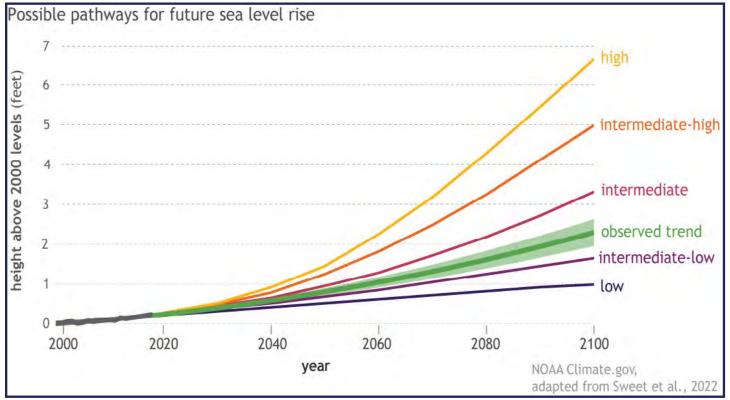
Other Environmental Concerns

Sea Level Rise and Flooding

As seas rise globally, the Town of Southern Shores is also threatened by local land subsidence, which means that the land is submerging even faster than in other locations on the East Coast. Understanding and preparing for these threats using the best available data and projections can help the community mitigate the negative impacts of sea level rise.

Unless mitigation actions are taken, The National Oceanic and Atmospheric Administration (NOAA) projects that sea level rise will cause chronic inundation of some properties, with major impacts possibly occurring as early as 2060. Though 2060 is beyond the horizon of this plan, it is still relevant to long-range decision-making. Many of the structures constructed and renovated today have lifespans beyond 50 years.

The best available projections from NOAA indicate the potential sea level rise scenarios, based on worldwide carbon emissions rates shown in the graph below.



National Oceanic and Atmospheric Administration, Potential Sea Level Rise Scenarios

Key CAMA-Related Issues

The Coastal Area Management Act (CAMA) is particularly concerned with five land use topics. Additional description of issues related to those topic areas is provided below. For the full description of these topic areas and their CAMA-related objectives, please see the state administrative code(15A NCAC 07B. 0702).

Public Access

There are no public access points to the ocean or the soundside in Southern Shores. Southern Shores offers multiple private beach accesses. Beach access paths are owned by the Southern Shores Civic Association (SSCA). Membership to the SSCA gives association members access to these beach access paths and SSCA-owned beach parking lot located on Hillcrest Drive. Members of the Chicahauk Property Owners Association have access to a beach parking lot on Chicahauk Trail. The Town of Southern Shores offers parking permits for a town-owned beach access parking lot with approximately 135 parking spaces. The Town has designated parking areas in the Town right-of-way at the end of Hickory Trail, Ocean View Loop, near the intersection with NC 12, at the end of Hickory Trail, and at the end of all of the Avenues. Parking is allowed in these areas with Town parking stickers. Property owners in Southern Shores are eligible to apply for a parking permit; Southern Shores does not offer parking permits for guests.

Infrastructure Carrying Capacity

There is no public sewer infrastructure in the Town, and almost all wastewater is treated on-site through the use of on-site wastewater treatment systems, often referred to as septic systems. There is one private wastewater treatment plant that services the Southern Shores Landing neighborhood. Poorly maintained or planned septic systems can fail and contribute to nonpoint source pollution contaminating ground and surface water. Failing systems are health hazards and are considered illegal discharge when surface water is contaminated.

Land Use Compatibility

The Town of Southern Shores consists of mostly of low-density residential uses with nonresidential uses located along Highway 158 and at the intersection of Highway 158 and Highway 12.



The Southern Shores Civic Association offers private beach access to its members.

Natural Hazard Areas

Natural hazard areas are areas that are subject to recurrent flooding, storm surge, high winds, and shoreline erosion. The Town has significant land use and development protections in place to avoid the placement of life and property in harm's way. Structure elevation standards are beyond the minimum required by the National Flood Insurance Program. The Town will continue to be susceptible due to recurrent flooding, shoreline erosion, storm surge, wave overwash due to its barrier island location. As sea levels continue to rise and the climate continues to warm, these impacts may become more frequent.

Water Quality

Environmental water quality is a key driver in the local economy and quality of life. Jean Guite Creek was reported to exceed approved standards but due to the presence of marinas, residential development, and a golf course shellfishing is prohibited. The Town has committed in this plan to continuing to prioritize the protection of environmental water quality.

Community Assessment



Community Values



A Few Participant Voices....



"The trees, beautiful lots, community protected land, neighbors, beach and sound accesses!"
-Survey Respondent

"Its beauty and community orientation with a small town feel."

-Survey Respondent

"The low-density residential character of the community and the uncrowded beaches."

-Survey Respondent

Context

Brief History

The Town of Southern Shores is located on the Outer Banks, between the Town of Kitty Hawk and the Town of Duck. Unlike other Outer Banks communities, the Town of Southern Shores was a planned community owned and developed by a single landowner,

In 1946, that owner was Frank Stick, the so-called founder who named his 4-milelong tract of land Southern Shores. Frank envisioned a vacation community where the natural face of the land and its resources would be respected. Not long after he formed a partnership with two other investors. In 1951, the three of them dissolved their partnership and formed a corporation, called the Kitty Hawk Land Co. ("KHLC"), which became the exclusive landowner of all remaining undeveloped properties.

Stick studied the ecology of the coastal environment and decided to transform all but one existing swamps into navigable waterways, known as lagoons. In November 1959, land reclamation began in the back of the soundside area to develop canals that would lead to the sound. First, a canal was dug from the marina to a large swamp east of Old Duck Road. A ground level bridge was created using donated material, known as Dick White Bridge. Due to the extreme width of the existing swamp, an island was created in the middle of the canal along E Dogwood Trail. The remaining swamps (except for Cypress Swamp) would become navigable lagoons that would create connections throughout Southern Shores.

The KHLC created the Southern Shores Civic Association in the 1970s and transferred to it ownership of the beach accesses, many tracts of open space, and other land holdings, and vested in it enumerated powers, including the enforcement of covenants that run with the land. Southern Shores became known as

a "community of volunteers" because of the civic association, which has always been run by volunteer members who pay dues and elect a Board of Directors. No property owner in Southern Shores is required to join the Southern Shores Civic Association.

Chicahauk, which David Stick platted, is a subdivision of Southern Shores with its own homeowners' association. The 550-acre subdivision includes 25% of open space. The Chicahauk community is recognized as a masterpiece of land planning.

Frank Stick got out of the business in 1956, after designing/developing most of the oceanfront, Skyline Road, and the northern end of the soundfront (what is now called N. Dogwood Trail), and David Stick handled the community's development for the next 20 years, until he retired in 1976 and sold the KHLC.

The incorporation of the Town of Southern Shores began in 1976 but the town did not become incorporated until 1979. The first mayor of the newly incorporated town was Kern P. Pitts, his term began in 1979 and ended in 1997. In his honor, stands the Kern P. Pitts Center where most meetings of the Southern Shores Town Council and its various Boards and Committees are held.

Study Area

The study area includes the Town of Southern Shores' planning jurisdiction. It is located on the Outer Banks in Dare County, North Carolina. The total area is 4.2 square miles, of which 3.9 square miles is land and .19 square miles is water. The Town of Southern Shores offers a unique low-density residential setting with its nonresidential uses located at the southern end of Southern Shores, mainly along Highway 158. The town is mostly built out with few remaining residential and nonresidential parcels.



Population Estimates & Projections

The Town has gained approximately 889 people (40.4% growth) since the year 2000. Projections based on growth data and adjusted for potential build-out estimate the Town may add another 400 people by 2055, although this is not a given depends on how the Town manages growth over the same time period.

Permanent Population

Southern Shores' permanent population within Town limits was sourced from the US Decennial Census, and is estimated to be 3,090 permanent residents as of 2020. The Town grew faster between 2000 and 2010 (Average Annual Growth Rate of 2.1%) than between 2010 and 2020 (Average Annual Growth Rate of 1.3%).

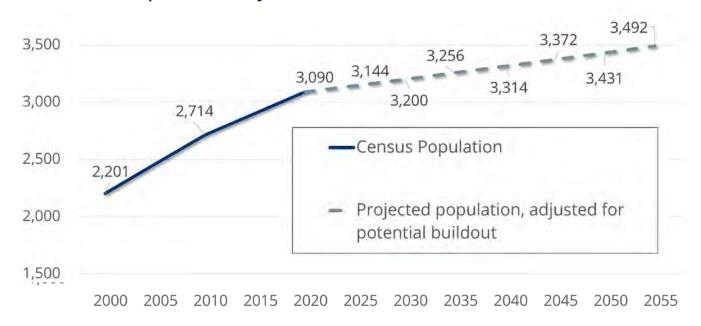
Permanent Population Projections

Permanent population was projected forward 30 years, as required by the Coastal Area Management Act. This was based on past growth trends and adjusted for potential buildout, since most of the town is already developed and limited opportunities exist for new development or redevelopment.

Using Past Growth Trends

The population projection method extrapolates from the current population estimate, using a modified 2010-2020 Annual Average Growth Rate (1.3%) adjusted by buildout estimate. The Average Annual Growth Rate was modified based upon land availability and potential buildout at the

Permanent Population Projections



	Census ¹			Projected Population						
	2000	2010	2020	2025	2030	2035	2040	2045	2050	2055
Population ²	2,201	2,714	3,090	3,144	3,200	3,256	3,314	3,372	3,431	3,492
10										

¹Source: US Decennial Census

current densities. This methodology was chosen because it projects slower growth than using the Average Annual Growth Rate from 2010 to 2020 and includes consideration of the geographic and physical constraints of the Town. Due to Southern Shores limited land availability, this was considered more realistic for the Town. This projection estimates an additional 402 residents might be added by the year 2055.



Seasonal Population Projections

The peak seasonal population provides an estimate for how many visitors Southern Shores likely hosts during the busiest tourist season. It was estimated by using the ratio for residential population in Dare County's Local Water Supply Plan. The estimate does not include day trippers.

It should be noted that all population projections are estimates based on known data. Unforeseeable factors, such as natural disasters or cultural factors, are not accounted for and may influence future population.

To project the total seasonal population, meaning permanent residents and visitors together, the ratio of current visitor population to permanent population was calculated and applied to the permanent population projections. This assumes a constant ratio of tourists to full-time residents.

Understanding Population Projections

Permanent Population

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

Peak Visitor Population

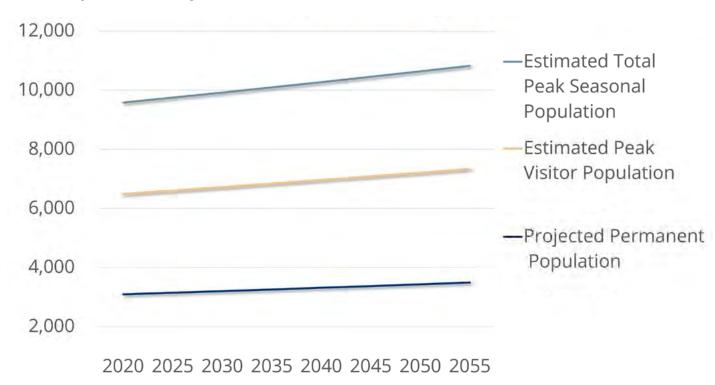
Persons who are temporary residents in the planning area, such as tourists and vacationers, but who normally reside in another location; does not include daytrippers.

Peak Seasonal Population

Permanent plus visitor population. This is an approximation of the planning area's population on a "typical" peak day during the high season. Does not include day trippers.

	2020	2025	2030	2035	2040	2045	2050	2055
Projected Permanent Pop.	3,090	3,144	3,200	3,256	3,314	3,372	3,431	3,492
Estimated Peak Visitor Population	6,489	6,603	6,720	6,838	6,959	7,081	7,206	7,333
Estimated Total Peak Seasonal Population	9,579	9,748	9,920	10,094	10,272	10,453	10,638	10,825
Estimated Water Needs (MGD based on per capita needs derived from 2021 LWSP)		2.09	2.12	2.16	2.20	2.24	2.28	2.32

Total Population Projections



Demographics

Population

The Town of Southern Shores has seen a steady increase of residents from 2000 to 2020, growing to over 3,090. Recent projections show this slowing slightly from 2010 to 2020, but overall, the Average Annual Growth Rate since 2000 has been 1.7%.

Age & Ethnicity

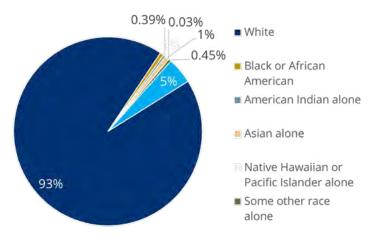
The community is majority white at 93% (not taking Hispanic ethnicity into account). The Hispanic population, defined as people with Hispanic heritage regardless of race, increased from 1.5% in 2010 to 2.0% in 2020.

The median age increased by 2.9 years over the past decade to 58.7, and is higher than the county average of 47.5. This is evident in the cohort population changes noted from 2010 to 2020 indicating a large increase in people 75 years and over.

Employment

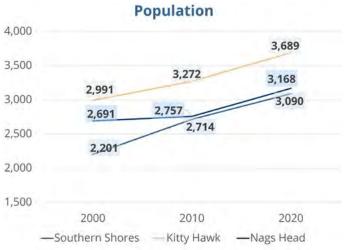
Data from the US Census On The Map and the NC Department of Commerce show a decrease of employees in Southern Shores, with the majority (84%) of the workforce living outside of town limits. Construction, accommodation and food services, educational services, and finance and real estate represent the largest employment sectors in Southern Shores. The only sector that

Race



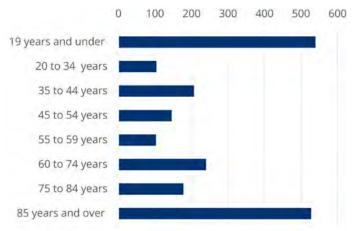
Source: 2010 and 2020 Decennial Census.

Population

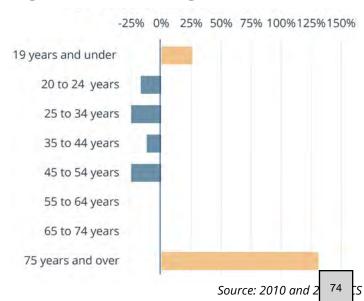


Source: 2000, 2010, 2020 Decennial Census

2020 Age Cohorts (# of people)



Age Cohorts - Change 2010 to 2020



Economy & Workforce

experienced job growth was construction, all other industries experienced shrinkage. This data does not account for tourism, which is a large economic driver for Southern Shores and Dare County.

Commuting

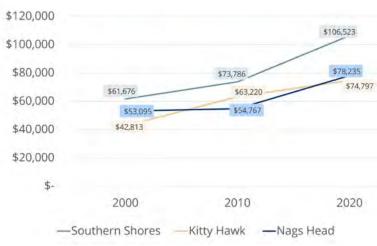
The majority of the workforce in Southern Shores is commuting in from other parts of Dare County, Currituck or Pasquotank County. Eighty-nine percent (89%) of the total workforce is commuting as single occupancy drivers or carpooled.

Income

The median household income was estimated to be \$106,523 in the 2020 American Community Survey. This is higher than both the median incomes estimated for Dare County and the State of North Carolina. This income level is also higher than Nags Head and Kitty Hawk. It has grown by 44% since 2010, relative to 21% and 24% growth seen in the county and state in the same period, respectively.

In 2020, an estimated 3.99% of families in Southern Shores were determined to be below the poverty level; this is lower than the national average of 12.8%.

Median Household Income



Commute into Southern Shores
Live and work in

Southern Shores

Employment by Industry (Residents of Southern Shores)	2010	2019
Retail Trade	14.05%	3.93%
Arts, Entertainment & Recreation, and Accommodation & Food Services	39.42%	35.94%
Educational Services	12.92%	15.91%
Finance and Insurance, and Real Estate and Rental and Leasing	8.24%	9.04%
Transportation and Warehousing	1.13%	.20%
Construction	5.19%	19.45%
Professional, Scientific, & Management, and Administrative & Waste Management Services, Utilities	9.85%	9.63%
Information	.97%	0.59%
Wholesale Trade	1.45%	1.18%
Other Services, Except Public Administration	3.23%	1.18%
Healthcare and Social Assistance	3.55%	2.95%

Source: US Census On The Map, OSBM 2019 and 2010.

Source: 2000, 2010, 2020 Decennial Census.

Housing

Characteristics

Housing in Southern Shores is predominantly single family detached homes. In the 2020 estimates there were 2,297 housing units in the Town of Southern Shores. Of these, 46% are homeowner households, 4% are renter households, and 50% are vacant seasonal homes. Median year of construction is 1987 and the median home value is \$475,900.

The average family size grew from 2.56 in 2010 to 2.73 in 2020. The total number of households is estimated at around 890. The average household size in 2020 was 2.56 people.

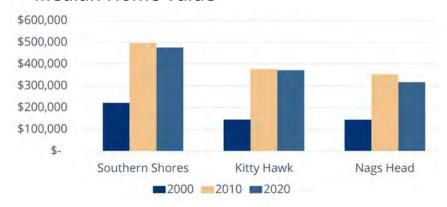
Housing by Type

98.6% of homes are considered single-family detached homes. 1.4% are considered townhomes

As a coastal town, Southern Shores has a large amount of homes that are not primary residences and instead are used for vacation rental or seasonal use. Approximately 46% of housing units in town are permanent residences, and 50% are classified as "vacant" (see box on opposite page). The number of occupied housing units increased by 17% from 2010 to 2020, while the number of vacant housing units decreased slightly from 2010. This could indicate that more second homeowners are moving permanently to Southern Shores. Of the homes that are not primary residences, it is estimated that 80% are for seasonal or recreational use. This has decreased by 4% in the 2000 Census.

According to 2022 Dare County tax parcel records, there were 2,706 housing units total out of the 3,062 residential lots in Southern Shores. Since the 2012 CAMA Land Use Plan, there have been approximately 216 homes (Dare County tax parcel data) constructed, most were constructed in 2016 and 2019. Using this data, Southern Shores is 88% built-out.

Median Home Value



2020 Median Home Value

\$475,900 within Town Limits
\$302,400 within Dare County
\$150,500 North Carolina

Source: 2000, 2010, 2020 ACS 5-year estimates.

Defining Primary & Secondary Residences

How do we know who lives in Southern Shores full-time? Using the US Census data definitions of occupied and vacant housing units, we can determine how many homes are primary residences and extrapolate secondary residences.

Occupied Housing Units are defined as those that are the "usual place of residence" for persons or a family. A primary residence.

Vacant Housing Units are defined as units where no one is living, or units owned by people whose "usual place of residence" is elsewhere. In popular tourist locations, "vacant" units are generally second homes or vacation rentals.

Renter Occupied Housing Units are defined as units used for year-round rental purposes.

80% of homes that are not occupied full-time are used as seasonal or recreational homes

Housing Units	2000	2010	2020
Occupied	946	1,159	1,355
Vacant	986	1,210	1,151
Total	1,932	2,369	2,506

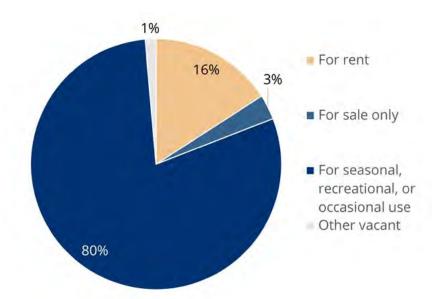
Source: 2000, 2010, 2020 Decennial Census.

Tenure (2020)



Source: 2000, 2010, 2020 ACS 5-year estimates.

Vacancy Home Characteristics



Source: ACS 5-year estimates for 2020.



Owner-Occupied Housing

As indicated on the map (pg. 29), most owner occupied homes are located on the sound side, whereas, the majority of secondary residences are located closer to the beachfront.



Southern Shores consists of mainly low density residences.

Owner Occupied Housing Map Methodology

By using the Existing Land Use for each parcel, the residential parcels were able to be selected, leaving out all commercial, open space/parks, and vacant properties. From this selection, the parcel site address was compared to the associated parcel mailing address.

Those parcels where the site address matched the mailing address were determined to be 'Owner Occupied'.

Parcels where the mailing address and the site address were not the same were not determined to be Owner Occupied and are likely short term rentals or vacation/second homes.



Existing Plans and Programs

This plan will not exist on its own, but rather will update the Town's existing CAMA Plan (which began in 2008 and adopted and certified in 2012) and function alongside its other, more specific existing plans. As a Comprehensive Plan, it will guide land use, programming, policy, and funding decisions for the Town. As a CAMA plan, its CAMA-related policies will guide permitting decisions for projects within the Coastal Area Management Act's purview.

A summary of existing plans and major recommendations are listed below.

Town of Southern Shores CAMA Land Use Plan Update (2012)

MAJOR POLICY RECOMMENDATIONS

- Encourage development/redevelopment that considers land suitability, and avoids fragile areas.
- Endorse the proper use and maintenance of approved septic systems in suitable soils for treating and disposing of waste from both low-density and high density development.
- Allow commercial and municipal sites to use package sewage treatment plants as an alternative means of treating waste to traditional septic systems when and only when traditional septic is environmentally infeasible.
- Support the Dare County water service and system maintenance to ensure public health and safety of the public water supply is maintained for all uses.
- Support stormwater management programs that reduce flooding and improve coastal water quality
- Maintain NC 12 as a two-lane highway,

- without additional through lanes or twoway continuous turn lanes.
- Ensure an adequate system of roads, bridges and pathways to meet the transportation and pedestrian safety needs of the Town in a way that protects, preserves and where possible improves the environment and water quality.
- Encourage the protection, preservation, maintenance and use of common areas and open space.
- Minimize and mitigate potential damages to individual properties from natural hazards, and establish plans that support reconstruction after natural hazards.
- Protect, maintain, and conserve coastal and 404/401 wetlands as established by State and Federal standards.

Town of Southern Shores

CAMA Land Use Plan Update



Locally Adopted: July 18, 2012

Coastal Resources Commission Certified: August 30, 2012

Dare County Comprehensive Transportation Plan (2015)

In July of 2011, the Transportation Planning Branch of the North Carolina Department of Transportation (NCDOT) and Dare County initiated a study to cooperatively develop the Dare County Comprehensive Transportation Plan (CTP), with Dare County and the incorporated municipalities of Southern Shores, Nags Head, Kill Devil Hills, Kitty Hawk, Southern Shores and Duck. This is a long-range multi-modal transportation plan that covers transportation needs through 2040. Modes of transportation evaluated as part of this plan include: highway, public transportation and rail, bicycle, and pedestrian.

MAJOR RECOMMENDATIONS

- US 64-NC 12: Access Management Improvements from the Roanoke Sound Bridge to the eastern end of Currituck Sound Bridge
- US 158 Currituck Sound Bridge Rehabilitation
- US 158-NC12 Intersection Improvements

Outer Banks Hazard Mitigation Plan (2020)

The plan was developed in a joint and cooperative manner by members of a Hazard Mitigation Planning Committee which included representatives from County, City, and Town departments, federal and state agencies, citizens, and other stakeholders. The plan included numerous "Action Items" for the Town of Southern Shores:

 Utilize and enforce the Zoning Ordinance, Waterways and Beaches Ordinance, Beach

- and Dune Management Ordinance, and the Flood Damage Prevention Ordinance as a forms of hazard mitigation.
- Seek the maximum points available from the Community Rating System to keep flood insurance costs to the citizens as low as possible.
- Continue enforcing the state Erosion and Sedimentation Control regulations.
- Continue enforcing Coastal Area Management Act (CAMA) regulations.
- Model various "what-if" scenarios to estimate potential vulnerabilities in order to develop sea level rise mitigation priorities.
- Continue enforcement of the state building code, including wind load requirements.
- Keep emergency plans up to date, have a standing reconstruction task force and maintain the Emergency Operations





Outer Banks Regional Hazard Mitigation Plan



June 2020

Southern Shores Bicycle and Pedestrian Plan 2014

This plan was created through a matching grant with NCDOT to develop strategies to promote and improve bicycle and pedestrian safety and infrastructure. Narrow roads and bridges, high traffic volumes, limited connectivity, and bicycle/pedestrian crashes were identified issues in the document. Through public input, and analysis of concerns and the local cycling environment, the plan outlined the types of cyclists that exist, and their needs that were further expressed through the recommendations. Although the plan was never adopted, the major recommendations from the plan are listed below.

This plan was not adopted, however the plan did provide numerous recommendations for the Town.

Major Recommendations

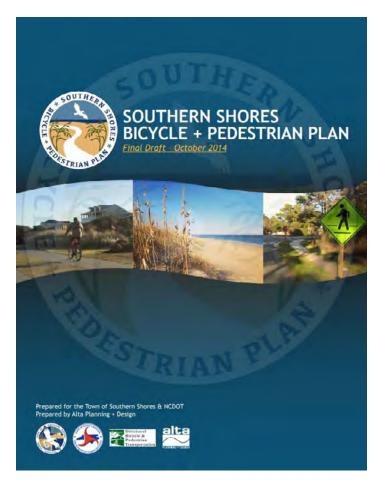
- Increase connectivity through new construction of sidewalks and multi-use paths.
- Increased pedestrian friendly road crossings using hi-visibility markers.
- Shared lane markings on roads with speed limits of 35 MPH or less.
- Explore the opportunity for a pedestrian bridge to connect Fairway Drive to Beach Tree Trail.

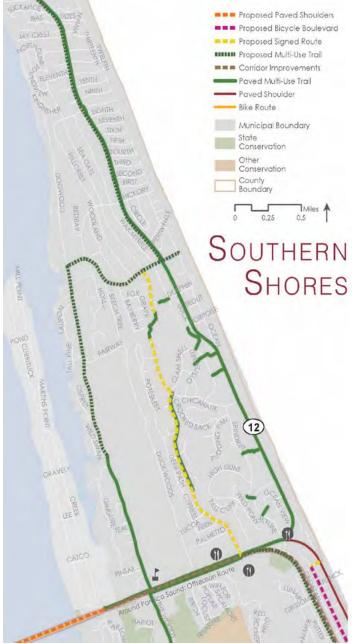
Albemarle Regional Bicycle Plan 2013

The Albemarle Regional Bicycle Plan was developed by the Albemarle Commission, NCDOT, and the Division of Bicycle and Pedestrian Transportation, and their consultant teams. This plan highlights the needs assessment and results through their infrastructure recommendations, project prioritization, and funding opportunities across the region.

Major Recommendations

- Provide connectivity with a proposed paved multi-use trail along N. Dogwood Trail that continues on to E. Dogwood Trail and Duck Road.
- Pave the shoulders of US HWY 158 coming off of the Wright Memorial Bridge.
- Provide signed route connecting US HWY 158 to E. Dogwood Trail along Trinite Trail, Chicahauk Trail and Sea Oats Lane.

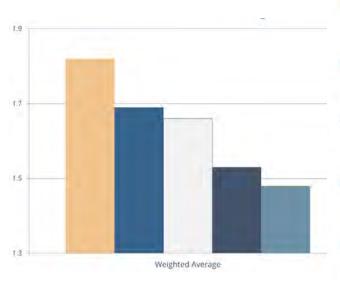




Environmental, Natural, and Cultural Resources



Relevancy of Previous Plan Goals



- Preserve, protect, enhance, maintain and improve the natural environment and water quality.
- To protect enhance and support lands uses that are compatible with surrounding land uses and maintain the existing community character.
- □ Protect public health and safety from the damaging effects of storm surges, wave action, flooding, high winds, and erosion associated with hurricanes, severe weather, nor'easters and other hazards.
- Encourage the maintenance and improvement of existing private access facilities to public trust waters and shorelines.
- Ensure that providing infrastructure services does not affect the quality and productivity of Areas of Environmental Concern (AEC's), important resources and other fragile areas.

A Few Participant Voices....



"The character and quiet, dark [night] skies, small houses and quiet neighborhoods."

-Survey Respondent

"The entire town is the premier place to live, retire, and enjoy all benefits of coastal life.."

-Survey Respondent

Natural Systems

Areas of Environmental Concern (AECs)

Areas of environmental concern (AECs) are areas of natural importance designated by the NC Coastal Resources Commission (CRC) and include the estuarine and ocean system, ocean hazard areas, public water supplies, and natural and cultural resource areas. The State Guidelines for Areas of Environmental Concern (15A NCAC 07H) require local land use plans give special attention to the protection of appropriate AECs because of their environmental, social, economic, and aesthetic values.

Due to Southern Shores's geographic location on the Outer Banks, areas of environmental concern surround the Town on all its aquatic borders. Most development in the Town of Southern Shores requires a CAMA permit due to the presence of AECs that could be impacted. This dataset represents relative conservation value based on an assessment created by the NC Natural Heritage Program. It may includes lands that have some degree of development on it.

The following sections include the four categories that make up AECs established by the NC Coastal Resources Commission.

The Estuarine And Ocean System

Estuarine Waters

Estuarine waters are defined as waters of the Atlantic Ocean within the boundary of North Carolina and all the waters of the bays, sounds, rivers, and tributaries located seaward of the dividing line between coastal fishing waters and inland fishing waters. (15A NCAC 07H 0206)

Estuaries and their surrounding lands are

unique places of transition from land to sea. Estuarine environments support unique communities of plants and animals including, fish nursery areas, spawning areas, and shellfish beds. Estuarine systems provide habitat for more than 90% of North Carolina's commercial and recreational seafood species. (DMF, 2020) Estuarine systems perform other valuable services, such as trapping debris, filtering pollutants, providing food and nesting materials for waterfowl and other wildlife, and dissipating erosion-causing wave energy. Estuarine waters within or adjacent to Southern Shores include the Currituck Sound, Jean Guite Creek, and the Atlantic Ocean.

Southern Shores has various types of estuarine shorelines, predominantly in their canal system and along Jean Guite Creek and Currituck Sound, the most common being marsh with 11,809 feet of shoreline. Modified shorelines (58,177 ft), sediment banks (46,404 ft), and miscellaneous (63 ft) are also categories of estuarine shoreline that are found in the study area.

Public Trust Areas

Public trust areas are all waters of the Atlantic Ocean and the lands thereunder from the mean high water mark to the seaward limit of state jurisdiction; all natural bodies of water subject to measurable lunar tides and lands thereunder to the normal high water or normal water level; all navigable natural bodies of water and lands thereunder to the normal high water or normal water level as the case may be, except privately-owned lakes to which the public has no right of access; all water in artificially created bodies of water containing public fishing resources or other public resources which are accessible to the public by navigation from bodies of water in which the public has rights of navigation; and



Source: NC Dept. of Environmental Quality, NC Natural Heritage Program, NC-CREWS

all waters in artificially created bodies of water in which the public has acquired rights by prescription, custom, usage, dedication, or any other means.

Public trust areas located within the study area include the Currituck Sound, Jean Guite Creek, the Atlantic Ocean, and all navigable creeks, canals, and other bodies of water that are publicly accessible.

Estuarine Shoreline

The Coastal Shorelines category includes estuarine shorelines and public trust shorelines. Estuarine shorelines AEC 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 as set forth in an agreement adopted by the Wildlife Resources Commission and the Department of Environment and Natural Resources [described in Rule .0206(a) of this Section1 for a distance of 75 feet landward. For those estuarine shorelines immediately contiguous to waters classified as Outstanding Resource Waters by the **Environmental Management Commission,** of which there are none in or adjacent to Southern Shores, the estuarine shoreline AEC shall extend to 575 feet landward from the normal high-water level or normal water level, unless the Coastal Resources Commission establishes the boundary at a greater or lesser extent following required public hearing(s) within the affected county or counties. Public trust shorelines AEC are those non-ocean shorelines immediately contiguous to public trust areas, as defined in Rule 07H .0207(a) of this Section, located inland of the dividing line between coastal fishing waters and inland fishing waters as set forth in that agreement and 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 shore front 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. Some of these wetlands are among the most productive natural environments of North Carolina and they 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, flood plains, bluff shorelines, mud and sand flats, forested shorelines and other important habitat areas for fish and wildlife.

The estuarine shorelines in Southern Shores consist of marshes, sediment banks, hardened shorelines (bulkheads), and miscellaneous.

Coastal Wetlands

The final component of the estuarine ocean system is coastal wetlands. Coastal wetlands are defined as marshes subject to regular or occasional flooding by lunar or wind tides, these tides reach the marshland areas through natural or artificial watercourses. (15A NCAC 07H)

Coastal wetlands are an important part of Southern Shores' landscape and are often threatened by storm surges, erosion from wave activity, invasive species, and development. There are over 600 acres of coastal wetlands (salt/brackish marsh) inside



Source: North Carolina Coastal Region Evaluation of Wetland Significance(NC-CREWS)

the Town limits. Coastal wetlands may contain one of more of the following marsh plant species:

- Cord Grass (Spartina alterniflora);
- Black Needlerush (Juncus roemerianus);
- Glasswort (Salicornia spp.);
- Salt Grass (Distichlis spicata):
- Sea Lavender (Limonium spp.);
- Bulrush (Scirpus spp);
- Saw Grass (Cladium jamaicense);
- Cat-tail (Typha spp.):
- Salt Meadow Grass (Spartina patens); or
- Salt Reed Grass (Spartina cynosuroides).

