## Pasquotank County Land Use Plan

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Adopted: 08/21/2023



## Acknowledgments

#### **Board of Commissioners**

- Lloyd Griffin, III (Chairman, BOC)
- Charles Jordan (Vice-Chairman)
- Cecil Perry
- Barry Overman
- Sean Lavin
- Jonathon Meads
- Dr. William Sterritt
- Mr. Sam Davis, III

#### **Planning Board**

- Mr. William J Kruse (Chairman, Planning Board)
- Mr. Kevin Brickhouse (Vice-Chairman)
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Plan adopted by the County: August 21, 2023 Plan certified by NC Coastal Resources Commission: <Date to be inserted>

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# About the Plan

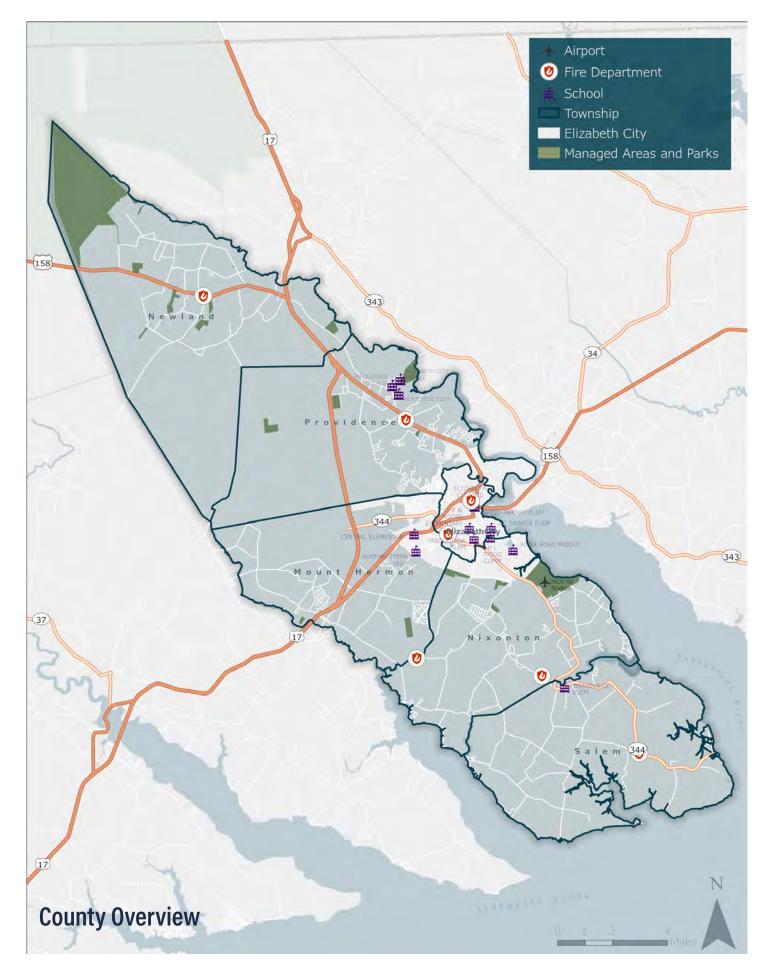
This Coastal Area Management Act (CAMA)-Land Use Plan, sometimes referred to as a comprehensive plan, incorporates land use and transportation plans previously adopted by the County of Pasquotank, while creating policy framework to guide responsible growth and natural resource conservation over a 25-year planning horizon.

## WHAT'S A CAMA LAND USE PLAN?

It is a document that contains a shared community vision to guide the growth, development, and natural resource conservation for the County of Pasquotank. It is a tool to be used by many people with an interest in the County. It is used by the citizens of Pasquotank, the policy makers who represent them, and the County's staff who support them. It also provides guidance to businesses, builders, future citizens, and scholars or students who want to learn more about Pasquotank. This plan considers existing conditions and trends to envision the future community, a community vision created by the people of Pasquotank. 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 County over time, as well as current socioeconomic conditions. Finally, the plan provides implementation strategies to achieve the vital elements that make the County of Pasquotank a safe and welcoming, place to live, work, and play.

## **PLANNING AREA**

The Board of Commissioners (BOC, the governing body of Pasquotank County) is responsible for many public services throughout the entire county. Pursuant to state statute, the BOC may only exercise planning, zoning, and subdivision powers within the unincorporated county (i.e. - areas not under the jurisdiction of Elizabeth City, either in their corporate limits or in their extraterritorial jurisdiction). The recommendations related to land use in this plan specifically apply to the unincorporated areas of the county over which it has jurisdiction. Nevertheless, it is understood that all citizens of the county, whether under the planning and zoning control of the County or the City, have a stake in the county and in decisions and efforts that it undertakes. Throughout this document, every effort is made to clearly distinguish between the unincorporated county, and the whole county, understanding that this plan must be responsible to all the stakeholders of Pasquotank County.



## WHO'S BEEN INVOLVED

- Planning Board acting as a steering committee, reviewed the plan regularly and provided direction throughout the duration of the project.
- Board of Commissioners reviewed the plan as a part of the formal adoption process.
- County Staff and members of key partner and/or regulatory agencies - facilitated meetings and outreach, internal review and coordination, provided perspective and background information.
- Members of the public participated in public meetings, draft plan review, surveys, and were kept aware through the project website.

## **SCHEDULE**

The project kicked off in February 2022 with an administrative kickoff meeting with County Planning Department staff that led to data exchange to begin documenting existing conditions. Next, the Stewart team visited the County for a community tour and kick off meeting with County staff. This led to valuable insight and local perspectives related to land use and development in the County. Following the community tour, an existing conditions analysis and assessment identified areas of environmental concern, existing land use, transportation, infrastructure, water quality, stormwater, and other environmental concerns. Throughout the process, the project team met with County staff and the steering

committee (Planning Board) to help guide the plan and address required topics by the Coastal Area Management Act. A combination of public meetings and surveys were conducted to gain community insight on future growth, development, preservation, and conservation concerns. Updating the County's CAMAcertified Comprehensive Land Use plan was a year-long process that included public engagement and analysis, followed by state review of the draft plan, which can sometimes take up to 75 days.

## **PUBLIC ENGAGEMENT**

Public engagement included a joint Planning Board and Board of Commissioners kickoff meeting, an initial meeting with County department heads and key outside/partner agencies, a public meeting, and a community survey. The Planning Board acted as the steering committee and reviewed and shaped all elements of the plan.

## **Public Meetings**

Public Meeting: August 18, 2022 - introduced the community to the draft plan document and gathered input and answered questions about the document.

#### Survey

An online public input survey was run from April 11 - May 23. It was advertised in a number of places, including at the County's largest festival, the NC Potato Festival held in Elizabeth City. This survey gathered information on community

## **PROJECT SCHEDULE**

	2022											2023				
PHASE	Feb	Mar	Apr	Мау	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May
Phase 1			1			U										
Administrative kickoff		2/17				. P. 1			1	111	10.1			1.1		
1-day kickoff event: community tour, stakeholder interviews		4	03/24						1							1.23
Data gathering, graphics/ doc branding, base mapping		_	r	$\mathbf{D}$	NC Date	L. Crati								10.		
Values survey and community visioning			\$—	1	NC Pota	ato Festi			<u></u>							
Community profile	1		1.						1.2						15	
Phase 2							-									
Vision and goals development			-		06/0	9	Update		1.0						1.1	
Chapter drafting and Future Land Use Map development	/a.			Up	date: (	07/28/	08/0	Upda 09/	12		1	$1 \le 1$	1			
Draft recommendations and plan development	. 24		1		4					11/02- N	ov. PB	update				-
Phase 3			-			-		-	)							
Refine plan based on public feedback					1.1.	1.1	1						02/06			
Plan revision and public adoption process					24	-	-		A	1	2/15	-	Δ	<b>A03/0</b>	6	
Key: Task	Δ	Elected	l or Ap	pointed	Board	S	Onl	ine Put	olic	_				state rev an take		
A Planning Board or Staff				ational Focus		or				: Sche	dule is	subiec	t to cha	anae, d	lependi	ng on
CAMA Plan = the County's CA CAMA = North Carolina's Coa				ent Act	-				proje	ect prog web pa	ress a	nd nee	ds. Plea	ase visi	t the p	roject

values, priorities, and vision for the future. The survey was extensively advertised, including:

- Email request for participation and survey distribution to employees, Board members, constituents, etc. sent to:
  - » Pasquotank County
  - Direct email to all County department heads and employees
  - Cooperative Extension Office
  - Economic Development e-mail list
  - County Planning Board
  - County Board of Commissioners
  - » Elizabeth City Planning Department

- » Chamber of Commerce was distributed through their newsletter
- » Major employers (most industrial employers were included on the Economic Development e-mail list):
- » County Board of Education
- » ECSU
- Fliers posted at:
  - » Planning Department entrance
  - » County offices entrances
  - » Pasquotank County Library
  - » Local businesses

## Survey Respondent Top Priorities (The size of text is roughly proportionate to how many

respondents mentioned these topics as their top priority.)

## 1. Flooding, drainage, stormwater

- 2. Rural character, farmland, managing growth
- 3. Jobs, economic development, support businesses
- 4. Housing affordability, rehabilitation
- 5. Environmental water quality
- 6. Tourism
- 7. Support, opportunities for youth
- 8. Recreational public water access

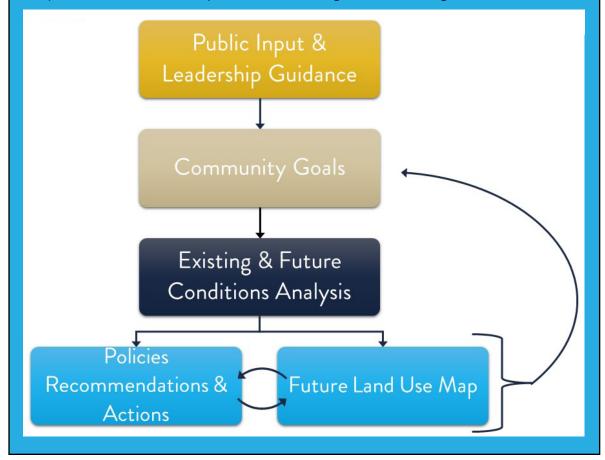
- Social media and online
  - » Facebook
  - » County website
  - » NextDoor

#### Events

» Two large signs (with URL code) were placed at prominent locations during the Potato Festival

## **Developing and Achieving the Vision**

When a community planning process works correctly, the input collected informs the development of community-supported goals. These goals are combined with analysis of existing and projected future conditions and this leads to the development of recommended for policies, actions, and land use decision-making. As these recommendations are implemented, they should help move the community toward achieving their desired goals.





## Existing Conditions & Key Issues



# Significant Existing & Emerging Conditions

Any community planning update must necessarily involve significant amounts of information gathering and community member conversations. As part of this plan update, community leaders (Planning Board and Board of Commissioners) and County staff were interviewed to determine locally important constraints, opportunities, assets, and issues. The remainder of this section summarizes issues discussed during those conversations.

## LAND USE

According to County staff, the Future Land Use Map from the previous CAMA Land Use Plan has adequately limited residential rezonings in areas that were intended to remain agricultural per the map. Proposals for new development in the unincorporated County have been reduced because developers cannot leverage County-provided sewer service which would allow more profitable development densities. This actually helps direct more high density and suburban residential growth toward Elizabeth City, which can provide the municipal-style services that these residents expect. So while residential development is not prohibited or necessarily deterred in the County, the result is a more beneficial development pattern that sees rural residential possible in the County's jurisdiction and suburban and higher density residential naturally gravitating toward the City. This ensures that the City will continue to be developed at a higher density than the County and that a rural lifestyle is still possible for residents who desire it.

## DEVELOPMENT

Residential development in the County has been focused recently in pre-Great Recession subdivisions that stalled out during the downturn, but have picked back up as time has passed. It is expected that as these subdivisions reach build-out, new development applications will be submitted.

There is also the perception that bedroom community development will bleed over from the Hampton Roads / Suffolk / Chesapeake / greater Norfolk area. As areas like Moyock and South Mills reach infrastructure capacity limits, residential development is expected to spill over in to Pasquotank County, particularly in the Morgan's Corner crossroads area (intersection of NC Hwys 158 and 17). Along with planned County infrastructure investments in that area (new County park and possible fire station relocation), this area is expected to see additional demand for housing. And as in all coastal communities, development pressure is always constant along rivers and coastal waterfronts.

New residential development will increase pressure for new retail, marine services, and professional services. Provision of such services will require evaluation and selection of locations closer to areas of high development concentration. Provision of wastewater facilities, water supply, emergency services, school capacity, and transportation improvements will need to be considered.

In light of rising sea level, any new residential and related development of the currently undeveloped and agricultural waterfront land along the Pasquotank and Little Rivers and their tributaries also will need to incorporate sustainable/resilient development practices. Stormwater flood hazard mitigation and wetlands/critical habitat protection are also important considerations.

The relocation of the hospital to the western end of Halstead Blvd will be locally significant and will drive additional development to the area surrounding the hospital. Any development requiring sewer service will likely be annexed by Elizabeth City. The old hospital site is planned to be redeveloped as a mixed use development.

The County also continues to market its industrial business park (Pasquotank County Commerce Park) and sites are still available. This location is significant in its concentration of employment-generating land uses that serve the greater region. It is also a Free Trade Zone associated with the Port of Virginia.

## TRANSPORTATION

There are a few major transportation projects planned in the County and surrounding areas. Most notable is the planned conversion of Hwy 17 to Interstate 87. As of 2020, this project is unfunded in the current State Transportation Improvement Program and the year for starting the project is now 2029. This means this project will be re-scored in the future. See https://www. ncdot.gov/initiatives-policies/Transportation/ stip/Pages/stip-projects-map.aspx. However, County leadership has made it clear that capitalizing off new economic development opportunities related to the future interstate upgrade is important.

Other transportation projects for the County or nearby areas involve the widening of NC Hwy 158 west of the County line. The NCDOT has in the past identified Hwy 158 as a potential major link to the Outer Banks through Pasquotank and Camden Counties. This would likely entail resurfacing, access management, intersection improvements, and potentially new road alignment in some locations. The NCDOT, under the Governor's Climate Change Response Executive Order, is preparing a statewide Transportation Emissions Reduction Plan. Recommendations from this plan may impact future transportation management and investment decisions statewide.

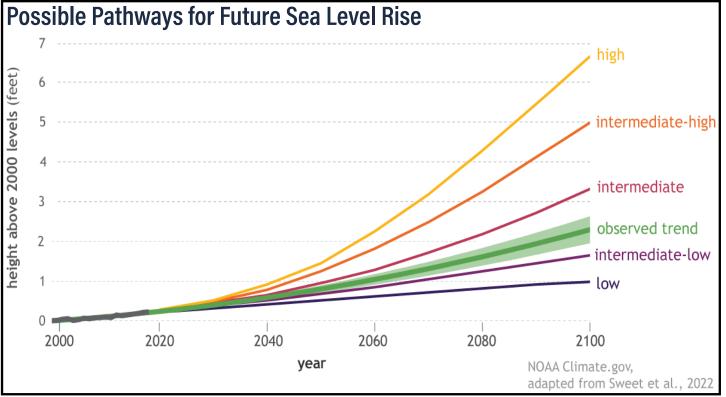
## **CHANGING CLIMATE**

Being a low-lying, coastal county means that Pasquotank County will be significantly affected by rising seas and other flood-related impacts from climate change. In particular, as it relates to existing and expected development within the County's planning and zoning jurisdiction, this is expected to have a significant impact on the areas around the rivers and the Albemarle Sound. Areas to the north and east of Morgan's Corner crossroads, adjacent to the river floodplain, will also be subject to significant impacts from sea level rise. Rising seas and salt water intrusion will also negatively impact farmland, coastal erosion rates, public and private drinking water wells, and septic system function. Residents will have to learn to live with the water. County leadership believes that new resident education can help people better understand the conditions of the County. The changing climate that is creating higher intensity storms and rainfall events has also produced periods of extended drought. Water supply conservation/management and managing wildfire threats should be considered in making future land use decisions.

## **ECONOMY**

The US Coast Guard station and airportassociated programs and businesses are a key component of the County's economy. Plans are underway to expand operations in the near future. Ensuring compatible land use in areas surrounding the Elizabeth City Regional Airport is important to minimizing conflicts. See also "Major Area Employers" on page 33.

Agriculture is also a major employment industry in the County. New residents, especially those moving to the County from more urbanized areas like Hampton Roads, could benefit from education related to the industrial nature of agricultural operations (field burning, fertilizer and pesticide application, farm machinery, etc.) in order to moderate expectations for



National Oceanic and Atmospheric Administration, Potential Sea Level Rise Scenarios

new neighbors. See also "Agricultural Census (2019)" on page 36.

Traditional economic development in the County is currently focused on broadband expansion opportunities, advanced manufacturing, aviation (especially in partnership with the USCG, Elizabeth City State University, or College of the Albemarle). Continuing investment in transportation and public infrastructure improvements are needed to support future growth. The County also has identified an area west of the Hwy 17 Bypass at the west end of Halstead Blvd as an employment megasite.

The proposed new Albemarle Regional Hospital in Elizabeth City will strengthen health care and make the region a more desirable location for growth. Existing higher education facilities at the College of the Albemarle, Elizabeth City State University, and Mid-Atlantic Christian University will also continue to draw students and offer the potential for facilities expansion in the future. National trends for greater emphasis on health care, technical, and trade-related education and certification will impact these institutions. Post-graduate and continuing education through a mixture of online and classroom/laboratory instruction and research will also be a consideration. The proximity of high tech solar and wind farms, Coast Guard aviation, aeronautical industry, traditional agriculture, and marine fisheries resources within and near Pasquotank County offer unique opportunities. There should be a significant effort to attract jobs that will keep these graduates in the area.

## **Key Issues**

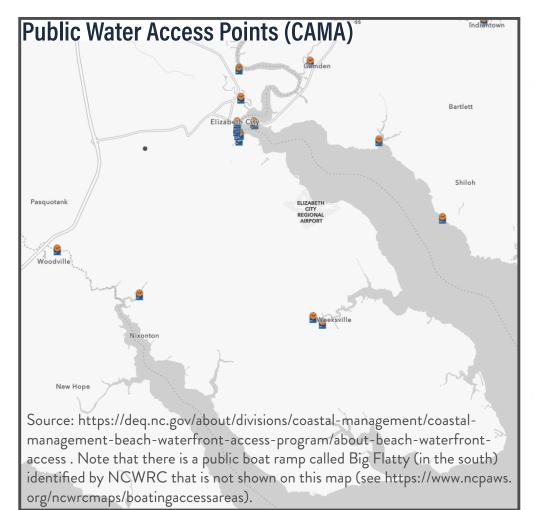
These key issues describe the topics most relevant to the CAMA land use planning process and are organized by CAMA Land Use Management Topics, per 15A NCAC 07B.0702(a)(2). Some issues relate to two or more Topics, but are organized based on where they primarily relate.