Not only do coastal wetlands provide complex food chains typically found in estuaries but they serve as barriers against flood damage and control erosion between the estuary and the uplands. Coastal wetlands should be safeguarded to perpetuate their biological, social, economic, and aesthetic values as a natural resource.

The remaining wetlands are considered non-coastal wetlands. Although non-coastal wetlands have significant value because of their relationship to water quality, habitat, and hydrologic function, they are not considered AECs. Since wetlands are dynamic systems, their boundaries are constantly shifting. This limits the accuracy of regional wetlands mapping.

Southern Shores is home to multiple non-coastal wetlands including estuarine and marine wetlands, estuarine and marine deepwater, and freshwater forested/shrub wetlands. The freshwater wetlands are typically found near the maritime forests and throughout the study area, while Jean Guite Creek system makes up the estuarine and marine deepwater designation. The beaches

along the Atlantic Ocean are designated as estuarine and marine wetlands.



Coastal wetlands



Coastal wetlands

Item 9.

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Environmental Conditions

The Ocean Hazard System

The CRC has designated three ocean hazard AECs covering North Carolina's beaches and oceanfront lands: Ocean Erodible, Inlet Hazard, and Unvegetated Beach. Ocean hazard areas are ever changing as they are constantly being impacted by tides, waves, and winds. It is typical that these ocean hazard areas are under the ownership of private individuals and public agencies.

Ocean Erodible Area

This is the area where there exists a 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 as defined in 15A NCAC 07H .0305(a)(5) to the recession line established by multiplying the long-term annual erosion rate times 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 120 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.

Oceanfront erosion is measured by the North Carolina Division of Coastal Management. Erosion rates are calculated using the long-term (approximately 50 years) average annual shoreline change rates for the purpose of establishing oceanfront construction Setback Factors and Ocean Erodible Areas of Environmental Concern. This rate can be impacted by large storms that may wipe out areas of the shoreline, beach renourishment programs counting towards shoreline accretion, and other variances in the typical erosion pattern.

Despite beach nourishment programs in recent years, Southern Shores is seeing an average of 6 inches (.5 feet) of shoreline erosion each year, some areas of the study area are experiencing an average of 15.5 inches (1.3 feet) of shoreline erosion each year, making the town very susceptible to oceanfront erosion.

Public Water Supplies

The protection of public water supplies for drinking water, irrigation, and industry is one of CAMA's main goals. The CRC has designated two AEC categories, small surface water supply watershed and public water supply well fields, that protect designated coastal public water supplies from the negative impacts of development.

The small surface water supply watershed protects coastal drainage basins that contain a public water supply designated for public drinking water and classified as A-II by the NC Environmental Management Commission. This classification does not apply to Southern Shores. There is no public water supply in Southern Shores.

Public water supply well fields are areas of rapidly draining sands extending to a shallow groundwater table that supplies public drinking water. Since the previous 2012 CAMA plan, a wellhead protection plan for Dare County was approved in 2014 to prevent contamination of groundwaters used as public drinking water supplies. There are no well fields in Southern Shores.

The Dare County Water Department provides water service to the community. Southern Shores water is provided by both Skyco Water Plant and the North Reverse Osmosis Plant.

Southern Shores' water supply draws from the confined Yorktown aquifer, which is isolated



Source: Division of Coastal Management

from the land surface by a clay sedimentary unit confining layer. The North Reverse Osmosis Plant has a set of five wells that are protected by a wellhead protection area. The Skyco Plant has one large single wellhead protection area for its wells. These plants are located in areas with greater business and residential land usage. The Skyco and North Reverse Osmosis wellfields are extensive in size, and have more potential contamination sources. The North Reverse Osmosis wellfield located in Kill Devil Hills and the Skyco wellfield are at the most risk due to their location in areas were there is high seasonal traffic; the sudden increase in population increases traffic flow, places greater demand on logistics, and causes rapid turnover of business inventories, which all increase the likelihood that a release will occur.

The permitted capacity for the North Reverse Osmosis and Skyco water plants is 11.3 million gallons per day (MGD). There are 24 total wells supplying water to the system. Distribution lines consist of asbestos cement (2%), ductile iron (4%), and polyvinyl chloride (94%) ranging in sizes from 2-30 inches in diameter. The Dare County Regional system consists of 247 miles of distribution lines . In 2021, 1,200 feet of new water mains were added to the system and 1,816 meters were replaced. The oldest meters in the system are 34 years old. The system is flushed semi-annually.

According to the "2021 Local Water Supply Plan", in 2021 Dare County was currently using 83% of its supply, with greater demands on the system during seasonal peaks in population. Off-season demands are easily met by existing systems. To meet future supply needs Dare County will begin a leak detection program and fund engineering studies for plant expansion. Anticipated upgrades to the North Reverse

Osmosis includes nanofiltration to create an additional 1 MGD of water. Dare County plans on expanding the Skyco plant in 2024/2045 to provide an additional 2 MGD.

Natural and Cultural Resource Areas

Natural and cultural resource areas are the fourth and final group of the AECs and are defined as areas containing environmental, natural, or cultural resources of more than local significance in which uncontrolled or incompatible development could result in a major or irreversible damage to natural systems or cultural resources, scientific, educational, or associative values, or aesthetic qualities (15A NCAC 07H .0501). There is one Natural Heritage Natural Area , the Cypress Swamp in Southern Shores. The Cypress Swamp is discussed in the Environmentally Fragile Areas section.

There are six Historic Landmarks under the purview of the Historic Landmarks Commission (see map on page 49). These properties have been surveyed and deemed potentially eligible for listing on the National Register of Historic Places but none are currently listed.

The Historic Landmarks Commission was established by the Town Council to protect and preserve local historical resources. The commission's role is to make recommendations to Town Council for the designation of Historic Landmarks or historic districts, approve or disapprove applications (using the historic landmarks standards) from local landmark property owners who wish to make exterior changes to their properties, and advise or assist the local government in preservation planning.



Source: North Carolina Historic Preservation Office

Soil Characteristics

Soil characteristics can lead to limitations for septic tanks, erodibility, and other development related restrictions. The soils on the oceanside consist of Newhan, Corolla, and Duckston soils. Newhan are well drained, and found in higher drier areas; Corolla is moderately well drained and found in intermediate areas; and the poorly drained

Duckston soils are in the lower wet areas. The soils in the lower and more protected area of the high dunes and adjacent to Jean Guite Creek have more organic matter on the surface than the soil in the first two zones. Fripp fine sand is found in higher drier areas, while Osier fine sand is found in level wet areas, and Ousley fine sand is found in gently sloping area. Fripp fine sand is excessively drained; Osier fine sand is poorly drained; and Ousley fine sand is moderately well drained. These soil limitations can be related to wetness, restricted permeability, and or weakened soils. Southern Shores as a whole has soils that are excessively drained, with the exception of the wetlands and the beaches that are poorly to very poorly drained due to their soil characteristics.

Almost the entirety of Southern Shores has soils designated as "very limited" in their suitability for development (See page 51). This rating indicates that the soil has one or more features that are unfavorable for high density development. Low density development can be accomodated to take advantage of the best soils on the site. These soil limitations cannot be overcome without major soil reclamation, special design, or expensive installation procedures. Poor performance and maintenance can be expected. Whereas, "not limited" indicates that the soil has features that are very favorable for the specified use.

All land within the Town of Southern Shores

is considered very limited for septic tank absorption fields. This is mainly due to being located on a barrier island where the depth of the soil to the water table is fairly shallow in low lying areas. After significant storm events where there is standing water for significant amounts of time some septic systems may be compromised, and could potentially contribute to water pollution.

As sea levels continue to rise, the natural water table will rise. Some lower lying septic fields may become compromised or fail, unless these fields are relocated or retrofitted.





Soil Drainage Characteristics CURRITUCK SOUND ATLANTIC OCEAN **Town Limits** Soil Drainage Very Poorly Drained Poorly Drained Moderately Well Drained Well Drained **Excessively Drained** 158

Source: Soil Survey Geographic Database (SSURGO)

Septic Suitability Bias Dr Bias Ln Jay Crest Rd Jens Sixth Ave Fifth Ave Fourth Ave Third Ave Second AVE First Ne CURRITUCK SOUND ATLANTIC OCEAN JEAN 12 **Town Limits** Septic Tank Absorption Very limited 158

Source: Soil Survey Geographic Database (SSURGO)

Soil Development Suitability Very limited indicates land may not be irteenth Ave suitable for high density development. However, this designation may be suitable for low density development pending an evaluation from a Dare County environmental health specialist. Sixth Ave Fifth Ave Fourth ANG Third Ave Second AVE First AVB CURRITUCK SOUND ATLANTIC OCEAN JEAN 12 **Town Limits Development Suitability** Not limited Very limited 158

Source: Soil Survey Geographic Database (SSURGO)

Water Quality

The Town of Southern Shores is in the Pasquotank River Basin, one of North Carolina's 17 major river basins. According to the 2021 Pasquotank River Basinwide Water Resources Plan, the Pasquotank River subbasin 03-01-56 includes the Alligator River, Croatan Sound, part of the Albemarle Sound, and the western portion of Roanoke Sound. The Division of Water Resources does not have ambient monitoring or benthic macroinvertebrate sampling locations in Southern Shores, but the Currituck Sound is closed for shellfish harvesting due to potential fecal coliform bacteria levels. The Division of Marine Fisheries compiles data collected from monitoring locations into a sanitary survey report to assess water quality and effectively evaluate point and non-point pollution sources.

Pollutants fall into two general categories: point sources and nonpoint sources. Point source pollution refers to pollution that enters surface waters through "any discernible, confined and discrete conveyance, such as a pipe, ditch, channel, tunnel, conduit, discrete fissure, or container" (US EPA, 2019). Typically these are associated with wastewater discharges from municipal or private wastewater treatment facilities. They can also originate from small, domestic wastewater systems that serve schools, commercial properties, residential subdivisions, and individual homes. Nonpoint source pollution is defined as "any source of water pollution that does not meet the legal definition of "point source" in Section 502 (14) of the Clean Water Act" (US EPA, 2020). Nonpoint pollution can result from a number of activities and land uses.

There are several non-point wastewater treatment and disposal permitted facilities in Currituck, including Ocean Sands, Corolla, and Pine Island but there are no point source

permitted facilities. Additional non-point pollution sources may include marinas, stormwater runoff from agricultural fields, impervious surfaces and subdivisions, septic systems, and golf courses.

Local Waters and Water Quality Classifications

Water body classifications designated by the State aim to protect surface water bodies and fish and wildlife and are required by Federal Water Pollution Control Act (Clean Water Act). Surface waters in North Carolina are assigned a primary water classification by the North Carolina Division of Water Classifications ranging from SC (lower quality waters that support secondary recreation and wildlife habitat), to SA (higher quality waters that support all SC and SB uses as well as commercial shellfishing and primary recreation).

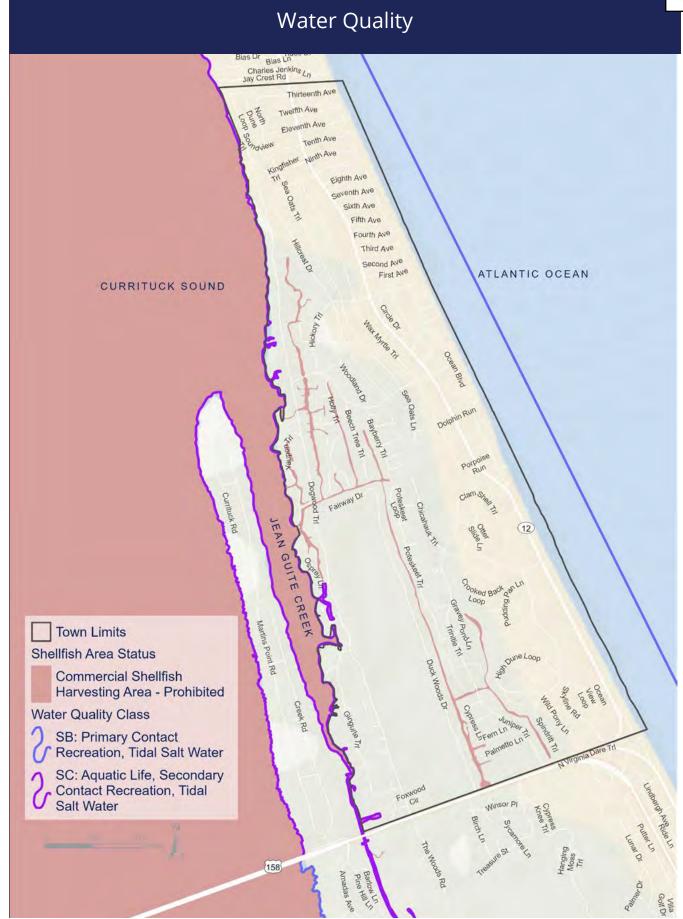
Currituck Sound, Jean Guite Creek, and the Atlantic Ocean are public trust waters located in or adjacent to Southern Shores. These waters are classified as SB and SC.

Water Body Classifications

Waters of the Town of Southern Shoress							
Symbol	Description	escription Location					
SB	Tidal Salt Waters (Primary Recreation)	Ocean					
SC	Tidal Salt Waters (Secondary Recreation - minimal skin contact)	Currituck Sound, Jean Guite Creek					
	Source: NC Division of Water Resources (DWR)						

Impaired Waters

The assessment of water quality in North Carolina is required under Sections 303 (d) and 305 (b) of the Clean Water Act and is reported



Source: NC Division of Marine Fisheries and NC Dept. of Environmental Quality

every two years. Impaired waters must be prioritized and a management strategy or total maximum daily load must be developed for all listed waters.

There are no 303 (d) waters in Southern Shores. However, the portion of the Albemarle Sound located south of US 158 is on the state 303(d) list of impaired waters due to missing the mark on a number of water quality

Primary Nursery Areas

Primary nursery areas are those areas in the estuarine and ocean system where initial post larval development of finfish and crustaceans takes place. They are usually located in the uppermost sections of a system where populations are uniformly early juvenile stages. They are designated and described by the N.C. Marine Fisheries Commission (MFC) and by the N.C. Wildlife Resources Commission (WRC). There are no primary nursery areas in Southern Shores.

Waters Designated for Commercial Shellfishing

The Albemarle and Currituck Sounds have been divided into 16 separate shellfish growing areas. The Currituck Sound and Jean Guite Creek are located in growing area I-16. The Division of Marine Fisheries most recent sanitary survey for shellfish growing areas I-1, I-3 through I-16 was prepared in 2013. The Currituck Sound and Jean Guite Creek inland waters are designated as SC and are permanently closed and prohibited for commercial shellfishing.

These waters are permanently closed and prohibited due to the presence of wastewater treatment plants, marinas, stormwater runoff, residential development, on site wastewater systems, substantial wildlife population, and golf courses. The

hydrographic factors responsible for the spread of pollution are influenced by wind tides and heavy rainfall.

The bacteriological survey covered in the sanitary survey report includes water samples taken between 9/4/2007 and 11/27/2012. During this time frame, there were 1,140 water samples collected and analyzed for fecal coliform bacteria in compliance with the systematic random sampling regime. During the survey period, Station #17 located within Jean Guite Creek has a geometric mean of 8.54, and exceeds "approved" standards with an estimated 90th percentile of 55.

Continuous Improvements to Water Quality

Environmental water quality was a top priority in the previous land use plan and was one of the top priorities from the 2023 community survey for the development of this plan. In the past, the Southern Shores Civic Association has monitored water quality in Currituck Sound. Continuous efforts should be made to monitor and improve water quality.





Environmental water quality was a top priority in the community survey.





Natural Hazards

Like all coastal North Carolina communities, the Town of Southern Shores faces natural hazards including flooding, hurricane-level winds and storm surges, and shoreline erosion. In addition, many coastal communities will eventually face challenges associated with sea level rise.

CAMA's goal in characterizing natural hazards and establishing permitting processes for development in hazardous areas is to ensure human safety and protect property from storm dangers and erosion. Depending on the degree of hazard, towns may choose to protect structures by using specific building practices and/or limiting development.

Storm Surge Areas and High Winds

Flooding in Southern Shores can also be examined from the perspective of hurricane danger as measured by the Saffir-Simpson Hurricane Scale, which categorizes hurricanes on a scale of 1 to 5, 5 being the most intense and most damaging (see table on the right). It is used by the National Weather Service to assess potential dangers and communicate with public safety officials. Hurricanes are defined as tropical disturbances with sustained winds of 74 miles per hour or higher. They often cause storm surges, which are high waves driven inland by high winds.

The National Hurricane Center and the North Carolina Center for Geographic Information and Analysis have created a GIS data set called Hurricane Storm Surge Inundation Areas (1993) that shows areas along the North Carolina Coast that are likely to be flooded by hurricanes. The data is based on Sea, Lake, and Overland Surges from Hurricanes (SLOSH) models.

Wind speed and storm surge (defined as the abnormal rise in water level caused by wind and pressure from a hurricane or tropical storm) are the two factors that are most important in determining the amount of potential damage. The SLOSH models do not account for rainfall produced by hurricanes. There are many variables that could alter the outcome, such as whether a hurricane approaches from the south or from the east, and whether it was preceded by heavy rainfall. The SLOSH models create only a generalized picture of lands likely to be inundated by different categories of hurricanes.

The SLOSH model for the Town of Southern Shores shows many properties located on the sound side of the island could be inundated in a Category 2 or stronger hurricane. The properties adjacent to the Duck Woods Country Club, Jean Guite Creek system, and along the Atlantic Ocean are the most at risk for storm surge during hurricanes and tropical storms. The surrounding areas just outside of Southern Shores are also highly susceptible to similar inundation, including the HWY 158 entrance to the island.

Characteristics of Hurricanes

Hurricane Category	Wind Speed (mph)	Storm Surge (feet above normal)	North Carolina Example (that first made landfall in North Carolina)	
1	74-95	4-5	Hurricane Ernesto (2006) Hurricane Charley (2004) Hurricane Matthew (2016) Hurricane Florence (2018)	
2	96-110	6-8	Hurricane Arthur (2014)	
3	111-130	9-12	Hurricane Irene (2011) Hurricane Fran (1996)	
4	131-155	13-18	Hurricane Floyd (1999) Hurricane Hazel (1954)	
5	>155	>18	Hurricane Dorian (2019)	

Source: National Hurricane Center, National Office of North Carolina

Modeled Storm Surge Inundation Probability (SLOSH)



Source: National Weather Service

Efforts to Minimize Flood Dangers and Property Damage

Natural hazards such as hurricanes, coastal storms, and flooding from storm surge are all situations that Southern Shores will likely encounter in the coming years.

The flood hazard areas in Southern Shores include the 100-year floodplain or land with a 1% annual chance of experiencing a flood, and the 500-year floodplain or land with a 0.2% annual chance of flooding. Essentially all land bordering Jean Guite Creek system is within the 100 year flood plain and is susceptible to flooding. All of the Duck Woods County Club, and adjacent properties face the possibility of flooding as well.

The existing FEMA flood hazard areas found on Flood Zone map on the following pages, shows the oceanfront a VE zone (labeled as Open Water) and the soundside as AE (1% annual chance of flooding) zone. These areas are vulnerable to erosion and flood hazards, especially during storm events.

Since 1992, the Town has participated in FEMA's Community Rating System, a voluntary incentive program that recognizes and encourages community floodplain management practices that exceed the minimum requirements of the National Flood Insurance Program (NFIP). The program provides incremented discounts on flood insurance premium rates, Southern Shores receiving a class 6 reduction of 20% for Special Flood Hazard Areas (SFHA) and 10% for non-SFHA.

Areas Experiencing Significant Shoreline Erosion

Southern Shores as a whole is still seeing an average of 6 inches (.5 feet) of shoreline erosion each year, some areas of the study

area are experiencing an average of 15.5 inches (1.3 feet) of shoreline erosion each year.

Areas experiencing significant shoreline erosion are as follows:

- Oceanfront properties south of Ocean View Loop to Southern Shores boundary
- Oceanfront properties north of Porpoise Run to Trout Run

Sea Level Rise

Southern Shores is higher in elevation than its neighboring coastal communities, because of this, it is not as impacted by future sea level rise. However, sea level rise will affect some low-lying areas in Southern Shores. See also "Acknowledging rising seas" on page 92 which



The pole located at Town Hall provides a visual representation of how high water can rise above the ground in the event of a storm.

Storm Events

Probability of occurrence of various storm events over spans of time									
	1 year	10 years	30 years	50 years	100 years				
1-in-10 year storm (10% annual chance)	10%	65.1%	95.8%	99.5%	99.9%				
1-in-100 year storm (1% annual chance)	1.0%	9.6%	26.0%	39.5%	63.4%				
1-in-500 year storm (0.2% annual chance)	0.2%	2.0%	5.8%	9.5%	18.1%				
1-in-1,000 year storm (0.1% annual chance)	0.1%	1.0%	3.0%	4.9%	9.5%				
Significance			Length of a typical mortgage	Within the lifespan of most structures	Within the lifespan of many sturdy structures				

Note that the percentages above show the probability of the occurrence of at least one of the specified storms of a particular intensity. More than one storm of a given intensity during a certain time period are certainly possible.

Source: NOAA

outlines potential sea level rise scenarios produced by NOAA.

As sea level rises, the land's capacity to absorb flooding and storm surges will be reduced, making residents more vulnerable to storms, storm surge, and rainfall. Additionally, the storm surge from a hurricane or nor'easter builds upon a higher base water level due to sea level rise, resulting in an increase of the land area subject to flooding.

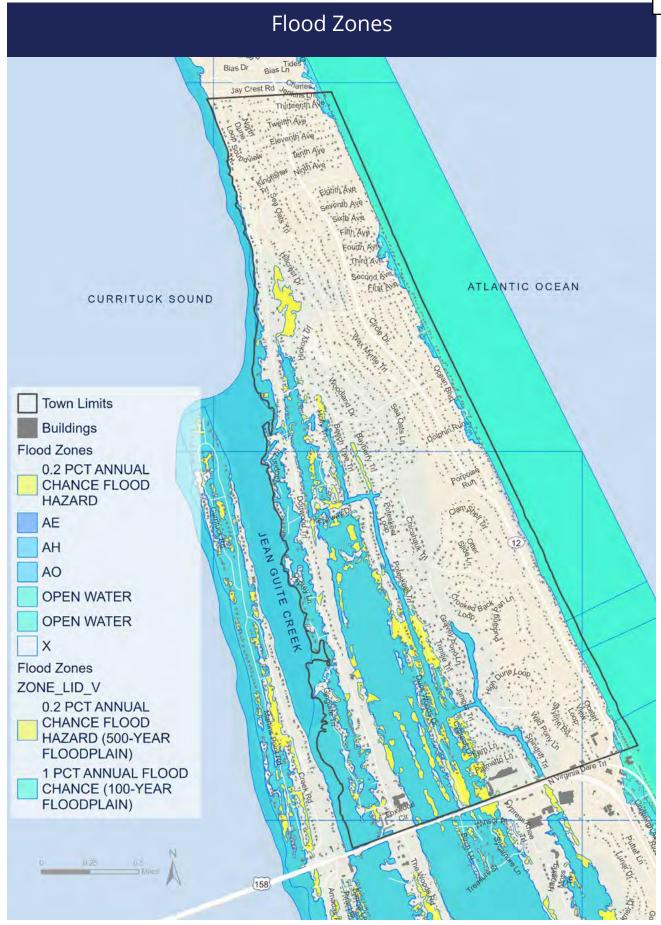
Vulnerability and a Changing Climate

For the past nine decades, seas have been rising in the Southern Shores area, as recorded at the USGS tide gauge at Sewells Point located in nearby Virginia. With sea levels continuously rising and a warmer ocean surface, storms may be stronger and more frequent in the future. Stronger winds from these storms will

lead to a greater amount of debris to cleanup.

Rising seas will consequently lead to higher water tables which will likely impede private septic systems. Underground salt intrusion or overwash from storm-driven waves into areas where infrastructure exists (pipes, wires, foundations, parking areas, etc.) has the potential to reduce the operational lifespan of these facilities and lead to increased maintenance costs.

Flood zones will continue to move upland as seas rise. As this occurs, some structures may not be adequately protected from flooding, particularly in low lying areas.



Source: FEMA



Natural Resources

Natural resources in and around Southern Shores include public trust waters (canals, Currituck Sound, Jean Guite Creek, Atlantic Ocean), and coastal and non-coastal wetlands, public water supplies, wildlife habitats, and forests. Survey data demonstrates residents' commitment to preserving these resources. This section identifies and discusses Southern Shores's natural resources and assesses the threats that future development may pose to them so that their protection can be integrated into planning policy.

Environmentally Fragile Areas

Environmentally fragile areas are areas where natural resource functions may be negatively impacted as a result of development. These areas include wetlands, Significant Natural Heritage Areas (SNHA), and areas containing endangered species, prime wildlife habitats, or maritime forests. These natural resources are highly valued by residents (both year-round and seasonal).

The Town of Southern Shores and its adjacent waterways are home to many wildlife habitats with high levels of biodiversity according to the Biodiversity and Wildlife Habitat Assessment developed by the N.C. Natural Heritage



Beach heather (*Hudsonia tomentosa*). Source: USDA

Program. The maritime forests, beaches, and estuarine shorelines of Jean Guite Creek and the canal system are the most prominent locations for higher biodiversity levels. Where the creek system meets the Currituck sound is also an area with large amounts of submerged aquatic vegetation that continues North and South along the sound side of the Town.

Natural Areas

A natural area is an area of land or water identified as having special importance for the preservation of the natural biodiversity of North Carolina. Biodiversity is generally recognized in the scientific community to refer to the diversity, not only of species but also of natural communities and ecosystems, as well as genetically distinct populations below the species level. The Southern Shores Cypress Swamp is an example of a rare non-coastal wetland that is designated as a Natural Heritage Site. It includes 34.36 acres identified by the North Carolina Heritage Program.

Cypress Swamp (also known as Cypress pond) is one of two known examples of the Cypress Subtype of Maritime Swamp Forest communities. Within Cypress Swamp, is an area of sand dunes which support Dune Grass and Stable Dune Barren communities and an area of deep swales which support a Maritime Swamp Forest natural community with oldgrowth bald cypress trees. Two rare plant species occur in this natural area, the beach heather (*Hudsonia tomentosa*), and maritime pinweed, (*Lechia Maritima var. virginica*). Both plant species Both are considered threatened species of plants in North Carolina.

Being designated as a Natural Heritage area is not associated with any regulatory program nor does it provide protection status on its own. Additionally, it is not afforded protection from development by state or local regulation

Environmentally Fragile Areas Bias Ln Bias Dr Charles Jenkins Ln Jay Crest Rd Thirteenth Ave Third Ave Second Ave CURRITUCK SOUND ATLANTIC OCEAN **Town Limits** Natural Heritage Natural Areas Biodiversity/Wildlife Habitat High Medium Low No managed areas 158

and does not have a conservation easement or other protection for conservation or preservation purposes. The Cypress Swamp is currently owned by the Chicahauk Property Owners Association whose covenants and by-laws make it difficult for the association to change ownership or use of this property for any purpose other than a conservation area.

Non-coastal Wetlands

Non-coastal wetlands include wetlands not classified as coastal wetlands. Non-coastal wetlands are areas where water covers the soil for most of the year and include a variety

of natural systems, such as marshes, swamps, bottomland hardwoods, pocosins, and wet flats (See map on page 39). The prolonged presence of water causes the growth of specially adapted plants and the development of hydric soils. Hydric soils have a distinctive color, texture, and odor; and its presence means that the area was once a functioning wetland or is still a functioning wetland. The plants that can grow in such conditions, such as marsh grasses, are called hydrophytes. Together, hydric soils and hydrophytes give clues that a wetland area is present.

Non-coastal wetlands do not require a



CAMA permit unless the Coastal Resource Commission designates them as a natural resource, but under the Clean Water Act Section 404 a permit is required from the Army Corps of Engineers to dredge or fill wetlands. The precise location of non-coastal wetlands can only be determined through field investigation and analysis.

In the study area, and specifically within the Duck Woods Country Club property are maritime forests. These maritime forests show up in other small pockets throughout the sound side of the island. There are some areas of salt/brackish marsh just south of Jean Guite Creek, as well as some areas of managed pineland. There are also human impacted wetlands located along HWY 12 between Eighth and Eleventh Avenue.

Additional Natural Features

Dunes are built with wind deposited material and northern beach grass (Ammophila breviligulata), sea oats (Uniloa paniculata), and salt meadow cordgrass (Spartina patens). The roots of these grasses act much like rebar in cement to hold and stabilize the fore dune. Dunes form the primary defense against storm tides, waves, and wave overwash. In addition, dunes provide habitat for sea turtles, beach nesting birds, and shorebirds. Loggerhead sea turtles are an endangered species and have been found nesting on the beaches of Southern Shores.

Development is one of the primary causes for depletion of dune habitat. Direct and indirect disturbance, not only by humans but also their pets, causes problems for non-nesting and nesting birds and sea turtles. The Network for Endangered Sea Turtles (N.E.S.T.) is an all-volunteer non-profit organization dedicated to the protection and conservation of sea turtles on the Outer Banks of North Carolina. The

organization monitors and/or relocates nests that need to be relocated for various reasons. Beach nourishment is discouraged between May and November because it can destroy sea turtle nests. Educating community members about organizations such as N.E.S.T. should be a priority to protect sea turtles.

Activities that breach or weaken the dunes or reduce sand available to replenish it and its vegetative cover make it susceptible to erosion. Dune height and width may be enhanced with beach grass planting, in combination with sand fencing to reinforce sand dunes. In addition, beach walkovers prevent impacts to the roots of the dune vegetation.

Areas West of NC 12, contains grasses and scattered shrubs forming thickets which provide shelter and habitat for small mammals and bird species. Live oak (Quecus virginiana), persimmon (Diospyros virginiana), bayberry, wax myrtle, and yaupon are located in lowlying areas behind the dunes, which are where rainwater collects from storm events and vegetation is protected from winds. Areas adjacent to Jean Guite Creek contain small remnants of maritime forest that provide habitat for wildlife, areas for groundwater infiltration, shelter for residences, and are an important aesthetic resource of the community. Marshes (maybe coastal wetlands see definition) are located on the sound side and contain black needle rush (Juncus roemerianus), salt marsh cordgrass (Spartina alternaflora) with occasional patches of common reed.

The majority of natural resource areas in Southern Shores are owned by the Southern Shores Civic Association and the Chicahauk Property Owners Association. Due to this, covenants and by-laws make it difficult to change ownership of these natural areas or develop these areas.

Existing Land Use & Development

Existing Land Use

Existing land use includes residential, commercial, institutional, vacant, parks, and open space.

Residential Uses

Residential uses make up 64% of the land area (1,410 acres). The Southern Shores Civic Association and the Chicahauk Property Owners Association provide additional regulation to the residential uses.

Commercial, Service, & Office

Commercial uses make up 2% of Southern Shores' land use and consist of 41 acres. The majority of commercial uses lies along Highway 158 at the southern edge of Town.

Institutional Uses

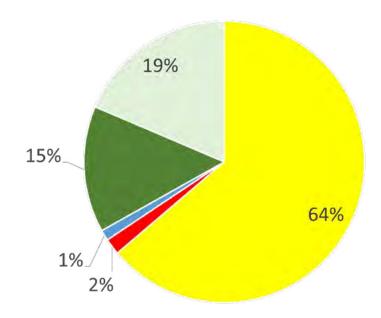
Institutional uses make up 1% of the land use of Southern Shores and are mostly occupied by schools, government buildings, and churches. These uses make up 28 acres.

Parks

Open space and parks land uses make up 15% of the land area. Open space and parks total 321 acres within the town's limits. This includes the Duck Woods Country Club Golf Course.

Vacant/Undeveloped/Open Space

Vacant and undeveloped property make up 19% of the land area in Southern Shores. Vacant and undeveloped land within totals of 411 acres.





Historic, Cultural, and Scenic Areas

Cultural, historic, and scenic areas are important to Southern Shores residents and include views to the sound and ocean, maritime forests, wetlands, Southern Shores' neighborhoods, and historic structures.

The community of Southern Shores was a planned community designed by Frank and David Stick and partners. The community consisted of lots for permanent residents along a winding road lined with trees known as Dogwood Trail and oceanside lots. The community included canals making it possible to navigate both north, south, east, and west. It also included a secret, land locked, series of Cypress swamps. The Chicahauk community would later join the community and bring 555 developed and undeveloped properties consisting of large lots with considerable open space, parks, pathways, and canals. By 1979, the Town of Southern Shores was incorporated.

The Town of Southern Shores residents value the existing character that exists throughout the town. Southern Shores historic resources consist of flat top and cottage style coastal homes. The buildings that have been determined to be significant and received local status are listed below.

Historic Landmarks

- Mackey House, 218 Ocean Boulevard
- Pink Perfection House, 170 Ocean Boulevard
- Clarke Cottage, 156 Wax Myrtle Trail
- Sokol, 23 Porpoise Run
- Seaquel (formerly Atlantica), 142 Ocean Boulevard
- Small Cottage, 116 Ocean Boulevard

There are no National Register properties or districts in Southern Shores. Any exterior changes to the Historic Landmarks require a Certificate of Appropriateness from the Historic Landmarks Commission prior to a permit being issued. In the State of North Carolina, Historic Landmarks are eligible to apply for an annual 50% property tax deferral as long as the property's important historic features are maintained.

Currently, the local government and the Historic Landmarks Commission do not participate in the North Carolina's Certified Local Government Program. Participation in this program has numerous benefits, including, eligibility for grant funding, increased expertise and knowledge for historic preservation commission members through required continued education, and the ability to review all new nominations to the National Register of Historic Places for properties and districts within their boundaries.



Sokol, the first designated local landmark in Southern Shores.

Cultural and Historic Resources Jay Crest Rd John Charles Thirteenth Ave Tenth Ave Eighth Ave Seventh Ave sixth Ave Fifth Ave Fourth ANG Third Ave Second AVE First AV® ATLANTIC OCEAN CURRITUCK SOUND Mackey House Perfection Clarke JEAN GUITE Small Cottage **Town Limits Designation Status** Local Landmarks Surveyed Only 158

Source: North Carolina Historic Preservation Office

Community Facilities

The basic services that Southern Shores depends upon for daily needs and safety include water supply, wastewater treatment, transportation networks, stormwater systems, schools, police service, and fire protection. Assessing the condition and capacity of these facilities is a fundamental step toward determining how Southern Shores can meet service needs for its residents in the future.

Public and Private Water Supply and Wastewater Systems

Water supply and sewer systems effect the location, form, density, and timing of local and regional development. The Coastal Resource Commission's goal in requiring the examination of infrastructure is to "ensure that public infrastructure systems are appropriately sized, located and managed so that the quality and productivity of AECs and other fragile areas are restored and protected."

The Town of Southern Shores purchases its water from the Dare County Water Department. The Water Department operates five water plants, four of which are reverse osmosis plants; located at Kill Devil Hills, Stumpy Point, Rodanthe, and Frisco. The fifth is a freshwater softening plant on located on Roanoke Island. The Town relies on individual wastewater septic tank systems. These systems are owned and maintained by private property owners.

This section describes the current status of the public water and wastewater systems for the Town, evaluates their existing capacity and future demands, and discusses their implications for development.

Water Supply

The Dare County Regional Water Supply System (DCRWSS) consists of five water treatment facilities. The facilities serving Southern Shores are the Skyco Plant and the North Reverse Osmosis Plant which was designed to provide 5.0 million gallons per day (mgd) but upgrades in 2021 have increased production to 6.3 MGD. The Skyco Plant has a permitted capacity of 5 MGD. In 2021, the plants exceeded 80% and 90% of their approved capacity for five consecutive days. During this time, no water conservation was implemented.

The Skyco Plant is supplied by 10 wells located on NC345 between Skyco and Wanchese. The wells average from 200 to 250 feet deep and are screened at depths from around 140 feet to 220 feet below the ground surface. The North Reverse Osmosis Plant is supplied by 14 wells located in Kill Devil Hills and Nags Head. There is an elevated water tank located in Southern Shores.

Water supply from the Yorktown Aquifer was once characterized as limitless, but as growth in the Outer Banks has skyrocketed, the long-term viability of this groundwater supply has come into question. Dare County reports that it has experienced no shortage of



available supply as it continues to develop groundwater supplies to meet growing needs and peak season demand. The County is addressing source water quantity and quality issues through the addition of 3 trains at the North Reverse Osmosis Plant (NRO) in 2021, blending raw water at the NRO, adding two trains to the Skyco plant (anticipated 2024/2025), developing a leak detection program, and through nanofiltration at the NRO plant.

Wastewater

Septic tank systems are the most common method of wastewater treatment in Southern Shores and Dare County. As shown on pages 52-53, soils are not great for septic systems. However, there is a potential for engineered systems. These systems are designed for poor soil conditions and in smaller footprints. An on-site wastewater disposal system application must be submitted to Dare County Department of Public Health for a new system or repair of an existing system. Currently, there are no known areas experiencing chronic wastewater treatment malfunctions.

Stormwater

In order to address poorly draining soils and stormwater runoff, the Town of Southern Shores has invested into their stormwater infrastructure. These investments include grading stormwater swales into the right-ofway or along property lines, and constructing trench drains or concrete flumes to guide the stormwater to another location and out of the roadway and sidewalks.

A majority of the stormwater infrastructure is hard infrastructure that guides the runoff to a swale, however there are still some locations in Southern Shores that there is only a swale to hold runoff. Most of the stormwater infrastructure is located west of NC 12.

Annual average rainfall in Southern Shores is nearly 50 inches per year, with the average precipitation rates highest August to January. Poorly draining soils, and a low elevation pose challenges to stormwater control especially during the months of higher precipitation and hurricane season.

Stormwater is managed through a series of grading, filling, or alteration of the topography or elevation of any unimproved

lot, or demolition or land clearing activity, or improvements to real estate that result in the discharge of stormwater onto an adjacent property and require a building permit. All of which are required to apply for a lot-disturbance stormwater management permit.





Stormwater Infrastructure

- 1. 12 & 19 Ginguite Trail Groundwater lowering system that drains just before entering the wetland.
- 2. Wigeon Court Overflow drain in the middle of the cul-de-sac that is piped to 23 Wigeon Court.
- 3. Pintail Court Trench Drain that crosses the entrance of street.
- 4. 50 S Dogwood Trail Duck Woods Country Club storm drains and culverts that empty in retention area.
- 5. Ginguite Trail North End Overflow drain with culvert under Ginguite trail to prevent overflow from pond.
- 6. 92 S Dogwood Trail Shallow swale between sidewalk and road.
- 7. 107 Osprey Lane Storm Drain and culvert run underneath cul-de-sac to canal.
- 8. Fairway Drive Trench drain to a swale across from 64 Fairway Drive.
- 9. Fairway Drive Curb and concrete flume to a swale across from 58 Fairway Drive.
- 10. Fairway Drive Swale across from 54 Fairway Drive.
- 11. 52 Fairway Drive Curb and concrete flume to swale.
- 12. 121 Tall Pine Lane Drain with culvert under road to canal.
- 13. 123 Tall Pine Lane Drain with culvert under road to canal.
- 14. 127 Tall Pine Lane Drain with culvert under road to canal.
- 15. N, S, & E Dogwood Trail intersection Curb and gutter with culverts that empty to retention area located adjacent to 226 N Dogwood.
- 16. Red Bay Lane adjacent to 56 Hickory Trail Trench drain across road with culvert that empties into retention area located on Hickory Trail at 56 Hickory Trail.
- 17. 7 Red Bay Lane Trench drain across road draining to the West side of the road to a swale.
- 18. 46 Hickory Trail Curb leading to concrete flume.
- 19. 43 Hickory Trail Trench drain across with culvert that drains to retention area at Azalea Lane. Curb directing water to same area.
- 20. 264 Sea Oats Trail Asphalt flume directing water

- Hickory Trail onto private property. It has been filled with dirt at the request of the property owner to prevent damage to private property.
- 21. 264 Sea Oats Trail Asphalt flume directing water from Wax Myrtle Trail onto private property.
- It has been filled with dirt at the request of the property owner to pervert damage to private property.
- 22. N Woodland Drive adjacent to 49 Hickory Trail Concrete curb and flume to large swale.
- 23. 50 Dewberry Lane Trench drain across road draining to large swale in front of 50 Dewberry Lane.
- 24. 168 Dewberry Small swale with overflow into swale located at 47 Dewberry Lane.
- 25. 47 Dewberry Lane Swale with concrete flume with overflow into retention area located at the end of the road.
- 26. 39 N Fox Grape Lane Curb with 3 storm drains that drain to small retention area.
- 27. 46 S Fox Grape Lane Curb with concrete flume to retention area.
- 28. 49 Honeysuckle Lane Curb with trench drain across the road that drains to retention area at 49 Honeysuckle Lane.
- 29. 46 E Dogwood Trail Swale that collects water for E Dogwood Trail.
- 30. 212 Wax Myrtle Trail 2 swales that collects water from E Dogwood Trail.
- 31. 211 Duck Road Swale that collects water from E Dogwood Trail.
- 32. E Dogwood Trail and NC 12 intersection 6 storm drains that drain to retention basin located at 29 E Dogwood Trail.
- 33. 209 Ocean Boulevard 2 swales along E Dogwood Trail that drain E Dogwood Trail.
- 34. 315 Hillcrest Drive 2 asphalt flumes directing water onto private property.
- 35. 312 Hillcrest Drive Asphalt flume directing water onto private property.
- 36. 320 Hillcrest Drive Asphalt flume directing water onto private property.
- 37. Hillcrest Drive and Sea Oats Trail intersection Curb and concrete flumes directing water to swales at all 4 corners of the intersection.
- 38. 323 Hillcrest Drive Trench drain across driveway

directing water to swale.

- 39. 335 Sea Oats Trail Curb and concrete flume to swale.
- 40. 370 Sea Oats Trail Concrete flume to swale.
- 41. 389 Sea Oats Trail Swale.
- 42. 388 Sea Oats Trail Swale.
- 43. 393 Sea Oats Trail 2 swales.
- 44. 390 Sea Oats Trail Swale.
- 45. 392 Sea Oats Trail 2 swales.
- 46. 15 N Dune Loop Curb and storm drain directing water to a swale.
- 47. 23 N Dune Loop Swale to collect water and drain water standing in the road.
- 48. 6 Palmetto Lane Curb and concrete flume to swale.
- 49. 5 Palmetto Lane Curb and concrete flume to swale.
- 50. 50 Juniper Trail Storm drain and culvert under the road to swale located on Juniper Trail at 2 Sweetgum Lane.
- 51. 2 Sweetgum Lane Concrete flumes to swale located on Juniper Trail.
- 52. 62 Deerpath Lane Swale around the corner of the lot.
- 53. Deerpath Lane Swale around median.
- 54. 66 Trinitie Trail Curb and storm drain that drains to swale at 66 Trinitie Trail.
- 55. 72 Trinitie Trail Curb and storm drain to swale.
- 56. 79 Gravey Pond Lane Curb and storm drain to swale.
- 57. 77 Gravey Pond Lane Curb and storm drain to swale at 79 Gravey Pond Lane.
- 58. 78 Gravey Pond Lane Curb and storm drain to swale at 79 Gravey Pond Lane.
- 59. 97 Trinitie Trail Concrete flume to a swale located at the corner of Bear Track Lane.
- 60. 107 Bear Track Lane Concrete flume to a swale located at the corner of Trinitie Trail.
- 61. Bear Track Lane Swale located around the median.
- 62. Chicahauk Trail Groundwater Lowering System The underground perforated pipe begins at
- 109 Trinitie Trail. The pipe runs NE to Chicahauk Trail and turns West. The pipe runs on the SW side of

Chicahauk Trail to 185 Chicahauk Trail. The Pipe Turns and enters the canal between 152 Poteskeet Loop and 131 Bayberry Trail.

- 63. 142 Gray Squirrel Lane Concrete flume to swale at the corner of Chicahauk Trail.
- 64. 143 Gray Squirrel Lane Concrete flume to swale at the corner of Chicahauk Trail.
- 65. 151 Chicahauk Trail Curb and 2 concrete flumes to swale at the corner of Trinitie Trail.
- 66. 182 Clam Shell Trail Curb and 3 concrete flumes to swale at the corner of Chicahauk Trail.
- 67. 170 Clam Shell Trail Swale.
- 68. 171 Clam Shell Trail Swale at the corner of Otter Slide Lane.
- 69. 169 Clam Shell Trail Curb and 2 concrete flumes to swale at the corner of Otter Slide Lane.
- 70. 22 Spindrift Trail Concrete curb with trench drain across the driveway to a swale.
- 71. 53 Spindrift Trail Shallow swale between sidewalk and road.
- 72. 151 High Dune Loop Shallow swale to allow water to drain off roadway.
- 73. 39 Ocean Boulevard 2 swales along Skyline Road to help drain the intersection with Ocean Boulevard.
- 74. 52 Skyline Road Swale.
- 75. 50 Skyline Road Swale.
- 76. 44 Skyline Road Swale.
- 77. 35 Ocean View Loop Large retention basin in center of cul-de-sac with 2 concrete flumes directing water to retention area. Curb and storm drain on E side of the cul-de-sac to direct water to a natural low spot.
- 78. 1 S Dogwood Trail Swale to help drain intersection at US158.
- 74. 52 Skyline Road Swale.
- 75. 50 Skyline Road Swale.
- 76. 44 Skyline Road Swale.
- 77. 35 Ocean View Loop Large retention basin in center of cul-de-sac with 2 concrete flumes directing water to retention area. Curb and storm drain on E side of the cul-de-sac to direct water to a natural low spot.
- 78. 1 S Dogwood Trail Swale to help drain intersection at US158.

Transportation

Southern Shores can be reached from the north by U.S. Hwy. 158 and from the west by N.C. Hwy. 64. Coming from the north, visitors traveling on U.S. 158 cross the Wright Memorial Bridge over the Currituck Sound and turn north into Southern Shores on NC 12. Coming from the west, visitors traveling on N.C. 64 cross the Virginia Dare Bridge over the Croatan Sound on to Roanoke Island, near Manteo, then pass through the towns of Nags Head, Kill Devil Hills and Kitty Hawk, en route to Southern Shores.

A majority of the roadways are owned and maintained by the Town, while Duck Road, also known as NC 12 is owned and maintained by the North Carolina Department of Transportation. There are also a few roads scattered around the Town that are owned and maintained by local HOAs. The Town's Powell Bill map has been updated on a regular basis and provides information on exactly which entity owns and maintains each of the roads.

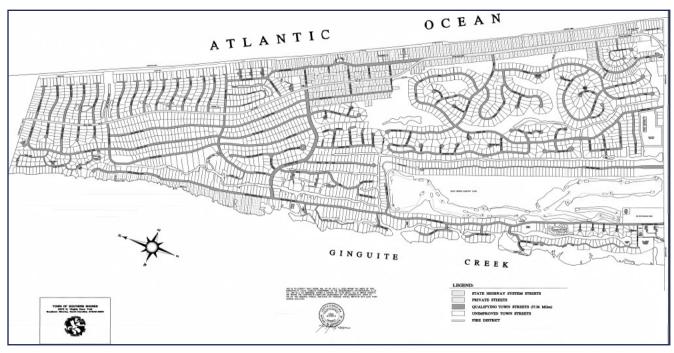
The Town maintains approximately 37 miles of paved and unpaved roadways. A condition assessment was conducted in 2018 and the Town recently approved a multi-year Capital Improvement Plan (CIP) to address street maintenance concerns.

Traffic Volumes

Annual average daily traffic (AADT) volume maps present the traffic average for a specific year on North Carolina Department of Transportation maintained roads. Traffic volumes on US 158 were 21,500 and for NC 12 were 16,500 in 2021.

Infrastructure Capacities

In the "2015 Dare County Comprehensive Transportation Plan", the 2012 studies that were referenced documented no capacity deficiencies (areas where traffic volumes exceed the capacity of roadways) on NC 12 through within the Town of Southern Shores. However, the 2040 future traffic forecasts



Town of Southern Shores Powell Bill Map.

Annual Average Daily Traffic Volumes CURRITUCK SOUND ATLANTIC OCEAN 12 Average Daily Traffic **500 - 1,999** 2,000 - 4,999 5,000 - 9,999 10,000 - 19,999 20,000 - 34,999 Context **Town Limits** Parcels

indicate that there will be increased traffic volume and capacity deficiencies along the Wright Memorial Bridge and up NC HWY 12.

Dogwood Trail

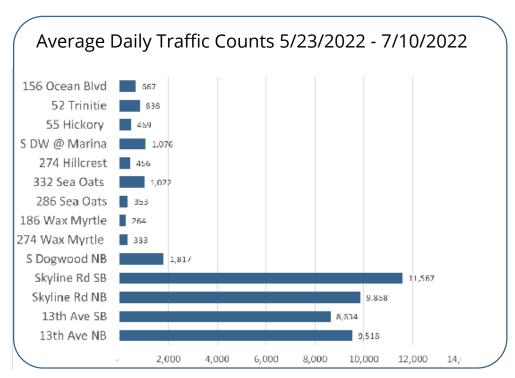
South Dogwood and East Dogwood Trail are heavily impacted by seasonal traffic. Numerous mitigation efforts have been made to minimize cut-thru traffic through this neighborhood. The neighborhood roads are not designed to withstand this type of traffic volume. Survey participants indicated this is still a major issue during the tourist season.

Traffic congestion was a top concern in the community survey.

Pedestrian and Bicycle Routes

Pedestrian routes in the Town limits include multi-use paths along US 158 and NC 12 and in the Chicahauk community, sidewalks along one side of South and East Dogwood Trail, and at the Hillcrest beach access. There are 33 private beach access points throughout the community.

The Town received a Dare County Tourism Board grant in 2022 and is planning a future multi-use path along NC 12 (Duck Road) from Triangle Park to East Dogwood Trail.



The above counts are average counts from the summer of 2022. The full results from the traffic analysis can be found on the Town's website or by request from the Town.

State Transportation Improvement Projects



Source: North Carolina Dept. of Transportation

Multimodal Facilities



Item 9.

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Vision for the Future





Community Vision Statement

"The Town of Southern Shores is a quiet coastal community comprised primarily of low-density single-family homes interspersed with passive and active recreational facilities, navigable waterways, forests, and open space. The Town's identity is intimately tied to its natural resources, history, and residential nature. We strive to protect Southern Shores' environment, enhance the small commercial district located on the southern edge of town, and preserve the Town's unique qualities by maintaining the existing community appearance and form."

GOALS



Access to Public Trust Waters

Encourage the maintenance and improvement of existing private access facilities to public trust waters, beaches, and shorelines and protect those public trust areas for public use and recreation.



Land Use Compatibility

Protect, enhance, and support land uses that are compatible with surrounding, existing land uses that are in alignment with the community vision.



Community Character

Preserve the existing, low density, residential character of this unique coastal community and maintain alignment with the community vision.



Public Infrastructure

Effective and efficient delivery of infrastructure maintenance and services.





Natural Environment

Ensure that providing infrastructure services does not affect the quality and productivity of Areas of Environmental Concern (AECs), important resources, and other fragile areas.



Water Quality

Preserve, protect, enhance, and improve the natural environment and water quality in the ocean, sound, creeks, and canals.



Natural Hazards

Protect public health and safety from the damaging effects of storm surges, wave action, flooding, high winds, and erosion associated with hurricanes, severe weather, nor'easters and other hazards.



Transportation and Mobility

Ensure adequate mobility options that prioritize the needs of residents and visitors to the Town.



Future Land Use Map Purpose

The Future Land Use Map (FLUM) and character areas represent the community's vision for the future and are one of the factors that guide decision makers and town staff in future rezoning, land use, or permit issuance decisions. However, the issuance of CAMA and development permits will be based on the adopted standards of the Town Code and the Coastal Resources Commission's (CRC's) permitting rules that implement the Coastal Area Management Act. A FLUM also communicates public investment priorities (including possible emphasis areas for public facilities and services) to the private sector. This plan is a guidance and policy document, and is not intended to be used as a direct, regulatory tool.

Based on the community's satisfaction with the current balance of uses in town, the scarcity of greenfield development opportunities, and environmental constraints, the future of Southern Shores looks very much like the present. Although development of a similar nature to the existing conditions in Southern Shores should be expected, there are still opportunities to enhance and elevate the quality of life in Southern Shores.

The character areas should also be used to further refine the land use vernacular and preserve and enhance the local coastal character. These character areas and associated recommendations also provide direction for updates to the Town's land development regulations to help make the community vision a reality.

Land Use When Living "on the Water"

An especially important consideration in Southern Shores is the relationship of land uses and structures to the water and the environment. Some uses are water- dependent (marinas, etc.) and must be located in these vulnerable areas. In this case, "vulnerable" refers not only to the impact on the natural environment, but also the natural hazards vulnerability that the use or structure might encounter due to storm surge and other water-related hazards. Other uses are not water- dependent, such as general commercial operations, or residential homes, and should not be located or allowed in areas where they will have a negative impact on the natural environment. This negative impact can occur both in present day activities (e.g. through increased stormwater runoff because of increased impervious surfaces, etc.) or in the future (loss of natural shoreline as sea level rise and erosion prompts owners to convert natural shoreline to altered shoreline which reduces natural habitat, decreases water quality, prevents coastal marshland migration, etc.).

Even elevating a structure "out of" any regulatory floodplain can still have a long-term negative impact on the natural environment, especially if natural shoreline is converted to an artificial shoreline to prevent erosion from undermining structures. In these instances, a better approach might be to prohibit the location of non-water dependent uses in areas that will likely experience these conditions. Many dwellings in Southern Shores are already located in these areas and developers will confirm that the premium lots are right on the water.

Item 9.

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Future Land Use

Character Areas

Residential

The residential designation is characterized by neighborhoods with mostly single family detached homes, including year-round and seasonal residences as well as short-term rentals.

Typical Uses

Detached single family homes, occasional duplexes, accessory structures, associated community recreational facilities, civic association owned beach access, and occasional institutional uses (e.g., – church).

Recreational

The recreational designation includes active and passive recreational facilities that serve the residents of the community. This designation also includes existing environmentally sensitive areas that are currently being used for active and/or passive recreation; most are canals, privately-owned or accessed by privately-owned lands.

Typical Uses

Marinas, recreational paths, canals, beach/ sound access areas, and community recreational facilities.

Municipal/Educational

The municipal/education designation includes community serving town facilities and an elementary school. Other governmental uses, like utilities, police, or emergency response, are also appropriate.

Typical Uses

Government support uses, cemeteries, open space areas, and schools.

Commercial

The commercial designation focuses on small-medium scale, neighborhood serving commercial development that is compatible with the existing coastal character of the community. This designation is located along US 158 and at the US 158 and NC 12 intersection.

Pedestrian friendly uses and interconnectivity with surrounding businesses and neighborhoods is encouraged. It may be appropriate to have buildings pulled up to the street with parking in the rear.

Typical Uses

Commercial, retail, services, or offices. Attached multi-family residences and upper story residential uses are possible if context appropriate.

Conservation/Open Space

The conservation/open space designation focuses on preserving environmentally sensitive natural areas and existing open spaces. These natural areas are comprised of wetlands, community open spaces, wildlife habitat, beaches and dunes, and/or existing forested areas. Development is not encouraged in this designation.

Typical Uses

Utility related uses, recreational paths, passive recreation, habitat preservation.

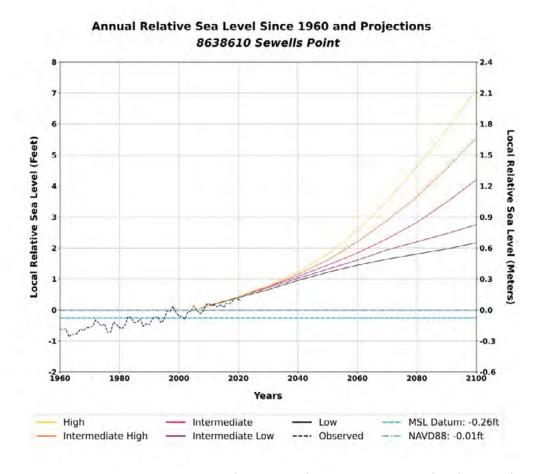


Acknowledging Rising Seas

The Future Land Use Map with 2' foot seal level rise identifies lands likely to be inundated around 2060. The majority of Southern Shores will not be impacted by a 2' rise in sea level due to higher elevation in most areas of the town. However, development should be discouraged in areas that are likely to be inundated. As sea levels rise, the Town of Southern Shores is also threatened by local land subsidence, this means that the land is submerging even faster than in other locations on the East Coast. Understanding and preparing for these threats can help the community mitigate the negative impacts of sea level rise.

The National Oceanic and Atmospheric Administration (NOAA) projects that sea level rise will cause inundation of some properties (most are currently vacant), with major impacts occurring near 2060. Though 2060 is beyond the horizon of this plan, it is still relevant to long-range decision making because many structures are designed for at least 50 year lifespans. The best available projections from NOAA indicate the following potential sea level rise scenarios, based on worldwide carbon emission rate:

- Intermediate Scenario: Seas are 2 feet higher by 2060.
- High Scenario: Seas are 2.72 feet higher by 2060.



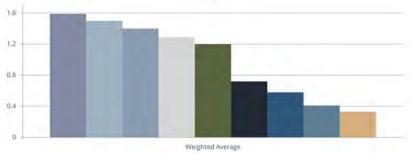
Source: NOAA Sea Level Rise Viewer (https://coast.noaa.gov/digitalcoast/tools/sir)



Management Topics and Implementation



Community Priorities



- Protection of marshes, wetlands, wildlife, shorelines, and environmentally sensitive natural areas
- Improve environmental water quality (ocean, creeks, canals, sound, etc.)
- Maintaining beach nourishment and erosion control
- Improving pedestrian infrastructure
- Design standards for redevelopment or development of commercial structures
- Increase housing affordability/availability
- Increase private water access points including beach and sound
- Increasing the number of boat slips at marinas
- Construction of a community/civic center

A-Few-Participant-Voices....



"Preservation of maritime forest/ prevention of clear-cutting."
-Survey Respondent

Land Use Management Topics

For Coastal Resources Commission (CRC) Review Purposes

A CAMA land use plan affords the opportunity for a local government to address areas or issues of local concern, which may be asset-based, programmatic, regulatory, geographic, or otherwise. These issues were identified during the land use plan development process and are included herein. The issues do not necessarily directly align with the CAMA management topic structure, but are locally important nonetheless. These recommendations are not required to have associated timelines for completion or implementation, although in some cases these may be provided.

Not all of the recommendations contain specific action items, but that should not be perceived as any less a call to action. In addition, not all of the recommendations outlined herein are immediately ripe for implementation, and (as with the Future Land Use Map, or FLUM) local discretion and leadership will determine priorities and timelines. Policies that are not able to be implemented immediately will guide future development decisions on the Town-level, so that all future development will bring the reality closer to the vision. While the FLUM and policies are intended to provide guidance during land use decisions, the issuance of CAMA and development permits will be based on adopted standards in the Town's Code of Ordinances and the CRC's permitting rules that implement the Coastal Area Management Act.

Public [Waters] Access (PA)

Management Goal:

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

Planning Objectives:

The plan shall include policies that address access needs and opportunities, with strategies to develop public access and provisions for all segments of the community, including persons with disabilities. Oceanfront communities shall establish access policies for beach areas targeted for nourishment.

Land Use Compatibility (LUC)

Management Goal:

Ensure that development and use of resources or preservation of land balance protection of natural resources and fragile areas with economic development, and avoids risks to public health, safety, and welfare.

Planning Objectives:

The plan shall include policies that characterize future land use development patterns and establish mitigation concepts to minimize conflicts.

Infrastructure Carrying Capacity (ICC)

Management Goal:

Ensure that public infrastructure systems are sized, located, and managed so the quality and productivity of areas of environmental concern (AECs) and other fragile areas are protected or restored.

Planning Objectives:

The plan shall include policies that establish service criteria and ensure improvements minimize impacts to AECs and other fragile areas.

[Environmental] Water Quality (WQ)

Management Goal:

Maintain, protect, and where possible enhance water quality in coastal wetlands, oceans, and estuaries.

Planning Objectives:

The plan shall include policies that establish strategies and practices to prevent or control non-point source pollution and maintain or improve water quality.

Natural Hazard Areas (NHA)

Management Goal:

Ensure that public infrastructure systems are sized, located, and managed so the quality and productivity of areas of environmental concern (AECs) and other fragile areas are protected or restored.

Planning Objectives:

The plan shall include policies that establish service criteria and ensure improvements minimize impacts to AECs and other fragile areas.

Access to Public Trust Waters

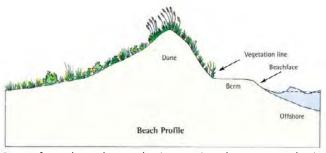


- PA 1. Continue to recognize existing private ownership, control and maintenance of current access to the beach and public trust waters.
 - PA 1.1. Coordinate with the SSCA.
- PA 2. Expand capacity and number of no-pay parking areas for use by residents registered with the Town, as opportunities arise.
- PA 3. Continue enforcement of dune protection regulations.
- **Consider opportunities** for town-owned accesses as opportunities arise.
- PA 5. Establish criteria to determine triggers for when private structures or development has encroached upon public trust areas (i.e. - when

Sand dunes have repeatedly proven to provide protection from waves and storm-induced erosion during infrequent but severe storms such as hurricanes.

-The Dune Book, NC Sea Grant, 2003.

- has enough erosion occurred that the structure is encroaching on the public beach or tidal area) and for subsequent action (removal, relocation, etc.).
- **PA 5.1.** The process should consider regularly scheduled beach nourishment activities, but should also prevent the collapse of structures into the public trust beaches and ocean.
- **PA 5.2.** Ensure new development adheres to CAMA requirements in the Ocean Hazard Area of Environmental Concern (See 15A NCAC7H .0306 for building and setback requirements).
- PA 6. Continue beach nourishment and dune management in a way that distributes costs equitably based on benefits received.
 - PA 6.1. Maintain beach access.
 - PA 6.2. Consider partnerships between the Town and civic and homeowner's associations to enhanced existing facilities (i.e., maintenance, accessibility, signage, safe crossings, sidewalks, bike parking, etc.) at beach access points or on the crossovers.
 - **PA 6.3.** Encourage the Southern Shores Civic Association to maintain its handicapped accessible beach access.



Dunes form through complex interactions between sand, winds, - The Dune Book, NC Sea Grant, 2003

PA 7. Maintain the aesthetic quality and navigability of the town-owned canal system.

- PA 7.1. Maintain programs for maintenance of the town-owned canal and lagoon system maintenance that includes but is not limited to periodic dredging, control of overhanging vegetation, and debris removal.
- PA 7.2. Develop a formalized plan that details under what conditions future canal maintenance shall occur, a schedule for these activities, and acquire the agreements, facilities, and equipment needed to execute this maintenance on a routine basis.



Beach Nourishment in Southern Shores

The town's Beach Management Plan aims to sustain the oceanfront beach along the entirety of Southern Shores, which is approximately 3.7 miles of varying widths of shoreline. The 2022 beach nourishment project was a coordinated effort with neighboring communities in Dare County to achieve cost savings. Beach nourishment is currently planned on a 5-year maintenance cycle; the 2022 project was the first since a 2017 beach nourishment project in front of Pelican Watch, next to the Kitty Hawk Pier. A vulnerability assessment determines where higher volumes of sand are necessary based on erosion and accretion rates, areas most vulnerable to storms, and beach volume density.

Beach nourishment is a primary tool used to mitigate erosion along the oceanfront in North Carolina. It provides storm protection for private and public structures, reduces risks of erosion, encourages new vegetation growth, and supports economic development and tourism by providing a larger recreational area. Although beach nourishment provides several benefits, it is costly and does not provide a permanent solution to the erosion problem. Sometimes, unintended consequences may occur, such as, wave pattern changes and temporary loss of habitat. Often, sand from beach nourishment often erodes faster and must be repeated periodically.

Beach nourishment in Dare County is funded by a 2% portion of Dare County's 6% occupancy tax, property and municipal service district taxes, and state and FEMA Public Assistance programs (when applicable). During the process, additional steps are taken to protect the public and wildlife. The 2022 beach nourishment project is scheduled to resume in 2023 to complete the northern portion of the project area before the tourist season begins and sea turtle nesting period begins.

Land Use Compatibility and Character



- LUC 1. Support development/ redevelopment that considers land suitability, the future land use map, and avoids impacts on environmentally fragile areas.
- LUC 2. Use the future land use map, storm surge maps, flood exposure maps, wetlands assessments, and projected sea level rise and flood vulnerability data when deciding rezoning and development requests.

LUC 2.1. Consider amendments to the Land Use Plan when necessary.

- It is possible to approve a rezoning request or ordinance amendments that are not consistent with the Land Use Plan, however this may necessitate a land use plan amendment.
- LUC 3. Preserve the low-density nature of the residential community on large (20,000+ sqft) lots, wherever possible, and keep the commercial district small and contained on the southern end of Town.
 - **LUC 3.1.** Support development design and approvals that reinforce the low-density nature of the community and are at an

Low Impact Development (LID) Strategies

Encouraging Low Impact Development (LID) strategies in new developments and public projects can help address and mitigate stormwater impacts. Bio-swales, rain gardens, stormwater planters, pervious pavements, disconnected impervious surfaces, rainwater harvesting with rain barrels and cisterns, and green ("living") roofs can help increase the retention of stormwater and improve infiltration rates. This can improve water quality in canals, Jean Guite Creek, and Currituck Sound while decreasing the impacts of new development.



appropriate scale for the commercial district.