## LAND USE COMPATIBILITY

Elizabeth City is the wastewater treatment service provider for the area and sewer service by the County is mostly limited to the County's Industrial Park (Commerce Drive and Corporate Drive), and the schools located on Northside Road. This helps ensure that dense development is annexed and the City provides the municipal-style services that new development requires. The arrangement also helps cluster development near the urban core and helps reduce suburban sprawl. The City is undergoing efforts to reduce inflow and infiltration (I&I) in their wastewater system in order to ensure adequate treatment capacity in the future. See also "Land Use" on page 12 and "Development" on page 12.

## INFRASTRUCTURE CARRYING CAPACITY

Pursuant to the recent growth in places acting as bedroom communities to the Hampton Roads, Virginia area, the County has been investing in infrastructure (e.g. - drinking water reverse osmosis plant upgrade and new county



park) in the north, near Morgan's Corner. In the southern portion of the county, brackish/ saltwater intrusion into drinking water wells is becoming more of a concern as seas rise.

The County has about \$15 million of infrastructure projects identified in their 2020 Utility Master Plan. About a third of that is for upgrading water infrastructure near Newland.

## **PUBLIC ACCESS**

Public access to public trust waters was not identified as a major issue by the community, staff, or County leadership. However the idea of increasing water-based recreational opportunities was raised. There are not many public water access points identified in the State's CAMA access points map, but the opportunity for greater access is still discussed in this plan.

## NATURAL HAZARD AREAS

Being largely rural,

predominated by agriculture and silviculture, and located on North Carolina's inner coast, Pasquotank County's primary natural hazard threats are coastal hazards (such as tidal flooding and storm surge), high rainfall and severe storm events (including hurricanes), and wildfires. In a County where the highest natural point of land is only 22 feet, sea level rise is also a major concern and operates as a threat multiplier, making hazards such as tidal flooding and storm surge worse than they have been in the past. A changing climate is also predicted to create stronger storms and heavier rainfall events. Managing this stormwater will also be a challenge for certain areas of the county. Winddriven flooding can also be a nuisance or hazard. There is concern locally that recent revisions to flood maps did not appropriately account for local conditions and have removed properties from the special flood hazard areas that are at higher risk of flooding than the new maps indicate.

## WATER QUALITY

Much of the development in the unincorporated county is served by on-site septic systems. These are regulated by the County Environmental Health Department. Traditional on-site septic systems, which form the bulk of the existing stock, are not regularly inspected to determine if they are operating as designed. This is a standard practice across the state. Newer on-site septic systems are generally "modified" systems and are engineered to make more efficient use of land for system operation. These are inspected annually. As seas rise, some septic systems will begin to experience higher groundwater levels and will experience reduction in their operational capacity, possibly releasing partially treated wastewater into local water bodies. Nutrient rich wastewater can cause algal blooms and other pollution to local waters, resulting in lowered environmental water quality and overall quality of life for residents.

Anecdotal evidence suggests that algal blooms have started occurring in the Pasquotank River, whereas in the past they were mostly just a concern for the Little River. The NC DWR tracks algal blooms.

## ADDITIONAL LOCAL ISSUES OF CONCERN

#### **Drinking Water Intake**

The City currently has a NC DWR drinking water intake location identified on the Pasquotank River that is not active. Due to state regulations related to protection of water supply watersheds, this hinders development potential in the County upstream of that location.

#### **Renewable Energy**

Pasquotank County has had significant development related to renewable energy, specifically wind turbines /a wind farm and solar farms. Wind farms are perceived as compatible with other industry, such as agriculture, and are viewed positively. Solar farms are perceived as placing significant constraints on land use and reducing land available for employmentgenerating uses. The County may choose to restrict solar farm development in the future in response to these concerns

## **Pedestrian and Cycling Facilities**

Suburban density residential neighborhoods would benefit from greater pedestrian and cycling connectivity. In North Carolina, counties do not typically own or maintain roadway facilities, pedestrian infrastructure, or associated rights-of-way. However, some counties have made efforts to increase presence and availability of multi-use trails (aka greenways). Wake County's regional greenway plan is an example (https://altago.com/wpcontent/uploads/Wake-County-Greenway-System-Plan.pdf).

There is also a greater push at the state and federal scales for increased multi-use path infrastructure (such as the Mountains-to-Sea Trail and East Coast Greenway). The State's Great Trails State plan (currently in draft form) shows a route that will (one day) connect all county seats across North Carolina through a pedestrian/bicycle trail network. This is an opportunity for the County to install and maintain specific multi-use trails and leverage connection to a much greater recreational and transportation resource.

## Tying into the State Trails Network

The NCDOT is currently in the process of creating a state trails plan to connect all 100 counties and major destinations with a separated cycling- and hiking-dedicated trail facility. At the time of writing, the plan has not yet been adopted, but a draft of the network is shown below. Being a part of this state recreational network has the potential to enhance

the quality of life and recreational tourism opportunities for residents and visitors.

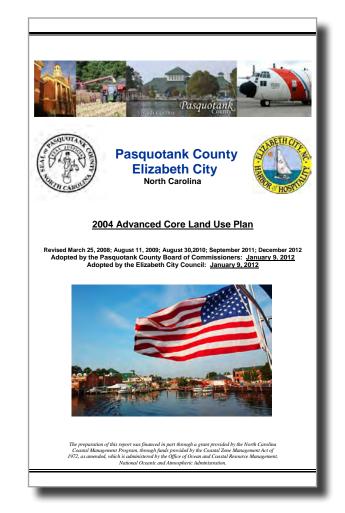


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## Key Point from Previous Planning Efforts

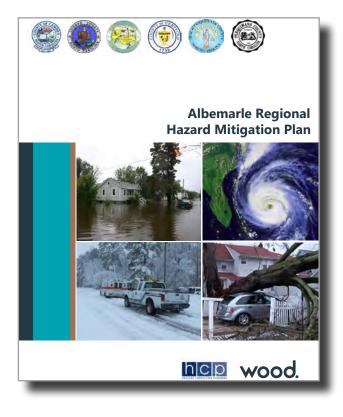
A review and analysis of the following documents was also included as part of this plan update process:

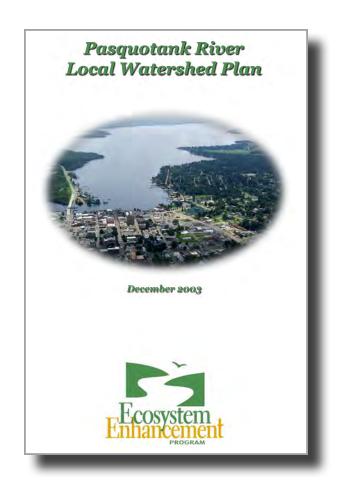
- County Zoning Map and GIS files
- NC flood maps
- Pasquotank County / Elizabeth City 2004 Core (CAMA) Land Use Plan and the County's CAMA Implementation Report (2022)
- Albemarle Regional Hazard Mitigation Plan (2020)
- 2016 Pasquotank County Comprehensive Transportation Plan
- Pasquotank County Water and Sewer Comprehensive Evaluation and Master Plan (2020-2040)
- Albemarle Regional Bicycle Plan (2013)
- Elizabeth City / Pasquotank County [Parks & Recreation] Comprehensive Master Plan Update (2016)













# **Community Vision**



## **Community Goals**



Enhance and restore natural areas that protect against natural and coastal hazards.



Maintain and enhance the water quality of coastal and inland waters and associated natural areas.



Direct development away from sensitive environmental areas and future flood prone areas, and toward areas with sustainable infrastructure.



Preserve the quiet, rural, agricultural character and respect farming and other rural land uses.



Focus urban and suburban growth toward Elizabeth City and key locations at future I-87 interchanges.



Remove barriers to affordability, choice, and rehabilitation for workforce housing and attainable housing for residents.



Begin planning for and adapting to climate change, including avoiding and becoming more resilient to disruptions from natural hazards.



Promote affordable health care and housing development that assures that senior residents can remain in Pasquotank County for their entire life.



Provide adequate recreational opportunities for residents and visitors, including access to coastal waters with facilities that encourage ecotourism.

10

Promote economic development that creates broad local wealth and bolsters existing businesses or expands opportunities for living wage jobs.

Respect, embrace, and encourage a diversity of community participation.

Pursue policies and investments that maintain adequate transportation networks for agriculture and industry, and that support the County's economy.

Pursue infrastructure improvements to meet the needs of the future population.

14

Create opportunities for youth.

Advocate for preservation of significant, study-listed, historic properties.

16

Promote safe connections and opportunities for nonmotorized transportation.

17

Promote cultural and secondary and higher educational facilities and opportunities that encourage young people to remain in Pasquotank County.



# Population, Housing, & Economy



## Population

## HISTORIC GROWTH AND CURRENT ESTIMATES

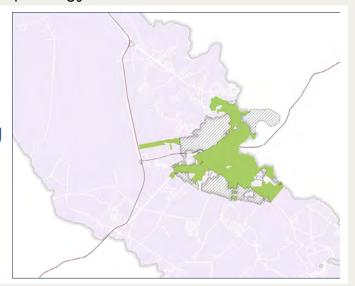
According to the 2020 Census, Pasquotank County's permanent population is 40, 568. Using ArcGIS Online's data enrichment, the permanent population in the study area is estimated at 19,992. Population trends for the entire county from 2000 to 2020 indicate the county has grown by .8% and gained slightly over 5,000 people. When compared to neighboring counties, Pasquotank County has experienced growth at a higher rate than Perquimans County(14%) but has not experienced the same growth as Camden County (50%).

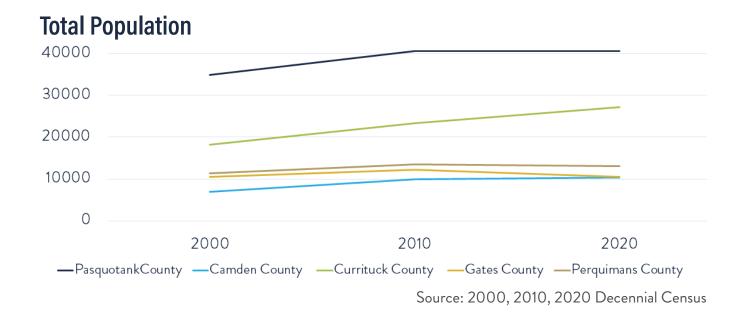
Due to Pasquotank County's location in the Division of Coastal Management's planning area, this Plan is required to address permanent and seasonal population projections. The permanent populations projections are in line with the state demographers projections and seasonal populations are estimated by calculating the number of visitors to short-term rentals and seasonally occupied units, guests of year-round residents, and other lodging throughout the County.

## **Planning Jurisdiction**

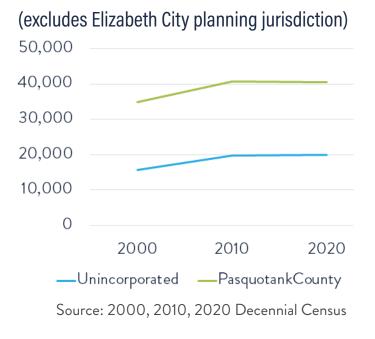
At least in regards to land use, this plan generally has jurisdiction in the areas not controlled by Elizabeth City through its municipal limits or its Extraterritorial Jurisdiction (ETJ). However, the characteristics of all areas (independently and combined) were often considered when performing analysis and creating recommendations. This plan is primarily concerned with the Study Area (i.e. - areas not inside Elizabeth City's planning jurisdiction).

+ + = "Whole" County
= Elizabeth City Limits
+ = Elizabeth City Planning Jurisdiction
+ = Unincorporated Pasquotank County
= <u>Study Area</u>





## **Total Population for the Study Area**

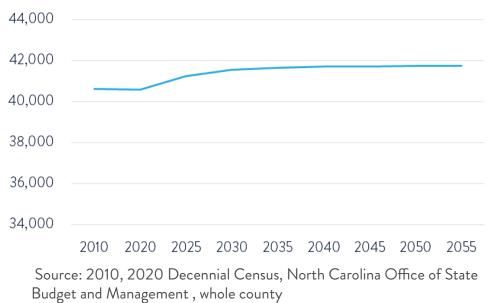


## **POPULATION PROJECTIONS**

Every year the state demographer produces official population projections for the state and counties based on historical trends in population change based on births, deaths, and migrations to estimate a future population. These projections use census counts because they are more accurate than estimates. Population projections are great for predicting the immediate future (one to five years out) because population trends do not change rapidly and therefore historic trends can be used to predict the immediate future. However, some areas will experience boom and bust cycle economies that are harder to predict as well as unplanned events, such as natural disasters can alter population trajectories.

Population projections for Pasquotank County are based on the state demographer's projections from the North Carolina Office of State Budget and Management (NCOSBM). According to the state demographer, Pasquotank County's population growth is estimated to grow by about 1% from 2022 to 2055.

## **Permanent Population Projections**



## **UNDERSTANDING POPULATION PROJECTIONS**

#### PERMANENT POPULATION

Persons who reside in the planning area year-round.

#### PEAK VISITOR POPULATION

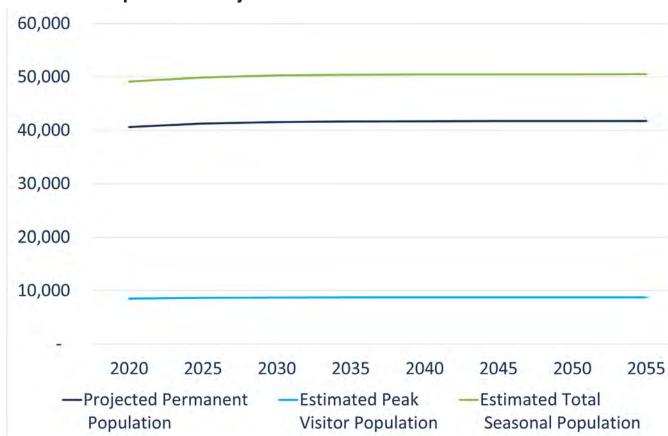
Persons who are temporary residents in the planning area, such as tourists and vacationers, but who normally reside in another location; this does not include day-trippers.

#### TOTAL 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 but does not include day-trippers.

## **SEASONAL POPULATION**

Seasonal population projections are determined by using a ratio of current visitor population to permanent population and applying it to the permanent population. Seasonal projections do not take into account variables such as natural disasters or annexations that may influence the future population.

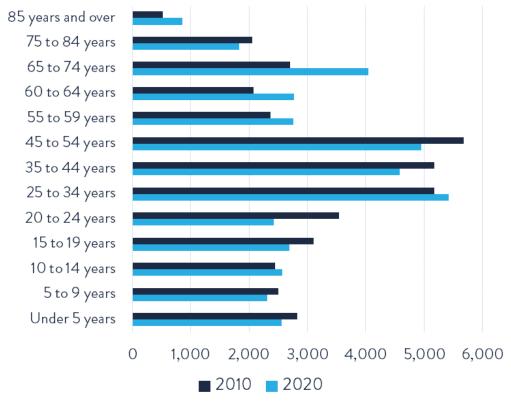


## **Seasonal Population Projections**

	2020	2025	2030	2035	2040	2045	2050	2055
Projected Permanent Population	40,611	41,256	41,556	41,675	41,720	41,740	41,746	41,752
Estimated Peak Seasonal Visitors	8,517	8,664	8,727	8,752	8,761	8,765	8,767	8,767
Estimated Total Seasonal Population	49,128	49,920	50,283	50,427	50,481	50,505	50,513	50,520

## Age

Over 50% of the County's population is white (not taking Hispanic ethnicity into consideration). The Hispanic population (heritage regardless of race) makes up 5% of the total population. According to the 2020 Census, the median age in Pasquotank County is 39.6 which has increased by 10% since 2000. The 60 to 74 age cohort has experienced a 42% increase since 2010, while 20 to 24 years of age has decreased by 10% and 19 and under has decreased by 7%.



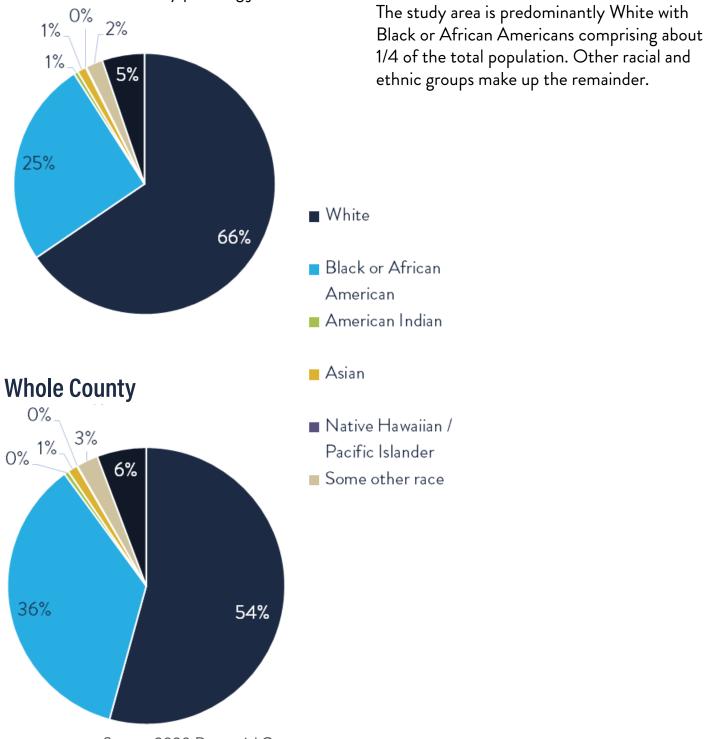
## **Age Distribution**

Sources: 2010, 2020 Decennial Census and American

## **Study Area**

(excludes Elizabeth City planning jurisdiction)

Race



#### Source: 2020 Decennial Census

## **Local Economy**

## **EMPLOYMENT**

Data from the US Census and the US Bureau of Labor Statistics show an increase of over 1,000 employees in Pasquotank County. Educational services, health care, social assistance, transportation and warehousing, and utilities represent the largest growing sectors in the county. The biggest employment sectors are educational services, healthcare, social assistance, retail trade, and arts entertainment, recreational, and accommodation industries.

## COMMUTING

Majority of the workers employed in Pasquotank County live outside of the County. Out of the people that live in Pasquotank County over 60% work outside of the County.

## **INCOME**

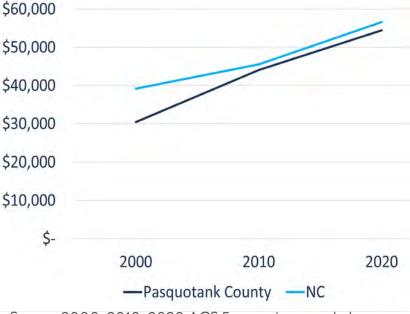
The median household income was estimated to be \$54,439 and has increased by nearly 80% since 2000. When compared to the North Carolina's median household income at \$56,642, the County is nearly 4% lower than the state.