- LUC 3.2. Consider evaluation of the Town's current policy on separate living spaces and consider revisions to allowances and standards for accessory dwelling units by zoning district. Coordinate with the SSCA to determine allowances and site design standards.
 - The Town's current policy on accessory dwelling units allows for separate living space that does not constitute a dwelling unit. This is allowed in all districts except for RS-10.

LUC 4. Create and encourage Low-Impact Development strategies.

LUC 4.1. Support low impact development techniques that include:

- Limiting areas of disturbance in residential and nonresidential districts.
- Innovative, green stormwater infrastructure that allows infiltration

- and filtering of pollutants.
- Incorporating pervious pavements, rain gardens, bio-swales, stormwater planters, and other features in new development.
- Develop LID stormwater manual or other educational materials to support innovative site design.

Low Impact Development Techniques

Low impact development techniques can be applied at any stage of development. Typical post-development LID practices range from directing roof drainage to a rain garden or capturing in a rain barrel or cistern and retrofitting streets with features that infiltrate or capture rain water. Additional LID practices include bioretention, vegetated roof covers, grass swales, and permeable pavement.



Rain gardens slow stormwater as it travels downhill. Plants and soils are specifically chosen to clean stormwater and reduce nutrients and overall sediment loads.



Rain barrels collect and store stormwater runoff from rooftops, where it can be later used for watering lawns or gardens.



Disconnected Impervious Surfaces (DIS) is a low-cost effective way to reduce the volume and flow of stormwater runoff by directing it from impervious surfaces to graded and vegetated pervious surfaces.



Permeable pavement is designed to allow water to pass through it into the ground below where it is naturally filtered.

Land Use Compatibility and Character



- LUC 5. Evaluate the impact of Short-Term Rentals relative to the desired low-density residential character of the community, with attention paid to how they affect the quality of life of year-round residents.
 - **LUC 5.1.** Coordinate with the short-term rental companies and the Outer Banks Realtors Association.
- **LUC 6.** Continue to encourage commercial development and redevelopment primarily along US 158 and the southern end of Highway 12.
- LUC 7. Continue to enforce community design standards such as regulating building height, lot coverage, building size and capacity, and other standards that preserve local character.
- existing commercial sites can be redeveloped and intensified in ways that encourage a family-friendly commercial experience where people can gather, shop, etc.

LUC 8.1. Consider enhanced commercial standards including:

- Frontage and/or landscaping requirements
- Facade materials and articulation
- Ground level details, such as, transparent glazing, minimal blank walls, presence of canopies/awnings, etc.

Case Study: The Manteo Way of Building

The Town of Manteo encourages small scale nonresidential development with upper story residential units by providing design standards for new development. These standards include architectural standards that control external materials and fenestration patterns, public standards that require sidewalks and landscaping, and building standards that control features, configurations, and functions of the building, and frontage requirements. The Town of Manteo also has a 36' height limitation for all of its zoning districts to protect existing viewsheds and maintain its existing coastal character.

LUC 9. Enhance entryway, directional, and marker signage.

LUC 10. Monitor and preserve maritime forests and other tree canopy coverage.

- LUC 10.1. Monitor forest cover and canopy and attempt to increase habitat quality and connectivity in a way that is balanced with natural hazard concerns (wildfire, tree blowdowns, etc.).
 - Consider utilizing aerial imagery and/or LiDAR data to establish a baseline of current tree canopy coverage. Analysis and field visits by a biologist can help classify forest cover to determine extent of in-tact maritime forests.
- **LUC 10.2.** Review standards for tree preservation in new development and redevelopment to ensure they protect and preserve the existing canopy and forest coverage.
- LUC 10.3. Consider establishing ordinances related to heritage tree and maritime forest preservation.

LUC 11. Continue protecting valuable historic resources.

LUC 11.1. Consider becoming a
Certified Local Government. Certified
Local Governments are eligible for
grant funding for activities such as
(1) architectural or archaeological
survey, (2) National Register funding,
(3) preservation planning, (4) design
standards, (5) architectural plans or
feasibility studies, and (6) occasionally,
physical restoration and stabilization.

Preservation and Protection:

The Town of Pine Knoll Shores has a tree preservation ordinance that prohibits subdivision of land that has been timbered or clear-cut for 3 years. There are also standards requiring landscape plans and tree plantings that help maintain a lush urban tree canopy. This includes standards for preservation of heritage or specimen trees.

coordination with Kitty Hawk and Dare County (Martin's Point) along shared boundaries.



Lot cleared in Southern Shores for a residential structure.

Infrastructure Carrying Capacity and the Natural Environment





- ICC 1. Maintain long range plans for public infrastructure systems to ensure that these systems are appropriately sized, located and managed to deliver the services the community needs while protecting adjacent environmental resources.
- **ICC 2.** Discourage the filling of coastal wetlands.
- ICC 3. Allow hard armoring (seawalls, bulkheads, rock vetments, modification, etc.) of natural shoreline in canals. Nature-based or habitat-enhancing armoring is preferred. Relocation or removal of structures is beneficial to the natural environment, but is not required.
- armoring of the oceanfront (currently prohibited by the Town and the State).
- ICC 5. Create a more formalized and proactive public education program relating to the natural environment, especially the maritime forest,

local wildlife, and environmental uniqueness and identity of the area.

ICC 5.1. Convey this information explicitly via signage, public education, and proactive communication. This might also involve pursuing and achieving certain designations like Tree City, Wildlife Sanctuary, or Bee Town at a community-wide level.

Coastal Wetlands

Coastal wetlands provide clean drinking water, flood protection, recreational opportunities, and more. They also provide important habitat for recreational fishing. According to a 2009 Status of Wetlands in the US study, conducted by the U.S. Fish and Wildlife Service, 80,000 acres of coastal wetlands were lost from 2004 to 2009 due to erosion, subsidence, sea level rise, development, and drainage.

Coastal wetlands are essential when it comes to providing storm protection especially for a coastal community like Southern Shores. During Hurricane Sandy, wetlands protected areas of the East Coast from more than \$625 million in direct flood damages.

- high quality public facilities including, police, fire, EMS, and ocean rescue.
 - *ICC 6.1.* Ensure level-of-service standards and funding to adequately protect residents, visitors, and workers year round.
 - *ICC 6.2.* Continue to annually evaluate lifeguard services to assure that they meet the Town's needs.
- ICC 7. Support protection, maintenance, and preservation of existing parks and open spaces.
 - ICC 7.1. Maintain a dialog with and promote civic associations and other property owners associations regarding their open space and recreational facilities. Civic events or meetings might potentially utilize private facilities for events.



Parks in Southern Shores

SOUTHERN SHORES CIVIC ASSOCIATION

- Sea Oats Park
- Soundview Park
- Triangle Park



- Trinitie Park
- Poteskeet Park





ICC 8. Maintain adequate facilities for administrative and operational functions.

- ICC 8.1. Create a master plan for the Town Hall and associated operations, including identification of future expansion needs and opportunities. New facilities could lead by example in exhibiting high quality design standards.
- *ICC 8.2.* Identify and acquire areas for expansion of administrative and operational facilities.
- ICC 8.3. Upgrade public facilities and buildings according to current needs and capital improvement planning. Currently, this specifically includes the police department, upfit to the public works building and the Town Hall/Pitts Center complex.

ICC 9. Consider opportunities to expand civic gathering space.

- *ICC 9.1.* Consider developing a public, civic gathering space that is accessible by automobile and non-automobile transportation networks.
- *ICC 9.2.* Expand the Pitts Center capabilities to accommodate more public events and activities.
- **ICC 10.** Minimize solid waste by encouraging waste reduction, reuse, and recycling.
 - *ICC 10.1.* Continue maintaining the Town's appearance by enforcing the Town's Solid Waste Ordinance.
 - *ICC 10.2.* Continue to provide trash pickup, curbside recycling, large item pickup, and chipping programs.

Water Quality



- WQ 1. Encourage the use of Low Impact Development (LID), vegetative buffers to filter stormwater, impervious surface limits, and innovative stormwater management alternatives to reduce runoff and to improve environmental water quality.
 - **WQ 1.1.** Consider incentives to encourage permeable pavement and other LID features for residential properties. (i.e. a lot coverage credit/bonus).
 - Current regulations provide incentives for nonresidential uses to increase their lot coverage from 60% to 67% if permeable pavement is used.
- WQ 2. Consider establishment of a septic system monitoring program to identify underperforming or malfunctioning septic systems and ensure remediation by the property owner.
- WQ 3. Consider establishment of a consistent water quality monitoring program at key locations in the canals and the sound and identify and address point and non-point sources of pollution.

- WQ 3.1. Begin a new program or encourage the SSCA to resume its water quality monitoring program in the canals and the Currituck Sound. Testing should focus on bacteria levels that could indicate possible contamination by fecal waste.
- **WQ 4.** Allow the use of package systems when traditional systems are environmentally infeasible.
 - **WQ 4.1.** Follow best practices and state requirements for package systems (management, operations, etc.)

Southern Shores Civic Association

The Southern Shores Civic Association is a non-profit community civic association that has been managing and preserving green spaces in the town since 1976. The association takes great pride in caring for the community. In previous years, it was brought to the organization's attention that there were water quality issues that existed in Currituck Sound.

In response, the members of the association began to monitor water quality in the canals and the Currituck Sound. These results were posted at specific locations (e.g., Soundside Park, etc.).

Case Study: Town of Nags Head Septic Monitoring Program

Nearly 80% of properties in Nags Head are serviced by on-site septic systems. Higher rate of sea level rise, heavy rainfall, and more intense storms make these systems more susceptible to fail. According to the Coastal Studies Institute, there should be at least 1 1/2 feet of dry soil under a septic system to allow proper drainage and dispersal of nutrients. Older systems have less space than that available now, especially since groundwater levels have increased by a foot in Dare County.

To mitigate these issues, the Town of Nags Head offers free septic system inspections to homeowners that have conventional septic systems that are sized less than 3000 gallons per day. If the findings show the system needs pumped or repaired, staff assists with the necessary permitting and offers financial assistance. Additionally, property owners can receive a credit on their water account for having the system pumped. The town also offers low-interest loans for those who need to make repairs but are unable to do so without financial assistance. The maximum loan amount is \$ 12,000 with 2.5% rate and can be paid back over a thirty-six month period.



Natural Hazards



NHA 1. Ensure that all stormwater management facilities and infrastructure within the Town, whether public or private, are designed, constructed, operated, and maintained in a proper manner.

NHA 1.1. Update standards, enforcement or maintenance procedures to ensure stormwater facilities accomplish the following:

- Eliminate flooding without intensifying other runoff related problems.
- Preserve and enhance the natural drainage systems within the Town.
- Contribute to preserving and enhancing overall water quality.
- Do not require power to function.
- Require minimal regular maintenance to function properly.

NHA 2. Use the future land use map and zoning as a hazard mitigation tool by preventing development intensification in high hazard areas.

NHA 3. Evaluate high hazard and/or repetitive loss properties and assess the potential to acquire these, reduce community exposure, and provide flood protection and open space areas.

NHA 4. Use storm surge maps, flood exposure maps, and projected sea level rise and flood vulnerability data when assessing requests to intensify development in higher risk areas. Require alternative or mitigating design where appropriate.

NHA 4.1. Evaluate processes to evaluate the adequacy of stormwater infrastructure periodically in areas of concern or in response to development proposals.

NHA 5. Continue participation in FEMA's Community Rating System.

NHA 5.1. Use FEMA's Community Rating System "A Local Official's Guide to Saving Lives, Preventing Property Damage, and Reducing the Cost of Flood Insurance" to seek out opportunities to improve the Town's current rating.

- **NHA 6.** Educate residents and visitors about evacuation procedures regularly.
- **NHA 7.** Continue wildfire prevention efforts.
 - **NHA 7.1.** Educate property owners about wildfire potential and mitigation.
 - **NHA 7.2.** Continue the enforcement of the NC State Fire Prevention Code, referenced by the Town's Fire Code.
 - **NHA 7.3.** Continue enforcement of the Lot Disturbance provisions of the Town's Zoning Ordinance.

Local Concerns



Recommendations moved to Infrastructure Carrying Capacity and the Natural Environment and Land Use Compatibility Chapter

- LC 1. Maintain the aesthetic quality and navigability of the town-owned canal system.
 - LC 1.1. Maintain programs for maintenance of the town-owned canal and lagoon system maintenance that includes but is not limited to periodic dredging, control of overhanging vegetation, and debris removal.
 - LC 1.2. Develop a formalized plan that details under what conditions future canal maintenance shall occur, a schedule for these activities, and acquire the agreements, facilities, and equipment needed to execute this maintenance on a routine basis.
- LC 2. Continue to provide high quality public facilities including, police, fire, EMS, and ocean rescue.
 - LC 2.1. Ensure level-of-service standards and funding to adequately protect residents, visitors, and workers year round.
 - LC 2.2. Continue to annually evaluate lifeguard services to assure that they meet the Town's needs.
- LC 3. Support protection, maintenance, and preservation of existing parks and open spaces.

110

LC 3.1. Maintain a dialog with and promote civic associations and other property owners associations regarding their open space and recreational facilities. Civic events or meetings might potentially utilize private facilities for events.

LC 4. Administration and facilities

LC 4.1. Create a master plan for the Town-Hall and associated operations, includingidentification of future expansion needs

Southern Shores Canals

Stic udied the ecology of the coastal envir ent and decided to transform all ting swamps into navigable but one waterways own as lagoons. In November 1959 land r mation began in the back of the spundside to develop canals that would lead to the ynd. First, a canal was dug Text moved to page ast created using donated Dick White Bridge. Due to of the existing swamp, an isk was created in the middle of the canal alon, logwood Trail. The remaining swamps (exc Cypress Swamp) would become na ale lagoons that would create connection throughout Southern Shores.

- and opportunities. New facilities could lead by example in exhibiting high quality design standards.
- LC 4.2. Identify and acquire areas for expansion of administrative and operational facilities.
- LC 4.3. Upgrade public facilities and buildings according to current needs and capital improvement planning. Currently, this specifically includes the police department, upfit to the public works building and the Town Hall/Pitts Center complex.

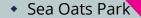
LC 5. Civic gathering space

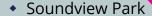
- LC 5.1. Consider developing a public, civic gathering space that is accessible by automobile and non-automobile transportation networks.
- LC 5.2. Expand the Pitts Center capabilities to accommodate more public events and activities.
- LC 6. Minimize solid waste by encouraging waste reduction, reuse, and recycling.
 - LC 6.1. Continue maintaining the Town's appearance by enforcing the Town's Solid Waste Ordinance.

- LC 6.2. Continue to provide trash pickup, curbside recycling, large item pickup, and chipping programs.
- LC 7. Consider establishment of a corridor overlay landscaping and site design requirements along Hwy 158. This may involve coordination with Kitty Hawk and Dare County (Martin's Point) along shared boundaries.

Parks in Southern Shores

SOUTHERN RES CIVIC ASSOCIATION





Triangle Park

CHICAHAUK PROPERTY OWNERS ASSOCIATION

- Trinitie Park
- Poteskeet Park





Transportation and Mobility



- **MB 1.** Minimize the negative impacts on the community of traffic volume and congestion.
 - **MB 1.1.** Continue to support the Mid-Currituck Bridge or other similarly oriented efforts that will reduce thrutraffic in the Town.
 - *MB 1.2.* Maintain NC 12 as a two-lane highway, with no additional through lanes or two-way continuous turn lanes, except at key commercial areas.
 - MB 1.3. Continue to seek and employ methods to minimize cut-thru traffic along residential streets, especially South Dogwood Trail, during the summertime.
 - Continue traffic counts on S Dogwood Trail, Hillcrest Dr., Sea Oats Trail, and Wax Myrtle Trail.
 - Consider traffic calming interventions on these streets.
 - MB 1.4. Ensure an adequate system of roads, bridges and pathways to meet the transportation and pedestrian safety needs of the Town in a way that protects, preserves and where possible improves the environment and water quality.

- **MB 2.** Enhance pedestrian connectivity, trails, and non-automobile mobility.
 - *MB 2.1.* Continue the expansion of the pedestrian trail network and bicycle route network. This may include public/ private partnerships where appropriate.
 - See the pedestrian priorities map on page 113.
 - *MB 2.2.* Connect multi-use paths to the Market Place and Southern Shores Crossing.

Pedestrian Priorities

Additional pedestrian connections or safety improvements should be prioritized, including the following:

- 1 NC 12 from Triangle to E. Dogwood Trail (east side of the street)
- 2 Hickory Trail from E. Dogwood Trail to the beach access
- 3 Hillcrest Drive from Hickory Trail to NC 12



Pedestrian priorities are subject to change.

Pedestrian Priorities Charles Jenkins Ln Jay Crest Rd CURRITUCK SOUND ATLANTIC OCEAN JEAN GUITE CREEK City Limits **TYPE** IMPROVED WALKWAY UNIMPROVED NATURE TRAIL - - Proposed Trails 158

Transportation and Mobility



MB 2.3. Continue to prohibit golf carts on trails meant for pedestrians or bicycles.

MB 3. Maintain safe pedestrian facilities.

MB 3.1. Coordinate with NCDOT on pedestrian crossing enhancements along Highway 12.

MB 3.2. Continue efforts to expand multi-use paths, recreational trails, and sidewalks.

MB 4. Ensure adequate road systems, bridges, and pathways meet transportation and pedestrian needs.

MB 4.1. Maintain a formalized plan for Town road maintenance including Town-owned sidewalks, trails, and bike paths. This would address general repairs, tree root control and tree trimming, road resurfacing, crack sealing, and right-of-way clearance. This plan could also include the conditions under which private roads will be accepted into the Town's public street network.

MB 4.2. Coordinate with NCDOT for maintenance issues along Hwy 12.



Electric vehicle charging stations located at Town Hall.

MB 5. Seek out opportunities to expand the existing Electric Vehicle (EV) charging network.

MB 5.1. There are currently 2 EV charging stations located at Town Hall.

 As demand increases, the Town should incorporate EV charging stations on town-owned land or develop public-private partnerships for additional locations.

Item 9.

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Implementation

In the following pages key implementation steps (actions) are identified with relevant CAMA Topics and implementation time-frames indicated. Implementing actions are prioritized by time frame: ongoing, short term; medium term; or long term. The recommended scheduling of implementing actions is as follows: short term (1-2 years, FY 2024/2025, FY 2025/2026), medium term (3-5 years, FY 2026/2027, FY 2027/2028, FY 2028/2029, FY 2029/2030, FY 2030/2031), and long term (6-10 years, FY 2031/2032, FY 2032/2033, FY 2033/2034, FY 2034/2035, FY 2035/2036). Actions labeled as "ongoing" require regular action by staff or boards to accomplish. Adherence to the established timelines listed herein will be used by the Coastal Resources Commission to track progress toward plan implementation on CAMA related topics, although it is understood that these timelines may be amended by the local government. The Town will use zoning, work planning, and other local government powers to make progress on the policies and actions described in this plan.

Implementation Table

	M	Lar ana		Jse mei		olicy NMA ation (I), of Local	rame Year)
Plan Recommendation	TNC	ΡΑ	221	NHA	WO	CAMA P (P), CA Implements or strictly concern	Time Fr (Fiscal)
PA 1. Continue to recognize existing private ownership, control and maintenance of current access to the beach and public trust waters.		X				Р	Ongoing
PA 1.1 Coordinate with the SSCA.		Χ				I	Ongoing
PA 2. Expand capacity and number of no-pay parking areas for use by residents registered with the Town, as opportunities arise.		X				Р	Long term
PA 3. Continue enforcement of dune protection regulations.		Χ				Р	Ongoing
PA 4. Consider opportunities for town-owned accesses as opportunities arise.		Х				Р	Ongoing
PA 5. Establish criteria to determine triggers for when private structures or development has encroached upon public trust areas (i.e. – when has enough erosion occurred that the structure is encroaching on the public beach or tidal area) and for subsequent action (removal, relocation, etc.).		X				Р	Ongoing

	M	Lai lana		Jse me		IA Policy), CAMA entation (I), ttly of Local cern (L)	rame Year)
Plan Recommendation	TNC	PA	၁၁၊	NHA	WO	CAMA Policy (P), CAMA Implementation or strictly of Lo	Time Frame (Fiscal Year)
PA 5.1. The process should consider regularly scheduled beach nourishment activities, but should also prevent the collapse of structures into the public trust beaches and ocean.		Х			Ī	1	Long term
PA 5.2. Ensure new development adheres to CAMA requirements in the Ocean Hazard Area of Environmental Concern (See 15A NCAC7H .0306 for building and setback requirements).		Х				I	Ongoing
PA 6. Continue beach nourishment and dune management in a way that distributes costs equitably based on benefits received.		Χ				Р	Ongoing
PA 6.1. Maintain beach access.		Х				I	Ongoing
PA 6.2. Consider partnerships between the Town and civic and homeowner's associations to enhanced existing facilities (i.e., maintenance, accessibility, signage, safe crossings, sidewalks, bike parking, etc.) at beach access points or on the crossovers.		Х				ı	Ongoing
PA 6.3. Encourage the Southern Shores Civic Association to maintain its handicapped accessible beach access.		Х				I	Ongoing
PA 7. Maintain the aesthetic quality and navigability of the town- owned canal system.						L	Ongoing
PA 7.1. Maintain programs for maintenance of the town-owned canal and lagoon system maintenance that includes but is not limited to periodic dredging, control of overhanging vegetation, and debris removal.						L	Ongoing
PA 7.2. Develop a formalized plan that details under what conditions future canal maintenance shall occur, a schedule for these activities, and acquire the agreements, facilities, and equipment needed to execute this maintenance on a routine basis.						L	Ongoing
LUC 1. Support development/redevelopment that considers land suitability, the future land use map, and avoids impacts on environmentally fragile areas.	Х					Р	Ongoing
LUC 2. Use the future land use map, storm surge maps, flood exposure maps, wetlands assessments, and projected sea level rise and flood vulnerability data when deciding rezoning and development requests.	X					Р	Ongoing

	M	Lar lana		Jse mei		Policy CAMA ntation (I), ly of Local ern (L)	Frame I Year)
Plan Recommendation	TNC	ΡΑ	221	NHA	WO	CAMA Policy (P), CAMA Implementation or strictly of Lo	Time Frame (Fiscal Year)
LUC 2.1. Consider amendments to the Land Use Plan when necessary.	Х	Ī				T.	Ongoing
LUC 3. Preserve the low-density nature of the residential community on large (20,000+ sqft) lots, wherever possible, and keep the commercial district small and contained on the southern end of Town.	Х					Р	Ongoing
LUC 3.1. Support development design and approvals that reinforce the low-density nature of the community and are at an appropriate scale for the commercial district.	Х					L	Ongoing
LUC 3.2. Consider evaluation of the Town's current policy on separate living spaces and consider revisions to allowances and standards for Accessory Dwelling Units by zoning district. Coordinate with the SSCA to determine allowances and site design standards.						L	Medium Term
LUC 4. Create and encourage Low-Impact Development strategies.	Х					Р	Medium term
 LUC 4.1. Support Low impact development techniques that include: Limiting areas of disturbance in residential and nonresidential districts. Innovative, green stormwater infrastructure that allows infiltration and filtering of pollutants. Incorporating pervious pavements, rain gardens, bio-swales, stormwater planters, and other and other features in new development. Develop LID stormwater manual or other educational materials to support innovative site design. 	×					ı	Medium term
LUC 5. Evaluate the impact of Short-Term Rentals relative to the desired low-density residential character of the community, with attention paid to how they affect the quality of life of year-round residents.						L	Ongoing
LUC 5.1. Coordinate with the short-term rental companies and the Outer Banks Realtors Association.						L	Ongoing
LUC 6. Continue to encourage commercial development and redevelopment primarily along US 158 and the southern end of Highway 12.	Х					Р	Ongoing

	M	Lai lana	AM nd l age opi	Jse mei		Nolicy CAMA ntation (I), Iy of Local ern (L)	rame rear)
Plan Recommendation	TNC	PA	221	NHA	WO	CAMA P (P), C/ Implements or strictly concern	Time Frame (Fiscal Year)
LUC 7. Continue to enforce community design standards such as regulating building height, lot coverage, building size and capacity, and other standards that preserve local character.						L	Ongoing
LUC 8. Create standards so that existing commercial sites can be redeveloped and intensified in ways that encourage a family-friendly commercial experience where people can gather, shop, etc.						L	Long term
 LUC 8.1. Consider enhanced commercial standards including: Frontage and/or landscaping requirements Facade materials and articulation Ground level details, such as, transparent glazing, minimal blank walls, presence of canopies/awnings, etc. 						L	Short term
LUC 9. Enhance entryway, directional, and marker signage.						L	Long term
LUC 10. Monitor and preserve maritime forests and other tree canopy coverage.	Χ			X		Р	Long term
 LUC 10.1. Monitor forest cover and canopy and attempt to increase habitat quality and connectivity in a way that is balanced with natural hazard concerns (wildfire, tree blowdowns, etc.). Consider utilizing aerial imagery and/or LiDAR data to establish a baseline of current tree canopy coverage. Analysis and field visits by a biologist can help classify forest cover to determine extent of in-tact maritime forests. 	Х			Х		I	Long term
LUC 10.2. Review standards for tree preservation in new development and redevelopment to ensure they protect and preserve the existing canopy and forest coverage.	Х			Х		1	Medium term
LUC 10.3. Consider establishing ordinances related to heritage tree and maritime forest preservation.	Х			Х		I	Medium term
LUC 11. Continue protecting valuable historic resources.						L	Ongoing

	M	Lar lana		Jse mei		Policy CAMA ntation (I), ly of Local	Frame I Year)
Plan Recommendation	TNC	ЬА	221	NHA	WO	CAMA Policy (P), CAMA Implementation or strictly of Lo	Time Fi (Fiscal
LUC 11.1. Consider becoming a Certified Local Government. Certified Local Governments are eligible for grant funding for activities such as (1) architectural or archaeological survey, (2) National Register funding, (3) preservation planning, (4) design standards, (5) architectural plans or feasibility studies, and (6) occasionally, physical restoration and stabilization.						L	Medium term
LUC 12. Consider establishment of a corridor overlay landscaping and site design requirements along Hwy 158. This may involve coordination with Kitty Hawk and Dare County (Martin's Point) along shared boundaries.						L	Medium term
ICC 1. Maintain long range plans for public infrastructure systems to ensure that these systems are appropriately sized, located and managed to deliver the services the community needs while protecting adjacent environmental resources.			X			Р	Ongoing
ICC 2. Discourage the filling of coastal wetlands.			Х	Х		Р	Ongoing
ICC 3. Allow hard armoring (seawalls, bulkheads, rock vetments, modification, etc.) of natural shoreline in canals. Nature-based or habitat-enhancing armoring is preferred. Relocation or removal of structures is beneficial to the natural environment, but is not required.			Х	Х		Р	Ongoing
ICC 4. Continue to prohibit hard armoring of the oceanfront (currently prohibited by the Town and the State).			Х	Х		Р	Ongoing
ICC 5. Create a more formalized and proactive public education program relating to the natural environment, especially the maritime forest, local wildlife, and environmental uniqueness and identity of the area.			Х	Х		Р	Long term
ICC 5.1. Convey this information explicitly via signage, public education, and proactive communication. This might also involve pursuing and achieving certain designations like Tree City, Wildlife Sanctuary, or Bee Town at a community-wide level.			Х	X		I	Long term
ICC 6. Continue to provide high quality public facilities including, police, fire, EMS, and ocean rescue.						L	Ongoing
ICC 6.1. Ensure level-of-service standards and funding to adequately protect residents, visitors, and workers year round.						L	Ongoing

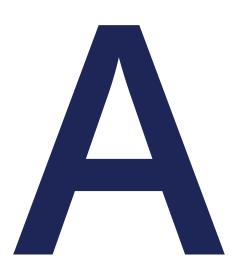
	M	Lar ana		Jse mei		Policy CAMA ntation (I), y of Local	Frame I Year)
Plan Recommendation	TNC	ЬА	221	NHA	WO	CAMA Polic (P), CAMA Implementatio or strictly of L concern (L	Time Fr (Fiscal
ICC 6.2. Continue to annually evaluate lifeguard services to assure that they meet the Town's needs.						L	Ongoing
ICC 7. Support protection, maintenance, and preservation of existing parks and open spaces.						L	Ongoing
ICC 7.1. Maintain a dialog with and promote civic associations and other property owners associations regarding their open space and recreational facilities. Civic events or meetings might potentially utilize private facilities for events.						L	Ongoing
ICC 8. Maintain adequate facilities for administrative and operational functions.						L	Ongoing
ICC 8.1. Create a master plan for the Town Hall and associated operations, including identification of future expansion needs and opportunities. New facilities could lead by example in exhibiting high quality design standards.						L	Long term
ICC 8.2. Identify and acquire areas for expansion of administrative and operational facilities.						L	Ongoing
ICC 8.3. Upgrade public facilities and buildings according to current needs and capital improvement planning. Currently, this specifically includes the police department, upfit to the public works building and the Town Hall/Pitts Center complex.						L	Long term
ICC 9. Consider opportunities to expand civic gathering space.						L	Long term
ICC 9.1. Consider developing a public, civic gathering space that is accessible by automobile and non-automobile transportation networks.						L	Long term
ICC 9.2. Expand the Pitts Center capabilities to accommodate more public events and activities.						L	Long term
ICC 10. Minimize solid waste by encouraging waste reduction, reuse, and recycling.						L	Ongoing
ICC 10.1. Continue maintaining the Town's appearance by enforcing the Town's Solid Waste Ordinance.						L	Ongoing
ICC 10.2. Continue to provide trash pickup, curbside recycling, large item pickup, and chipping programs.						L	Ongoing

		Lar ana	AM nd l age opi	Jse mei		Policy AMA ation (I), of Local n (L)	rame Year)
Plan Recommendation	TNC	ЬА	221	NHA	WO	CAMA Policy (P), CAMA Implementation or strictly of Loconcern (L)	Time Frame (Fiscal Year)
WQ 1. Encourage the use of Low Impact Development (LID), vegetative buffers to filter stormwater, impervious surface limits, and innovative stormwater management alternatives to reduce runoff and to improve environmental water quality.				Х	Х	Р	Medium term
WQ 1.1. Consider incentives to encourage permeable pavement and other LID features for residential properties. (i.e. a lot coverage credit/bonus).				X	X	1	Short term
WQ 2. Consider establishment of a septic system monitoring program to identify underperforming or malfunctioning septic systems and ensure remediation by the property owner.					Х	Р	Medium term
WQ 3. Consider establishment of a consistent water quality monitoring program at key locations in the canals and the sound and identify and address point and non-point sources of pollution.					X	Р	Medium term
WQ 3.1. Begin a new program or encourage the SSCA to resume its water quality monitoring program in the canals and the Currituck Sound.					Х	I	Medium term
WQ 4. Allow the use of package systems when traditional systems are environmentally infeasible.					Х	Р	Ongoing
WQ 4.1. Follow best practices and state requirements for package systems (management, operations, etc.)					Х	1	Ongoing
NHA 1. Ensure that all stormwater management facilities and infrastructure within the Town, whether public or private, are designed, constructed, operated, and maintained in a proper manner.				Х		Р	Long term
 NHA 1.1. Update standards, enforcement or maintenance procedures to ensure stormwater facilities accomplish the following: Eliminate flooding without intensifying other runoff related problems. Preserve and enhance the natural drainage systems within the Town. Contribute to preserving and enhancing overall water quality. Do not require power to function. Require minimal regular maintenance to function properly. 				X		I	Long term

	CAMA Land Use Management Topic		Policy CAMA ntation (I), ly of Local	rame Year)			
Plan Recommendation	TNC	PA	၁၁၊	NHA	WO	CAMA Policy (P), CAMA Implementation or strictly of Ly	Time Frame (Fiscal Year)
NHA 2. Use the future land use map and zoning as a hazard mitigation tool by preventing development intensification in high hazard areas.				X		Р	Ongoing
NHA 3. Evaluate high hazard and/or repetitive loss properties and assess the potential to acquire these, reduce community exposure, and provide flood protection and open space areas.				X		Р	Long term
NHA 4. Use storm surge maps, flood exposure maps, and projected sea level rise and flood vulnerability data when assessing requests to intensify development in higher risk areas. Require alternative or mitigating design where appropriate.	Х			Х		Р	Ongoing
NHA 4.1. Evaluate processes to evaluate the adequacy of stormwater infrastructure periodically in areas of concern or in response to development proposals.				Х		1	Medium term
NHA 5. Continue participation in FEMA's Community Rating System.	Х			Х		Р	Ongoing
NHA 5.1. Use FEMA's Community Rating System "A Local Official's Guide to Saving Lives, Preventing Property Damage, and Reducing the Cost of Flood Insurance" to seek out opportunities to improve the Town's current rating.				X		1	Short term
NHA 6. Educate residents and visitors about evacuation procedures regularly.				Х		Р	Ongoing
NHA 7. Continue wildfire prevention efforts.				X		Р	Ongoing
NHA 7.1. Educate property owners about wildfire potential and mitigation.				Х		I	Ongoing
NHA 7.2. Continue the enforcement of the NC State Fire Prevention Code, referenced by the Town's Fire Code.				Х		1	Ongoing
NHA 7.3. Continue enforcement of the Lot Disturbance provisions of the Town's Zoning Ordinance.				Х		I	Ongoing
MB 1. Minimize the negative impacts on the community of traffic volume and congestion.						L	Ongoing
MB 1.1. Continue to support the Mid- Currituck Bridge or other similarly oriented efforts that will reduce thru traffic in the Town.						L	Ongoing

	M	Lar ana		Jse mei		Policy CAMA ntation (I), ly of Local ern (L)	Frame I Year)
Plan Recommendation	TNC	ЬА	221	NHA	WO	CAMA Policy (P), CAMA Implementation or strictly of Lo	Time Fi (Fiscal
MB 1.2. Maintain NC 12 as a two-lane highway, with no additional through lanes or two-way continuous turn lanes, except at key commercial areas.						L	Ongoing
 MB 1.3. Continue to seek and employ methods to minimize cutthru traffic along residential streets, especially South Dogwood Trail, during the summertime. Continue traffic counts on S Dogwood Trail, Hillcrest Dr., Sea Oats Trail, and Wax Myrtle Trail. Consider traffic calming interventions on these streets. 						L	Ongoing
MB 1.4. Ensure an adequate system of roads, bridges and pathways to meet the transportation and pedestrian safety needs of the Town in a way that protects, preserves and where possible improves the environment and water quality.						L	Ongoing
MB 2. Enhance pedestrian connectivity, trails, and non-automobile mobility.						L	Ongoing
MB 2.1. Continue the expansion of the pedestrian trail network and bicycle route network. This may include public/private partnerships where appropriate.						L	Medium term
MB 2.2. Connect multi-use paths to the Market Place and Southern Shores Crossing.						L	Medium term
MB 2.3. Continue to prohibit golf carts on trails meant for pedestrians or bicycles.						L	Ongoing
MB 3. Maintain safe pedestrian facilities.						L	Ongoing
MB 3.1. Coordinate with NCDOT on pedestrian crossing enhancements along Highway 12.						L	Ongoing
MB 3.2. Continue efforts to expand multi-use paths, recreational trails, and sidewalks.						L	Long term
MB 4. Ensure adequate road systems, bridges, and pathways meet transportation and pedestrian needs.						L	Ongoing
MB 4.1. Maintain a formalized plan for Town road maintenance including Town-owned sidewalks, trails, and bike paths. This would address general repairs, tree root control and tree trimming, road resurfacing, crack sealing, and right-of-way clearance. This plan could also include the conditions under which private roads will be accepted into the Town's public street network.						L	Medium term

		Lar ana		Jse mei		olicy AMA ation (I), of Local n (L)	rame Year)
Plan Recommendation	LUC	ЬА	221	NHA	WO	CAMA P (P), C/ Implements or strictly conceri	Time Fr (Fiscal
MB 4.2. Coordinate with NCDOT for maintenance issues along Hwy 12.	Ī					L	Ongoing
MB 5. Seek out opportunities to expand the existing Electric Vehicle (EV) charging network.						L	Long term
 MB 5.1. There are currently 2 EV charging stations located at Town Hall. As demand increases, the Town should incorporate EV charging stations on town-owned land or develop public-private partnerships for additional locations. 						L	Long term





Appendix A: CAMA Matrix

CAMA Matrix

Matrix for Land Use Plan Elements – 15A NCAC 7B	
0702	
	Page Reference(s)
Organization of the Plan	
Matrix that shows the location of the required elements as set forth in this Rule	page 128
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 14-18
Description of the land use and development topics most important to the future of the planning area, including:	
Public Access	page 18
Land Use Compatibility	page 18
Infrastructure Carrying Capacity	page 18
Natural Hazard Areas	page 18
Water Quality	page 18
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. 	page 7
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	page 24
Current permanent and seasonal population estimates	page 26-27
Key population characteristics including age and income	page 28
Thirty-year projections of permanent and seasonal population in five-year increments	page 26-27
	page 30-33
Estimate of current housing stock, including permanent and seasonal units, tenure, and types of units (single-family, multifamily, and manufactured)	

Description of natural features in the planning jurisdiction to include:	
Areas of Environmental Concern (AECs) as set forth in Subchapter 15A NCAC 07H	page 40-44
Soil characteristics, including limitations for septic tanks, erodibility, and other factors related to development	page 50-53
Environmental Management Commission (EMC) water quality classifications and related use support designations	page 54
Division of Marine Fisheries (DMF) shellfish growing areas and water quality conditions	page 54-56
Flood and other natural hazard areas	page 58
Storm surge areas	page 58-59
Non-coastal wetlands, including forested wetlands, shrub-scrub wetlands and freshwater marshes	page 66-67, page 43
Water supply watersheds or wellhead protection areas	page 46
Primary nursery areas	page 56
Environmentally fragile areas, such as wetlands, natural heritage areas, areas containing endangered species, prime wildlife habitats, or maritime forests	page 64
Natural Systems, contd.	
Additional natural features or conditions identified by the local government	page 67
Submerged Aquatic Vegetation (SAV), climate change, and sea level rise	page 41, page 64
biscussion of environmental conditions within the planning jurisdiction to include an	
ssessment of the following conditions and features:	
Status and changes of surface water quality; including:	
	page 54-55
 Status and changes of surface water quality; including: Impaired streams from the most recent Division of Water Resources (DWR) 	page 54-55 page 56
Status and changes of surface water quality; including: Impaired streams from the most recent Division of Water Resources (DWR) Basin Planning Branch Reports	
 Status and changes of surface water quality; including: Impaired streams from the most recent Division of Water Resources (DWR) Basin Planning Branch Reports Clean Water Act 303 (d) List 	page 56
 Status and changes of surface water quality; including: Impaired streams from the most recent Division of Water Resources (DWR) Basin Planning Branch Reports Clean Water Act 303 (d) List Other comparable data Current situation and trends on permanent and temporary closures of shell-fishing waters as determined by the Report of Sanitary Survey by the Shellfish 	page 56 N/A
 Status and changes of surface water quality; including: Impaired streams from the most recent Division of Water Resources (DWR) Basin Planning Branch Reports Clean Water Act 303 (d) List Other comparable data Current situation and trends on permanent and temporary closures of shell-fishing waters as determined by the Report of Sanitary Survey by the Shellfish Sanitation and Recreational Water Quality Section of the DMF 	page 56 N/A page 55, page 56
Status and changes of surface water quality; including: Impaired streams from the most recent Division of Water Resources (DWR) Basin Planning Branch Reports Clean Water Act 303 (d) List Other comparable data Current situation and trends on permanent and temporary closures of shell-fishing waters as determined by the Report of Sanitary Survey by the Shellfish Sanitation and Recreational Water Quality Section of the DMF Areas experiencing chronic wastewater treatment malfunctions Areas with water quality or public health problems related to non-point source	page 56 N/A page 55, page 56 page 74
Status and changes of surface water quality; including: Impaired streams from the most recent Division of Water Resources (DWR) Basin Planning Branch Reports Clean Water Act 303 (d) List Other comparable data Current situation and trends on permanent and temporary closures of shell-fishing waters as determined by the Report of Sanitary Survey by the Shellfish Sanitation and Recreational Water Quality Section of the DMF Areas experiencing chronic wastewater treatment malfunctions Areas with water quality or public health problems related to non-point source pollution	page 56 N/A page 55, page 56 page 74 page 54
 Status and changes of surface water quality; including: Impaired streams from the most recent Division of Water Resources (DWR) Basin Planning Branch Reports Clean Water Act 303 (d) List Other comparable data Current situation and trends on permanent and temporary closures of shell-fishing waters as determined by the Report of Sanitary Survey by the Shellfish Sanitation and Recreational Water Quality Section of the DMF Areas experiencing chronic wastewater treatment malfunctions Areas with water quality or public health problems related to non-point source pollution Areas subject to recurrent flooding, storm surges, and high winds Areas experiencing significant shoreline erosion as evidenced by the presence of 	page 56 N/A page 55, page 56 page 74 page 54 page 58
 Status and changes of surface water quality; including: Impaired streams from the most recent Division of Water Resources (DWR) Basin Planning Branch Reports Clean Water Act 303 (d) List Other comparable data Current situation and trends on permanent and temporary closures of shell-fishing waters as determined by the Report of Sanitary Survey by the Shellfish Sanitation and Recreational Water Quality Section of the DMF Areas experiencing chronic wastewater treatment malfunctions Areas with water quality or public health problems related to non-point source pollution Areas subject to recurrent flooding, storm surges, and high winds Areas experiencing significant shoreline erosion as evidenced by the presence of threatened structures or public facilities Environmentally fragile areas (as defined in Part (c)(2)(A)(ix) of this Rule) or 	page 56 N/A page 55, page 56 page 74 page 54 page 58 page 60
 Status and changes of surface water quality; including: Impaired streams from the most recent Division of Water Resources (DWR) Basin Planning Branch Reports Clean Water Act 303 (d) List Other comparable data Current situation and trends on permanent and temporary closures of shell-fishing waters as determined by the Report of Sanitary Survey by the Shellfish Sanitation and Recreational Water Quality Section of the DMF Areas experiencing chronic wastewater treatment malfunctions Areas with water quality or public health problems related to non-point source pollution Areas subject to recurrent flooding, storm surges, and high winds Areas experiencing significant shoreline erosion as evidenced by the presence of threatened structures or public facilities 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 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: 	page 56 N/A page 55, page 56 page 74 page 54 page 58 page 60 page 65

	Policy Cita- tion(s)	Page Reference es(s)	
 Identification of existing drainage problems and water quality issues related to point-source discharges of stormwater runoff 	N/A		
Description of the existing public stormwater management system		page 74	
 Description of the impact of existing transportation facilities on land use patterns 	page 16		
Description of highway facilities on the current thoroughfare plan or current transportation improvement plan	page 78		
Community Facilities, contd.		1	
 Description of any highway segments deemed by the NC Department of Trans- portation (NCDOT) as having unacceptable service as documented in the most recent NCDOT Transportation and/or Thoroughfare Plan 	page 78		
MAP of existing and planned multimodal transportation systems and port and airport facilities		page 71	
- Future wastewater system needs based on population projections	N/A		
 Documented overflows, bypasses or other problems that may degrade water quality or constitute a threat to public health as documented by the DWR 	page 16		
- Existing capacity	ра	page 16	
- Existing condition	page 72		
Description of existing public and private wastewater systems to include:			
MAP of existing and planned public and private wastewater service areas	N/A		
- Future water supply needs based on population projections	page 26		
 Documented overflows, bypasses or other problems that may degrade water quality or constitute a threat to public health as documented by the DWR 	page 72-73		
- Existing capacity	page 16		
- Existing condition	page 72		
Description of existing public and private water supply systems to include:			
MAP of existing and planned public and private water supply service areas	N/A		
Evaluation of existing and planned capacity, location and adequacy of community facilities to include:			
Community Facilities			
Descriptions of the historic, cultural and scenic areas	page 70		
MAP of historic, cultural, and scenic areas designated by a state or federal agency or by the local government	page 71		
Characteristics of each land use category	page 68		
 Description of the existing land use patterns Estimates of the land area allocated to each land use category 	page 14 page 68		

Policies		
Policies that exceed the use standards and permitting requirements found in Subchapter 7H, State Guidelines for Areas of Environmental Concern		
Policies that address the Coastal Resources Commission's (CRC's) management topics:		
Public Access Management Goal:		
Maximize public access to the beaches and the public trust waters of the coastal region.		
The planning objectives for public access are local government plan policies that:		
Address access needs and opportunities	PA 1, 2, 3, 6, 7	page 98-99
 Identify strategies to develop public access 	PA 2, 4	page 98
 Address provisions for all segments of the community, including persons with disabilities 	PA 6	page 98
 For oceanfront communities, establish access policies for beach areas targeted for nourishment 	PA 5, 6	page 98
Land Use Compatibility Management Goal:		
Ensure that development and use of resources or preservation of land balance protection of natural resources and fragile areas with economic development, and avoids risks to public health, safety, and welfare.		
The planning objectives for land use compatibility are local government plan policies that:		
Characterize future land use and development patterns	LUC 1,2,3,6	page 100, page 102
 Establish mitigation criteria and concepts to minimize conflicts 	LUC 4	page 101
Infrastructure Carrying Capacity Management Goal:		
Ensure that public infrastructure systems are sized, located, and managed so the quality and productivity of AECs and other fragile areas are protected or restored.		
The planning objectives for infrastructure carrying capacity are local government plan policies that:		
Establish service criteria	ICC 1	page 104
	PA 3	page 98
	ICC 4,5	page 104
 Ensure improvements minimize impacts to AECs and other fragile areas 	LUC 1, 2, 10	page 100, page 103
Natural Hazard Areas Management Goal:		
Conserve and maintain barrier dunes, beaches, floodplains, and other coastal features for their natural storm protection functions and their natural resources giving recognition to public health, safety, and welfare issues.		
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 	NHA 4	page 108

Minimize threats to life, property and natural resources resulting from erosion,	NHA 2, 3, 5, 6, 7	pages 108-109
high winds, storm surge, flooding, or other natural hazards	LUC 2	page 100
Water Quality Management Goal:		
Maintain, protect and where possible enhance water quality in all coastal wetlands, rivers, streams, and estuaries.		
The planning objectives for water quality are local government plan policies that:		
Establish strategies and practices to prevent or control nonpoint source pollution	WQ 1, 2, 3, 4	page 106
	ICC 3	page 104
	NHA 1	page 108
	WQ 2, 3, 4	page 106
Establish strategies and practices to maintain or improve water quality	NHA 1	page 108
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	"Future Land Use Map" on page 91	
 Descriptions of land uses and development associated with the future land use map designations 	page 90	
Tools for Managing Development		
 Descriptions of the role of plan policies, including the future land use map, in local decisions regarding land use and development 	page 96	
 Descriptions of the community's development management program, including local ordinances, codes, and other plans and policies 	page 96	
Action Plan and Implementation Schedule		
 Descriptions 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 	page 96-97	
 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 project 	page 116-125	

Item 9.

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Appendix B: Public Survey Results

Community Survey Results

The community survey opened on December 5, 2022 and closed on January 8, 2023 with a total of 583 reponses. The survey included 11 questions. It was available online and paper copies were available at Town Hall. The survey was advertised through email, on the town's website, and through social media. The following pages include the survey results.



Southern Shores CAMA Comprehensive Land Use Plan Survey

Welcome

The Town of Southern Shores is updating its Coastal Area Management Act (CAMA) Comprehensive Land Use Plan. This plan will serve as a guide for decision makers for growth and development decisions, future investments, programs, services, and policies for the next 10-20 years and is a state requirement for the Town to enforce zoning regulations. The guidance in this plan will be applicable to the Town's municipal limits and extraterritorial jurisdiction.

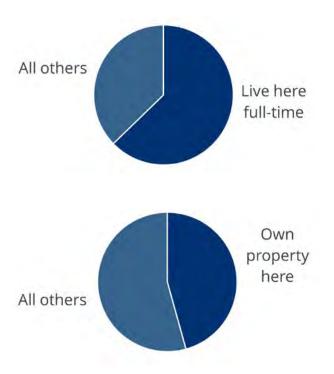
Your input is an important part of the process. The feedback gathered from this survey and public engagement activities is used to shape the Plan's vison, goals, priorities, policies, and recommendations.

All responses are anonymous unless you choose to leave identifying information. The survey will close on: January 8, 2022.

For more information, please visit the project website https://www.southernshores-nc.gov/planning/page/2022-land-use-plan-update-project), where you can view informational resources including the presentation slides from the public kickoff held on November 15, 2022. This may be helpful to view before you take this survey, but it is not mandatory.

Majority of survey respondents either live in Southern Shores full-time or own property in Southern Shores.

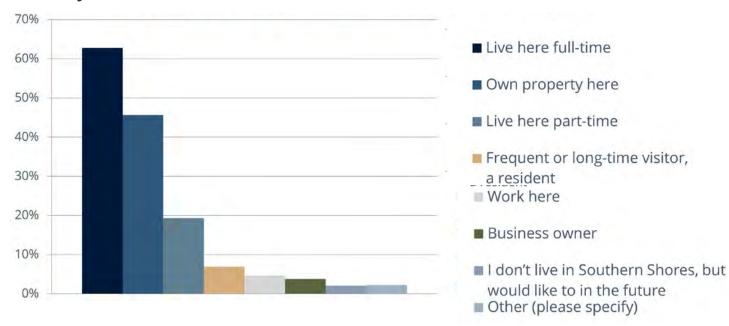
Out of 580 people who answered question 1, 13 respondents selected other.



See list of other responses:

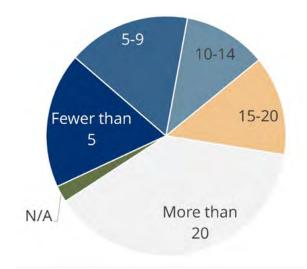
- » We will be full time residents sometime in 2023.
- » May become resident next year.
- » My family has been here since the 1700's.
- » Rented a home last winter.
- » Own a home in Duck.
- » Own a 2nd home.
- » visit as much as possible- more once retired .in about 4-5 years.
- » rent house during summer, full time otherwise
- » Kitty Hawk resident
- » Retired.
- » Live in Harbinger, NC.
- » Family comes down at least once a month.

How do you relate to Southern Shores?

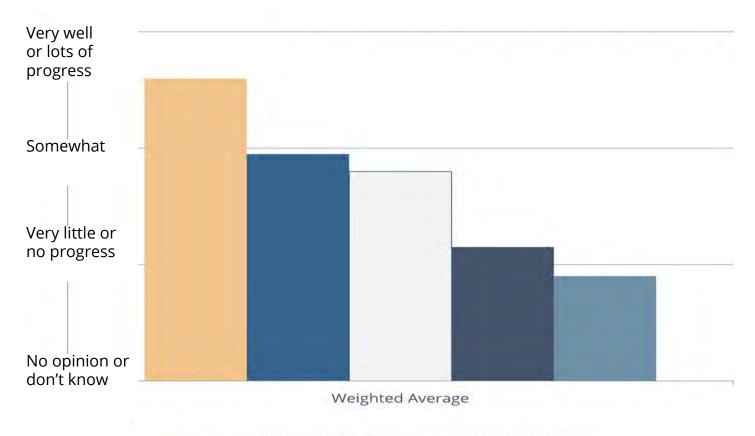


Over half of the survey respondents have lived here for at least 15 years.

How many years have you lived, worked, or owned property or a business in Southern Shores?

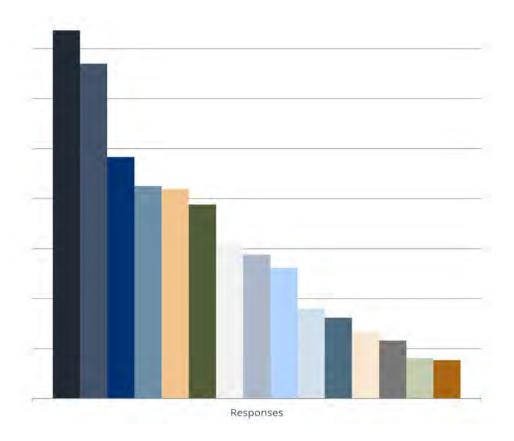


To what extent have the goals from the previous plan been achieved?



- Preserve, protect, enhance, maintain and improve the natural environment and water quality.
- To protect enhance and support lands uses that are compatible with surrounding land uses and maintain the existing community character.
- □ Protect public health and safety from the damaging effects of storm surges, wave action, flooding, high winds, and erosion associated with hurricanes, severe weather, nor'easters and other hazards.
- Encourage the maintenance and improvement of existing private access facilities to public trust waters and shorelines.
- Ensure that providing infrastructure services does not affect the quality and productivity of Areas of Environmental Concern (AEC's), important resources and other fragile areas.

What are your top five concerns for the future of Southern Shores?



- Traffic congestion
- Preserving the natural environment, wetlands, canals, maritime forest, beaches, wildlife, etc.
- Maintaining adequate public safety and emergency services response levels
- Increasing safe walking and bicycling options
- Expanding, upgrading, or maintaining public infrastructure (e.g., water, stormwater, roads)
- Access to healthcare
- Improving or maintaining private parks, private water access (beach and sound), and recreational opportunities
- Reducing flooding and vulnerability to natural hazards
- Increasing high speed internet or broadband access

- Housing affordability and availability
- Preserving historic and cultural resources
- Other (please specify)
- Short term rentals
- Improving public programs and facilities (civic center, programs, festivals, etc.)
- Lack of public parks, public water access (beach and sound), and recreational opportunities

Other responses:

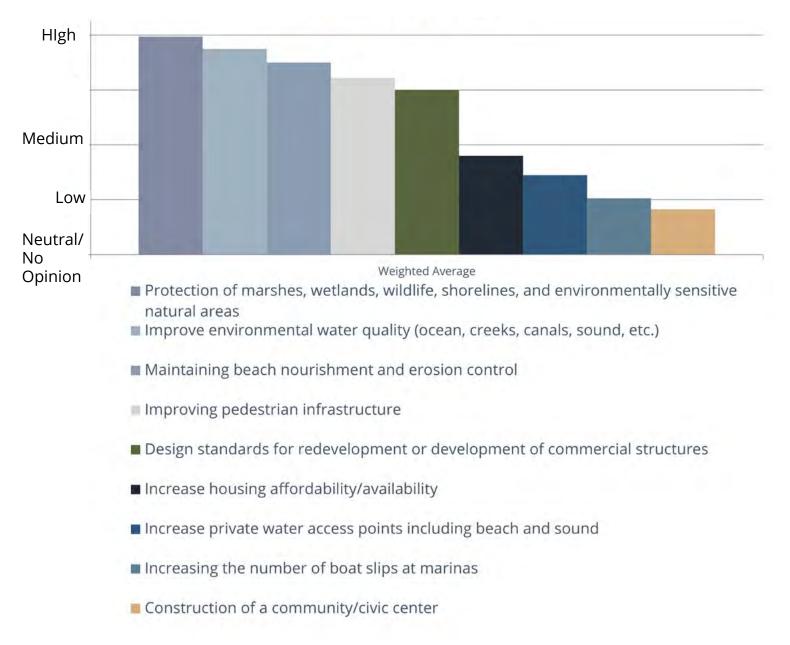
- » more flexibility in lot coverage exceptions
- » Speeding vehicles through neighborhoods.
- You are not asking important questions, the Town works with contractors but not with home owners!
- » Limiting construction of hardscape and large footprint buildings/houses
- » Improving and adding more bike/ pedestrian trails with attention to safety as a priority. Speaking of safety, the ridiculous 90-degree curbing should be immediately removed from South Dogwood Trail and other streets. (The person who thought of that idea should be publicly shamed.) When a trail/path is clogged with walkers and baby strollers, bicyclists are forced to ride on the road. The 90-degree curbing is incredibly dangerous when a biker has to get out of the way of vehicles whose drivers have moved to the edge of the road. I suspect the 90-degree curbing is not even ADA compliant. Another safety issue related to land use is the increasing number of electric bikes on the paths/ trails. They are a hazard for pedestrians and bikers on normal bikes. It is absolutely terrifying to see these electric bikers zooming down the trail toward me and expecting me to get out of their way. I have had close calls walking and biking, and it is only going to get worse as more of these electric bikes take over the paths and trails in Southern Shores! P.S. Don't let the electric bike riders fool you--they get very little exercise, and most are barely capable of riding a regular bike, much less an electric one.
- » Making development rules more flexible.
- » Helping owners to fully enjoy their homes
- » Residents should get the same consideration SAGA gets when it wants a change to our laws.

- » Fair decision-making, treating residents at least as well as, if not better, than developers
- » Fewer tourists
- » Work towards SS becoming a golfcart use community
- » Sidewalk on ocean side Duck Rd (RT12) from Split Ocean Blvd to Dogwood Rd SAFETY CONCERN
- » Wasting money on beach replenishment
- » Town needs to purchase land
- » Continued beach replenishment
- » Property tax increases and add-ons for beach nourishment.
- » I would like to see a YMCA or other REC center and (secondly) a library in Southern Shores
- » limiting the size of houses both rent and owned. 2 preventing the subdivision of large lots for multiple houses.
- » No concern for history, ie demolition of flatttops, building way too large structures with no concern for family atmosphere
- » Stop the building of mini hotels in SS plz
- » Encourage low impact development, specifically encouraging residential uses of products that promote LID.
- » FIX THE SUMMER TRAFFIC ON S. DOGWOOD !!!
- » Weekend summer traffic control!!!!!!!!!!
- » STOP 50 foot lots
- » Maintaining low-density development; limiting commercial development
- » keeping small seaside town appearance & atmosphere
- » more boat slips
- » Give residents fair hearings
- » more boat slips
- » wider roads
- » Keep Southern Shores low density and uncrowded. No mini-hotels. No two new

- houses side by side on half-sized lots. No new development other than original home lots and zoning.
- » OMIT time restrictions to allow dogs on the beach during the day in the summer like Duck, Kitty Hawk and Nags Head
- » Prohibition on building high capacity (6+) rental houses.
- » blocking the beach mini mansions (12 bedroom +)
- » wider roads
- » cut through traffic
- » Stopping mini-hotels from being built
- » Lack of a community focal point at the Market Place.
- » Allow chickens
- » repairing roads/stopping cut thru trafic of large overlaoded trucks
- » more boat slips
- » I thought my road was going to be resurfaced. 12th Ave
- » Discourage cut-throughs and speeding.
- » Improving and leveraging the development/redevelopment of our commercial properties to achieve multiple goals
- » Overall appearance of the town. Standards for housing density and character. Trash can management. Landscape standards.
- » Transparent government
- » Roads- widening, smoothing road surface, removing trees near or overhanging.
- » Stop allowing big business, we like the SMALL town feel. If you keep trying to grow and allowing big business, you invite crime, drugs and you will ruin this beautiful area
- » Not changing land lot sizes. Too much development is not always the best thing. Standard lot sizes keep over population, over crowding and rapid growth under control.
- » flush the canals by pumping sound

- water to the ends of the tributaries on a consistant flowing basis by installing an adequate pipe/pumping along the bottom of each.
- » Preventing money-focused opportunists (SAGA, Nason, Bennett) from making short term concessions that negatively impact the town long term
- » Limiting the size and building of extra large homes that don't fit the community spirit.
- » Maintaining adequate sound and canal dredging for boat access
- » I would also add that access to healthcare is essential + prioritizing public park land and public beach parking, access paths that are well planned and wisely developed is crucial
- » towns disinterest in controlling traffic issues is most disconcerting
- » I'm concerned about the increasing size and density of rental houses
- » Increasing high speed internet or broadband while managing the providers impact on the community and increasing the providers financial contribution to the community
- » Reducing overpopulation due to increases in housing size and beach nourishment
- » User friendly less restrictive rules if you want to add on or improve an existing home
- » No more HUGE HOTEL HOMES!!!
- » Keeping ALL Porta-Johns open and operational year-round and "always clean" for residents and vacation guests
- » Less restrictive rules to allow better 5G cell coverage away from NC 12 in the dunes.
- » Preserving the residential character and eliminating business encroachment.
- » Giant rental homes

Community Priorities



Other responses:

- » Improve internet and cell phone strength
- » Again you don't present real questions. You say do you want environment to suck?
- "I'm not sure what you mean by the last item, since there is no verb, but I'm assuming that the survey creators meant to ask if increasing design standards for redevelopment or development of commercial structures is a priority. I do think that should be a priority, and part of that priority should be keeping large trees if possible. (Here I'm thinking of the sad sight I see when I drive by the Marshall's construction. Those trees that were murdered for the sake of commerce provided shade in the summer and protection in the winter.
- » Don't treat stores better than homeowners.
- » Greater respect for homeowners
- » Be more flexible when it comes to approving those things a homeowner wants to do. Your planning Board loves Gupta, but doesn't seem to like regular foulls.
- » Giving homeowners the same access to permeable products as commercial developers
- » Top priority is to address the beach nourishment that was inadequately completed. We witnessed the rush of the nourishment in the northern part of SS and can visually see we didn't get our monies worth.
- » South Dogwood wider for bike traffic
- » As noted, better golf cart access throughout the community and to adjacent businesses
- » Allow ADUs for long term rental. Tastefully done of course.
- » Some sort of public transportation, maybe? A beach trolley?

- » Preventing zoning violations skirting rental property constraints
- » I love the idea of a Recreation Center to provide indoor pool and exercise for the residents of Southern Shores. I don't want to see Commercial building in Southern Shores, and in the areas that already have Commercial development I'd love to see building restrictions for the outside to keep the style of commercial in "old Outer Banks" style, rather than bright colorful (in my opinion gawdy) commercial buildings.
- » maintaining the intended character of the town formed at its inception.
- » Relabel S Dogwood Trail
- » organized senior center with activities
- » Better maintenance of the creeks and canals (dredge)
- » Extending treatment of commercial development to residential development.
- » Don't need a Community/Civic Center when you have Duck Woods Country Club functioning as a de facto center that is only paid for by those that use it
- » Prevent mini hotels- high
- » STOP 50 foot lots
- » Preservation of maritime forest/prevention of clear-cutting. I would rather see commercial property rezoned residential than spend time on commercial design standards.
- » design standards for private homes to keep small town atmosphere
- » Give residents the same options & tools as are given to commercial developers
- » Ensure beach nourishment implemented professionally and equitably
- » Improve traffic congestion. Plus sidewalks on both sides of Duck Road.
- » Omit time restrictions to allow dogs on the beach all day like Duck, Kitty Hawk and Nags Head

- » Improving bay water quality by addressing septic systems near the bay
- » Traffic concerns during summer high
- » Blinking pedestrian crossing on HWY12
- » STOP building!!!! Leave the vegetation!!! You're ruining the Outer Banks!!!!
- » Develop requirements for AirBnB rentals especially concerning parking, etc. Medium
- » Marina are not owned by town deed them over to town as well as all other SSCA property
- » Provide for a public library
- » Discourage market penetration by AirBnb, VBRO, etc.
- » Improve road system
- » Maintaining character of Southern Shores, i.e., smaller houses and only one house per lot.
- » Manage residential building to limit any increases in density.
- » Better housing standards to protect our environment
- » Eliminate traffic by tourists through the town.
- » no more yard signs
- » Improving roads
- » Stop stop stop leave it alone- you are going to distroy this beautiful area and once it gets to big you can't go back. We left the hell hole crime ridden, drug infested, dirty areas of upstate
- » Maintenance of existing pedestrian infrastructure, is as important as developing new.
- » Build the Currituck bridge
- » Traffic should be a HIGH priority
- » Increasing access to beaches beyond what is currently here, will only allow increased over crowding at the beaches. If you live in or are visiting Southern Shores there is ample beach access. Opening sites to the public will only bring crowds from outside

- the area to our beaches and expose us to pollution on the beach. We don't need to be Jersey Shore, Ocean City or Virginia Beach.
- what about public water access? Dont be like Duck. Also, pump sound water into the stagnant canal system to revitalize their health and ecological systems
- » Limit Mini-hotels. Can't believe they are allowed.
- » Mid Currituck Bridge
- » Permanent high quality bathroom facilities at all water access points
- » You cannot maintain environmental quality by increasing development the old way. If you do, people will no longer want to live/ visit SS. There is a need for smart growth management that prioritizes environmental quality.
- » limit mini hotels and limit # cars per unit occupied short term
- » I'm opposed to beach nourishment. I'm in favor of erosion control and ocean dune protection.
- » no homes on 50 ft lots
- » Continue to have Southern Shores a family rental home location.
- » Crumbling road infrastructure repaving

Community Values

- » Great ocean beach; reasonable housing density
- » The natural environment, the controlled development
- » beach and predominance of residential development
- » In the past we valued the safety of our neighborhoods. That is not the case anymore.
- » Large lot size, natural ambience, beach access, woodlands
- » The quiet streets & safe and beach and sound access.
- » Safety and pleasant environment . I would wish if there could be side lights around Juniper and Trinity Trail for pedestrians. In the evening we are waking there like zombies
- » Hope
- » Quiet community that cares for the environment and maintains the infrastructure
- » Many single family homes year round, rental homes for 2 or 3 families at a time, the wonderful beaches
- » It is a quiet and safe place to live.
- » I value the natural setting, which is increasingly endangered by large homes that should be treated as motels.
- » Can't say seems like people on west side get better treated
- » No Dogs on beach at least for partial year
- » location
- » It's size.
- » Safety, beauty, small town charm.
- » Quiet community, however we could use more restaurants.
- » Keeping town as it is. Low density residential community.
- » Sense of volunteerism and community,

- walking/short drive access to beach and sound
- » Well managed town with effective services.
- » The people! We are recent transplants, and the people are fantastic
- » The people, over all the diversity of the area l.e. beach area, dunes and woods. Nearness to grocery stores, banks, drug stores Rte12 and Rte 158
- » I love the ocean and the peaceful neighborhood, but wish there was less traffic in the summer.
- » Commercial free, excellent management and control generally, responsive community actions
- » peace and quiet
- » The quiet neighborhoods. The maritime forests. Beaches.
- » Keep taxes to minimum to allow full time living to be affordable.
- » Access to ocean and sound waters
- » Access to natural resources in a controlled development that is not overly commercialized and maintains the character of the original land.
- » Access to nature and natural resources
- » Private beaches, natural living environment, living in a maritime forest, and strong community support
- » The old beach residential feel of SS is key to its uniqueness and desirability. Please stop the commercialism of big box stores. Keep the Mom and Pops a priority so that the Outer Banks won't become a mini VA Beach.
- » Natural environment
- » "Natural beauty. Small village feel."
- » The large lots and privacy.
- » The small town feel of our community
- » Serenity, nature, uncrowded beaches, larger lots.