# 41% 32%

**Employee Inflow/Outflow** 

- Employed in Pasquotank County but Living Outside
- Employed and Living in Pasquotank County
- Living in Pasquotank County but Employed Outside Source: 2019 Census on the map, whole county

## **Median Household Income**



Source: 2000, 2010, 2020 ACS 5-yr. estimates, whole county

## **Major Area Employers**

PRIVATE SECTOR		
COMPANY NAME	MISSION	EMPLOYEE RANGE
Sentara Albemarle Medical Center	Healthcare Provider	500-999
Amentum Aviation	Coast Guard HC-130 Maintenance	250-499
Moneysworth	Commercial Laundry Service	100-249
Hoffler Flow Controls	Flow Control Manufacturing	100-249
TCOM	Manufacturer of Blimps	100-249
Jones Lumber Company	Wood Manufacturing & Processing	100-249
Hockmeyer Equipment Corporation	Precision Manufacturer	140
Telephonics Corporation	Aerospace Manufacturing & Repair	80

INSTITUTIONAL		
COMPANY NAME	MISSION	EMPLOYEE RANGE
US Coast Guard	Homeland Security	2,000+
Pasquotank Board of Education	K-12 Education	1,000+
Elizabeth City State University	Higher Education	500-999
Department of Public Safety	Prison System	500-999
College of the Albemarle	Higher Education	250-499
City of Elizabeth City	Local Government	250-499
Pasquotank County	Local Government	250-499

Source: Elizabeth City Economic Development Commission, taken 03/16/2022, https:// elizabethcitypasquotankedc.com/about/area-employers/

## Agriculture

Agriculture has and is a major land use and employer in the region. In recent years, alternative energy like wind turbines have provided supplemental income for farmers. The county exhibits national trends in farm consolidation and aging operators.

## **PRESENT USE VALUE**

Property that qualifies for present use value classification is appraised at its present use value, rather than its market value. Present use value is usually much less than market value and qualifying tracts are appraised at this lower value. The tax office also establishes a market value for the land, and the difference between the present use value and the market value is maintained in the tax assessment records as deferred taxes.

Pasquotank's present use value agricultural land, depicted in the map, is actively engaged in the commercial production or growing of crops, plants, animals, or aquaculture.

## **CROPS**

Crops make up 99% of agricultural sales. Intensive tilling is practiced by the majority of farmers (60%). Three hundred forty three acres are irrigated.

## LIVESTOCK

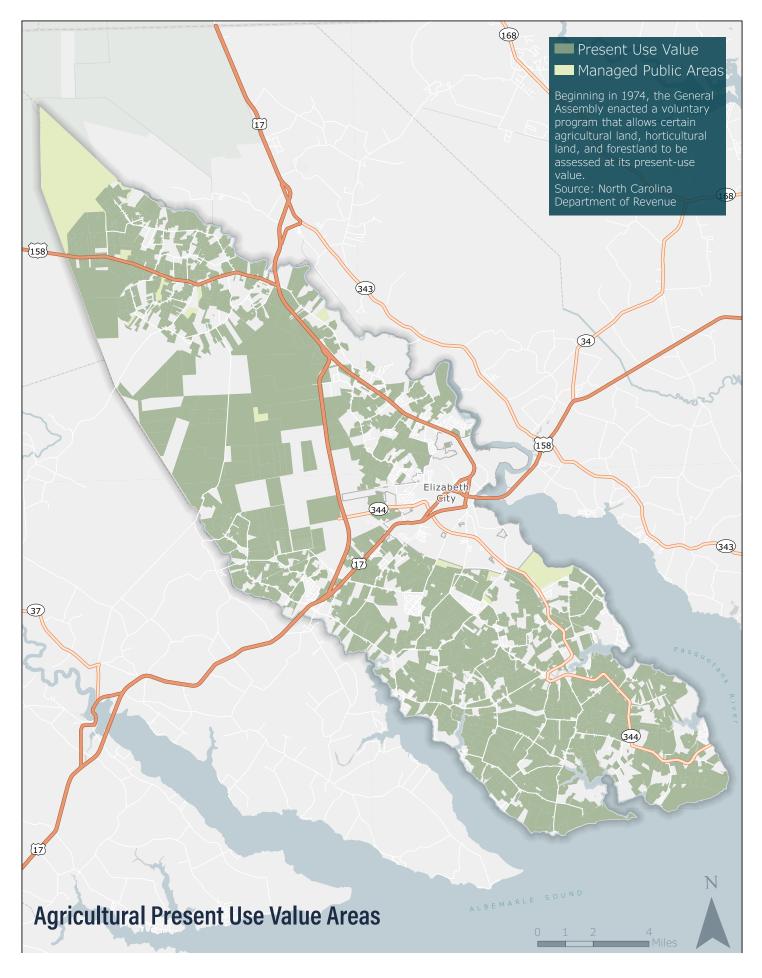
Livestock makes up 1% of sales. Hogs and pigs account for the majority of the livestock in the county.



Cotton field in production. (Photo courtesy of Bill Kruse)

## Agricultural Census (2019)





# Housing

There are 15,616 (2020 Decennial Census) permanent homes in Pasquotank County with 70% of the total being located in the unincorporated areas of the County. There are 1,794 (2020 Decennial Census) vacant units in the whole county.

Majority of the homes in the County (71%) are single-family homes, fourteen percent (14%) of homes are manufactured homes, and the other 15% of homes are attached homes with 1 or more units. The median home value is nearing the median home value for North Carolina.

According to 2020 American Community Survey 5-year estimates for Pasquotank County, there are 9,144 owner occupied units

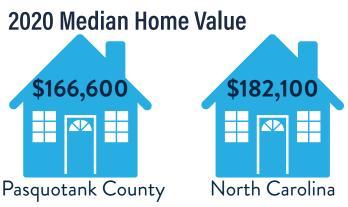
#### Defining Primary & Secondary Residences

Using the US Census data definitions of occupied and vacant housing units, we can determine how many homes are primary residences and then extrapolate secondary residences (aka vacation or second homes).

**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. and 5,641 renter occupied units. There has been a 15% increase in renter occupied units since 2010. Out of the renter occupied units, there is an estimated number of over 300 being used for seasonal use.

According to 2020 American Community Survey 5-year estimates, there are 17,410 housing units county wide. Nearly 90% of these units are considered occupied, the other 10% are considered vacant. Only 13% of these vacant housing units are used for seasonal, recreational, or occasional use. There are 20% available housing units for rent, 5% has either been sold or is rented and not occupied, 5% is used for migrant workers, and the other 57% is



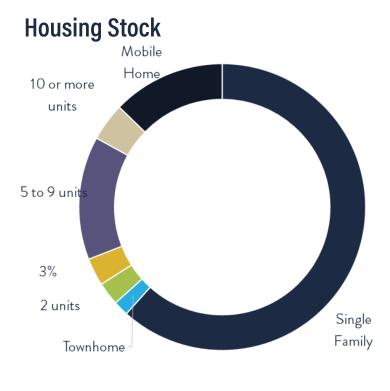
Source: ACS 5-year estimates 2020.

Housing Units	2000	2010	2020	
Occupied	12,907	14,956	15,616	
Vacant	1,382	1,877	1,794	
Total	14,289	16,833	17,410	

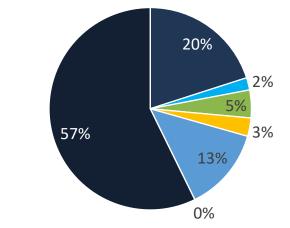
Source: 2000 Decennial Census, 2010 Decennial Census and ACS 5-year estimates 2020.

considered other vacant. Other vacant includes homes that are in foreclosure, vacant due to the owners' preferences, are vacant due to legal issues, are preparing to sell or rent, are held for storage, need repairs, are being renovated, used for specific uses (i.e.,military housing, employee housing, etc.), vacant for 6 months or more, abandoned, or do not fit in to the other categories.

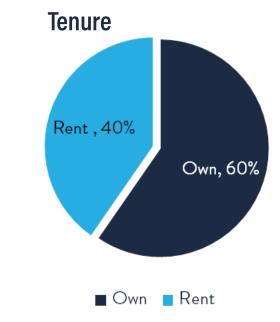
Since 2010, the total number of housing units has increased by approximately 577 housing units.



#### **Vacant Home Characteristics**



- For rent
- Rented, not occupied
- For sale only
- Sold, not occupied
- For seasonal, recreational, or occasional use
- For migrant workers
- Other vacant



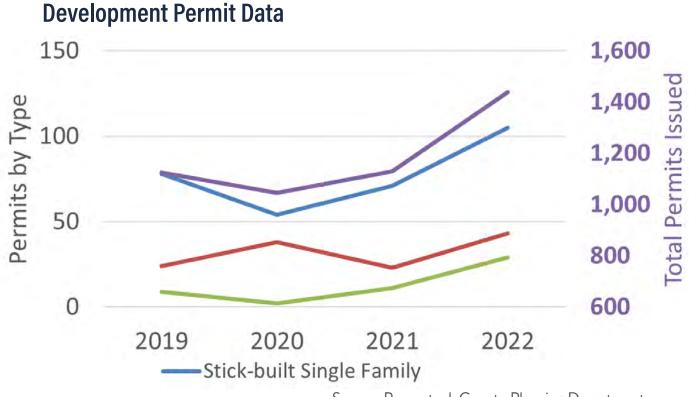


### Development

Since the release of the 2020 Census data, there has been an increase in the number of residential permits. This data provided by the planning department can be seen in the graph below. Based on the total number of permits in 2020 and 2021, the projected amount of total permits for 2022 show a similar outlook for this year.



## 17,410 Total Housing Units 48% are in Unincorporated areas

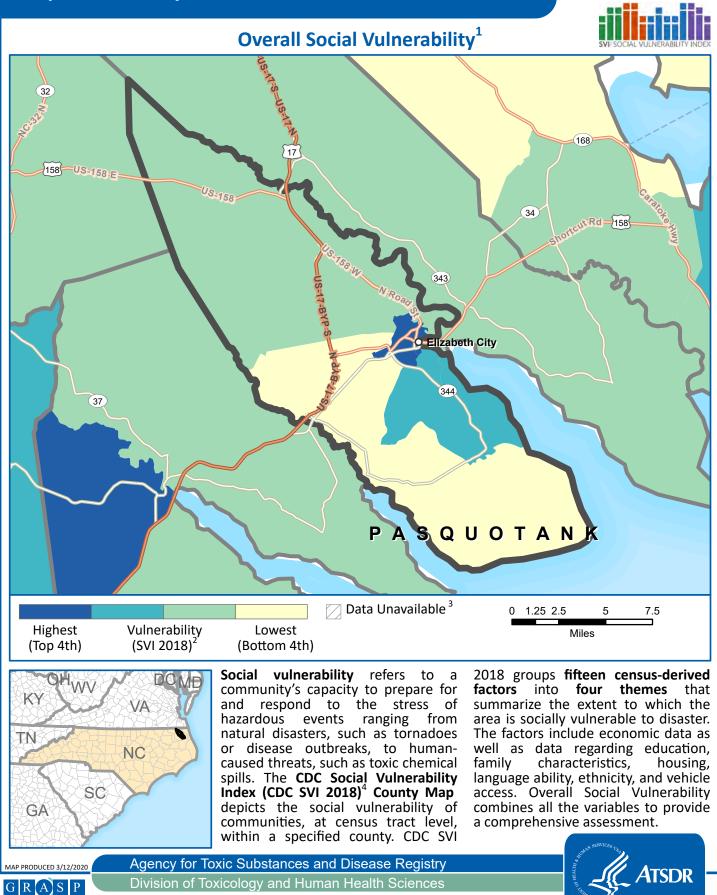


Source: Pasquotank County Planning Department

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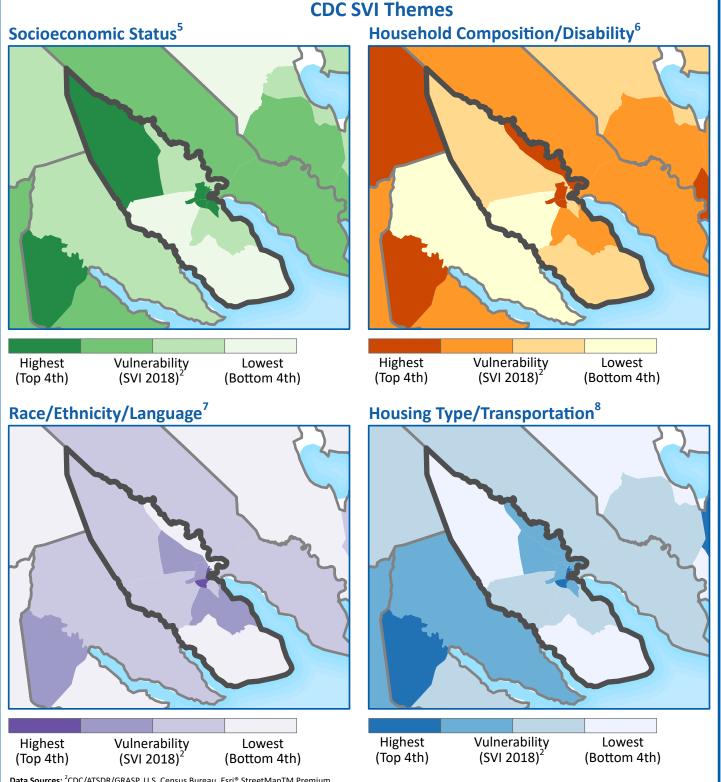
#### CDC SOCIAL VULNERABILITY INDEX Pasquotank County, North Carolina







#### PART 2



Data Sources: <sup>2</sup>CDC/ATSDR/GRASP, U.S. Census Bureau, Esri® StreetMapTM Premium. Notes: <sup>1</sup>Overall Social Vulnerability: All 15 variables. <sup>3</sup>Census tracts with 0 population. <sup>4</sup>The CDC SVI combines percentile rankings of US Census American Community Survey (ACS) 2014-2018 variables, for the state, at the census tract level. <sup>5</sup>Socioeconomic Status: Poverty, Unemployed, Per Capita Income, No High School Diploma. <sup>6</sup>Household Composition/ Disability: Aged 65 and Over, Aged 17 and Younger, Single-parent Household, Aged 5 and over with a Disability. <sup>7</sup>Race/Ethnicity/Language: Minority, English Language Ability. <sup>8</sup>Housing Type/Transportation: Multi-unit, Mobile Homes, Crowding, No Vehicle, Group Quarters.

Projection: NAD 1983 StatePlane North Carolina FIPS 3200.

References: Flanagan, B.E., et al., A Social Vulnerability Index for Disaster Management. Journal of Homeland Security and Emergency Management, 2011. 8(1). CDC SVI web page: http://svi.cdc.gov.



# Natural Systems



# Natural Systems Areas of Environmental Concern (AECs)

Pasquotank County is surrounded by natural lands and flanked by two rivers - the Pasquotank River and the Little River - and the southern portion of the county abuts the Albemarle Sound. The terrain is flat with a topography at or very near sea level, a common characteristic of North Carolina's Coastal Plain.

In addition to the importance of natural areas as the setting for life in the County, the North Carolina Administrative Code Section 15A-07B.0702(c)(2) requires this CAMA land use plan to describe and analyze natural features and discuss the environmental conditions of the planning jurisdiction.

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 attention to the protection of appropriate AECs because of their environmental, social, economic, and aesthetic values.

The following sections describe the categories that make up AECs established by the NC Coastal Resources Commission. Not all of these may be applicable to Pasquotank County.

# THE ESTUARINE AND OCEAN SYSTEMS

Included within the estuarine and ocean system are the following AEC categories: estuarine waters, coastal wetlands, public trust areas, and estuarine and public trust shorelines. The objective of the NC Coastal Resources Commission is to conserve and manage these areas as an interrelated group of AECs, to safeguard and perpetuate their biological, social, economic, and aesthetic values and to ensure that development within these areas is compatible with its natural characteristics.

#### **Estuarine Waters**

Estuarine waters are defined in G.S. 113A-113(b) (2) to include all the waters of the Atlantic Ocean within the boundary of North Carolina and all the waters of the bays, sounds, rivers and tributaries thereto seaward of the dividing line between coastal fishing waters and inland fishing waters. The boundaries between inland and coastal fishing waters are set forth in an agreement adopted by the Wildlife Resources Commission and the Department of Environment and Natural Resources and in the most current revision of the North Carolina Marine Fisheries Regulations for Coastal Waters, codified at 15A NCAC 3Q .0200.

Estuarine waters in Pasquotank County, include the Albemarle Sound, Big Flatty Creek, Little River from the US 17 bridge seaward, and the Pasquotank River.

#### **Coastal Wetlands**

Coastal wetlands are defined as any salt marsh or other marsh subject to regular or occasional flooding by tides, including wind tides, that reach the marshland areas through natural or artificial watercourses, provided this does not include hurricane or tropical storm tides. Regular or occasional flooding shall be established through field indicators, including the observation of tidal water on the site, changes in elevation, presence of periwinkle (littoraria spp.), presence of crab burrows, staining, or wrack lines. Coastal wetlands may contain one or 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).

The coastal wetlands AEC includes any contiguous lands designated by the Secretary of DEQ pursuant to G.S. 113-230(a). The unique productivity of the estuarine and ocean system is supported by detritus (decayed plant material) and nutrients that are exported from the coastal wetlands. Without the wetlands, the high productivity levels and complex food chains typically found in the estuaries could not be maintained. Additionally, coastal wetlands serve as barriers against flood damage and control erosion between the estuary and the uplands.

According to the North Carolina Department of Environmental Quality, there are 75 acres of coastal wetlands in Pasquotank County. Coastal wetlands area mainly located in the southern region of the County along Big Flatty Creek and Little River. However, to determine the precise location of coastal wetlands, further field investigation is needed.

#### **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 privatelyowned 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 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 and estuarine waters often overlap with each other, they include coastal waters and submerged lands where the public has the right to use the waters for activities such as swimming, boating, or fishing. In Pasquotank County, these areas include Pasquotank River, Little River, Albemarle Sound, and all navigable creeks and other bodies of water that are publicly accessible.