- » Minimal commercial development, mostly single family homes
- » I value the the family oriented, noncommercial use of the land. Hotels disguised as massive house have no place here. Let KDH have the lock on that commercialization.
- » Local Feel. Maritime forest. Doesn't feel like the rest of the beach with rentals every inch and mass amount of clearly large, not single family homes. Quite, safe, relaxing streets.
- » The people
- » It's pristine maritime feeling
- » The area is designed to give homeowners space and privacy and homes are unique and not uniformly designed.
- » Preserving our natural environment and being tough on building rules and restrictions. We do NOT want to become a Myrtle Beach or a Va Bch.
- » "It's quaint character.
- » Access to everything that living on a barrier island can offer. "
- » the people
- » It's beauty and community orientation with a small town feel.
- » The natural beauty, the peacefulness, and the water access.
- » The small town country feel. I want to know my neighbors and not have to contend with the weekly turnover crowd.
- » Large lots, preservation of vegetation and landscape
- » Small town, rural / semi wildness feel
- » Healthy & safe environment, sense of community and access to recreational, commercial and health care services.
- » The natural beauty, the trees and quiet roads. The ocean and the many accesses we have to it.

- » The peacefulness, the nature, the community.
- » Environment
- The family friendly neighborhood feel and safety of the area. The fact that Southern Shores has it's own parking areas.
- » I value the ambiance provided by the separation of the residential and commercial zones. The pleasure of walking in the residential area(s) is very much increased by the almost complete separation from commercial activity.
- » Safe, friendly and close to bridge in emergencies
- » The small amount of visitors on the beach
- » The quaintness and lack of giant ugly 20 bedroom houses filled with idiots
- » Quiet community.
- » Lifestyle
- » Sense of community. More residential and less weekly rental than other communities.
- » Predominately residential; not overdeveloped; nature; spacious lots; quiet; outdoor activities (walking, biking, etc.); small community vibe; a respite from the over commercialization of the rest of the beach.
- » Quiet peaceful setting.
- » Safe place to raise a family.
- » Natural beauty and preserved green spaces, unique character, absence of overcommercialization, quiet neighborhoods, access to points north and south as well as beach and sound, walking & biking paths/ trails community pride
- » small ton and beach
- » Privacy, trees, peacefulness, quiet
- » Live oak trees, beach access & walking paths
- » Quiet family atmosphere and safety
- » Great neighbors and neighborhood,

- friendly, beach access, primarily full-time residents, beautiful environment.
- » Peace of mind
- The layout of the entire Southern Shores. The zoning regulations made to protect the value of homes and not allowing for houses that are very small.
- » Quiet clean beaches, more residential vs commercial/tourist, access to nearby amenities, turtle and other wildlife protection and preservation
- » Residential Lifestyle and zoning that keeps commercial activity centralized.
- » Serenity
- » Natural environment and sense of community
- » Full time residents which creates more sense of community
- » non-comercial
- » Excellent Public Safety
- » green and natural spaces
- The fact that just 2 blocks off the main road it's peaceful and relaxing, with full-time residents/neighbors.
- » Low density life style
- » Canals
- » Low crime rate
- » Privacy
- » It is a private and residential community.
- » Lot size and low density are what attracted us to SS. Taxes were alos lower than other OBX towns but have gone up considerably
- » Serenity and privacy
- » The noncommercial, residential natural beach atmosphere. Southern Shores is the antithesis of the commercial "Virginia Beach" oceanfront environment.
- » My neighbors and community. Park-like setting with recreational venues available. Walking and biking are easy.

- » environmentally friendly, lack of commercialization
- » Natural beauty of the maritime forest
- » The privacy afforded by the landscape of trees.
- » Low density development
- » location
- » I enjoy the larger lots with plenty of space between houses. I moved here so I didn't live with my window looking into my neighbor.
- » Everyone waves "HI", and smiles, when passing on the side streets.
- » Low population density, natural resources
- » The ambiance of Southern Shores, The solitude and the sanctuary of this area is to be admired and respected and kept pristine with a forward-looking perspective on the next 5 years.
- » The wooded areas
- » The small community charm. Friendly people, lots of walking and bike riding. The quietness.
- "Natural beauty. Peace and quite. Clean beaches. Police
- » protection. "
- » Community, Private Beach Access
- » The low-density residential character of the community and the uncrowded beaches.
- » Trees and the tranquility
- » It's quiet character, the privacy and the goodness of my neighbors
- » Peaceful and quiet community yet also very close to some very nice amenities.
- » The Town's natural beauty, especially it's diversity of environments. Also the volunteer character of its residents.
- » Access to beach
- » Lack of housing density and easy/quick access to the beach are the most important qualities of Southern Shores for us. True

- when we bought our summer home in 2006 and still true today.
- » Quiet, low lights, Nice neighborhoods
- » natural beauty
- » Tranquility
- » I love that Southern Shores is kept in a fashion that most resembles what the Outer Banks used to look like. I don't want to see gaudy commercial buildings. I wish Southern Shores would be planned, much like Sanderling was planned to be in keeping with an old Outer Banks style. (Planned exteriors, etc....). I also value the fact that the police department enforce noise violations for those of us who live here full time, and want to enjoy a peaceful environment in which to live/sleep!
- » Green space, low density housing
- » My neighbors, the tree lined streets w/ no street lights. SS is the perfect location to travel North or South w/ease. And out lovely beaches.
- » It may be the least town in the outer banks that still feels like a real community
- » its character and quiet, its dark nite skies. small houses and quiet neighborhoods.
- » Peaceful setting with trees and large lots.
- » The natural beauty within close proximity of our house.
- » Beauty and cleanliness of accesses and streets. Need a gardening club
- » That it's a hidden gem, an area not overrun with tourists or development. It's special because of that so all steps should be taken to ensure the quiet, private nature of the community continues. Where else are deer your neighbors and it's so peaceful...
- » The feeling that it is a community not a commercial profit center./
- » Quiet neighborhood. Fire department.
- » Houses surrounded by trees with easy

- access to shopping and beaches; good pedestrian and bicycle paths.
- » the beauty
- » Privacy, residential based, low commercial penetration
- » Quite and piece full.
- The family no party atmosphere. The residential non commercial feel. The ocean. The sky. What's left of the dunes.
- » Maintaining it's natural environmental structure through laws encouraging properties maintain their tree structure when possible. % of trees able to be removed from property.
- » Serenity
- » Its natural beauty
- » Low density of large lots
- » Great beach community
- » The neighborhood feel
- » Beaches
- The trees and tree lined streets along with the large lot size.
- » Quiet residential friendly community
- » The trees/woods, paths, quiet, beaches
- "Community cooperation and adherence to land planning standards"
- » Outdoor environment
- » The community feel of a beach location. When we come here it feels like 'home'. Not a fan of the mini-mansions being built.
- » Our beaches, trees, quaintness of the area, small, slow speeds in the area so we can walk & bike, the community closeness of support of neighbors, access to both the sounds and ocean they walkways and sitting areas such as Hillcrest, the uniqueness of the area, to name a few.
- » Clean, uncrowded beaches
- » Very low commercial land use
- » Tranquility in the off season, the water views of the sound in the summer, the

- beaches of course, and the small town environment
- » The quality of life. No overdevelopment of large homes for rentals. Keeping it a neighborhood community not a commercial community
- » privacy and access to shopping groceriesetc
- » not being overcrowded
- » Safe place for respite and enjoyment of natural environment, of value to residents and visitors of all ages
- » Preservation of natural features and the residential atmosphere
- » quiet safe community with good regard for enfironment.
- » the strong community feel
- » The lack of density, no motel, hotels etc. The building codes that keep this community from over development.
- » Natural beauty, great location, abundance of trees and wild life, quiet area with little commercial buildings
- » Quiet and friendly community.
- » It's a beach residential area with little commercial development and it's pedestrian and bike friendly.
- Easy access to the beaches and the layout of the Avenues that reduces the traffic noise from Route 12. Preponderance of 2-3 story buildings.
- » The Current Life Style
- » Lack of tourists compared to other obx communities.
- » The feel of community and lack of commercial presence.
- » It's private beaches and natural beauty
- » Low density residential only zoning
- » Neighborhood feel
- » The residential nature of the town, while having easy access to essential shopping (grocery/home improvement/pharmacy)

- as well as the abundance of community facilities.
- » Maritime forest. Residential bubble very limited commercial development.
- » Being an Ocean to Sound Community and being private and affordable.
- » Well maintained small community easy to get to and not as busy as other parts of the Outer Banks
- » The quiet, family atmosphere even in rental units. We are a jewel between too busy Duck and over crowded Kitty Hawk.
- » The quiet, residential, family nature of the town.
- » No big business here
- » I value the privacy of the beaches.
- » Private beaches
- » Small town feel and access to water.
- » Privacy; low-density residential development and limited commercial development; maritime forest and beaches.
- » small seaside town atmosphere, natural environment and wildlife
- » beach and sound access
- » beaches
- » maritime forest, natural resources
- » Community
- » Absence of 4 story structures--let's keep it that way!
- » Beach
- » [′]
- » the quiet residential ambiance"
- » beaches
- » Beautiful natural beaches and family friendly environment
- » Families, safety, environment
- Low density housing as intended form the beginning. Keeping lot size large.
 Restricting % of lots that can be developed.
 Increasing safety of walking by adding

- pathways on both sides of Duck Road. Conservation of trees and green spaces. Concern for environment. No mini-hotels. Safe and clean community. More police. Less drugs. No apartments.
- » the peace & quiet the maritime forest provides
- » Natural beauty, strong sense of community
- » The natural beauty, woodlands and beaches. Homes that are not crammed on top of each other. Fewer multi-family rentals.
- » The great community and the life style. My home here is my absolute favorite place to be. Very family oriented.
- » Quiet community.
- » It's housing and original design. It should remain in its current housing density until the mid Currituck bridge is completed
- » The family focus and neighborhood atmosphere.
- » Still has that Small Town feel to it with affordable taxis. I know most of the owners on my street, and speak to them often the they are here.
- The lack of commercial businesses and the natural beauty of the area.
- » Easy access to beaches, safe neighborhoods
- » trees and non-suburbian setting
- » That it is a residential community.
- » The overall environment with trees, walking paths, lot size and the location within the outer banks.
- » The natural beauty and the comfort and pleasure derived from the way Southern Shores has been developed. What we have that is priceless can be protected by stricter zoning laws both commercial and residential and a commitment to maintain the natural beauty and resources that we enjoy. Forty years ago, after much research as to which OBX municipality we wanted to

- call home, we chose Southern Shores. At this time, although the town is not perfect, we would not change a thing.
- » Trees
- » Environment of living in a beach community.
- » Safety. Quiet.
- The natural beauty, and it's location away from the hustle and bustle.
- That it tries very hard to maintain the "character" of the town and OBX at large. The natural beauty from its beaches, canals, maritime trees and sound. That Southern Shores can be a quiet respite.
- » The fact that the town is not a commercialized tourist resort (such as Virginia Beach, Virginia), but a nice, normal, suburban beach community.
- » The quietness of a total residential town.
- The neighborhood is well maintained and the mix of year round owners
- » Quality of life. Single family homes. Neighborhood environment
- » Quiet community with convenient beach access....
- » It's diversity of natural environments and communities
- » Larger lot sizes ... room for accessory structures
- » The natural beauty and access to the beach
- » small community, walking paths, high elevation (sound side)
- » Beach and sound access
- » Residential, non-commercial property. Small town feeling. NO mini-hotel properties.
- » Caring and giving community
- » Small community! Natives value the small community!
- » It is an ideal area for families. There has little commercial properties and it is naturally beautiful.

- » small population, minimum commercial development, maritime forest, slower pace of living
- » It's quiet
- » Low commercial facilities with the boundaries
- » The small town, residential nature.
- » Ambiance
- "Community and residential community oriented.
- » Low density residential development.
- » Spirit of volunteerism to ensure the community nature of SS."
- » Location
- "- limited number of housing units per given unit of land.
- » limited commercial development.
- » responsive and caring police force."
- » The non-commercial atmosphere.
- » Nature
- » It's natural beauty, low density, beach and sound access, the people who live here.
- » The sense of local community that you do not often achieve in a vacation destination.
- » Minimal commercial infrastructure.
- » Quiet, tree-lined streets with reasonable pedestrian access and access by residents to amenities such as beaches and sound.
- » it is one of the few areas that has canals with homes. the homes are spaced out and the area is heavy with trees.
- The uncrowded feeling of being in our town enclaves even during the times of high volumes of visitors to the box. This is the quality that must be maintained.
- » Trees throughout the community.
- » Beach and sound access
- » beautiful beaches and natural vegetation and the care the town takes to maintain and presrve this
- » Safety, family atmosphere,

- » small quiet community
- » Beaches and sound
- » It's natural beaches and friendly neighbors.
- » Privacy and small town, community
- » Preservation of natural resources.
- » Beaches and beach access
- » The charm of a residential area without commercial build up
- » The character of the community.
- » the charm and remoteness I remember from my youth
- » Community, small town feel, nature
- » I really enjoy all of the trees and our natural areas beyond the beach itself as well as the walking/biking trails.
- » Sound access
- » Unique mostly residential community in the beautiful maritime forest. Large lots with mostly single family homes. People love living here.
- » The space
- » The sense of community
- » Low density land use. Privacy. Low crime as compared to DC metro area. Access to ocean.
- » The lack of commercial space and the current size of residential lots
- » The area is quiet, family friendly, and not overly commercialized.
- The large land lots, the trees, the respect for nature and access to the beach.
- » PEACE AND SECURITY
- » The unique character
- » Low density housing and attempt to maintain nature
- » Safety. Quiet most of thevyear
- » Residential feel of the neighborhood; home values
- » Environment
- » A safe and quiet neighborhood
- » its "residential" character, quaintness

- "- Walking paths
- » Private accesses to beach (deck areas)
- » Decent size housing lots"
- » everything that's why I live here
- » Low commercial use, marina access, building code policies
- » Location to sound and ocean.
- » The current land use requirements prohibiting larger structures and structures on small lots. Sense of community.
- » Nice community
- » Water access
- » Beach/ocean
- » Non commercial except for the mini hotels being built.
- » the family atmosphere and lack of monster sized houses. When we come to the beach we are not overwhelmed with parties everywhere. It's quiet and family friendly. We can walk through the neighborhoods.
- » beaches
- » the natural beauty and low density.
- » Trees, nature, quite.
- » The Spacious Lot sizes, the open views from a home when available, having multiple access points through the town to get were we need to go, having a golf course/country club so close by to reduce travel, having stores and restaurants close by, and being able to see the wild life close up and often.
- » Quiet, calm character of the town as a place for families to enjoy beach oriented vacations and residents to enjoy quiet lifestyle, all with less crowds. Natural beauty that is not compromised by larger and more densely build homes, limited rental units with high capacity (14+ people or more).
- » Large lot sizes, tree coverage, hidden walkways and beach access and public

- access to water. Accessibility to amenities in a business district.
- » Nature and friendliness
- » It is a small town with low crime
- » Residential character
- » It's quiet and private
- » Natural diversity of our area offering ocean access, sound access (somewhat limited), maritime forest and dunes area.
- » Sense of community.
- » Isolated and quiet for most of the year.
- » I used to value the small, quiet nature of our town. I wish we could return to that.
- » Community. Fresh air. Nature. The environment. Preservation of our maritime forest.
- » It's small clean, no big business. Oh that's right you invited yet another candy kingdom. And marshals to clutter and destroy the area and small businesses just down the road can't find employees guess where you're welcoming all of these employees from I'm not sure who hired you to do the survey, but you are destroying the outer banks.
- » SS is predominantly residential and that is important to me. The relatively larger lots, the prevalence of vegetation, and the beauty of the ocean and sound which cradle us is key. The look and feel of the town is what I value most!!!
- » The natural beauty. Don't let it become another Virginia Beach.
- » Traditional community without high rises
- » It is one of the few remaining residential areas on the island that has not allowed commercial growth to expand to the point we feel we are in Ocean City, Maryland. This residential feel needs to endure no overcommercialization should be allowed and rental units could stand to decrease. Also public acccess to our beaches should continue to be limited.

- » High Quality of our residents
- » Neighbors
- » Quality of life for the year round resident's
- » The lack of commercialism. With Kitty Hawk to the south and Duck to the north, we are nestled comfortably in the middle of two areas that provided for all our immediate needs. Let's not be in a hurry to over crowd, over grow and bend to what those who don't live here full time perceive as a fault in our beautiful town. People buy here for a reason. Let's not change that. If they don't like it they can look elsewhere. Keep the big city needs out of our little slice of heaven.
- "The only commercial area.
- » Get rid of the mini-hotels. "
- » Natural beauty and control development. Beach and sound access.
- » The lack of commercial influence no store restaurants
- » The people
- » Low density character of Southern Shores
- » Safety
- » The people. The small town feeling.
- » Housing Density
- » Serenity, beautiful architecture, friendliness, large lot sizes. Water access.
- » Quiet residential neighborhoods with beach access.
- » It's a residential community.
- » It's beauty and the restrictive covenants maintaing that beauty. Loved the wooded areas and bike paths.
- » The difference in the maritime forest and the oceanfront; the relative quiet of living here; the limited commercial zone.
- » Community involvement of citizens. Family and people oriented atmosphere. That people take pride in their properties and community. Police are very active and visible in the community. Commercial

- development is limited and focused in one area outside of residential areas. No amusement parks or boardwalk.
- » It is an entirely unique community on the Atlantic seaboard, unfortunately the influences that have and continue to mangle the quality of life in Kitty Hawk, KDH and Nags Head are often misunderstood by our leadership.
- » Location
- » Community feel, wooded areas, clean beaches, low commercial development.
- » Wooded areas, quiet streets, clean beaches, no high commercial development
- » Natural vegitation and wildlife.
- » coastal forest
- » Quiet residential character, traditional low density
- » Low human density and excellent natural environment
- » Maritime forest
- » We most value our location on the Outer Banks and beauty/quality of our neighborhoods. The latter is best managed by strict enforcement of codes for adequate lot size and building size/design.
- » The distinct areas of woods, dunes and oceanfront. I am sad to see new construction taking ng down all vegetation on lots
- » Green spaces still exist in a dense population
- » Low density development, no oceanfront commercial development
- » A collection of neighborhoods who embrace their environment, quality of life and interaction among its residents.
- » Maritime forest. Natural resources. Lack of commercial development.
- » Peaceful, friendly, attractive neighborhoods supported by an active community
- » The sence of community & safety here.

- Cleanliness & nourishment of our beaches & improving traffic control.
- » Natural Land areas with fewer rental homes and larger lot sizes.
- » Its limited commercial development
- » Small community feel. Not as commercial as other areas.
- » location
- » Community engagement, kind neighbors, respect for natural environment
- » Natural beauty and beaches
- » Live Oak Trees
- » Its natural beauty
- » Quiet area to live, beautiful setting, beach. Not many mega houses.
- "The natural life and beauty that fills and surrounds Southern Shores."
- » Safe, Quiet community with limited commercialism and commitment to the natural environment.
- » The natural beauty and slow pace that nature brings.
- » It was the sense of family and community. The beaches and our home
- » Quiet, safe place to live
- » A sense of community and the natural beauty that is here
- » Quality of living. Keeping it private residential, and avoiding over-growth or mini-hotel type occupancies.
- » Low taxes
- » small town feel, beach community
- » used to be family oriented and quiet. Now has become traffic nightmare like Washington DC in summer. Air bnb has invaded SS and everyone is renting their homes for megadollars - nobody can afford to live or vacation in SS anymore.
- » community, many volunteers helping in Southern Shores, greater residential feel than most beach towns, being a beach destination and having the feeling of being

- away from it all but also having stores/ restaurants/amenities near by, beautiful quiet beaches
- » The trees, beautiful lots, community protected land, neighbors, beach and sound accesses!
- » I like how the lot sizes ensure privacy from neighbors. Also important is keeping commercial development to specific areas.
- » That somehow they maintain private beaches at the Dare County taxpayer expense
- » Low density residential community
- » Sense of community.
- The natural beauty and that the area is unlike any other part of the Outer Banks.
- » Sense of community, beach accessibility, low zoning
- » Clean beaches and public safety.
- » Quiet streets, no commercial development
- » Nature, large lot sizes
- » I value Southern Shores' housing variety, low density and relaxed pace of living. If looking for large events we have easy access without the need to develop and then maintain facilities.
- » The natural maritime forest to the ocean
- » Ocean and sound. Low density.
- » Residential, safe, minimal commercial sites
- » Natural beauty
- The fact that it is mostly houses and not businesses.
- » Beauty and cleanliness of beach
- » The quiet streets, quiet neighborhoods, and the access to city and private beach parking.
- » I value the residential nature and community buy in of people who live here full time, be they property owners or long term rentals.
- » The hometown feel.

- » The sense of community, the overall natural environment, and the volunteerism inhenerent in the residents.
- » Well planned and thought out community. Safe.
- » Relatively large lots, preservation of trees and nature (SSCA properties), no commercial development except strip on 158. Friendly, year round residents and Duck Woods CC.
- » Being able to enjoy the beach but still have big trees and lots of flowers — in a peaceful, slow pace where there's time to know and visit with neighbors
- With the exception of congestion during turnover day the community is not crowded, it is generally quaint, comfortable, close to necessities, and seems to be managing things pretty well.
- » Low housing density. No hotels. Nice beaches/not crowded.
- » controlling the land use to be mostly resdental as well as building height
- » The natural beauty, the fact that the area is not over developed
- » Private and quiet. No major commercial near beach
- » The character of the community, and keeping our part of the beach different from the communities south of here that have been over-developed.
- » low housing density, larger lots, rental houses with 5 bedrooms or less
- » Low density, low taxes
- » That it remand a primary residenceal with limited commercial areas.
- » Its character as its founders intended. Modest dwellings, highly limited commercial zones, and it's dark, quiet neighborhoods and It's covenants.
- » Respect for the natural environment
- » The environment

- » The large lots, privacy, lack of crowds, nice people
- » The residential nature and natural beauty of our town.
- » Volunteerism, friendliness
- » Natural beauty
- » Lack of large commercial tracts and the abundance of single family homes on large lots.
- » quiet
- » wildlife, woodlands, large lots, lack of commercialization
- » Driving north, all the OB is looking more like a commercial beach. Then driving onto Hwy 12 north, all the homes are beautiful. No webbing of power lines overhead, 35mph, homes set back, some large, some flat tops on wide lots. Their is an elegance about Southern Shores that is no where else, left here.
- » Surf and Sound
- » The open space, limited vehicle access on beach roads due to deadends. (Numbered streets). The tree canopy and beauty of the canal side. The many parks and access points. The limited intensive residential units(,mini hotels).
- » The limited commercial space.
- » Natural beauty- unique OBX experience
- » It isn't as congested as KDH, the lot size
- » Small town fee, quality of
- » Safety for residents.
- » Neighborhood, infrastructure (water, telecom, etc), responsive police/fire, casual bike trails.
- » Quiet (relatively) beach
- » Peacefulness, green spaces and vegetation, access to high quality sound and sea water
- » Nature, safety amenities and community
- » I love that it is a small, private community that is isolated from the busy beach towns like KDH and Nags Head. It has maintained

the integrity of a neighborhood. It's a nice blend of full-time residents, rental homes and Air BnB's. We all know what to expect in each season! I love that I am a short walk to the beach or Duck.

- » privacy
- » Walkability
- » The entire town is the premier place to live, retire, and enjoy all benefits of coastal life. A true special residential area to be proud of to be maintained as such vs increased commercial activities.
- » The protective nature of its residential area.
- » beach and sound access, wider beach.
 Make Weeks finish the job. Need less traffic
- » Its private and pristine beaches
- » The residential nature of our community and the lack of mega-homes. Limiting beach access to residents only. Vacation rentals are fine but we should not allow any homes larger tha 7 bedrooms as they are not in character with our community.
- » Beauty and beach access
- » the large lots, residential feeling and we are not a tourist town...controlled retail
- » SAFETY
- » Protected common/natural spaces. Quality beaches. Low commercial development
- » A community with great access to the ocean and sound all with the lowest property taxes I have ever had to pay thanks to the occupancy tax revenue generated in the summer
- » Small residential lots with one-family sized homes. Limited business encroachment.
- » Walkability, single family homes, low commercial areas, beach and sound access
- » The natural environment- maritime forests, wildlife, low density housing, not overly engineered roads and sidewalks.
- » Access to Ocean, sound, marina

- » Privacy, and near clinics, grocery, pharmacy, etc.
- "Community access to both ocean and sound.
- » Community involvement in maintaining public areas.
- » Community activities (e.g. SSBC)"
- » A community of people that is dedicated to maintaining a residential town while also supporting a fragile environment.
- » lack of commercialization
- » Quiet and darkness.
- » Privacy and small commercial footprint
- » Southern Shores, unlike many beach communities, was developed in partnership with the natural beauty and vibrant ecosystems it shares. People cared about more than how many renters a house can hold. With forced zoning changes and the inability to handle intrusive traffic, much of that balance is being altered, and I hope it won't be lost.
- » Quietness
- » residential community with minimum commercial disruption.
- » The beauty of the area we live in.
- » Friendly atmosphere without high rises, hustle and bustle of densely populated beach towns.
- » No comment.
- » Strong community identity with a great volunteer perspective
- » The quality of life, no commercial development, clean beaches.
- » The non commercial aspect
- » The quiet, neighborhood feeling on the back roads
- » Comfortable place to live on the outer banks with wonderful beaches and sound side water activities.

What are the most important issues the Town of Southern Shores will face in the next 5, 10, or 20 years?

- » Need septic system. get away from individual septic tanks.
- » Traffic pressures relating to vacationers heading to Currituck County are going to continue to be a challenge. Since SS is in the bullseye of this problem, it would be great if we could find a way to bring together people from the State DOT, Currituck County and Duck to try to find a way to work together on this. A larger, existential issue is dealing with climate change, especially rising sea levels and changing weather patterns leading to potentially stronger and more frequent storms. To become more resilient in the face of these climatic challenges will innovation and compromise. I would love to see us reach out to the scientists at the Coastal Institute on Roanoke Island and elsewhere to brainstorm solutions, like using native plants in a targeted way to fight erosion rather than the expensive and damaging nourishment that is a band-aid.
- » "beach replenishment
- » road and path repaving and repairs
- » increased use of permeable building materials
- » reduced sound and road flooding"
- » "Big development projects.
- » Town leaders changing zoning.
- » Town leaders need to look at what's negatively happening within our town.
- » Town leaders should look at the betterment of our community before themselves.
- » Commercial, multi family or industrial/ manufacturing shouldn't be permitted in residential zoning areas.
- The town should look at the year round residents needs as much, if not more, than the investment owners. The investor is only looking for their "rate on investment"

- not the day to day needs of the residents. Perhaps limiting large bulk pick up to once a year and add a leaf removal program in December when all but beach properties need the leaves removed. I also don't agree with the taxpayers having to pay for the investment property "pull back their trash cans" program. They are making enough money to pay someone to take care of their trash cans. Or, make that a town wide service.
- » Keep commercial vehicles, trailers/ campers/tents with tenants with overnight parking out of residential neighborhoods or at least limit time.
- » Town employees should be limited to one position or one title. Too much power, no oversight.
- » Proposed projects with high dollar tax consequences, such as over one million dollars, should be voted on by residents during an election. I don't believe five people should have the power to make such decisions. "
- » "Cut-through traffic congestion.
- » Beach erosion.
- » Maintain road surface quality, but without curbs."
- » Traffic & Coyotes!
- » Keep town look like beach town
- » A town which gives folks a fair hearing and which does NOT promote chicken husbandry.
- » Continue efforts at flood/storm water managem including limitation of private hardscape; maintain building regulations; traffic
- » Ever bigger homes, summer traffic gridlock and beach erosion
- » How to keep it a quiet and safe place to live.

- "--Large rental homes replacing normalsized homes.
- » --More people stuffing large numbers of people into the large rental homes.
- » --Decreasing quality of the visitors who are stuffing themselves into the large rental homes. (For evidence, ask the high-end restauranters or high-end artists who used to be on the Outer Banks. The Rednecks with money who have been stuffing themselves into the large rentals in Kill Devil Hills and Nags Head have no use for fine dining or fine art. Or look at the crowds on the beach in the summer, even in Southern Shores. Scary rude people, with no sense of beach etiquette. "
- » People getting cynical about local government
- » The cost of homes, to improve and maintain under the towns strict rules
- » Apathetic citizens
- » Generational change and redevelopment of residential areas. Lack of turnover in leadership promotes a them v. us mentality.
- » Dealing wit beach erosion, dealing wit canal flooding.
- » Development,infrastructure,transportation
- "Storm damage
- » Water quality in canals and sound as septic tanks get older
- » Affordable housing for workers
- » Limits on VRBO offerings second structures on a property for rental should not be allowed.
- » Erosion control will be a significant issue to deal with in the next 5,10, to 20 years. The Town should look to continue to preserve as many wood and marsh areas as possible. The Town must develop a comprehensive plan for summer traffic control and neighborhood cut-throughs.
- » ess the Currituck bridge is built. Cleanup/

- redevelopment of our limited commercial areas.
- » Aging population results in fewer volunteers, providing adequate police and firefighters. Willingness of SSCA and CPOA members to work with the town to achieve many of the goals as stated in this survey.
- » Population influx into Corova, Corolla and Duck and their only access is through our neighborhood. Emergency ingress and egress. Rising ocean.
- » maintaining the high standard that has been established for this community.
- » to fast of grouth
- » The summer traffic issue.
- » Place all electric infrastructure underground, increase in tax rates for full time resident.
- » Traffic Congestion, Beach erosion,
- "Impact of rapid change in climate and environmental conditions.
- » Controlling the demands of increasing volume of tourist traffic and housing development."
- » Environmental change; development
- » Managing tourist traffic, bridge construction, maintaining roads, supporting short term rentals and affordable housing for service industry workers
- » Traffic and commercial pressure.
- » Environmental / climate changes. Health and elder care. Community necessary businesses.
- » High density Development
- » The town should allow ADUs if it allows short term rentals. Long term rental (over 30 days) to assist hospital traveling nurses etc. tastefully done it wouldn't detract from TOSS and it would assist with the housing crises.

- » Traffic, increased density, pressure to grow/build
- » Taxation, traffic problems, affordable housing, storm challenges, Healthcare needs
- » Our ability to retain the "feel" of the small town coastal town will be challenged by the forces of growth. Maybe we should be satisfied with being a "small town". Conversely,we should look into our resistance to higher density, lower cost housing for the workers of Dare County. Nags Head has spoken recently that they don't want affordable housing. Affordable housing does not mean increased crime if done correctly.
- » Massive home sell off and folks buying to add huge homes. Beach erosion. Hurricane preparedness.
- » Erosion, crowding
- » Keeping the building of mega mansions for rental purposes only.
- » Traffic....the run through traffic is annoying and potentially dangerous.
- » Too many people during the summertime. Also now that people are working remotely our "off season" population has increased as well! Our infrastructure suffers greatly and we don't receive any extra funds from Raleigh. We need affordable housing for employees and we need to get the bridge built.
- "Beach nourishment.
- » Maintaining a small town feel. "
- » climate change; congestion; affordable housing
- » Traffic!
- » Traffic!
- » Traffic concerns
- The ever increasing number of people moving into and visiting the Outer Banks combined with the lack of affordable facilities to provide basic services, i.e. food

- (not restaurants), water, lights, medical services, etc.
- » Over development
- "Protecting the ocean and sound front areas
- » Upgrading infrastructure for safety and recreational use
- » Protecting the town from uncontrolled development north of town
- » Creating commercial centers that are attractive and support community values
- » Maintaining affordable housing for working & retired families and reasonable property tax rates"
- » Right now it appears that traffic is a major issue during the rental months. As a long time resident it makes it very hard to enjoy my town with the summer traffic cutting through town, especially on Dogwood. Bike riding or walking is almost impossible on the weekend.
- » Traffic congestion unless some sort of system is set up, such as timed bridge access and public transportation. Flooding unless we can do more to prevent climate change.
- » Health care, affordable housing
- "5 years Traffic concerns, keeping the neighborhood feel.
- » 10 years maintaining family feel and more storm issues.
- » 20 keeping the family feel and keeping construction to a minimum."
- » Maintaining the secluded private ambiance of the residential areas by resisting any and all efforts to create sites that promote and depend on larger group living and recreation.
- » Traffic, both north and south, keeping out the monster houses, safety and emergency help
- » Traffic going to Duck, etc., desperately

- need to encourage or help get another bridge made.
- » Keeping it the way it is in addition to changing with the times if that makes any sense
- » Traffic congestion in the summer months.
- » Traffic
- » 1. Traffic 2. Density. Homes to large and influx of people is double edge sword.
- » Over population; attempt to minimize conservation of natural areas for greed. This is a rare town that has maintained its natural, peaceful environment. If that isn't honored, once it's gone it is gone, just like so many other places.
- » Shortcut traffic on the residential streets.
- » Over populating due to building on small parcels of land and traffic in the summer.
- » Traffic congestion, climate change-related impact, water quality, affordable housing, balancing growth with preservation of unique community chatacter
- » traffic and beach erosin
- » Overdevelopment and population density
- » Proper drainage to help flooding
- » traffic congestion on hwy 12.
- » Rising ocean waters/flooding/beach erosion. Redevelopment and mini-hotels masquerading as rental homes. Tax pressure to maintain aging infrastructure.
- » Traffic can only get worse
- » Building mini hotels which would ruin the area or building houses too small. The pressure to take over the green areas for building more homes.
- » Congestion, over development of rental properties
- » Commercial (REIT & VRBO) invenstment in single fally homes which will change the character of SS into a tourist comunity instead od a residential community.