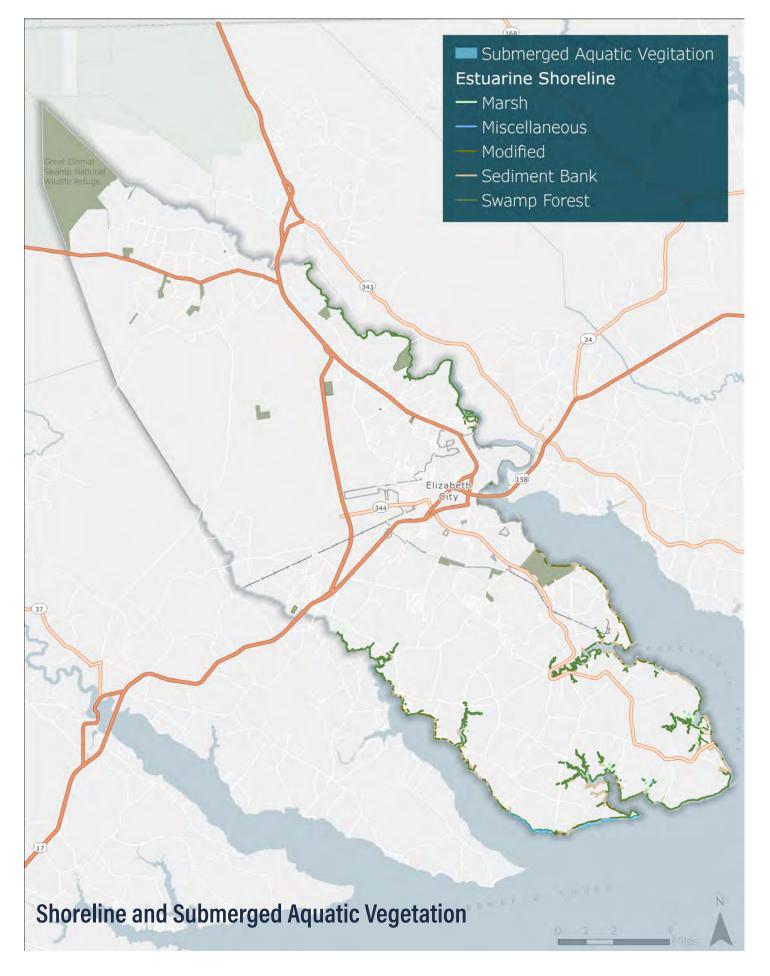
#### **Coastal Shorelines**

The Coastal Shorelines category includes estuarine shorelines and public trust shorelines. Estuarine shorelines AEC are those nonocean 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)] 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, 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), 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.

#### **OCEAN HAZARD AREAS**

The next broad grouping is composed of those AECs that are considered natural hazard areas along the Atlantic Ocean shoreline. Ocean hazard areas include beaches, frontal dunes, inlet lands, and other areas in which there is substantial possibility of excessive erosion or flood damage. These areas are not present in Pasquotank County.



#### **ENVIRONMENTALLY FRAGILE AREAS**

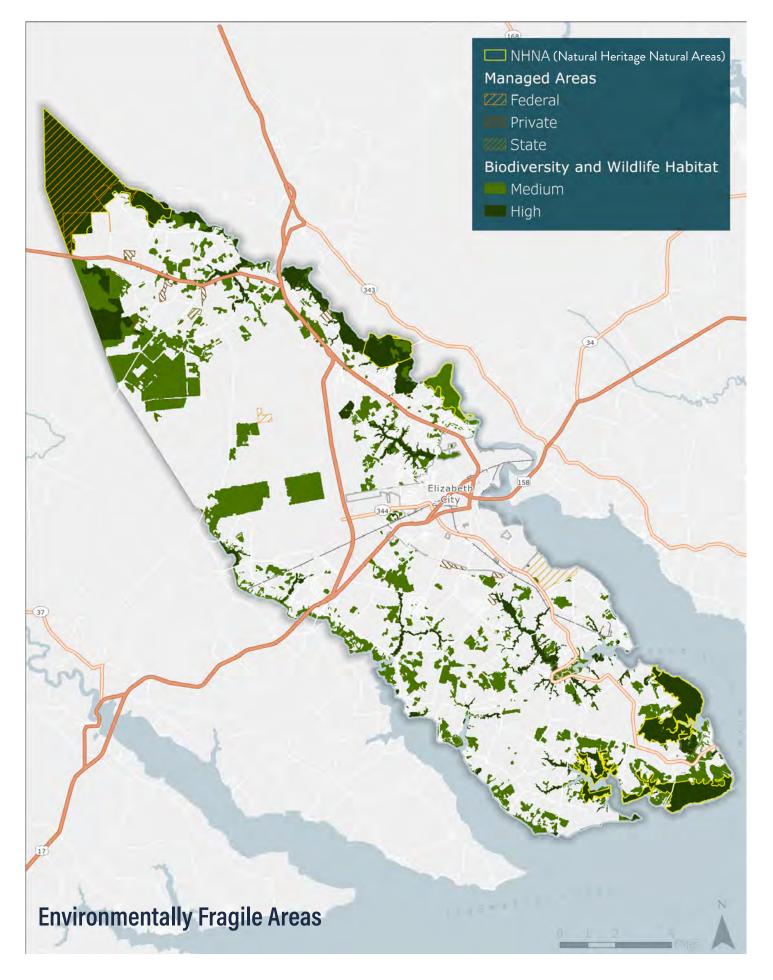
Environmentally fragile areas are areas where natural resource functions may be negatively impacted as a result of development. These areas include wetlands, Significant Natural Heritage Areas (SNHA), and areas containing endangered species, prime wildlife habitats, or maritime forests. These natural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

#### **NATURAL RESOURCE AREAS**

North Carolina's Natural Heritage Program identifies natural areas of land or water through biological surveys that are important for conserving due to their natural biodiversity. (G.S. §143B-135.250 - § 143B-135.272) Natural areas contain robust and/or rare species populations, habitats, and communities.

Significant Natural Heritage Areas in Pasquotank County, include the Great Dismal Swamp National Wildlife Refuge. The Great Dismal Swamp National Wildlife Refuge is federally owned and is considered a Registered Heritage Area. Other moderate to high natural areas are located north of Elizabeth City and in the southern portion of the County along the Pasquotank River and bordering the Albemarle Sound next to Big Flatty Creek and Little Flatty Creek.

These areas contain salt/brackish marshes, managed pinelands, riverine swamp forests, and hardwood flats. These areas provide wildlife habitat for protected species and serve as natural vegetated buffers. The general locations of these natural areas are shown on the Environmentally Fragile Areas map.



# NON-COASTAL AND COASTAL WETLANDS

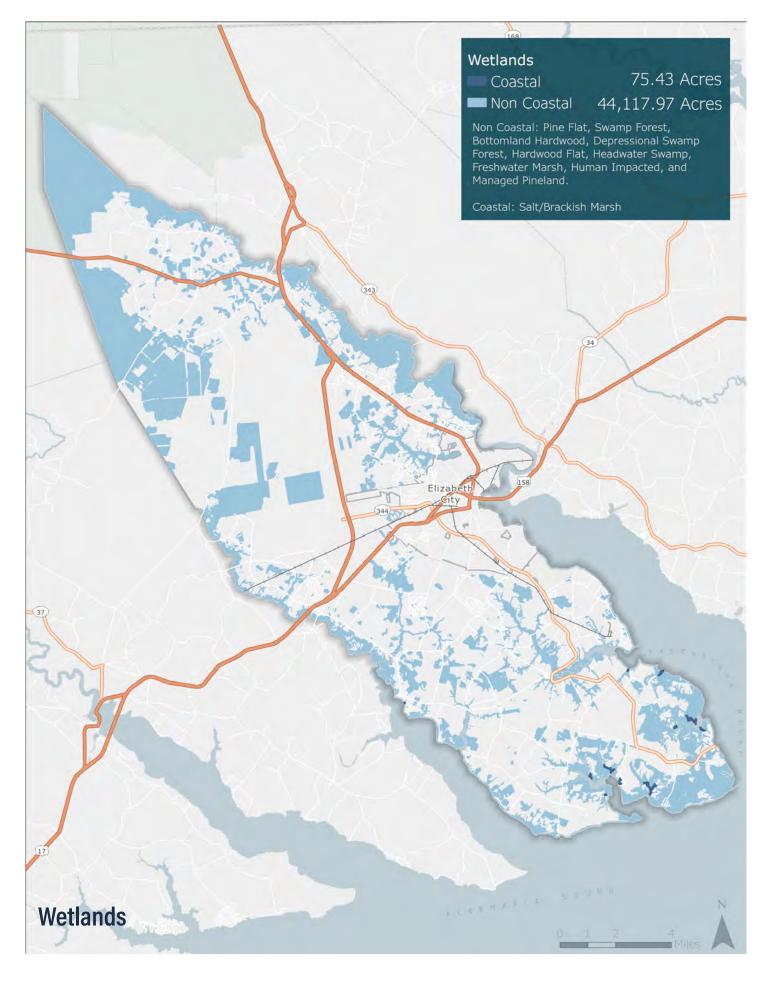
Non-coastal wetlands include wetlands not classified as coastal wetlands. Non-coastal wetlands are areas where water covers the soil for most of the year and include a variety of natural systems, such as marshes, swamps, bottomland hardwoods, pocosins, and wet flats. The prolonged presence of water causes 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.

Non-coastal wetlands make up over 44,000 acres in the whole County. These wetlands perform various functions such as water quality protection, flood protection, shoreline-erosion protection, and provide essential habitat for many diverse species. The water filtration and flood protection roles of wetlands are valuable ecosystem services. Coastal wetlands comprise a minimal amount of the overall wetlands in the county, in the southern portion, near the Albemarle Sound. These areas may expand in the future as seas rise, provided there are sufficient opportunities for them to migrate inland.



Coastal wetlands are environmental and recreational resources. (Photo courtesy of Bill Kruse)

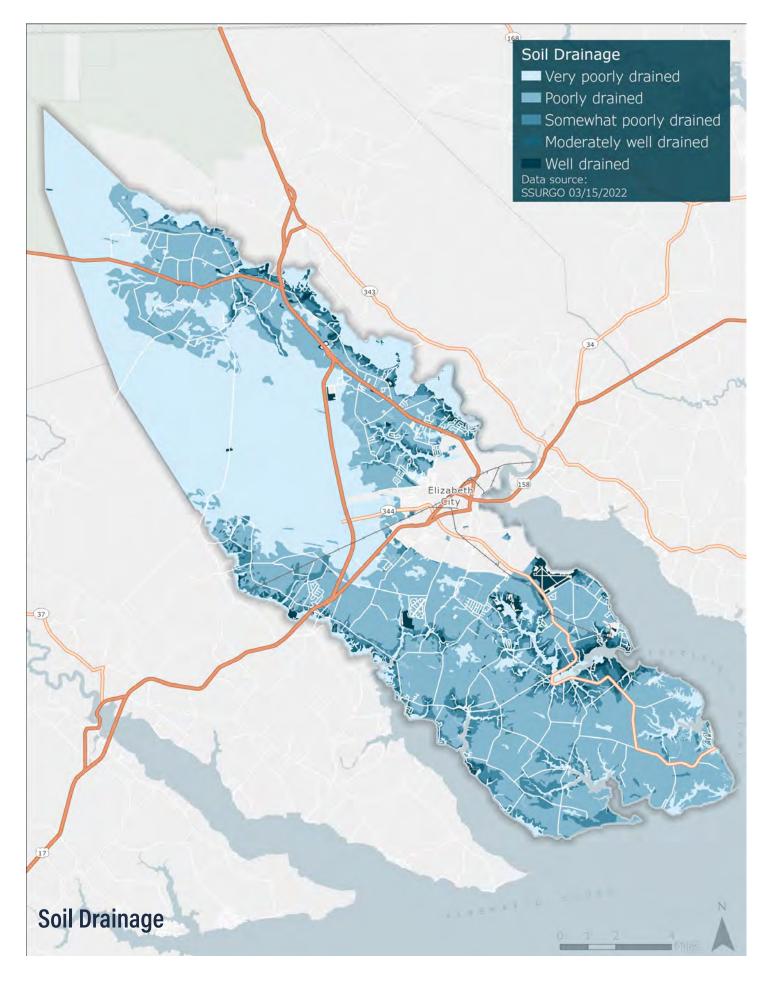


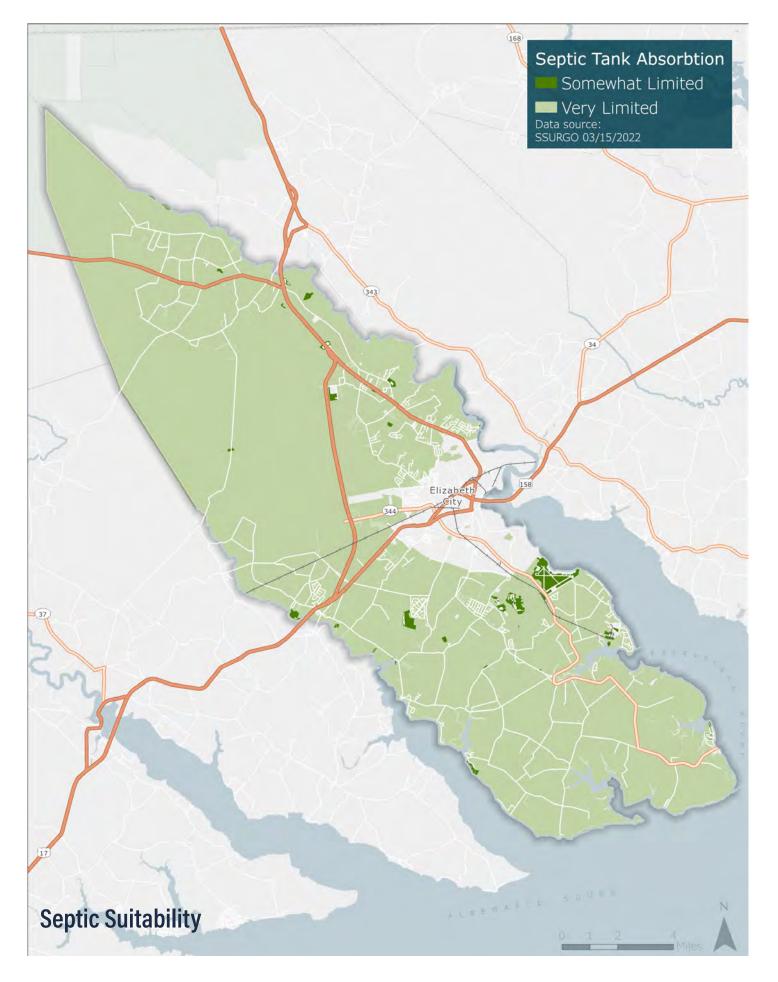
#### **SOIL CHARACTERISTICS**

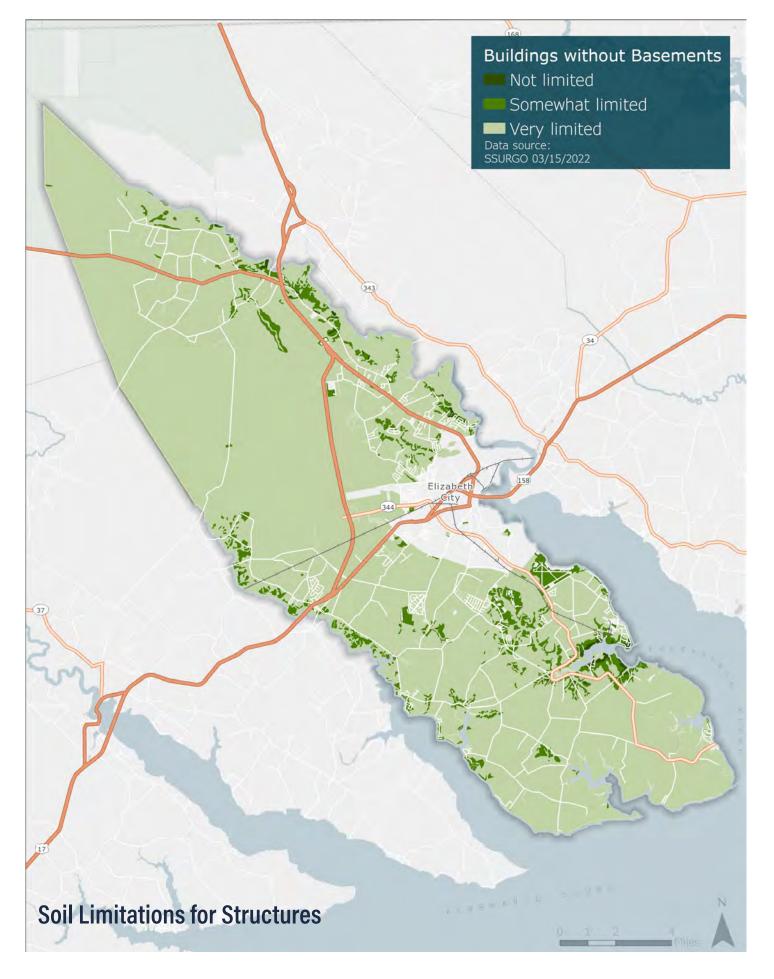
Soil characteristics include limitations for septic tanks, erodibility, and other factors related to development. In general, most of the soils in Pasquotank County have limitations due to wetness, restricted permeability, or lack of strength. The soils in Pasquotank County consist of fine to fine-silty types, coarse-silty, and coarse-loamy types. Majority of the soils (approximately 65%) are characterized as very poorly drained and poorly drained and are best used for cultivation uses. Site-specific soil analyses are required by the Albemarle Regional Health Services to evaluate soils for septic suitability.

Over 75% of soils in the study area, are considered very limited for septic tank absorption fields. Only 0.8% of soils are considered to be somewhat limited for septic tank absorption fields. Nearly 23% of soils were not rated for septic tank absorption in the study area. Note these may not add up to 100% due to the omission of the municipal limits and rounding.

The degree and kind of soil limitations that affect dwellings without basements, commercial buildings, local roads, and landscaping are rated by very limited, somewhat limited, and not limited. "Very limited" indicates that the soil has one or more features that are unfavorable for the specified use. "Somewhat limited" indicates the soil has features that are moderately favorable for the specified use. Lastly, "not limited" indicates that the soil has features that are very favorable for the specified use. The dominant condition in the study area is "very limited" for buildings without basements. The following maps explore the soils of the study area.







#### **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.

#### **Public Water Supply Watershed Protection**

In Pasquotank County, a WS-IV public water supply watershed is located north of Elizabeth City. This watershed includes both a protected area and a critical area. There is approximately 21,894 acres within this geography. As of the writing of this document, the water intake is not operational and there are no plans to bring it online. Development within the watershed is limited to low density (24% impervious surface) coverage unless otherwise approved by the Watershed Review Board, which is a function of the County Board of Commissioners.

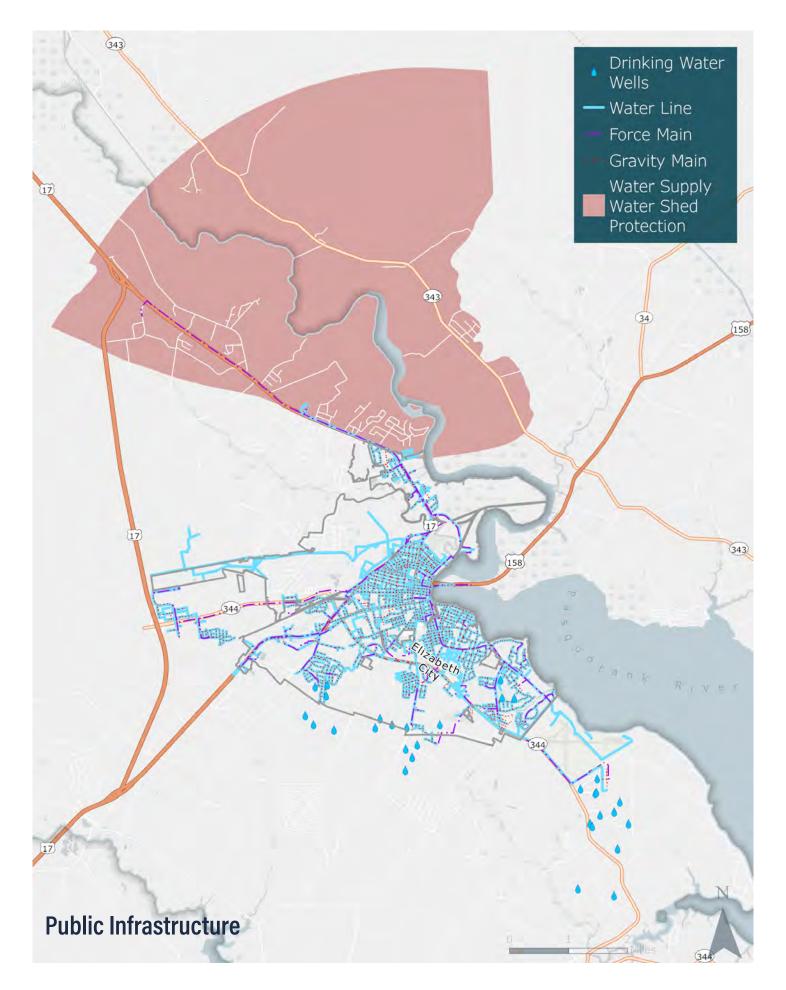
Water supply watersheds that are classified as WS-IV include waters that are using for drinking, culinary, or food processing purposes. These waters are also protected for Class C uses.

#### Water Supply Systems

There are two water supply systems operating within Pasquotank County, including the Elizabeth City municipal water system and the Pasquotank County Water System. The Pasquotank County Water System includes 30 conventional wells and four wells on a reverse osmosis system. According to Pasquotank County's Local Wellhead Protection Plan, these systems serve 10,653 people via 4,194 connections and 7,490 people via 2,949 connections respectively. Number #19 well is abandoned and #1, #3A, and #5 wells are inactive. The conventional wells draw from the York County aquifer, while the reverse osmosis plant pumps from the Castle Haynes aquifer. The County maintains five elevated water storage tanks with four containing 200,000 gallons and one containing 300,000 gallons. The total water storage capacity is 3.1 million gallons.

Distribution lines for conventional wells include both ductile iron and polyvinyl chloride lines ranging in size from 2-24 inches. The majority (92%) of distribution lines are polyvinyl chloride. The permitted capacity is for conventional wells is 2.4 MGD.

Distribution lines for the reverse osmosis wells include asbestos cement (0.01%), ductile iron (7.99%), and polyvinyl chloride (92%). The permitted capacity for reverse osmosis wells is 2.0 MGD.



#### WASTEWATER TREATMENT

Residential uses in the study area have private, on-site wastewater systems (aka septic systems). The Pasquotank County Wastewater treatment system serves the Commerce Industrial Park, the Correctional Institution, and three public schools.

#### **STORMWATER MANAGEMENT**

The County currently addresses stormwater management through their general fund. There is a jointly managed (public and private) dike in the northern part of the County, west of Morgan's Corner. This is the County's only designated drainage district and a drainage tax is collected to support these operations.

North Carolina Water Quality Classifications				
Saltwater Primary Classification	Best usage for water classification			
SC	All tidal salt waters protected for aquatic life propagation, survival, and maintenance of biological integrity (including fishing, fish (not to include shellfish for market purposes), and Primary Nursery Areas); wildlife; and secondary contact recreation. Secondary contact recreation means wading, boating, other uses not involving human body contact with water, and activities involving human body contact with water where such activities take place on an infrequent, unorganized, or incidental basis.			
SB	Tidal salt waters protected for all SC uses in addition to primary contact recreation. Primary contact recreational activities include swimming, skin diving, skiing, and similar uses involving human body contact with water where such activities take place in an organized manner or on a frequent basis.			
Supplement Classifications	Best Usage for Supplement Classification			
Sw	Supplemental classification intended to recognize those waters that have natural characteristics due to topography, such as low velocity, dissolved oxygen, or pH, that are different from streams draining steeper topography.			
С	Waters protected for uses such as aquatic life propagation, survival and maintenance of biological integrity (including fishing and fish), wildlife, secondary contact recreation, and agriculture. Secondary contact recreation means wading, boating, other uses not involving human body contact with water, and activities involving human body contact with water where such activities take place on an infrequent, unorganized, or incidental basis.			
В	Waters protected for all Class C uses in addition to primary contact recreation. Primary contact recreation means swimming, diving, water skiing, and similar uses involving human body contact with water where such activities take place in an organized manner or on a frequent basis.			
WS-IV	Waters used as sources of water supply for drinking, culinary, or food processing purposes where a WS-I, II or III classification is not feasible. These waters are also protected for Class C uses. WS-IV waters are generally in moderately to highly developed watersheds or Protected Areas.			

#### 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)

#### **Natural Resources**

Wetlands cover a significant portion of Pasquotank County's land area. Wetlands, both non-coastal and coastal, provide habitats for marine and wildlife species and offer protection against shoreline erosion, flooding, and improve water quality. It is important to minimize destruction of beneficial wetlands.

#### **Cultural Resources**

The importance of the Colonial period in Pasquotank County is significant. The North Carolina Division of Archives inventoried sites and structures statewide and identified several sites (surveyed only) in Pasquotank County. These structures should be safeguarded from being destroyed.

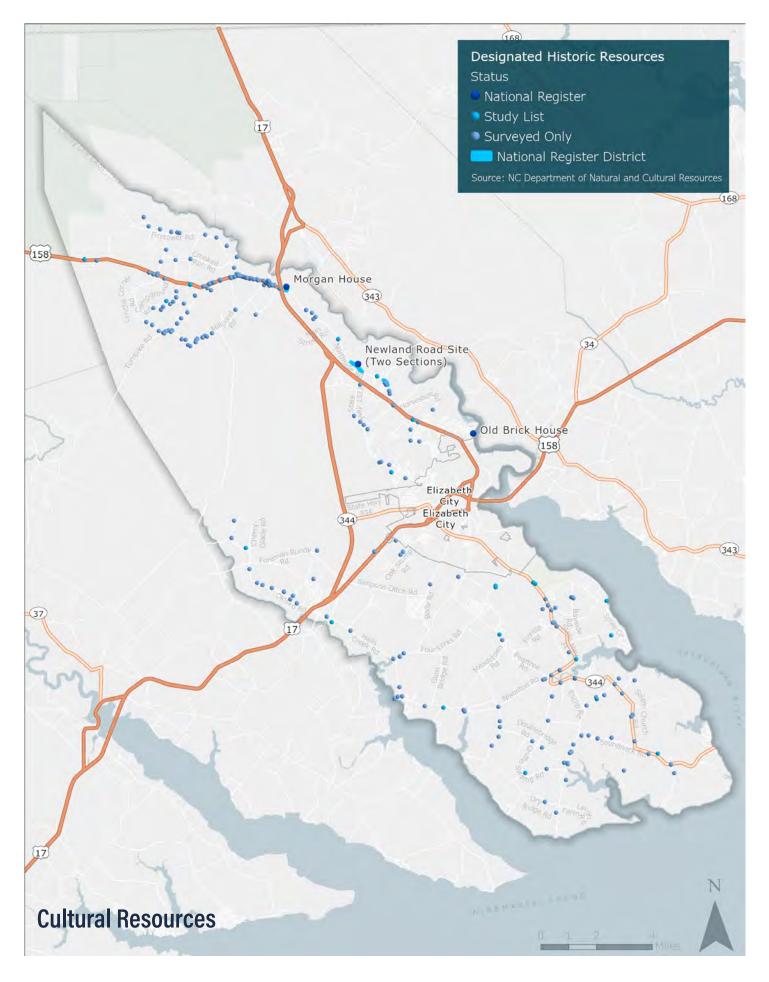
There are three individual listings on the National Register of Historic Places in Pasquotank County:

- Hinton Morgan House
- Newland Road Site
- Old Brick House

The Hinton Morgan House is a temple-form house that was built in 1826 in the South Mills community. The residence provides a typical example of the piedmont-front homes that were built along the Virginia border in the early 19th century. An inscribed brick located in the chimney in between the north two bays has the initials "SH" and the date of "July 15, 1826".

Newland Road Site consists of three separate, remnant sections of an early 20th century brick road traveled as early as 1770. The bricks themselves were laid in a fashion analogous to the American or Stretcher bond pattern of vertical wall construction. It contributed significantly to the early widespread use of the automobile in coastal North Carolina. The two remaining sections of the Newland Road Site represents vestiges of Pasquotank County's effort to accommodate the new era of transportation, an era that brought the automobile to North Carolina and began sociocultural transformation of the people.

Old Brick House was built in the middle of the 18th century on the banks of the Pasquotank River. It is supposedly the oldest existing structure in Pasquotank County. A small slab of granite at the foot of the steps bears a date of 1709 and the initials "ET".



## Water Quality

All surface waters in North Carolina are assigned a primary classification by the NC Division of Water Resources (DWR). The other primary classifications provide additional levels of protection for primary contact recreation (Class B) for freshwaters and for tidal salt waters (Class SB), and drinking water (Water Supply Classes I through V). Freshwaters and tidal salt waters must at least meet the standards for Class C and Class SC waters, respectively.

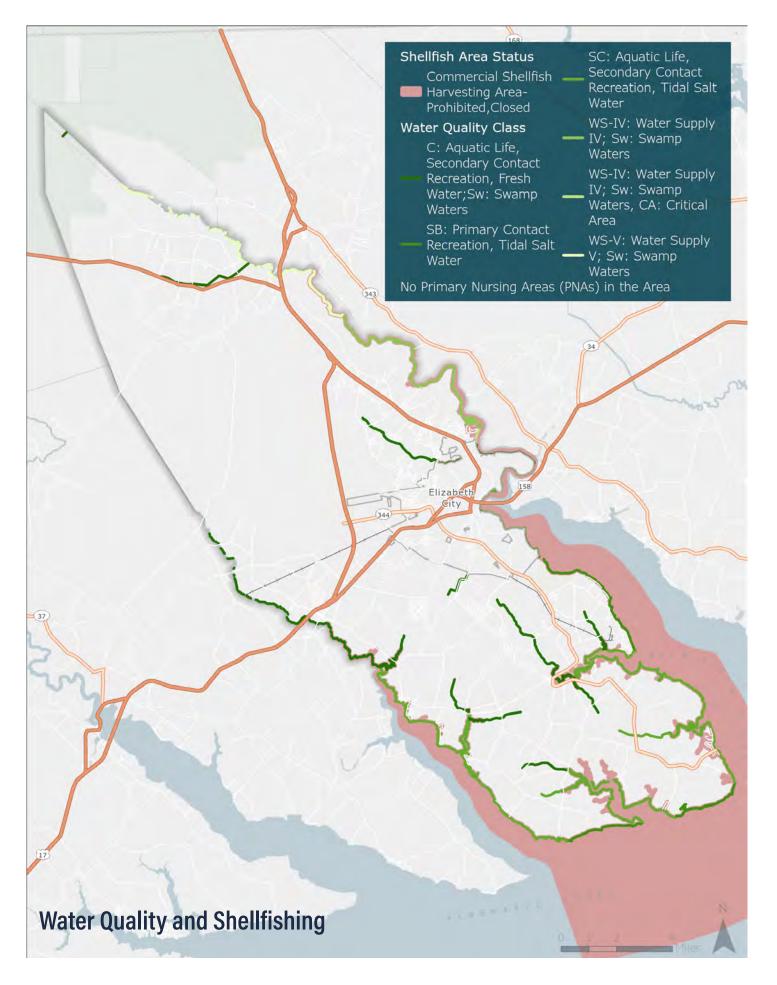
Supplemental classifications are sometimes added by DWR to the primary classifications to provide additional protection to waters with special use or values. Supplemental classifications are intended to protect waters which are rated excellent based on biological and physical/chemical characteristics through monitoring and special studies.

Water classifications are described in the table below (i.e, not all water quality classifications are included in the table, only those relevant to study area): Local water body classifications are included in the following table(refer to the previous table for description of best usage for water classification):

#### **Local Water Quality Classifications**

Water Body	Classification
Pasquotank River (from a point 1.7 mile upstream of mouth to Turners Cut to a point 0.6 mile upstream of SR 1368 extension) (From source to a point 1.7 mile upstream of mouth of Turners Cut)	WS-IV; Sw
Pasquotank River (from a point	WS-IV; Sw,
0.6 mile upstream of County	CA
SR 1368 extension to Elizabeth	
City water supply intake )	
Pasquotank River (from a	SC
line across the river from	
Miller Point to Pool Point to	
Albemarle Sound)	
Pasquotank River (from a line	SB
across river from Hospital Point	
to a line across River from	
Miller Point to Pool Point)	
Little River (from source to	C; Sw
mouth of Halls Creek)	
Little River (from north of Halls	SC
Creek to Albemarle Sound)	
Albemarle Sound	SB
Halls Creek	C; Sw
Big Fatty Creek	SC
Symonds Creek (Swamp Creek)	SC
(from NC 17 to Little River)	
$\sim$ $\cdot$ $\cdot$ $\cdot$ $\cdot$	

Cont.'d on next page



Symonds Creek (Swamp Creek) (from source to NC 17)	C; Sw
Chapel Creek (from source to SR 1103)	C; Sw
Chapel Creek (from SR 1103 to Big Flatty Creek)	SC
Dam Creek	SC
Little Fatty Creek	SC
New Begun Creek	SC
Pailin Creek	C; Sw
Newland Drainage Canal	C: Sw
Southwest Ditch	C; Sw

Source: Classifications And Water Quality Standards Applicable To The Surface Waters And Wetlands Of North Carolina, Division Of Water Quality, NCDENR.

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

Over 9,000 acres of the Pasquotank River were included on the impaired waters 303(d) list due to exceeding criteria levels for copper, pH levels, and dissolved oxygen. Over 7,500 acres of the Albemarle Sound exceeded criteria for copper levels. All of the impaired waters in the Pasquotank hydrologic unit are listed in the Table below are impaired for shellfishing.

#### **Impaired Water Bodies**

Water Body	Classification	Total Acres Impaired
Pasquotank River (from a line across river from Hospital Point to a line across River from Miller Point to Pool Point)	SB	9,185.3
Albemarle Sound (Portion at Mouth of Pasquotank River)	SB	7,519.1

North Carolina Final 2022 303(D) List, Division of Water Quality, NCDENR.

#### **SHELLFISHING AREAS**

Commercial shellfishing is permanently closed and prohibited in waters surrounding Pasquotank County, these include the Albemarle Sound, the Pasquotank River, and Little River.

While some waters are closed for shellfishing due to water quality testing, others are closed simply because of the presence of a conflicting use, such as a marina or wastewater treatment plant effluent discharge. These uses automatically make areas ineligible for shellfishing because of the discharges that are associated with them.

The Table below lists the marinas and their pollution potential.

#### Marinas And Docks in the Study Area

Marina	Number	Body of	DWQ Water	Shellfishing	Pump-Out	Pollution
	of Slips	Water	Classification	Status	Facilities	Potential
Palin Creek Subdivision marina	20	Pasquotank River	SB	Permanent Closure	No	Non-point source pollution

Report of Sanitation Survey, Area I-1 and I-3 through I-16, Albemarle and Currituck Sound Areas,October 2007 through November 2012, Division of Environmental Health, NCDENR.

According to the National Pollutant Discharge Elimination System (NPDES), there are seven active permits located in Pasquotank County. The list includes the following (permit number, facility name, and permit type):

- NC0043583, Pasquotank County WTP, Water Plants and Water Conditioning Discharge
- NCG530127, Frog Island Seafood #1, Fish Farms, Packing and Rinsing Wastewater Discharge COC
- NCG530128, Frog Island Seafood #2, Fish Farms, Packing and Rinsing Wastewater Discharge COC
- NC0025011, Elizabeth City WWTP, Municipal Wastewater Discharge, Large
- NC0088480, Pasquotank County Reverse Osmosis Plant, Water Plants and Water Conditioning Discharge
- NCG500048, J.W. Jones Lumber Company, Non-contact Cooling, Boiler Blowdown Wastewater Discharge COC

 NCG500234, Quality Crab Company, Non-contact Cooling, Boiler Blowdown Wastewater Discharge COC

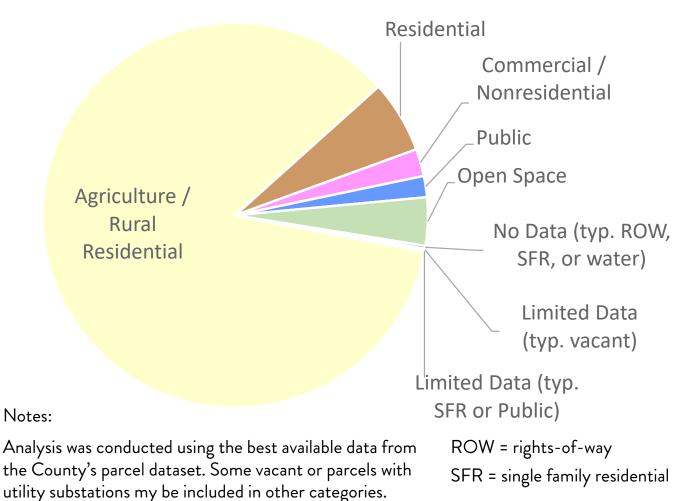
The Division of Water Quality considers the Elizabeth City Wastewater Treatment Plant and the Pasquotank County Reverse Osmosis Plant as two major discharger out of the seven permits held in the hydrologic unit.