- » Controlled development of land and increased beach erosion
- "Preventing more mini hotels from being built. Maintaining a family like environment.
- » Maintaining a healthy beach to bring in visitor tax dollars.
- » Lack of free public parking for beach access
- » Beach erosion, storm surge, traffic
- » traffic
- » Purchasing property. Take over civic association properties.
- » Overdevelopment that is happening right now needs to be stopped. Stop development of 50' front properties. Maintain the natural maritime areas, sound and ocean facing areas. Maintain infrastructure.
- » Over-building. In the last year over 7 lots near me have been built on. Though, it's the owners right, the town should secure more green space per each block.
- » Medical care not sufficient for population and projected population numbers
- » traffic cut through issues, beach nourishment, road repairs need to be finished faster.
- » Canal dredging, repaving roads
- » Eliminating MSD enforcement of existing zoning
- » Traffic
- "Housing affordability and traffic congestion."
- » CUT THROUGH TRAFFIC
- » Water level rise, beach erosion, more people than the emergency response system can adequately cover.
- » Residential "hotel" structures masquerading as private homes; especially oceanfront!!
- "Health care issues.
- » Traffic issues over weekends."

- » Traffic and evacuation during natural disasters
- » Traffic congestion.
- » Public infrastructure (roads, traffic control in summer)
- » traffic
- » Over deployment and continued traffic congestion are the two major concerns. Lots are being sold and subdivided into smaller lots, increasing density. And development north of town impacts the flow of traffic negatively.
- "Traffic, and building the Mid- Currituck bridge.
- » Healthcare.
- » Pedestrian , and bicycle safety on Rt.12 ."
- » Rising sea level, cost of continued beach nourishment
- » Traffic congestion, growth issues for healthcare and tradesman support.
- » Summer traffic cutting thru our neighborhood. A bridge up north would be welcomed!
- » Overcrowding
- "Traffic congestion on Saturdays during the peak season. We need to encourage or mandate that rentals are spread equally over four days, i.e., Thursdays, Fridays, Saturdays, and Sundays."
- Managing perception of climate change and its actual impact near term (next 20 years) versus the political/media sensationalism of the same.
- » Climate change and the commercial pressure for greater density.
- » over development
- » New bridge
- » Continued congestion and wear and tear on our roads. Lack of physicians on the beach. Difficulty attracting teachers for our schools because of lack of affordable housing.

- » Traffic.
- » Traffic
- » I wish I knew. I hope the public officials we elect and those we employ do.
- "More full-time residence,, employee housing
- » Beach erosion"
- » "5 yrs traffic congestion
- » 10 yrs maintaining infrastructure roads and utilities
- » 20 yrs hover board accidents"
- » Traffic, Environment
- » Not allowing Southern Shores to become developed in a manner that ruins the tranquility and beauty of the Outer Banks, like has happened in other towns at the OBX. I'd also like to see restrictions on cutting live oaks, and at no time allow the live oaks alongs the sides of NC 12 to be removed.
- » Healthcare for residents, population/ housing, global warming
- » Overpopulation. Traffic, I cannot imagine! Continued short term rental growth. Affordability and a general loss of the original visions for our town.
- » Traffic
- » growth and the push from new comers to make the town like Kitty Hawk.
- » Traffic! It is not safe to be a pedestrian on the cut through streets in the summer. That is the biggest issue the town faces. The town needs to stop cut through traffic. It can be stopped.
- » Traffic. Have submitted a suggestive plan. No response. Moreso for emergency response, secondly for inconvenience
- » Environmental impact, traffic, storm damage
- » Holding off commercial development, preventing erosion and flooding, reducing traffic congestion.

- » Climate change, rising ocean levels and over development.
- » Climate change
- » Control of the deer population.
- » traffic, building
- » control of housing development
- » Over developing, and crowded
- » Overpopulation, loss of beach, traffic, rampant commercial growth, large unsustainable houses.
- » population growth, environmental issues, flooding.
- » managing ongoing traffic issues in the summer, protecting the shoreline/beaches, infrastructure/roads
- » Beach erosion, Northeasters and Hurricanes
- » Natural westward migration of the barrier island land mass and rising sea levels that will create/recreate inlets
- » Locked into beach nourishment for many years to come. Control expenses.
- » Don't know
- » Aging population. Division between longterm and short-term residents. Inflexible leadership.
- » Traffic cut through, high speeds, maintaining the quality of our waterways, storm water runoff from over developed lots (need to keep water where it falls, not into roads or retention ponds), keeping the character of the town with residential homes and tree lined streets.
- » Increased permanent residents
- » Needs of aging population; Need of more community meeting and social facilities
- » Over population/tourism traffic continuing to threaten our bird sanctuary, our health (weekend emergencies vs "entitled tourist traffic"), our investment in a coastal way of life

- » Road upkeep because we're not limiting cut thrus; maintaining our natural resources such as our beautiful trees; overbuilding since we cut down on size of lots; police not assisting in active traffic control, not just sitting in cars; traffic.
- » Developing land use plans and zoning that limits unconstrained development.
- » "Beach erosion.
- » Flooding.
- » uncontrolled commercial land use."
- » Traffic congestion in the summer will NEVER end unless the mid-Currituck bridge is built. Some rise in water levels but it won't be enough to impact my remaining lifetime
- » Protection of beaches from erosion. Preventing it from becoming a tourist only homes
- » the takeover of mini motels on beach road we dont need rental blitzes
- » need for the Bridge in Corolla....a Hurricane coming and lack of emergency exiting capability.
- » Maintaining quality and character of community and natural environment in the face of challenges from environment (including rising sea levels) and development pressures.
- » Maintaining the existing quality of life for its residents
- » Reducing traffic and pressure of excess visitation on quality of life. The OBX is rapidly becoming Virginia Beach and just another commercial row of cheap chain businesses. We should control the impact of the chase for revenue that seems to be eating up our life and culture.
- "Beach erosion
- » Traffic
- » keeping commercial development down"

- » Medical coverage shortages. Traffic issues with no solution.
- » Erosion(need to have beach replenishment completed in the areas that were not done in the fall!!!asap!!!
- » Roads and infrastructure.
- » How much do you want to spend on "beach nourishment" before you decide it is a fool's errand?
- "Route 12, Route 12......!
- » Sub-divisions that increase the overcrowding."
- "Real Estate Taxes
- » Over development
- » Elimination of septic systems/replaced with county sewer system"
- » Don't give in to tourist and tourist industry demands.
- » Control or limit high occupancy rental properties
- » Traffic!, Over- development, including the dreaded mini hotel and houses that are obscenely large.
- » Traffic-Traffic-Traffic
- » Beach nourishment maintenance, Infrastructure and traffic.
- » Traffic, Infastructure, making it more bike pedestrian boat and Ocean friendly.
- "Summer traffic, however, it's the nature of the beast!
- » Housing costs COULD shift the mix of full time to short term rental properties. "
- » Adequate pedestrian/bicycle access to travel throughout SS. Erosion control/ beach nourishment. Size of vacation homes - their drag on resources and parking.
- » Road congestion increasing. Storms, infrastructure maintenance
- » Controlling development as older homes are torn down.
- » Erosion

- » Affordability and traffic management.
- » Traffic congestion and overcrowding.
- » Stop allowing lots to be made into tiny 50 foot lots. Ruining southern shores
- » "Storm water protection
- » Infrastructure maintenance
- » Recreational infrastructure develpoment"
- » Traffic congestion impairing quality of life, emergency-response time, and tourist appeal; preservation of maritime forest; improvement of water quality in sound and canals; stormwater runoff and flooding if Town continues to cover ground with concrete and allow clear-cutting.
- » increasing pressures from developers and investors for larger homes, clear cutting and reduction in natural habitat, lack of a mid-Currituck bridge that has contributed to increased traffic and congestion throughout town
- » Redevelopment of existing homes. Southern Shores reputation
- » Trying to deal with outsiders coming here and telling us how they did it back home
- » population growth, over building, roads/ transportation, lack of health care
- » Access to health care
- "1) Hwy 12 congestion;
- » 2) pressure from rental property owners to build increasingly large rental homes and to re-zone codes to allow increasingly higher density per lot-which if not managed well will destroy SS's character and beauty; and
- » 3) rising ocean levels (with associated erosion and flooding incidents--but doubtful there is much that can be done about it)."
- » Influx of new residents bringing their agenda from up north and trying to tell locals what they should be doing
- » Maintaining the overall structure of

the town - road improvement, beach maintenance, replacement/maintenance of existing homes as they age, creating a closer community relationship among residents.

- » Influx of new residents from North
- » Beach nourishment and protecting the ecosystem (say no to project Vesta and olivine sand which contains heavy metals and is being considered for CAMA permit). Also zoning concerns such as mini-hotels and land usage that allows too much lot coverage.
- » Community, over development
- » Low density housing as intended form the beginning. Keeping lot size large. Restricting % of lots that can be developed. Increasing safety of walking by adding pathways on both sides of Duck Road. Conservation of trees and green spaces. Concern for environment. No mini-hotels. Safe and clean community. More police. Less drugs. No apartments.
- » Beach erosion, managing traffic, maintaining a balance of good infrastructure and natural beauty of woods
- » Housing shortage and tourist overload. The ratio of long to short term rentals will cause problems. Too many visitors with not enough residents to take care of the many aspects needed to maintain a positive reputation.
- » Over Development, mini hotels, severe weather (hurricanes)
- » Over development
- "Massive natural disaster and who will fund the clean up and repair the damage to infrastructure.
- » Providing services for electric vehicles. Does the infrastructure support this and what might be the potential fire risk."
- "1. Traffic concerns
- » 2. Sea level rise, associated storm impacts,

- Managing special interests of beach front owners of multi-million dollar assets that were (recently) built on/in/in front of natural protective measures (e.g. dunes)"
- » preventing the town from turning into a congested mess like Duck has turned into.
- » Traffic and the number of visitors.
- » "Traffic
- » Congestion
- » Construction on beach"
- » over crowding and traffic
- » Idk
- "The increase in traffic due to the increase in building especially north of Southern
- » Shores."
- "- Over building (too many mini hotels, the push to maximize land use for additional development).
- » Traffic
- » Maintenance of existing amenities
- » Managing environmental change "
- » Over development, mini hotels, destruction of what makes SS such a residential type of area into a complete commercial cesspool.
- » Traffic flow during the summer season and road repair in the town.
- » ?
- » Mother nature, possible over development. Managing an influx of permanent residents and having available services and recreation opportunities for them.
- » Unfortunately I believe it will face challenges from increasingly stronger storms-not only hurricanes but Nor'easters that damage the shoreline. At some point funding will diminish and solutions and people agreeing on solutions will be very challenging for those in charge.
- » Ensuring that the private "hotels " that masquerade as residential properties are eliminated/not constructed

- » Storm Water control and town access to the beach rather than relying on SSCA
- » Traffic
- » Traffic and beach errosion
- » Traffic congestion. Pricing people out of their homes.
- » Traffic Congestion
- » Controlling micro hotels and growth. There is a complete lack of physical and medical infrastructure are to support continued growth on the OBX at its current pace
- » Maintaining roads. There is significant need to fix and regularly maintain the roads. Right now a large number of sinking dips in roads which is hazardous to drivers and pedestrians alike. Drivers swerving to avoid sink holes and deep dips esp along the main Dogwood Trail roads
- » Traffic, overcrowding, commercial intrusion
- » continued beach erosion, increased rentals vs permanent residents
- » We need affordable housing solutions including "mother in-law" cottage options.
- » Traffic congestion (PLEASE build the bridge in Currituck!!). Drugs.
- » overdevelopment, storm mitigation, climate change impacts
- » Too many tourists visiting! The congestion is so bad that 12 generation natives can't leave their homes!
- » Traffic, subdividing lots, allowing minihotels
- » cut through traffic destroying the peace and tranquility of our residential neighborhoods, and having a long term negative impact on neighborhood property values
- » Keeping it quiet, controlling growth
- » Increasing businesses trying to come into the community and cut through traffic.
- » Climate change, affordable housing, medical services.

- » Traffic, Beach erosion
- » Lack of a central community focal point for all citizens of all ages to gather in a central business business district similar to Reston Town Center. Need better access to eco friendly modes of transportation (golf carts, bikes,...) on dedicated paths to access the Market Place and other commercial and recreational venues. Keep higher density development at bay.
- » Over development
- "- loss of small town/community ambience.
- » cost of living taxes, unnecessary projects, etc.
- » traffic"
- » Loss of open space & environmental decline
- » Over population and lack of medical services
- » Increased population and traffic
- » Maintaining the natural beauty, keeping the lower density, lessening tourist traffic, infrastructure.
- » Balancing desire for economic growth with other community priorites ties to housing affordability, sufficient infrastructure and resilience in the face of sea level rise and increased storm and flooding impacts.
- » Lack of health care and physicians. Lack of affordable housing.
- » Dealing with aging infrastructure (roads, trees (replacing those that die)) and pressure to allow denser development which would destroy the reasons we enjoy living here.
- "Canals filling in especially with the trees falling in.
- » Housing, roads to repave and keeping the natural beauty of the area"
- » I do not know.
- » Cut through traffic during the summer

- months. Flooding and congestion on HWY 12.
- » Dealing with the influx of new residents from out of state
- » traffic, quality of the drinking water, imminent need for sewers, over development.
- » Public Safety, lack of property owned by the Town, continued beach nourishment, Traffic because of Corolla and Duck.
- » traffic, lack of health care on the OBX
- » affordable housing
- » Can we keep up with the growing demands of the population increasing? I'm pro tourist and rentals, although would not like to see more big residential hotels. Pro nature, fox, turtles, etc and would like to keep the environment conducive for their habitats.
- » Traffic congestion, increased tourism
- » Environmental degradation.
- » Lack of affordable housing
- » Road infrastructure and beach replenishment
- » Maintenance of the canal system.
- » too many people, ugly new buildings, beach erosion, sound pollution
- » Traffic congestion, protection of natural areas
- » Overall, climate change and impacts on the beach and sound areas.
- » Influx of new so called "instant locals" telling us how they did it back home.
- » Maintaining the quality of the environment and natural resources where we live. Improve the affordability of housing, health care, child care and transportation.
- » Tourism growth that ruins everything that's good about the town.
- » I haven't been here long enough to say.
- » Congestion. BUILD THE BRIDGE!!!!
- » Environmental issues, lack of affordable

- housing, balancing development so as to not overwhelm our infrastructure.
- » I don't know, but I hope we can at least get anyone cutting through our community to SLOW down.
- » DEVELOPMENT
- » Affordable housing, evolving and improving our commercial areas, what's next after this round of beach nourishment
- » Loss of its natural environment ie building on every parcel of land
- » Control growth
- » Traffic! Infrastructure for public safety - EMS, vol FD sustainability, PD. Road network maintenance. Need to increase competition in cable (need more fiber line carriers). Property maintenance - keeping home values up when some homes fall into disrepair.
- » Traffic, abuse of common areas and infrastructure
- » Road system improvements, maintaining the engineered beach, maintaining public safety services (police, fire and ocean rescue), improving storm water management, ands mitigating potential impacts from septic systems without increasing taxes.
- » Traffic flow (development north) and Storm threats
- "- Make fortified roofing a mandatory requirement for all new structures (residential and commercial to include town facilities, and enhancements to existing town structures. [How are you going to provide adequate storm damage services if your town buildings are significantly damaged?]
- Roads seem to be ""sinking"" significantly
 more frequent improvement of road infrastructure
- » Try to develop a true vision of how the

- new Currituck bridge will change traffic flow throughout Southern Shores
- » Develop building standards to address new housing technologies, such as 3-D printed housing, and electric vehicle chargers
- Ensure mandatory lot size does not shrink
 NO high-density housing (commercial and residential)
- » Address the ""bombing range"" issue by encouraging the Fed to come review the affected lots
- » Better internet services remote work is NOT going away. Residences will require enhanced internet services to support online business and at home use."
- » traffic, beach-ocean and sound maintenance
- » Traffic
- » Traffic congestion during summer.
- » Climate change and rising sea levels.
- "Allowing too many large houses to be built and
- » Traffic issues"
- » Infrastructure maintenance and improvements, they are behind currently.
- » traffic, storm erosion, diversity
- » Size of houses allowed, beach sand and dune replacement upkeep build mid Currituck bridge tax rates.
- » protecting the beach, limiting massive development
- » affordable housing
- » increased NIMBy attitudes and lack of empathy for your neighbor, traffic, and lack of things geared toward kids in our community.
- » Traffic. We are can't leave our home on the weekends during the summer months.
- » Traffic, maintaining town roads at a proper width, to much residential and natural brush on the sides of the roads and in the

- right-of-ways to include trees need to be removed concerns of view and possible side swipes or hitting trees, people wanting to redevelop old 100 foot lots into 50 foot lots, people moving to the area and saying that is what we did back home, second or additional structures being build on a single family lots and rented as housing to others (year round or Air B&B), Continue to deal with people the want to tell others what to take the rights of property owner and restrict and tell them what you can do with your property/land, possible purchase of land for Town improvements/ parks/event center or location/parking/ maintenance buildings or garages or other, widening roads, providing/coordinating an electric vehicle/golf cart access from Wax Myrtle Trail of Sea Oats trail on to Clamshell trail and/or a connection in the woods to Juniper Trail for access through the Town to shopping/commercial venues to keep these slow electric vehicle off hwy 12 to prevent accidents and possible save lives, increasing the speed limit back to 45 miles per hour during the winter months 35 mph is to slow and speed limit must be at least 40 mph to keep the slow golf carts off road, at cross walks put buttons with flashing lights on cross walk posts.
- » I know traffic is one most often mentioned, but we can't fix it as long as Duck constrains the flow. Stop devoting time and resources to trying and live with the bad weekends. Increased construction of larger rental homes built strictly for commercial purposes. Maintain private access to beaches by NOT increasing parking spaces. Improve bike/pedestrian safety. Limit or manage use of e-bikes. Improve noise standards and enforce them.
- » Water rise, traffic.
- » Maintaining our beautiful community
- » Traffic, health care, uncontrolled growth

- » Getting the mid Currituck Bridge built to decrease the summer traffic congestion, and working with Google Maps and Waze keeping cars off the back roads and onto Rte 12 heading north.
- » Traffic. Health Care.
- » Traffic, and holding realtors accountable for how they maintain properties regarding overcrowding.
- "Eliminate the weekend "parking lot" in town created by tourists who are not staying in Southern Shores. There is no reason anyone not visiting a resident west of Highway 12 to be driving through town.
- » The roads are horrendous. South Dogwood Trail is a very dangerous road which I avoid at all costs. It is way too narrow, trees growing in the pavement or within a few inches of the pavement, trees hanging over the roadway. There should be no tree hanging over the roadway anywhere in town. This is a main roadway through town and should be maintained as such and upgraded to carry the volume of traffic currently using the road. The sides of the road is crumbling. Many trucks and other large vehicles, often pulling trailers, using the road often travel in the center or at the center of the road making it dangerous to oncoming traffic. If we are going to allow the "world" to drive through town we should at least provide a proper road for them.
- » I wish the town would inform all residents of the ordinances. Too often there are cars parked in the street, residents burning wood, leaves and trash (?) in their back yard (when the wind is blowing the smoke from the neighbor's fire makes it impossible for me to enjoy my yard), residents not following trash pickup rules regarding bins.
- » More sidewalks. "

- » Housing costs, environmental preservation, and access to services
- » If you keep going the way you're going trying to build and be bigger and better Southern Shores be another Virginia Beach Ocean City Jersey shore you will have ruined this absolutely beautiful little island, so stop hiring big companies to do surveys for you and figure it out and figure it out quick.
- » sea level rise, pollution in the ocean and particularly the sound ... A huge issue is building the mid currituck bridge which will significantly reduce traffic in the tourist season
- » Maintaining the natural beauty and character of the town. Protecting the land and waters from sea level rise, increased population and tourism, and natural disasters - hurricanes, flooding, and nor'easters.
- » Tax base to support services
- » "Continued traffic congestion
- » Attempts at over commercialization
- » Erosion of our beautiful beaches
- » Threat of Multi-Unit residential buildings"
- » Road repair. Rising sea level. Saltwater intrusion. With increase of electric cars we need a recharge facility. Better internet connections.
- » Summer traffic issues
- » Over population, not enough housing for workers and traffic congestion which destroys the quaint small town feeling.
- "Over crowding. Large investment groups buying up property to turn into rental property and the plague of non resident homeowners who want more and more amenities to draw crowds and line their pockets, without any concern for those of us who live here. It will eventually drive out those that love it here. No need to be a big beach community like Ocean City or

Virginia Beach. Look at their problems as a result of trying to grow too fast. If the low income housing goes in on the island it will not solve the issue of no housing for seasonal workers. It will only serve to draw unsavory crowds from Elizabeth City and the like, and there will be more crime that will no doubt spill into our neighborhoods. Big box stores like Marshals and Target coming in is not a good thing. Yes it's convenient, but it will draw more and more demand for low income housing that will draw more and more crime to the island. Having studied these issues and observed these problems first hand in other societies, I can say for certain that to follow the growth trend and bend to the demands of those who want progress, in ten years this won't be a place many will cherish living in. Instead it will be just another place to live. Nothing special. Nothing remarkable or notable.

- » Having just come back from Myrtle Beach and in the "off season" seeing the homeless, the strung out drug abusers and panhandlers, I must say, I worry what is in store for our island in years to come. I was going to Home Depot the other day and saw pan handlers with signs asking for money and food. They were standing on the curb in front of Harris Teeters. I thought to myself "and so it begins."
- The needs of communities to feel all inclusive and not set boundaries of acceptable social limits is why there is a homeless person on every corner in Virginia Beach, Chesapeake, Norfolk. As a small business owner, I refuse to go to the Atlanta buyer show due to the crime in the area. The homeless, drug addicts, gang bangers have overtaken the Atlanta area and as such crime has increased and it is unsafe. Say what you will, but the "broken window" theory of dealing with issues relative to grown and safety helps keep our

- community safe. Dealing with the small issues now before they become large, difficult to control issues later."
- » beach erosion
- » Developement, mini mansions, losing what Southern Shores is about not just another beach town.
- » Traffic on weekend arrival days
- » Traffic, emergency response times due to traffic gridlock, dividing the community through taxation based on arbitrary decisions on who benefits the most (like beach replenishment). Finding responsible and competent leadership.
- » Commercialization
- » Traffic
- » Traffic
- » Need for a northern bridge, Further development of common spaces, and in order to promote walkable communities, the zoning and development of a small mixed/use or commercial area central to the town.
- » growth, increased prices will make most of the town barely affordable other than to the very rich. Continued traffic paralyzing the town during summer months. Lack of serious medical care on the OBX.
- » Population increase, competition for land and commercial development pressure.
- "1. Recognition that Dogwood Trail is a major transportation route and must be rebuilt to handle the volume of traffic that now attempts to use this road. The Town wastes money every year patching this road. Rebuilding it would save millions of dollars and provide safe use for all concerned.
- » 2. A sanitary sewer system that serves the entire town.
- » 3. Burial of all electrical service.
- » 4. Provision of natural gas to all who want it

- » 5. Tree growth beside major thoroughfares should be assessed for viability to insure access to all residents by first responders during emergencies. Many trees are hollow in their core."
- » beach erosion. Mini-hotels.
- » Managing residential density; traffic mitigation on summer weekends; quality of water on the soundside;
- » Resisting political and economic pressures to change the town's character. Increasing year round and senior populations. Attracting young families with children by providing affordable housing options.
- » Every time someone raises an unneeded cell tower just to make a few bucks, or tries to put a fire station and ambulance dispatch on open space, or tries to build public parking on our beach path property, or dump canal spoils in our maritime forest, or build massive event homes that are not listed as event homes but are having big events regularly --- these are exactly the things that, if we can come together and prevent them, will make the town become the single most desirable community to live in on the Mid Atlantic coast.
- » Increasing traffic congestion, surge in extra large homes that threaten SS's sense of community, infrastructure, getting the bridge built, pedestrian and bicycle access.
- » Mcmansions, overdevelopment, becoming Coralla. Losing vacation place for small groups/ family
- » Won't be the same if new residents build and clear lots like they have been doing and destroying any nature that is left.
- » traffic congestion, poor street construction, narrow streets
- » Sea level rise, pressure for more density
- "Sea level rise/ climate change.

- » Lack of healthcare resources, especially for aging population
- » Traffic"
- » Traffic infrastructure
- » short term rentals
- » Beach erosion, canal maintenance, water quality and maintenance of home building approval standards (rental home size) along with strict enforcement of commercial building limits. No one wants that tacky Sugar Kingdom store built on the town line in Kitty Hawk. While that was a Kitty Hawk decision, Southern Shores needs to stand firm against any such petitions for commercial building approval within the town limits.
- » More traffic congestion. Too high taxes on retirees who have lived here for over 20 years.
- » Zoning, beach erosion
- » Traffic
- » "Commercial encroachment.
- » Maintain sound and canal depth for boating.
- » Safe water quality with global warming affecting pollution growth."
- » Pedestrian and bicycle safety need more paths. Road improvements. Traffic issues.
- "Maintain affordability for residents- taxes, utilities, insurance, etc
- » Improving walkability and non car access throughout the community"
- » Traffic overload, road conditions, housing cost to keep our local businesses with employees.
- » Traffic
- » Pressure to build on every vacant parcel of land
- » Traffic, density
- » overcrowding and the lust for rental income, causing total disrespect for full time residents

- » Corporate takeover of private real estate. Inability to attract and retain service providers
- » Traffic congestion, beach erosions
- » Traffic
- » The impact of growth on roads, schools and infrastructure.
- » Beach erosion, loss of smaller houses, population gains will strain resources and public safety.
- "Construction- new and infrastructure
- » Protecting Natural habitats
- » Traffic Congestion
- » Natural disasters/ weather related events"
- » Overdevelopment, quality healthcare, summer traffic issues.
- » Poorly done, overdevelopment. Please have professional licensed Landscape Architects be a part of development teams. They provide an crucial perspective and see multiple dimensions: engineering, architecture, science, ecology, nature + humanity.
- » wedding venue houses, too large.Evacuation routes. Insurance and taxes
- » Traffic, road repair
- » Traffic issues, public safety, maintenance of established recreational areas
- » Traffic. I applaud the Town for being an active participant in pushing for the Mid Currituck bridge. Long needed.
- » Erosion
- » beach replenishment is a huge issue. without a beach, you have a fraction of a community.
- » keeping deep pocketed investors from turning it into another myrtle beach or worse. Limit expansion. Keep taxes down or many older retirees will be priced out of SS. Preserve what is left of the way it was.
- » over-building, congestion

- » Traffic, congestion, pedestrian safety, impact of global warming
- » Traffic continues to be a major issue. Access to healthcare is important, given the considerable number of people who live here during their retirement. Building hones on smaller lot sizes than was done in the past and the construction of large rental homes for events like weddings and family reunions will negatively impact the community.
- » Maintain private beach access
- » Growth pressure
- » Growth traffic environmental issues. Emergency evacuation.
- » Unacceptable levels of traffic on summer weekends. It could eventually cause tourists to find other places to visits.
- » Development on every speck of land, in Southern Shores and points North. Leads to traffic, traffic, traffic, overcrowded beaches, wear and tear on infrastructure. Continuing to no longer be a quiet retreat, but a bustling tourist destination. There must be a balance between the tourism that brings revenue and the place we call home.
- "Controlling expenses. Maintaining property tax at current
- » levels. Traffic during summer season."
- » Traffic congestion, influx of large multi family homes (mini hotels)
- » Population Growth
- "Continued erosion control and water access maintenance.
- » Keeping our homes single family structures.
- » Enhancing quality of life resources such as safe walking and biking as well as emergency support services."
- » Over population
- » Southern Shores and Dare County need

to limit development of over-sized rental houses -- mini hotels. Rising sea level and its direct relationship to rising ground water levels.

- » Overdevelopment
- » Over growth and increased traffic without infrastructure. Need northern bridge.
- » Traffic. Consequences of many people renting out their houses as it becomes easier with programs such as AirBandB etc.
- » Beach erosion and overcrowding
- » Beach erosion
- "*Cut-through Seasonal traffic not improving without the Mid-Currituck bridge and the pressures on Southern Shores Town Budget to upkeep infrastructure that is damaged.
- *Lack of a satellite Library/ community center facility to serve northern Dare County residents.
- *Seasonal rentals pushing out availability of affordable housing for full time residents.
- *Flooding and Erosion due to sea level rise and global warming.
- *Upkeep or replacement of town facilities/ buildings."
- » Taxes
- » Traffic congestion.
- » Redevelopment, rentals/large homes, and cut-thru traffic.
- » Sound and beach erosion, sewage pressure from septic fields (especially with rising water table levels), large (8+ beds) rental houses and summer season traffic if we don't get the northern bridge built.
- » Heavy traffic congestion on residential roads that erode quality of life for those living there.
- "Beach erosion, spreading sand fairly to all areas

- » Rental trends of AirBnB, one and two night stays
- » Traffic"
- "Traffic on turnover day.
- » Demand to build ever larger rental properties.
- » Maintaining what makes Southern Shores great and its link to the past like the flat top cottages, versus those who want more and bigger.
- » Impacts of climate change on the community and how does the community support wind and solar energy for both residential and commercial properties.
- » Closely monitor the impacts of the beach nourishment and only repeat when & where it is absolutely necessary."
- » Too many people/mini-hotels/minimansions.
- » limiting the number bedroom in a family house
- » Over development, traffic congestion, climate change
- » Development. Over built, traffic
- » Year round population growth stressing the infrastructure and level of public services.
- » population growth
- » Cut thru traffic, police fire and town work force costs and pressure from developers building too high density properties.
- "Overpopulation and massive mini motels. Pushing back the attempt from new comers to make it Kitty Hawk."
- » Keeping the city's infrastructure in good condition
- » Summer traffic on residential roads
- » >Environmental degradation, especially deforestation due to lack of tree removal policy
- » development pressure to demolish smaller

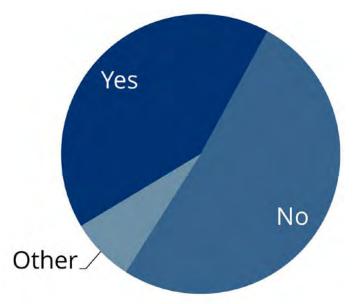
- "beach boxes" in favor of huge houses-(multiple family occupancy)
- » Traffic issues need to be top priority! Scary - lots of older residents with health issues who need to be accessible in an emergency—feel trapped by weekend and rainy day traffic!!!!
- » "Traffic congestion
- » Growth (more houses, size and type of structures)"
- » Housing for lower income people. Maybe could be included in any new commercial development as apartments above businesses.
- "Maintaining low density residential development.
- » Traffic mitigation
- » Living with sea level rise/ beach nourishment "
- » traffic
- » traffic -build the exp del mid county bridge for goodness' sake!!!!!!!!!!!!! houses on 50 ft lots!!!!
- » Over population on the northern beaches with Southern Shores being the traffic jam in between.
- » "Beach erosion
- » Limiting commercial development"
- » Limiting mini hotels and Airbnb units. Of course the traffic due to no bridge yet. But we need to avoid becoming a sea of investment residential units. Prevent super size mini hotels. Prevent Airbnb unless owner lives there.
- » Sea level rise, population growth, and increased visitation
- » Natural disasters- rising seas
- » If you want more health care workers, first responders etc you need affordable housing. TOSS needs to allow ADUs. Also people need somewhere to place our elderly population. Granny pods and ADUs

- should be allowed. The lots are big enough to allow this. The character of SS can still be maintained.
- » Population expansion
- "Pressure will build for greater occupancy.
- » Canals will become more clogged with debris.
- » Pedestrian safety will become tenuous."
- » Climate change, traffic, pressure from developers to over-develop neighborhoods.
- » Water treatment/pollution
- » The traffic snarl, access to high quality healthcare and rising sea level impacts
- » Development, mini hotels, erosion
- "Beach erosion is the #1 issue, followed by
- #2. complainers who moved here knowing it was a beach town.
- #3. The existing infrastructure was not prepared to support the influx of so many full-time residents, especially not an aging population.
- * #4. There is a shortage of affordable housing, which could be addressed with housing available across the bridge and access to transportation or by offering incentives to homeowners.
- » #5. Tax adjustments for full-time residents"
- » I do not have enough information to make an assumption
- » Traffic
- » Short term getting another bridge built for access to the area which will improve traffic problems. Long term fighting off commercial interests and the desire to build low cost housing or multi dwelling structures which would destroy this special community image and value.
- » "Commercial development.
- » Maintaining the quality and care of the surroundings."
- » beach and sound access, wider beach.