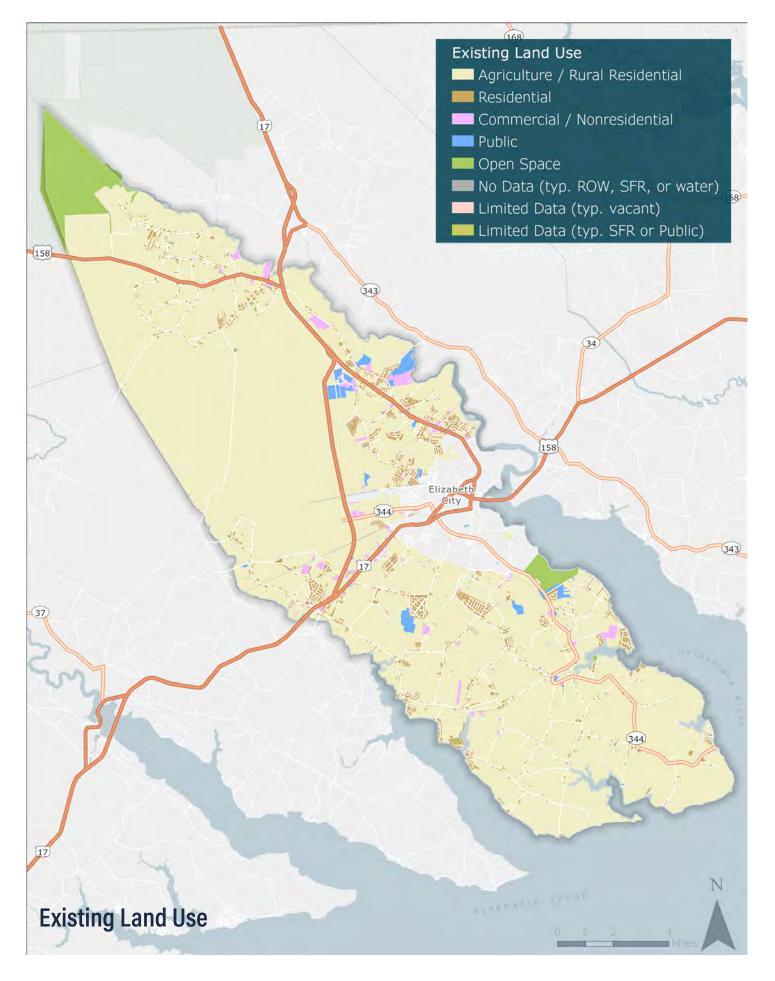
#### **PRIMARY NURSERY AREAS**

There are no primary nursery areas in the study area.

# **Existing Land Use**

Existing Land Use	Acres	%	Notes
Agriculture / Rural	120,053	85.3%	includes some vacant parcels, large lot single
Residential			family residential, agriculture and silviculture.
Residential	8,561	6.1%	primarily single family residential (SFR), some
			limited multi-family residential
Commercial /	3,222	2.3%	includes industrial, institutional, commercial,
Nonresidential			service, office, manufacturing, industrial, etc.
Public	2,496	1.8%	public lands
Open Space	5,687	4.0%	recreation, parks, open spaces
No Data (typ. ROW, SFR,	330	0.2%	typically rights-of-way, water, or other unknown
or water)			
Limited Data (typ. vacant)	231	0.2%	typically vacant lands
Limited Data (typ. SFR or	159	0.1%	typically single family residential, public, or
Public)			unknown





## **Natural Hazards**

Like all coastal North Carolina communities, Pasquotank County faces natural hazards including flooding, hurricane-level winds and storm surges, and shoreline erosion. What makes natural hazards complex is the balance of population and development pressures in relation to regional-scale impacts such as climate change, specifically sea level rise. Sea level rise will make impacts from these events more strongly felt.

The Coastal Area Management Act'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, local governments may choose to protect structures by using specific building practices and/or limiting development in risky areas.

# STORM SURGE AREAS AND HIGH WINDS

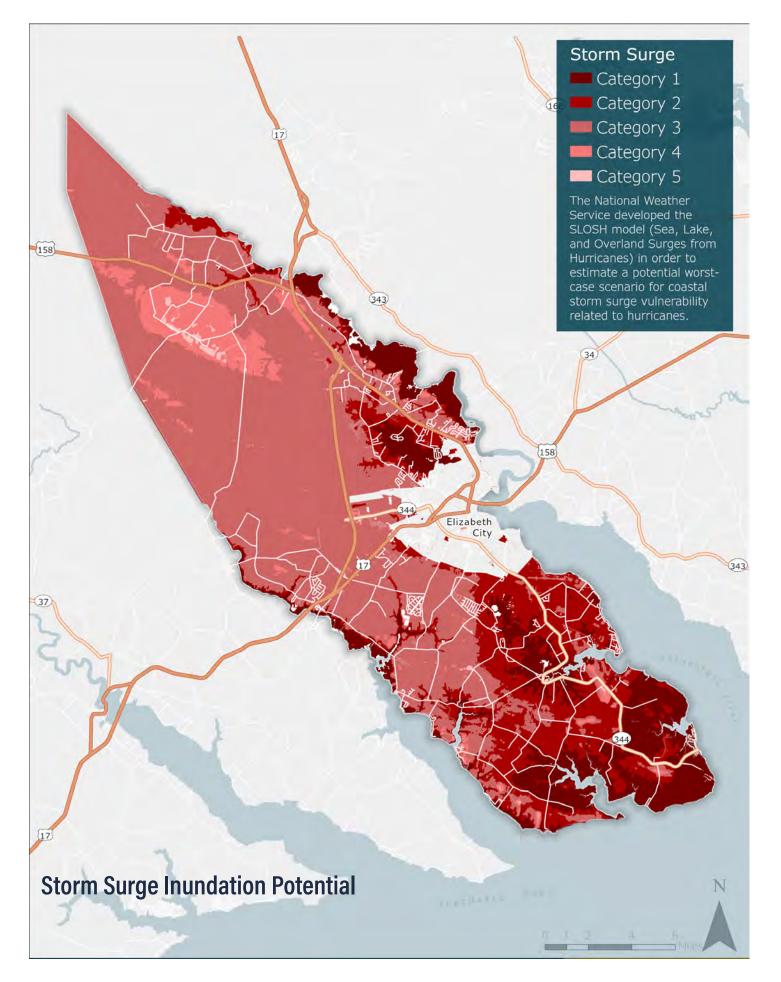
The Saffir-Simpson Hurricane Scale, which categorizes hurricanes on a scale of 1 to 5, with 5 being the most intense and most damaging. This scale is used by the National Weather Service to assess potential dangers and communicate with public safety officials. Hurricanes often cause storm surges, which 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 shows that the most populated areas of the County could be inundated in a Category 2 or stronger hurricane. The remainder of the county is also highly susceptible to inundation during stronger storms.

#### **Major Hurricanes & Storms**

- Hurricane Florence- 2018
- Hurricane Matthew-2016
- Hurricane Arthur- 2014
- Hurricane Irene- 2011
- Hurricane Ivan 2004
- Hurricane Isabel- 2003



### FLOOD AND OTHER NATURAL HAZARD AREAS

Flooding and natural hazards such as hurricanes, coastal storms, sea level rise, shoreline erosion, and wildfires are a natural part of the environment that will inevitably continue to occur.

The flood hazard areas in Pasquotank County include the 100-year floodplain or land with a 1% annual chance of experiencing a flood and a 26% chance of flooding over the life of a 30year mortgage. These areas make up 30% of the unincorporated County. The amount of acreage per flood zone can be viewed in the table below.

The County does participate in the National Flood Insurance Program by adopting and enforcing floodplain management ordinances which help in the reduction of future flood damage. In exchange, the National Flood Insurance Program offers federally-backed flood insurance available to business owners, homeowners, and renters.

#### **Home Flooding Statistics**

- 30% of flood claims are in low or moderate risk flood areas
- There is a 26% chance that a nonelevated home in the floodplain will be damaged during a 30 year mortgage period.

#### Source: FEMA

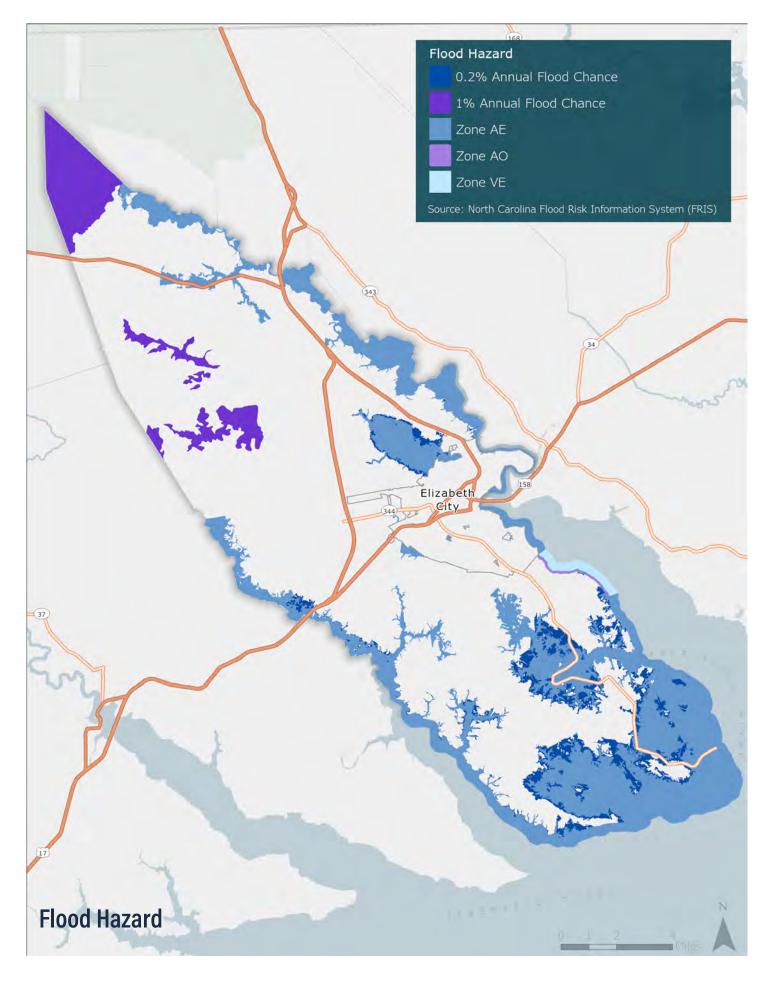
According to FEMA Community Information System in 2019, there were a total of 151 paid losses for residential and non-residential totaling \$1,373,954.61. Majority of these claims were in Zone A and AE. The County does not currently participate in FEMA Community Rating System (CRS). Usually, participation in this program results in a reduction in flood insurance premium rates.

The Albemarle Regional Hazard Mitigation Plan, 2020, identifies and analyzes natural hazards, evaluates vulnerability to such hazards, assesses the County's mitigation capability, and outlines mitigation strategies and policies.

	_		_	_		
Flood Zone						Proportion
						In Special
						Flood
						Hazard
			Area			
Zone A	Zone AE	Zone X	Zone X	Open	Total	
		Shaded	Unshaded	Water		
		(500-				
		year)				
7,343	46,888	5,582	115,925	2,738	178,476	30.4%

#### Flood Zone Acreage in the Unincorporated County

Source: Albemarle Regional Hazard Mitigation Plan.



Most flood hazard areas are located in the southern peninsula area along the shoreline of Albemarle Sound and Pasquotank River, specifically land near the New Begun Creek, Little Flatty Creek, Big Flatty Creek, and Symond's Creek. Other floodplain areas, include north of Elizabeth City along the Pasquotank River, the Great Dismal Swamp, along Little River, and parts of the northwestern region of the County, mainly where rural residential and agricultural lands exist. Areas where repetitive flooding occur include both northern and southern portions of the County.

#### **Areas of Repetitive Flooding Concern**

#### Northern Portion of the County

- Property along Millpond Rd to approximately 4/10 mile along Morgan's Corner
- Property along Blindman Road
- Property along US Highway 158 West beginning at 3/10 mile east of Blindman Road to the Gates County line
- Property along Lynch's Corner Road
- Property along Tadmore Road, Lone Lane, and Upriver Road
- Property along Crooked Run Road from its intersecting point at Fire Tower Road
- Property along Palmer Drive and Wet Patch Road

#### **Southern Portion of the County**

- Property along Halls Creek Road from Four Forks Road to Old US 17 South
- Property along Nixonton Road from Pointe Vista Drive to Meadstown Road
- Property along Twiford Road, Commander Road, Sawmill Road, extending to areas along Salem Church Road, and into the lower lying areas adjacent to Griffin Swamp Road
- Property along Weeksville Road form its intersecting point with Peartree Road and Salem Church Road to 2/10th mile south of Ball Road
- Property along Soundneck Road from its intersecting point with Esclip Road, including property along Frog Island Road and property located within Glen Cove subdivision

# AREAS EXPERIENCING SIGNIFICANT SHORELINE EROSION

There are no ocean erodible areas in Pasquotank County, but there are many estuarine shoreline areas that are subject to severe erosion due to high winds, storm surges, or wave action from storms or boat wakes. This is particualry true in the southern part of the county, especially along the shoreline at Rebellion Point.

The State of North Carolina has mapped erosion rates for coastal shorelines but has yet to map them for estuarine shorelines. Because of this, permits for development along estuarine shorelines are currently governed by flat setbacks instead of varying with erosion rates. Typically, the minimum setback is 75 feet (the width of the estuarine shoreline AEC), unless the adjacent water body has a special designation from the Division of Water Quality, which would increase the required setback.

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%	9.6%	26.0%	39.5%	63.4%		
1-in-500 year storm (0.2% annual chance)	0.2%	2%	5.8%	9.5%	18.1%		
1-in-1,000 year storm (0.1% annual chance)	0.1%	1%	3%	4.9%	9.5%		
Significance			Length of a typical mortgage	Within the lifespan of most structures	Within the lifespan of many sturdy structures		
NT11 .			C	<u> </u>	<u> </u>		

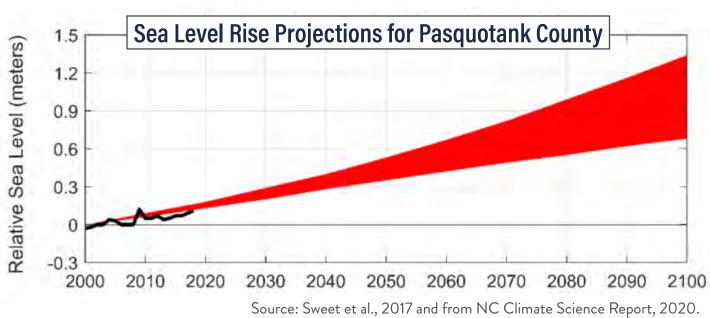
Note that the percentages above show the probability of the occurrence of <u>at least one</u> of the specified storms of a particular intensity.

### **SEA LEVEL RISE**

Sea level rise will negatively affect current and future development. As sea level rises, the land's capacity to absorb flooding and storm surges will reduce, making residents more vulnerable to storms, storm surge, and rainfall. Additionally, the storm surge from a hurricane or wind -driven storm builds upon a higher base water level due to sea level rise, resulting in an increase of the land area subject to flooding. The Duck long-term NOAA tide gauge at the U.S. Army Corps of Engineers research pier is the best available data source for sea level rise projections for Pasquotank County and so that data is used here.

The majority of structures constructed today will exceed a lifespan of 50 years (equivalent to the year 2072 and beyond). This typically includes most residential and nonresidential buildings, retaining walls, and culverts. Sturdy structures and major infrastructure investments, such as bridges, water and wastewater treatment plants, sewer infrastructure, and streets, can have expected lifespans of up to 100 years (equivalent to year 2122). When decisions are made about where to encourage development and create long-term public infrastructure maintenance obligations, consideration should be given to the conditions that these structures will face over their typical lifespan.

The 2020 NC Climate Science Report outlines a "likely" future for Duck, which is used as a proxy for Pasquotank County since they are roughly the same latitude. In that report, "likely" means that there is a 67% chance or higher that the future will match the projections shown ("Sea Level Rise Projections for Pasquotank County"). This scenario is bounded by the Intermediate Low and Intermediate Scenarios. Based on these projections, the County will experience up to 1.5 feet of sea level rise by 2050 and between 2 feet and 4 feet of sea level rise by 2100.



guolank

#### VIRGINIA NORTH CAROLINA

The three most representative long-term, NOAA tide gauge stations for Pasquotank County are listed below. Observed sea levels have risen by an average of:

• 1.82 inches per decade at Duck USACE station, since 1978.

Elizabeth

- 1.85 inches per decade at Oregon Inlet, since 1977.
- 1.83 inches per decade at Sewell's Point, VA since 1927.

Source: NOAA tide gauge data

Camden

Shawboro

Shiloh

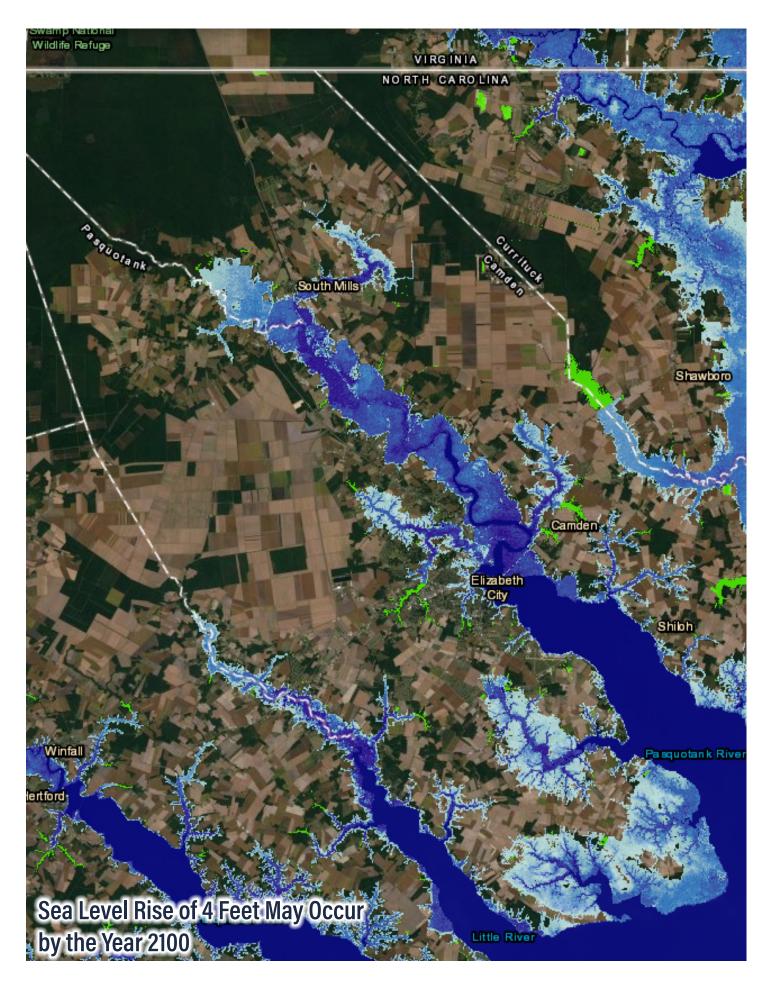
asquotank River

Winfall

ertford

# Sea Level Rise of 2 Feet is Expected Within 50-80 Years

Source: NOAA Sea Level Rise Viewer, https://coast.noaa.gov/digitalcoast/tools/slr



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# **Community Facilities**

### **TRANSPORTATION**

The "2016 Pasquotank County Comprehensive Transportation Plan" was adopted by Pasquotank County in 2016. This plan includes an analysis of the character and intensity of existing and future land use, travel patterns, and detecting an existing or anticipated roadway deficiencies. The major roads in Pasquotank County are US-17 Bypass, US-17, and US-158. Soon, I-87 will join this list.

### **Proposed Major Highway Improvements**

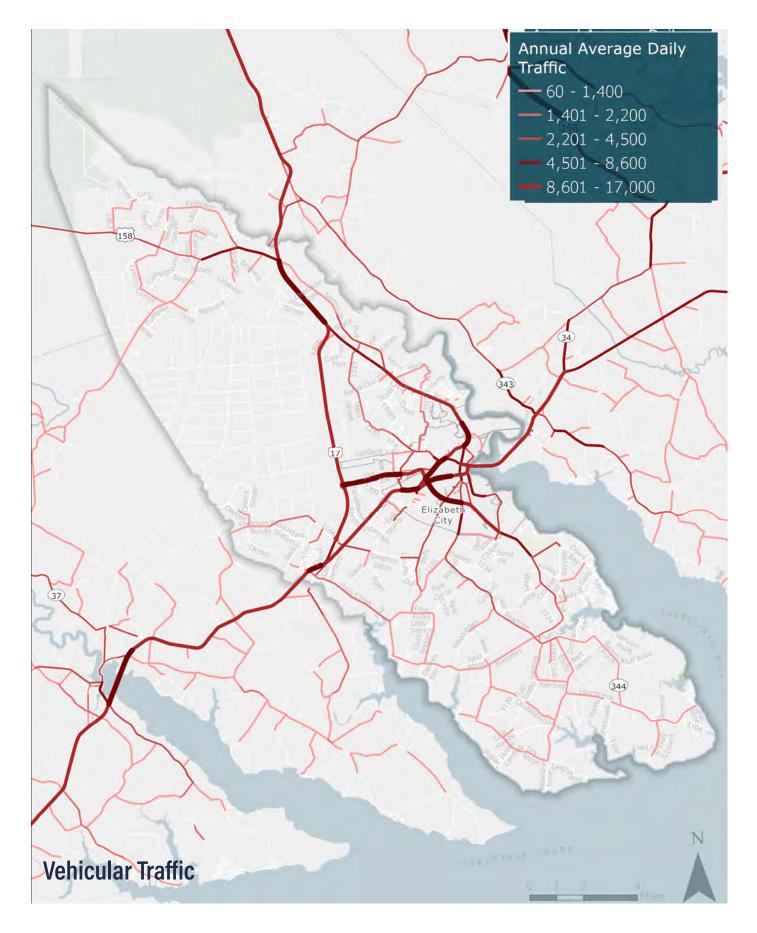
State transportation improvement projects are determined by North Carolina Department of Transportation (NCDOT), and are cataloged in the 2020-2029 State Transportation Improvement Program.

 I-6029 US-17 (Future I-87) Pavement Rehabilitation from Perquimans County line to North end of US-17 (Elizabeth City) Bypass

The following highway improvement projects are identified in the 2016 Pasquotank County Comprehensive Transportation Plan:

- PASQ001-H US-17 Proposed Widening from US-17 to Camden County
- Northern Connector from US-17 Bypass to US-17





### **Major Streets with Capacity Deficiencies**

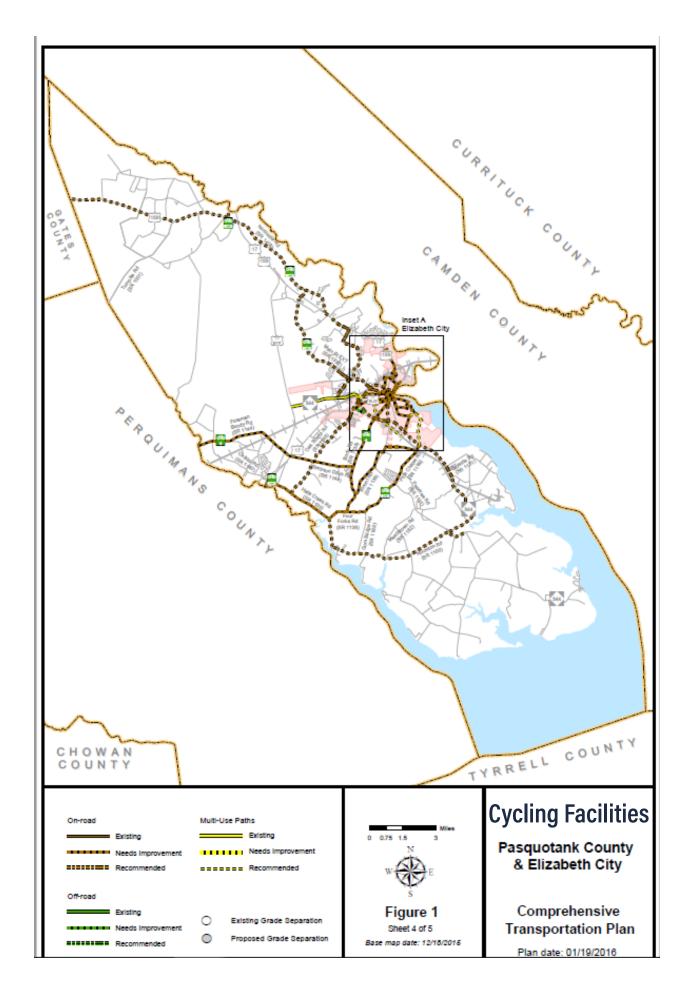
There were no capacity deficiencies on roads in the unincorporated County identified in the "2016 Pasquotank County Comprehensive Transportation Plan".

### **Traffic Volumes**

The heaviest traffic volumes in the study area are US-17 from Elizabeth City to Camden County ranging from 17,500 - 22,500. US-17 Bypass has traffic volumes ranging from 9,900 - 17,000. US-158 has traffic volumes ranging from 2,300 - 4,500.

### **Bicycling**

Several on-road bicycle facilities were identified for the study area in the "2016 Pasquotank County Comprehensive Transportation Plan". As Pasquotank County grows, on-road bicycle facilities could offer residents and guests multiple bicycling opportunities to increase health and physical activity while reducing traffic congestion, offering affordable mobility, reducing auto dependency, and increasing recreational opportunities. Though counties do not typically own or maintain public roadways or associated facilities, there may be a possibility to partner with NCDOT or create some other maintenance agreement. This would help achieve adequate pavement width to accommodate safe bicycle/pedestrian traffic. Separate bicycle/pedestrian paths along selected routes is strongly preferred to onstreet facilities. See "Cycling Facilities" on page 83, facing. It may be beneficial to update this map and plan document first based on recent changes such as the hospital relocation.





# **Future Land Use**



# **Future Land Use**

The following map and text provides an overview of the Future Land Use Map and associated Future Land Use Character Areas. These represent an idealized vision for the future of the study area. It is not perfect or intended to be parcel-specific, but provides general guidance for directing growth and investment. This is not the last Future Land Use Map that will guide growth in the County, and although the identified time horizon is 20-30 years, it is recognized that this map will be revisited and revised on a regular basis - usually every 5-10 years. Therefore it is important to remember that reserving land for conservation or agriculture is necessary to ensure that in the future, if development pressure continues, there will be places for new maps to designate growth. Focusing growth in certain areas now helps ensure that adequate coverage by public services can occur in a cost-effective and efficient manner. Note that the natural hazards layers extend past the 20 to 30-year time horizon to respond to the anticipated lifespan of structures (50-100 years) and help ensure that decisions made today are aware of the best available long-range planning data available.

The Future Land Use Map is used as a guide for decision makers and County staff for future rezoning, land uses or permit issuance decisions. The Future Land Use Map and Character Areas have been prepared taking into consideration natural constraints and limitations, the

### **Avoiding Preemptive Zoning**

The temptation often exists to preemptively up-zone all property fronting a highway or major road to widely allow commercial uses. The argument is usually that this highly-visible and accessible property is suited to commercial use and that by speculatively up-zoning property, it will somehow generate new development and investment. However, preemptive upzoning can lead to traffic congestion and commercial development that is in excess of market demand.

Is there a better solution? Communities should only up-zone properties abutting existing commercial development in areas where the appropriate infrastructure exists to support the higher traffic volumes. The necessary infrastructure includes, but is not limited to a secondary street network with maximum block length standards (to disperse traffic), shared driveways that serve multiple businesses (to reduce traffic congestion), cross access easements that create connections between adjacent businesses, utilities that support higher density development, quality design standards, pedestrian facilities, fire suppression infrastructure, public spaces, and proximity to a significant customer population. Specifically relevant to Pasquotank County is the I-87 conversion project and the benefits of avoiding preemptively upzoning properties around future interchanges or feeder highways until the interstate upgrade is funded and under construction.

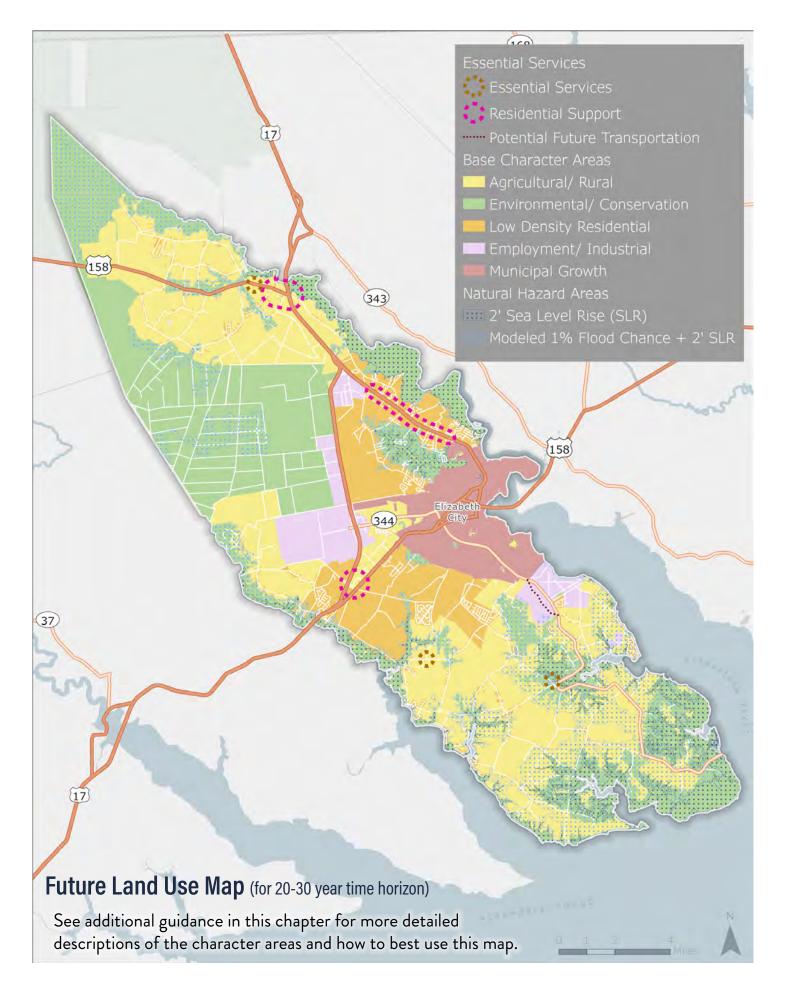
availability of infrastructure to support growth and development, land development objectives and policies, and overall land suitability. The Future Land Use Map is descriptive and not prescriptive. It identifies the predominant land use types and character intended for different parts of the study area.

The Future Land Use Map will assist in guiding the slow transition from present day to the desired future state of Pasquotank County's planning jurisdiction (the study area). It provides a more streamlined, yet still sensitive approach, map to guide the growth of the study area. The Character Areas have been updated to provide activity areas for future highway designation, essential services, as well as areas that provide for medium to high density supportive residential uses. While some Character Areas consider natural and environmental constraints in more sensitive areas of the unincorporated areas of the County. The Future Land Use Map takes into consideration residential growth of the study area providing areas that support low density residential. The largest Character Area provides support for local agricultural uses.

Typical and potential uses are described in the Character Areas; however, these lists are not exhaustive or prohibitive. For instance, some use may be appropriate in many Character Areas. These uses include, government maintenance structures, utility substations (electric, natural gas, etc.). However, some use should be taken into careful consideration, so they do not unintentionally create a demand for development in inappropriate areas. The governing body should take this into consideration and use the Future Land Use Map as a guide when making land use decisions.

### Acknowledging rising seas

Sea level rise threatens and will be fundamentally life-altering to the land and residents of Pasquotank County. In order to help mitigate those impacts, it is important to direct future growth and development away from areas likely to be negatively impacted. Existing, threatened development should also be either protected or relocated. This planning document uses a 2-foot sea level rise as a way to begin planning for this unfortunate future condition. Seas will continue to rise above 3 feet, but for the purposes of this planning horizon, this will help orient the County in a direction that will allow preparation for this future to begin.



# **Future Land Use Character Areas**

BASE CHARACT	ER AREAS Descriptions provide general guidance for compatible uses although consideration must include current circumstances.
Agricultural / Rural	Agriculture, forestry, livestock, vacant lands, agricultural goods processing, timber mill; occasionally homesteads or isolated single family residential; possibly other rural uses like quarry, landfill, alternative energy, jail, etc.
Environmental / Conservation	100-year floodplain, Natural Heritage Natural Areas, coastal wetlands, permanently conserved open spaces (state, federal, county, local, land trust, etc.); agricultural fields (in the desert area) although facilities not recommended within floodplains; occasionally single family residential or water dependent uses.
Employment / Industrial	Major employment centers, USCG, airport and related uses, aerospace, commerce park, business parks, large office buildings, logistics, contractor operations, manufacturing, jail, fueling depot, etc.
Municipal Growth	All types of residential, urban, and suburban uses, especially those that would require sewer service or other municipal style services (street lights, sidewalks, parks, broadband, EMS, etc.). The majority of future residential growth should be directed here.
Low Density Residential	Also can include parks, schools, churches, etc.
	OFMENT ADEAC Provides general guidance for additional density or

### FUCAL / ENHANCEMENT AREAS

Provides general guidance for additional density or intensity of development to support existing or future development. Some areas may not be ripe until after I-87 is fully completed.

Residential Support	Grocery, convenience store, retail, services; possibly small offices or small-scale contractor operations, gas station.
Essential	Fire department or emergency services, small, local grocery; possibly gas
Services	station. Keep existing uses, but deter additional intensification.

### NATURAL HAZARD AREAS

These areas are at significant risk of future flooding or natural hazard. Development should be directed away from these

areas or significantly altered to accommodate likely future conditions. Negative impacts to the natural environment care likely if development continues in these areas.

Projected 2' Sea Level Rise	NOAA projects these areas will be inundated permanently or regularly in the near future (50-80 years).
Modeled Future 1% Annual	The State's Emergency Management Division has
Floodplain After 2' Sea	modeled the likely future 1% annual flood chance
Level Rise	floodplain.

89 Pasquotank County Land Use Plan

# CONTEXT FOR THE CHARACTER AREAS

The following descriptions are not intended to be an exhaustive list of potential uses. This is not a table of permitted uses, like might be found in the zoning code. This general guidance will need to be evaluated by professional staff and County leadership in light of the specific circumstances of any proposed development or land use activity. These descriptions are provided for general guidance and to help facilitate those discussions. Some uses that support or are associated with the other uses in a character area may be permissible with scrutiny by decision-makers. For instance, some non-residential uses (church, surveyor's office, dentist, maybe even a small grocery store) might be allowable at busy crossroads in rural agricultural areas, to support nearby residential areas. However, they might not be appropriate and it will be up to staff and County leadership to examine the particulars of each proposal, reference other policies and circumstances (like zoning, soils, or environmental health) and make individual determinations.

# **Base Character Areas**

# AGRICULTURAL/RURAL

The Agricultural/Rural land use designation defines the areas of the unincorporated County where agriculture, forestry, agriculturesupportive, and rural residential uses are found. Typically, poor septic infiltrations potential for local soils makes these areas undesirable for residential or other types of development. If homes are present, they are often on large lots or have been carved out of a larger tract of farmland.

This character areas encompasses majority of the land in the unincorporated County.

Typical Uses include ranching and livestock, forestry, farm fields, and other agricultural uses and supportive structures. Occasionally homestead farms or isolated large-lot single family detached residential.

Residential and/or commercial development in proximity to active agricultural operations should be aware of the regular noise, herbicide/ pesticide/fertilizer applications, dust, and

traffic impacts of active farming. Farm operations should be held harmless from impacts on such development in agricultural operations. Farm operations in these areas are encouraged to participate in farmland preservation programs.



Typical of Agricultural / Rural areas.

# **ENVIRONMENT/CONSERVATION**

Floodplains, wetlands, and environmentally sensitive areas, parks, managed areas, stateor federally-owned lands, and natural areas are important to the identity and natural character of the County. These natural spaces also provide vital community support services, such as floodwater storage, air and water purification, wildlife habitat, passive recreation, and others. This character area contains several types of typically "undevelopable" areas, in the traditional sense, as well as other areas where traditional development should not occur or where development should be lowimpact and community- and/or recreationoriented. The greatest care should be taken that any development in these areas does not degrade the current or future natural environment and that public investments do not encourage development of these areas if they are environmentally sensitive or vulnerable or where natural hazards (present and future) will threaten those investments. Existing primary structures (homes, businesses, essential life/ safety facilities and infrastructure) in these areas should be allowed to continue, but only new accessory structures should be permitted to expand (docks, water access, etc.).

Typical Uses include open spaces, such as passive parks, wildlife viewing areas, natural area access, or low-impact docks, boardwalks, walking or bicycling trails. Environmental areas are those sensitive, natural areas that should not be developed in the traditional sense, and if they must be, then development should have as little impact on these sensitive areas as is absolutely necessary. This includes regulatory floodplains, shorelines, and coastal marshes and wetlands, where the highest and best use may be the accommodation of floodwaters and/or natural habitat. Parks might be sports fields, playgrounds, public water access points, or recreation facilities, and may be appropriate in some locations. In some locations, water dependent uses (marinas, boat launches, public water access, docks, boat houses, piers or jetties, fishing operations, ferries, etc.) may be appropriate.



Typical of Environmental / Conservation areas.