- Make Weeks finish the job. less traffic on the cut through strees
- » Keeping growth controlled to limit traffic congestion. Keeping housing growth controlled. Not turning the Outer banks into a commercialized community.
- » Shoreline protection, limiting through traffic in residential areas.
- » "Traffic
- » Housing affordability
- » Regulating density "
- » traffic, pollution, clean water, clear cutting of lots, affordability
- » Traffic. Crumbling infrastructure. Density of short term rentals/Airbnb
- » GROWTH
- » Sea level rise, water quality (non drinking) and modern data and communication Infratructure
- » Business encroachment. Loss of residential character. Oversized houses squeezed onto small lots.
- » Congestion and traffic on interior roads, ocean and sound erosion, route 12 traffic, transition from "retirement community" to multi-age growth
- » Safety and traffic
- » Community Septic health; overdevelopment (bigger houses on smaller lots). Outside pressure to enlarge traffic capacity on our main roads
- » Traffic, work force shortage, available employee housing
- » "Traffic management!
- » Maintaining/improving infrastructure (e.g., pedestrian walkways, water pressure). "
- » Climate change
- » beach erosion/storm damage and increasing traffic congestion
- » Resident resistance to changing with the modern times.
- » Short term rentals

- » Beach erosion, construction
- » Climate change, traffic, over-development.
- » Southern Shores used to be a quiet town of local blue-collar families, retirees, a few second homes and vacation rentals. It's quickly turning into an upper middle class Richmond suburb with daily traffic, congestion and police sirens. We don't call that progress.
- "traffic congestion (build the bridge!)
- » infrastructure (outdated phone/internet/ electric grid/water)
- » road conditions"
- » Increasing water levels, flooding and storm surges, affordable housing, traffic, overcrowding
- » Maintain integrity of governing board and holding back unbridled development.
- » The town and county are going to face serious ramifications for not addressing the lack of essential housing. Our businesses are suffering. There must be an incentive program at the county level, that is backed by the Town, for second homeowners to rent long-term.
- » Traffic and beach erosion
- » Traffic, beach erosion and climate change
- » Burden of taxes related to nourishment and not equally sharing with all owners. The most recent project achieved a wider beach a more steep dune and damage to my dune. If we continue all owners need to share the cost. Unfair to only go ocean front.
- » Aging population and need for housing to suit older residents, while also attracting younger residents. And traffic.
- » Demand for low cost housing, traffic reconfiguration with the construction of the mid-county currituck bridge and relations with currituck county with respect to all of these issues.

Do you support the Town enacting an ordinance that would allow people to raise and keep a small number of chickens (hens) in their backyards?

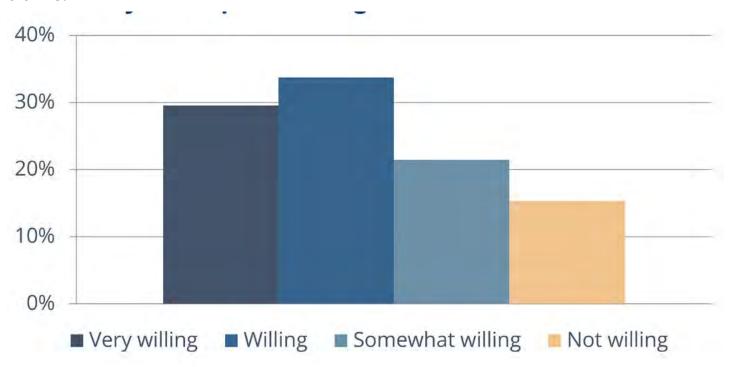


- » Support Chickens but no roosters
- » If one wants chickens in their backyard they should move to a more rural location.
- » ABSOLUTELY NOT
- » Generally, yes, but I think there would likely need to be restrictions based on location within the community
- » Similar to lot coverage, such covenants need to stipulate appropriate space for such animals. Why not turkeys and peacocks?
- » As long as they are not a nuisance, I don't see a problem with it.
- » Yes, If their yard is big enough.
- Yes if the owner of the chickens is held responsible for the care and maintenance of the birds.
- » As long it has strong guidelines. And unannounced inspections.
- » no opinion
- Yes, provided there are adequate health and safety regulations.

- » yes, no to roosters
- » This should be regulated for potential public health issues. Also are chickens a threat to the fox, raccoon and coyote population and will they attract more bears to the area.
- » No roosters
- » I have no problem with chickens, but they draw other predators
- » I will gladly take chickens over the barking dogs, which my neighbors tend to let them constantly bark.
- » I really don't care as long as they don't have a rooster that wakes me up in the morning and the number of chickens per lot / household is limited.
- » How small? Chickens are loud.
- » This is not an important issue.
- » MAYBE
- » Hens only NO roosters!
- » Too many issues with dogs and will draw coyotes

- » honestly, with the nightmare that you have started, this is a concern. Did anybody ask if a marshals or another sugar kingdom is welcome, but you're asking if we allow chickens God help us.
- » Only in a pen, not free roam on neighbors property.
- » Penned
- » We could support this with strict controls and limits.
- » Dumb question for this survey. What about limiting number of dogs or types of other pets.
- Yes, with smart restrictions based on what has worked in other similar sized towns.
- » I don't know I would need more information
- » What is meant by a "small number"? I think this question needs a bit of clarification
- » I don't mind chickens, provided they understand this will draw in other wild animals into their yards and the Town leaves my bees alone.
- » DEPENDING ON SIZE & LOCATION
- » Depends on lot size and number of hens. Would open the "gate" to other farm animals
- Yes as long as the resident fox, coyotes, etc aren't then vilified for killing them.

How willing are you to be inconvenienced by attempts to mitigate summer traffic?







Appendix C: Dare County Endangered Species List

Taxonomic Group	Scientific Name	Common Name	NC Status	Federal Status	Habitat Comment
Freshwater Fish	Acipenser oxyrin- chus oxyrinchus	Atlantic Sturgeon	E	E	coastal waters, estuaries, large rivers
Amphibian	Ambystoma mabeei	Mabee's Salamander	Т	none	shallow ephemeral wetlands, such as Carolina bays, vernal pools, and sinkholes
Amphibian	Anaxyrus quercicus	Oak Toad	SR	none	pine flatwoods and savannas, pine sandhills where near water
Amphibian	Pseudacris brimleyi	Brimley's Chorus Frog	W5	none	swamps, marshes, and other wetlands
Amphibian	Siren lacertina	Greater Siren	W3	none	lakes, ponds, and streams, espe- cially where muddy or with weedy vegetation
Animal Assemblage	Waterbird Colony	Waterbird Colony		none	null
Beetle	Ellipsoptera lepida	Ghost Tiger Beetle	SR	none	sand dunes along northern coast
Bird	Ammospiza caudacuta	Saltmarsh Sparrow	SR	none	tidal marshes [wintering sites]
Bird	Anhinga anhinga	Anhinga	W2	none	wooded lakes or ponds, or open swamps (for nesting) [breeding evidence only]
Bird	Calidris canutus rufa	Red Knot - rufa subspecies	Т	Т	beaches and sand flats [wintering sites]
Bird	Charadrius melodus melodus	Piping Plover - Atlantic Coast subspecies	Т	Т	ocean beaches and island-end flats [breeding evidence only]
Bird	Charadrius wilsonia	Wilson's Plover	SC	none	beaches, island-end flats, estua- rine islands [breeding evidence only]
Bird	Circus hudsonius	Northern Harrier	SR	none	extensive brackish marshes (for nesting) [breeding evidence only]
Bird	Dryobates borealis	Red-cockaded Woodpecker	E	E	mature open pine forests, mainly in longleaf pine [breeding evidence only]
Bird	Egretta caerulea	Little Blue Heron	SC	none	forests or thickets on maritime islands, rarely in swamps or at ponds [breeding evidence only]
Bird	Egretta thula	Snowy Egret	SC	none	forests or thickets on maritime islands, rarely in swamps or at ponds [breeding evidence only]
Bird	Egretta tricolor	Tricolored Heron	SC	none	forests or thickets on maritime islands [breeding evidence only]
Bird	Gallinula galeata	Common Gallinule	W2	none	freshwater ponds and impound- ments with much emergent vegetation [breeding evidence only]
Bird	Gelochelidon nilotica	Gull-billed Tern	Т	none	sand flats on maritime islands [breeding evidence only]

Taxonomic Group	Scientific Name	Common Name	NC Status	Federal Status	Habitat Comment
Bird	Haematopus palliatus	American Oystercatcher	SC	none	estuaries, oyster beds, mudflats [breeding evidence only]
Bird	Haliaeetus leucocephalus	Bald Eagle	Т	BGPA	mature forests near large bodies of water (nesting); rivers, lakes, and sounds (foraging) [breeding evidence only]
Bird	Helmitheros vermivorum pop. 1	Worm-eating Warbler - Coastal Plain Population	W5	none	nonriverine wet hardwoods, pocosins [breeding evidence only]
Bird	Himantopus mexicanus	Black-necked Stilt	SR	none	fresh or brackish ponds and impoundments [breeding evidence only]
Bird	Hydroprogne caspia	Caspian Tern	T	none	sand flats on maritime islands [breeding evidence only]
Bird	Ixobrychus exilis	Least Bittern	SC	none	fresh or brackish marshes [breeding evidence only]
Bird	Laterallus jamaicensis	Black Rail	T	Т	brackish marshes, rarely fresh marshes [breeding evidence only]
Bird	Nyctanassa violacea	Yellow-crowned Night-Heron	SR	none	inland swamps; woods or thickets on maritime islands [breeding evidence only]
Bird	Nycticorax nycticorax	Black-crowned Night-Heron	W1	none	maritime thickets or forests, almost always on small islands [nesting sites only]
Bird	Pelecanus occidentalis	Brown Pelican	SR	none	maritime islands [breeding evidence only]
Bird	Plegadis falcinellus	Glossy Ibis	SC	none	forests or thickets on maritime islands [breeding evidence only]
Bird	Podilymbus podiceps	Pied-billed Grebe	W2	none	fresh to slightly brackish ponds and impoundments, usually with fringing vegetation [breeding evidence only]
Bird	Rallus elegans	King Rail	W1,W3	none	fresh to slightly brackish marshes [breeding evidence only]
Bird	Rallus limicola	Virginia Rail	W3	none	brackish to nearly fresh marshes near coast [breeding season only]
Bird	Rynchops niger	Black Skimmer	SC	none	sand flats on maritime islands [breeding evidence only]
Bird	Setophaga virens waynei	Wayne's Black- throated Green Warbler	E	none	nonriverine wetland forests, especially where white cedar or cypress are mixed with hard- woods [breeding evidence only]
Bird	Sterna forsteri	Forster's Tern	W2	none	salt or brackish marshes, nesting on wrack material or matted grasses [breeding sites only]
Bird	Sterna hirundo	Common Tern	E	none	sand flats on maritime islands [breeding evidence only]

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Bird	Sternula antillarum	Least Tern	SC	none	beaches, sand flats, open dunes, gravel rooftops [breeding evidence only]
Butterfly	Amblyscirtes carolina	Carolina Roadside-Skipper	W2	none	moist woods (mainly hardwoods) near cane; host plant cane (Arundinaria)
Butterfly	Calephelis virginiensis	Little Metalmark	SR	none	savannas and pine flatwoods; host plants vanilla-plant (Trilisa odoratissima), thistles (Cirsium)
Butterfly	Euphyes dukesi	Dukes' Skipper	SR	none	ecotones of brackish or fresh marshes with swamps; host plants sedges (Carex)
Butterfly	Heraclides cresphontes	Eastern Giant Swallowtail	SR	none	primarily coastal in maritime forests or thickets; also in foothills and mountains near hoptree; host plants prickly-ash (Zanthoxylum), hoptree (Ptelea)
Butterfly	Neonympha helicta	Helicta Satyr	SR	none	sedgy wetlands, including sandhill seeps, pocosin ecotones, and drained beaver ponds in the Sandhills, low pocosins in the northeast Coastal Plain, and wet open swales in the Piedmont; host plants sedges
Butterfly	Phyciodes phaon	Phaon Crescent	W5	none	open, often dry areas, mainly on barrier islands; host plants fogfruit (Lippia)
Butterfly	Poanes aaroni	Aaron's Skipper	SR	none	brackish marshes along the north- ern coast and sounds; host plants grasses, perhaps saltgrass (Distichlis spicata)
Butterfly	Satyrium favonius ontario	Northern Oak Hairstreak	SR	none	oak-dominated woods, usually in dry sites; host plants oaks (Quercus)
Dragonfly or Damselfly	Macrodiplax balteata	Marl Pennant	W3	none	ponds and lakes near the coast, usually brackish or near marl
Freshwater Fish	Fundulus confluentus	Marsh Killifish	W2	none	fresh to brackish waters along coast
Grasshopper or Katydid	Mermiria bivittata	Two-striped Mermiria	SR	none	dune grasslands and other grassy areas in or near coastal forests
Lichen	Anzia ornata	Ornate Black-foam Lichen	SR-T	none	on bark of deciduous trees where humidity is fairly high
Lichen	Cladina evansii (syn. Cladonia evansii)	Powder-puff Lichen	W7	none	sandhills (primarily near the coast) usually associated with Quercus geminata
Lichen	Phaeographis oricola	Carolina Beach Drops	W7	none	tidal harwood forest, maritime forests

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Lichen	Sticta deyana	Dey's Moon lichen	SR-T	none	bark of mature trees in swamp forests (Dare)
Lichen	Xyleborus nigricans	Black Caps	W7	none	on gymnosperm logs in swamp forests
Mammal	Canis rufus	Red Wolf	Т	E, XN	swamps, pocosins, extensive forests
Mammal	Corynorhinus rafinesquii macrotis	Eastern Big-eared Bat	SC	none	roosts in hollow trees, old build- ings, and beneath bridges, usually near water
Mammal	Lasiurus seminolus	Seminole Bat	W2	none	forages over open areas, often over water (summer); mainly in southern half of the state
Mammal	Myotis septentrionalis	Northern Long- eared Bat	Т	E	roosts in hollow trees and build- ings (warmer months), in caves and mines (winter); mainly in the mountains
Mammal	Neogale frenata (syn. Mustela frenata)	Long-tailed Weasel	W3	none	forests, brushy areas
Mammal	Perimyotis subflavus	Tricolored Bat	E	PE	roosts in clumps of leaves (mainly in summer), caves, rock crevices, and other dark and sheltered places
Mammal	Peromyscus leuco- pus buxtoni	Buxton Woods White-footed Deermouse	SC	none	maritime forests in Cape Hatteras vicinity (endemic to this area)
Mammal	Trichechus manatus	West Indian Manatee	T	Т	warm waters of estuaries and river mouths
Moss	Sphagnum torreyanum	Giant Peatmoss	SR-P	none	beaver ponds and old mill ponds on blackwater creeks
Moss	Tortella flavovirens	Beach Moss	W7	none	dune swales
Moth	Acrapex relicta	Relict Cane Moth	W3	none	canebrakes
Moth	Arugisa latiorella	Watson's Arugisa Moth	W3	none	sedgy glades
Moth	Caripeta aretaria	Southern Pine Looper	W3	none	pine forests
Moth	Catocala pretiosa	Precious Underwing	W3	none	forests with shadbush or chokeberry
Moth	Gondysia similis	Gordonia Darkwing	W3	none	pocosins and bay forests
Moth	Idaea micropterata	a Wave	W3	none	no habitat information
Moth	Idaea productata	a Wave	W3	none	sandhills
Moth	Macrochilo santerivalis	an Owlet Moth	W3	none	brackish marshes
Moth	Metarranthis lateritiaria	a Geometrid Moth	W3	none	flatwoods and pocosins

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Moth	Metarranthis sp. 1	Mid-Atlantic Metarranthis Moth	W3	none	pocosins
Moth	Nemoria bifilata	White-barred Emerald	W3	none	sandhills and sandy forests
Moth	Orgyia detrita	a tussock moth	W3	none	hardwood forests
Moth	Papaipema sp. 3	Southeastern Cane Borer Moth	W3	none	canebrakes
Moth	Parahypenodes quadralis	Masked Parahypenodes Moth	W3	none	possibly a wetland specialist
Moth	Scopula cacuminaria	Frosted Tan Wave Moth	W3	none	sandhills and other dry forests
Moth	Spilosoma dubia	Dubious Tiger Moth	W3	none	acidic wetlands
Moth	Ulolonche modesta	Modest Quaker Moth	W3	none	pine-oak-heath communities
Moth	Xestia youngii	Young's Dart Moth	W3	none	peatlands
Moth	Zale declarans	Dixie Zale	SR	none	maritime forests with live oak
Natural Community	Bay Forest			none	null
Natural Community	Brackish Marsh (Needlerush Subtype)			none	null
Natural Community	Brackish Marsh (Salt Meadow Cordgrass Subtype)			none	null
Natural Community	Brackish Marsh (Transitional Subtype)			none	null
Natural Community	Coastal Fringe Evergreen Forest (Typic Subtype)			none	null
Natural Community	Dune Grass (Southern Subtype)			none	null
Natural Community	Estuarine Fringe Pine Forest (Loblolly Pine Subtype)			none	null
Natural Community	Estuarine Fringe Pine Forest (Pond Pine Subtype)			none	null
Natural Community	High Pocosin (Evergreen Subtype)			none	null
Natural Community	Interdune Marsh			none	null

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Natural Community	Interdune Pond			none	null
Natural Community	Live Dune Barren			none	null
Natural Community	Low Pocosin (Gallberry- Fetterbush Subtype)			none	null
Natural Community	Maritime Deciduous Forest			none	null
Natural Community	Maritime Dry Grassland (Typic Subtype)			none	null
Natural Community	Maritime Evergreen Forest (Mid Atlantic Subtype)			none	null
Natural Community	Maritime Shrub (Stunted Tree Subtype)			none	null
Natural Community	Maritime Shrub Swamp (Dogwood Subtype)			none	null
Natural Community	Maritime Shrub Swamp (Red Bay Subtype)			none	null
Natural Community	Maritime Shrub Swamp (Willow Subtype)			none	null
Natural Community	Maritime Swamp Forest (Cypress Subtype)			none	null
Natural Community	Maritime Swamp Forest (Typic Subtype)			none	null
Natural Community	Maritime Wet Grassland (Southern Hairgrass Subtype)			none	null
Natural Community	Marsh Hammock			none	null
Natural Community	Natural Lake Shoreline Marsh (Typic Subtype)			none	null
Natural Community	Natural Lake Shoreline Swamp (Cypress Subtype)			none	null

Taxonomic Group	Scientific Name	Common Name	NC Status	Federal Status	Habitat Comment
Natural Community	Nonriverine Swamp Forest (Mixed Subtype)			none	null
Natural Community	Nonriverine Swamp Forest (Sweetgum Subtype)			none	null
Natural Community	Nonriverine Wet Hardwood Forest (Oak Flat Subtype)			none	null
Natural Community	Peatland Atlantic White Cedar Forest			none	null
Natural Community	Pocosin Opening (Cranberry Subtype)			none	null
Natural Community	Pond Pine Woodland (Canebrake Subtype)			none	null
Natural Community	Pond Pine Woodland (Typic Subtype)			none	null
Natural Community	Riverine Floating Mat			none	null
Natural Community	Salt Flat			none	null
Natural Community	Stable Dune Barren (Beach Heather Subtype)			none	null
Natural Community	Tidal Freshwater Marsh (Cattail Subtype)			none	null
Natural Community	Tidal Freshwater Marsh (Giant Cordgrass Subtype)			none	null
Natural Community	Tidal Freshwater Marsh (Needlerush Subtype)			none	null
Natural Community	Tidal Freshwater Marsh (Sawgrass Subtype)			none	null
Natural Community	Tidal Freshwater Marsh (Shrub Subtype)			none	null
Natural Community	Tidal Freshwater Marsh (Threesquare Subtype)			none	null

Taxonomic Group	Scientific Name	Common Name	NC Status	Federal Status	Habitat Comment
Natural Community	Tidal Swamp (CypressGum Subtype)			none	null
Reptile	Alligator mississippiensis	American Alligator	Т	T(S/A)	fresh to slightly brackish lakes, ponds, rivers, and marshes
Reptile	Caretta caretta	Loggerhead Seaturtle	Т	Т	nests on beaches; forages in ocean and sounds [breeding evidence only]
Reptile	Cemophora coccinea	Scarlet Snake	W1,W5	none	sandhills, sandy woods, and other dry woods
Reptile	Chelonia mydas	Green Seaturtle	T	Т	nests on beaches; forages in ocean and sounds [breeding evidence only]
Reptile	Clemmys guttata	Spotted Turtle	W1	none	shallow water of pools, marshes, wet pastures and other smaller wetlands
Reptile	Crotalus horridus	Timber Rattlesnake	SC	none	wetland forests in the Coastal Plain; rocky, upland forests elsewhere
Reptile	Deirochelys reticularia	Eastern Chicken Turtle	SC	none	quiet waters of ponds, ditches, and sluggish streams
Reptile	Dermochelys coriacea	Leatherback Seaturtle	E	E	nests on beaches; forages in oceans, rarely in sounds [breeding evidence only]
Reptile	Farancia erytrogramma	Rainbow Snake	SR	none	swamps, lakes, rivers, and other sluggish water
Reptile	Kinosternon baurii	Striped Mud Turtle	W3	none	various shallow wet places; ponds, pools, ditches
Reptile	Lampropeltis getula sticticeps	Outer Banks Kingsnake	SC	none	maritime forests, thickets, and grasslands on the Outer Banks (endemic to North Carolina)
Reptile	Lepidochelys kempii	Kemp's Ridley Seaturtle	E	E	nests on beaches, forages in ocean and sounds [breeding evidence only]
Reptile	Liodytes rigida	Glossy Crayfish Snake	SR	none	marshes, cypress ponds, other wetlands
Reptile	Malaclemys terrapin	Diamondback Terrapin	SC	none	salt or brackish marshes, estuaries
Reptile	Nerodia sipedon williamengelsi	Carolina Watersnake	SC	none	salt or brackish marshes (endemic to North Carolina)
Reptile	Rhadinaea flavilata	Pine Woods Snake	W2	none	pine flatwoods and other damp woodlands
Reptile	Seminatrix pygaea paludis	Carolina Swamp Snake	SC	none	in lush vegetation of ponds, ditches, or sluggish streams
Sawfly, Wasp, Bee, or Ant	Bombus pensylvanicus	American Bumble Bee	W3	none	open habitats, fields

Taxonomic Group	Scientific Name	Common Name	NC Status	Federal Status	Habitat Comment
Vascular Plant	Amaranthus pumilus	Seabeach Amaranth	Т	Т	ocean beaches and island-end flats
Vascular Plant	Baccharis angustifolia	Saltwater False-willow	W1	none	brackish marshes, shrubby marsh edges
Vascular Plant	Bidens mitis	Coastal Plain Tickseed	W7	none	freshwater marshes, brackish marshes, and mountain bogs
Vascular Plant	Bidens trichosperma	Crowned Beggar-ticks	SR-P	none	brackish marshes
Vascular Plant	Carex calcifugens	Calcium-fleeing Sedge	SC-V	none	mesic deciduous forests and maritime woodlands
Vascular Plant	Carex disjuncta	Silvery Sedge	SR-P	none	beaver ponds, old millponds, impoundments; usually on Nyssa biflora
Vascular Plant	Carex verrucosa	Warty Sedge	SR-P	none	savannas and pinelands
Vascular Plant	Carex vesicaria	Inflated Sedge	Е	none	bogs
Vascular Plant	Ceratophyllum echinatum	Prickly Hornwort	W7	none	pools, lakes, and estuaries
Vascular Plant	Clematis catesbyana	Coastal Virgin's-bower	SR-P	none	dunes, edges of maritime forests, or over dolomite
Vascular Plant	Crocanthemum carolinianum	Carolina Sunrose	E	none	sandhills, pinelands, dry savannas
Vascular Plant	Crocanthemum corymbosum	Pinebarren Sunrose	T	none	maritime forests
Vascular Plant	Crocanthemum georgianum	Georgia Sunrose	E	none	maritime forests
Vascular Plant	Cyperus tetragonus	Four-angled Flatsedge	SC-V	none	maritime forests and barrier island grasslands
Vascular Plant	Dichanthelium caerulescens	Blue Witch Grass	Т	none	Marshes, swamps, wet pinelands, maritime grasslands, damp sandy soil.
Vascular Plant	Dichanthelium dichotomum var. roanokense	Roanoke Witch Grass	W1	none	savannas, open swampy woods, wet peaty meadows
Vascular Plant	Dichanthelium fusiforme	Spindle-fruited Witch Grass	SR-P	none	Dry to moist sand of open pine and pine-oak woods and clearings.
Vascular Plant	Dichanthelium neuranthum	Nerved Witch Grass	SR-D	none	Maritime wet grasslands, Piedmont barrens
Vascular Plant	Diplachne maritima	Salt-meadow Grass	Е	none	fresh to brackish tidal marshes
Vascular Plant	Eleocharis cellulosa	Gulfcoast Spikerush	Т	none	interdune ponds, brackish marshes & tidal freshwater marshes
Vascular Plant	Eleocharis fallax	Creeping Spikerush	SR-T	none	fresh to brackish tidal marshes
Vascular Plant	Eleocharis montevidensis	Sand Spikerush	SR-P	none	maritime wet grassland

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Vascular Plant	Eleocharis parvula	Little-spike Spikerush	Т	none	brackish and fresh marshes
Vascular Plant	Eleocharis rostellata	Beaked Spikerush	SR-O	none	brackish marshes
Vascular Plant	Eleocharis uniglumis	Saltmarsh Spikerush	SR-P	none	brackish and freshwater marshes
Vascular Plant	Euphorbia bombensis	Southern Seaside Spurge	SR-T	none	seabeaches
Vascular Plant	Gaylussacia bigeloviana	Northern Dwarf Huckleberry	W7	none	pocosins
Vascular Plant	Habenaria repens	Water-spider Orchid	W1	none	in stagnant, blackwater pools and impoundments
Vascular Plant	Hottonia inflata	Featherfoil	SC-V	none	pools in blackwater or brownwa- ter swamps, interdune ponds
Vascular Plant	Hudsonia tomentosa	Sand Heather	Т	none	openings in maritime forest, blowouts, and dunes
Vascular Plant	Ipomoea imperati	Beach Morning-glory	SC-V	none	sea beaches and foredunes
Vascular Plant	lresine rhizomatosa	Rootstock Bloodleaf	W1	none	low wet places, interdune swales, damp woods, edges of brackish marshes
Vascular Plant	Iris prismatica	Slender Blue Iris	SR-T	none	bogs, marshes, and wet powerline clearings
Vascular Plant	Lechea maritima var. virginica	Maritime Pinweed	T	none	barren dunefields with Hudsonia tomentosa
Vascular Plant	Lilaeopsis carolinensis	Carolina Grasswort	SR-O	none	freshwater marshes, pools, tidal marshes
Vascular Plant	Limosella australis	Awl-leaf Mudwort	Т	none	tidal marshes
Vascular Plant	Liparis loeselii	Fen Orchid	E	none	seeps, bay swamps
Vascular Plant	Ludwigia alata	Winged Seedbox	SR-P	none	interdune ponds, marshes
Vascular Plant	Ludwigia brevipes	Long Beach Seedbox	SR-T	none	natural lake shores, blackwater stream shores and impound- ments, and freshwater interdune ponds
Vascular Plant	Ludwigia maritima	Seaside Seedbox	W7	none	savannas, dunes, and ditches
Vascular Plant	Luziola fluitans var. fluitans	Southern Water Grass	SR-P	none	pools, lakes, streams
Vascular Plant	Malaxis spicata	Florida Adder's-mouth	SC-V	none	maritime swamp forests, calcare- ous but mucky outer coastal plain swamps
Vascular Plant	Neottia bifolia	Southern Twayblade	W1	none	moist hardwood forest, swamps, wet woods with acidic soils
Vascular Plant	Oenothera riparia	Riverbank Evening-primrose	SR-L	none	Freshwater tidal marshes and freshwater tidal swamp forests.

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Vascular Plant	Oenothera unguiculata	Southern Sundrops	SR-T	none	wet clay savannas (Carteret*, Dare, Jones, New Hanover, Onslow, Pender)
Vascular Plant	Oplismenus setarius	Shortleaf Basket Grass	SR-P	none	maritime forests, bottomlands
Vascular Plant	Paronychia bald- winii ssp. riparia	Perennial Dune Whitlow-wort	W7	none	Dry sandy sites, woodlands or dunes
Vascular Plant	Paspalum vaginatum	Seashore Crown Grass	SR-P	none	brackish marshes, low wet places
Vascular Plant	Peltandra sagittifolia	Spoonflower	SR-P	none	pocosins, other wet, peaty sites
Vascular Plant	Persicaria densiflora (syn. Persicaria glabra)	Dense-flower Smartweed	W1	none	Swamp forests
Vascular Plant	Phytolacca rigida (syn. Phytolacca americana var. rigida)	Maritime Pokeweed	W1	none	dunes, edges of brackish or salt marshes
Vascular Plant	Platanthera blephariglottis	Small White- fringed Orchid	W7	none	bogs or depressions
Vascular Plant	Platanthera conspicua (syn. Platanthera bleph- ariglottis var. con- spicua, Platanthera blephariglottis)	Large White Fringed Orchid	W7	none	Savannas, seepages, sandhill-po- cosin ecotones
Vascular Plant	Polygonum glaucum	Seabeach Knotweed	E	none	ocean and sound beaches
Vascular Plant	Polygonum prolificum	Bushy Knotweed	W7	none	brackish marshes
Vascular Plant	Potamogeton illinoensis	Illinois Pondweed	Е	none	alkaline waters of streams, rivers, lakes, and ponds
Vascular Plant	Psilotum nudum	Whiskfern	W4	none	acid swamp
Vascular Plant	Rhynchospora alba	Northern White Beaksedge	SR-P	none	fens, bogs, pocosin openings, limesink ponds
Vascular Plant	Rhynchospora microcarpa	Southern Beaksedge	Т	none	maritime wet grasslands, limesink ponds, swamp forests
Vascular Plant	Rhynchospora odorata	Fragrant Beaksedge	SC-V	none	maritime wet grasslands
Vascular Plant	Rhynchospora scirpoides	Long-beak Beaksedge	W1	none	beaver ponds, limesink ponds, wet savannas
Vascular Plant	Sabal palmetto	Cabbage Palm	Т	none	maritime forests on the south- eastern coast
Vascular Plant	Sabatia dodecandra	Large Marsh Pink	W1	none	tidal, brackish, and freshwater marshes
Vascular Plant	Schizachyrium littorale	Seaside Little Bluestem	W1	none	coastal dunes and maritime dry grasslands

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Vascular Plant	Schoenoplectus americanus	Olney Threesquare	W7	none	tidal marshes
Vascular Plant	Scleria verticillata	Savanna Nutrush	SR-P	none	calcareous wet savannas, mari- time wet grasslands influenced by shell deposits
Vascular Plant	Sesuvium maritimum	Slender Sea-purslane	Е	none	seabeaches, marshes
Vascular Plant	Sesuvium portulacastrum	Shoreline Sea-purslane	E	none	seabeaches
Vascular Plant	Solidago villosicarpa	Coastal Goldenrod	Т	none	edges and openings in maritime upland forests
Vascular Plant	Spergularia marina	Saltmarsh Sandspurrey	W7	none	salt marshes and tidal flats
Vascular Plant	Symphyotrichum simmondsii	Simmonds' Aster	W1	none	wet ditches
Vascular Plant	Trichostema nesophilum	Dune Bluecurls	SC-V	none	dunes, openings in maritime forest and scrub
Vascular Plant	Tridens chapmanii	Chapman's Redtop	Т	none	dry pine and oak woods, sandy roadsides
Vascular Plant	Triphora trian- thophoros var. trianthophoros	Three Birds Orchid	W1	none	humid forests and swamps
Vascular Plant	Utricularia macrorhiza	Greater Bladderwort	SR-O	none	pools and ponds
Vascular Plant	Vaccinium macrocarpon	Cranberry	Т	none	bogs, seeps, pocosins
Vascular Plant	Yucca gloriosa	Moundlily Yucca	SR-P	none	dunes
Vascular Plant	Zizania aquatica var. aquatica	Indian Wild Rice	W7	none	freshwater marshes

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