# LOW DENSITY RESIDENTIAL

These neighborhoods have larger lots, in part because of keeping to the rural character of the area and in part due to their reliance on septic systems. This character area includes lands where the predominant land use is low density residences where public water service is readily available. An internally- and externallyconnected street network creates identifiable neighborhoods.

Uses associated with low density, rural residential, agricultural uses, and farming support services/industries may also occur in a supporting role and key locations.

New residential uses should be adequately buffered from active agricultural operations wherever possible. This is in order to manage conflicts between residential and farming uses.



Typical of Low Density Residential areas.

### **MUNICIPAL GROWTH**

This designation includes the more dense, intense type of development as is seen in the urban and suburban areas within Elizabeth City's planning jurisdiction. Typically these uses require water and sewer service. Currently, the majority of residential development in the county is inside the corporate limits of Elizabeth City. These more dense urban and suburban developments benefit from being served by the municipal-style services that these residents expect.

Typical uses include all types of residential, retail, vertical mixed-use buildings, larger footprint commercial uses, institutional uses, light industrial, etc. - basically everything except agricultural uses and other uses that require extensive buffers and rural context (e.g. landfill, quarry).



Typical of Municipal Growth areas.

# **EMPLOYMENT/INDUSTRIAL**

These employment-supporting land uses are an integral part of the community's economy. They provide jobs and centers to support economic growth. Typically, these uses are heavily screened or are separated from incompatible uses. These areas should not allow lower intensity uses to infiltrate, since this type of land already has the unique combination of factors needed to support higher intensity uses and add value to the community as large employment-generating uses.

This area includes the mega site on US 17 Bypass, the intersection of US 17 and US 17 Bypass, the United States Coast Guard station, the Elizabeth City Regional Airport, and TCom.

Typical uses could include business parks, large offices, logistics, wholesale, contractors' offices, manufacturing and the United States Coast Guard, airports, and limited commercial uses. Residential uses should be restricted so they do not restrict the potential for economic development. Industrial development should be either physically separated and buffered from existing residential uses where noise, odor, and other negative impacts are expected. This can be accomplished through site design or by physical distance from the property lines adjacent to existing residential development.

Of particular importance to the region is the US Coast Guard base, airfield, and associated operations. The land use plan reserves area for potential future expansion of those operations as well as a conceptual roadway realignment to accommodate that endeavor.



Typical of Employment / Industrial areas.

# Focal / Enhancement Areas

# **RESIDENTIAL SUPPORT**

This focal area designates a location that could be primed for development above rural intensities, perhaps becoming a known local landmark or rural commercial crossroads. If possible, nonresidential uses supporting the surrounding neighborhoods should be clustered to promote a sense of activity.

Typical uses include neighborhood-serving, small-scale commercial uses (boutique shopping, convenience store, personal care, hardware store, café or restaurant, etc.). This might include also include institutional uses (churches, primary or secondary schools, hospital, government buildings, etc.), small offices (dentist, book keeper, surveyor, contractor, landscaping, etc.), small commercial (rentals, sales, service, etc.). These nonresidential uses should be limited overall and to the greatest extent should be clustered at key locations and not spread out along corridors in a strip fashion.

Development in these areas should be designed to support cycling and walking as travel modes. Reduction in the number and length of auto trips should be considered as well, and design standards should increase cross-access and interconnectivity. In general, urban or suburban style development such as this pairs best with a grid-iron street network.



Typical of Residential Support areas.

# **ESSENTIAL SERVICES**

Sheriff departments, fire departments, emergency medical services, and small footprint grocery or convenience stores provide focal points of activity for major sub-areas in the study area. Gas stations or a small nonresidential building might also occur. Typically, these focal areas are located in rural areas of the County near major intersections or in historic, rural community centers. This designation consists of emergency services while also recognizing uses that provide for some of the daily needs of residents in the surrounding areas. In general, this area recognizes what exists but should not necessarily be construed as encouraging additional growth in these areas. Although schools are also essential to a community and can serve as a community center, their location should not be construed as an indication that additional development should be located in those areas.

Moving forward, more environmentally resilient sites should be identified for the future relocation of essential services to outside of identified natural hazard areas (See "Future Land Use Map (for 20-30 year time horizon)" on page 88).



Typical of Essential Services areas.

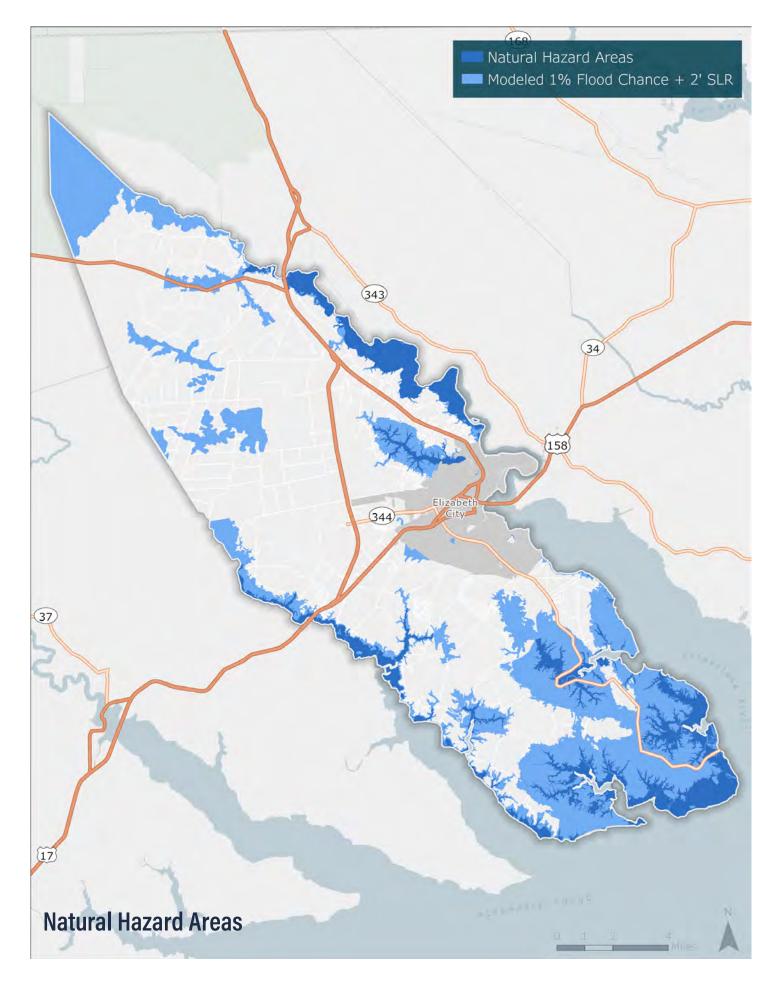
# **Natural Hazard Areas**

As the sea level continues to rise and storms become more intense and unpredictable, portions of the study area will become increasingly vulnerable to natural disasters, property damage, and population displacement. The purpose of the Natural Hazard Areas designation is to protect the safety and quality of life of the County's current and future residents by reducing the risks associated with natural hazards. This character area acknowledges this vulnerability and seeks to minimize the threats to the health, safety, and financial security of current and future residents by explicitly recognizing that these areas will become increasingly vulnerable and impacted.

The 1% annual flood chance area (the 100-year floodplain) is already a regulatory boundary and is included in the Environmental/Conservation character area. The Natural Hazard Areas shown on the map are the areas projected by NOAA to be chronically or permanently inundated within the next 50-80 years (2 feet of sea level rise) and the area modeled by the NC Emergency Management Division to comprise the future 1% annual floodplain area after that 2 feet of sea level rise occurs.

Although this 50-80 year time frame may seem distant, consider that the life span of a building typically exceeds 100 years. The County must plan for a future that will be different from the present and past. The role of the County government is to protect public health, safety, and welfare by minimizing such negative impacts to both public and private investments. The Natural Hazards Area explicitly communicates that vulnerability and should be considered by decision-makers during land use and development proposal applications.

The Natural Hazard Areas designation describes an area where future development should be limited or deterred. Exceptions might be granted if extensive improvements are made to protect against anticipated future conditions and/or to ensure that funding will be available for relocation or cleanup of structures that will not endure.





# Plan Recommendations, Land Use Management Topics, & Implementation

# Land Use Management Topics

# FOR COASTAL RESOURCES COMMISSION (CRC) REVIEW PURPOSES

Per NC Coastal Resources Commission requirement, land use management policies are used in reviewing Coastal Area Management Act (CAMA) permits and development requests and Implementation (or action items) are proposed for accomplishment by fiscal year. These policies and action items must address the CAMA Management Goals (see below). A CAMA land use plan also 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. Locally-significant issues do not necessarily directly align with the CAMA management topic structure, but are important nonetheless. Because this plan serves as the County's Comprehensive Plan, these policies are included to guide growth, development, and decision making for appointed boards and elected bodies. They are not intended to be part of CAMA permit review. 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) local discretion and leadership will determine priorities and timelines. Policies that are not able to be implemented immediately may still guide future development decisions, so that all future development will bring the reality closer to the vision. The Future Land Use Map and adopted policies are intended to provide guidance during land use decisions, the issuance of CAMA and development permits, and when making changes to adopted standards, such as the County's ordinances.

# **GOALS FOR: NATURAL HAZARD AREAS (NHA)**

### Management Goal:

Conserve and maintain the barrier dune system, beaches, flood plains, and other coastal features for their natural storm protection functions and their natural resources giving recognition to public health, safety, and welfare issues.

### Planning Objectives:

The plan shall include policies that establish mitigation and adaptation concepts and criteria for development and redevelopment, including public facilities, and that minimize threats to life, property, and natural resources resulting from erosion, high winds, storm surge, flooding, or other natural hazards.

# **GOALS FOR: 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.

# **GOALS FOR: 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.

# **GOALS FOR: PUBLIC 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.

# **GOALS FOR: 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 nonpoint source pollution and maintain or improve water quality.

	Applicable CAMA Land Use Management Topic						
Plan Recommendation	LUC	РА	ICC	NHA	WQ	CAMA Policy (P), CAMA Implementation (I), or strictly of Local concern (L)	Time Frame (Fiscal Year)
1: Protect and improve water quality in the creeks, wetlands, and waterways in and adjacent to the County.					Х	Р	Ongoing
2: Monitor and reduce non-point source pollution, especially stormwater runoff and septic tank effluent.			х		Х	I.	Ongoing
3: Expand ditch and stormwater drainage maintenance efforts. This may involve formalization a flood control and/or dike maintenance program for the northern part of the County and for any areas where public infrastructure is managed for flood protection.				х		I	Ongoing
4: Work with local researchers to monitor water quality in the creeks, the Pasquotank River, and the Little River.					Х	I	Ongoing
5: Consider expanding impervious surface restrictions, monitoring, and regulation to reduce stormwater runoff and mitigate flash flooding.					х	T	2025/26
6: Identify areas for wetland or natural habitat restoration, partnering with other agencies, like NC Coastal Federation.						L	
7: Update relevant ordinances to include standards on shoreline stabilization. Where shoreline armoring is permitted, encourage landowners to utilize living shorelines where appropriate.	х			Х		I	2024/25
8: Educate the public about the ecological and storm protection benefits of coastal wetlands, marshes, and shoreline buffers.				х		Р	Ongoing
9: Consider the creation and adoption of an Estuarine Shoreline Management Plan.						L	
10: No new development or filling should be allowed within coastal wetlands or non-coastal wetlands. If this policy presents a threat to health, safety, or welfare of the community, the County may make an exception. The following activities should be allowed in non-coastal wetlands: hiking, walking, bird watching, stormwater interventions and educational/research activities. Impacts from the construction and maintenance of public boardwalks and pathways are allowable.	x				x	Ρ	Ongoing
11: Continue to work with the state, neighboring counties, regional organizations, and Elizabeth City in addressing abandoned and derelict vessels.					х	Ρ	Ongoing
12: Track shoreline and habitat change in GIS to minimize loss and inform potential habitat protection, community education, and possible restoration interventions. Digitizing previous aerial imagery would also provide a better understanding of long term trends. If possible, consider partnering with a college or university to establish a more robust monitoring program.				x		I	2024/25
13: Implement recommendations and steps from the North Carolina Marine Debris Action Plan. Continue addressing and removing abandoned and derelict vessels in a timely fashion.						I	2023/24

	Applicable CAMA Land Use Management Topic			and			
Plan Recommendation	LUC	PA	ICC	NHA	WQ	CAMA Policy (P), CAMA Implementation (I), or strictly of Local concern (L)	Time Frame (Fiscal Year)
14: Implement enhanced construction standards for docks and bulkheads so that they have less chance of becoming marine debris after major storms.				х		I	2024/25
15: Reduce vulnerability by utilizing guidance from the Future Land Use Map to focus growth and public infrastructure investments away from flood-prone areas and toward higher ground. This may involve explicit consideration of areas likely to become higher flood risk or inundated by rising seas. Keep zoning densities lower in vulnerable or high risk areas, such as current and future regulatory floodplains, and using best available sea level rise projections as guidance. Naturally, some water-dependent uses may require special exception, especially uses of high public value or community significance.			x	x		P, I	Ongoing
16: Consider removing zoning districts that are incompatible with existing agricultural character.			Х			I	2024/25
17: Direct vulnerable land uses, including hospitals, age-restricted housing, group homes, and schools away from vulnerable or high risk areas and/or provide support to ensure they can sustain and recover more quickly from storms.	х					Ρ	Ongoing
18: Relocate and place sensitive community infrastructure (critical public services and facilities, etc.) outside of vulnerable areas.	Х		Х	х		Р	Ongoing
19: Manage retreat and contraction of public infrastructure and services away from high vulnerability areas.	Х			х		Р	Ongoing
20: Use current, best available sea level rise projections and environmental vulnerability knowledge when making public infrastructure investment decisions. Direct public and private investment and capital improvement projects away from vulnerable areas and ensure any public investment in these areas is capable of surviving anticipated future conditions.				х		Ρ	Ongoing
21: Mitigate wind-driven, rainfall, and storm surge flooding through structural improvements that prepare infrastructure for long-term resistance to environmental threats. This may involve more stringent structure elevation requirements, active stormwater management, or ground floor floodproofing.				х		I	2025/26
22: Identify vulnerable public infrastructure and elevate/armor against rising seas if it cannot be relocated to a safer area.	Х					Р	
23: Increase storm-safe construction standards, utilizing the most up-to-date code language by industry leaders, such as the Florida Building Code or the IBHS FORTIFIED Home criteria.				х		I	2025/26

	Applicable CAMA Land Use Management Topic			and			
Plan Recommendation	LUC	PA	ICC	NHA	WQ	CAMA Policy (P), CAMA Implementation (I), or strictly of Local concern (L)	Time Frame (Fiscal Year)
24: Review and potentially increase the flood-proofing and freeboard requirement in 100- and 500-year floodplain (aka 1% annual chance and 0.2% annual chance, respectively). Consideration should be given to the expected lifespan of the structure and the sea level rise and flood risk expected to occur during that time period.				x		I	2024/25
25: Continue to seek funding from outside sources for structure elevations.				х		I	Ongoing
26: Assess stormwater facilities' resiliency to coastal and climate hazards and identify needed upgrades. If other partners are not meeting the County's desired level of service, explore potential ways to address that discrepancy, possibly through existing or new stormwater utility operations.			х			Ρ	Ongoing
27: Increase public trust water and natural resources access, including ADA access, and amenities while balancing the need for natural resource preservation. This might include riparian or shoreline buffers, non-motorized craft launch areas, boat ramps, public parks with shoreline, boardwalks, piers, public slips, docking facilities, or additional public marina facilities, or any number of facilities. A waterfront access plan could also be a part of this.		х				Ρ	Ongoing
28: Continue to coordinate with North Carolina Department of Transportation (NCDOT) and the Albemarle Planning Organization on planning for long range transportation projects and contribute funding as it becomes available.						L	
29: Pursue grant funding for transportation projects to reduce flooding on roadways.			Х			Р	Ongoing
30: Support and extend the East Coast greenway and other non- motorized state trail networks by partnering with other agencies.						L	
31: Promote and protect Pasquotank County's historic resources by considering partnering with Elizabeth City, the state, and/or other agencies to provide educational programs.						L	
32: Continue to work towards providing parks, recreation, trails, and open spaces at the adopted level of service in the Parks and Recreation Master Plan.						L	
33: Continue to implement the recommendations and actions in other adopted plans, to the extent that they are still relevant.						L	
34: Pursue land acquisition in high hazard areas and use those areas for buffers or hazard mitigation.				х		Р	Ongoing
35: Consider providing options for homeowners in the unincorporated county to have streetlights, particularly at intersections.						L	

	Applicable CAMA Land Use Management Topic			and			
Plan Recommendation	LUC	PA	ICC	NHA	WQ	CAMA Policy (P), CAMA Implementation (I), or strictly of Local concern (L)	Time Frame (Fiscal Year)
36: Establish safe cycling connections or multi-use trails between destinations. These facilities should be separated from traffic if vehicular speeds pose a hazard to safety or users.						L	
37: Evaluate the feasibility and necessity of and (if warranted) plan for the Northern Connector roadway to connect old Hwy 17 / Hwy 158 and Hwy 17 Bypass / future I-87.						L	
38: Conduct additional coastal resiliency planning to identify areas particularly vulnerable to the changing climate and more frequent, intense storm events and then generate a list of projects to mitigate those vulnerabilities.				х		I	2024/25
39: Review the zoning ordinance, subdivision regulations, and other County land use and development regulations to ensure that residential densities and building intensities are consistent with this plan's goals and policies. Prepare revisions and updates as determined appropriate.	x					I	2023/24
40: Update flood modeling in under-examined parts of the county or in areas where flood risk is generally known to be more severe than new flood maps indicate. This may result in more stringent local flood damage prevention regulations, similar to those undertaken by communities in Dare County.				х		Ρ	2026/7
41: Use the Future Land Use Map when making land use and development permitting decisions.	х					T	Ongoing
42: Achieve full participation in the FEMA FIRM Community Rating System. This will help residents receive the lowest possible rates for flood insurance. See <u>https://www.fema.gov/floodplain-management/community-rating-system</u> .						L	
43: Pursue funding opportunities to develop a County-wide Master Drainage Plan.						L	2024/25
44: Update the County's stormwater model for the Knobbs Creek Watershed.				х		I	2023/24
45: Continue to fund stormwater projects through the Pasquotank County Drainage Committee.						L	Ongoing
46: Update the Pasquotank County Stormwater Design Manual.						L	2023/24
47: Protect the current operational ability and future expansion potential of the airport and associated support areas from encroachment by incompatible land uses, especially residential uses.						L	



# Appendix A: CAMA Matrix



Matri	x for Land Use Plan Elements – 15A NCAC 7B .0702	Policy and/or Page Reference(s)
Organiza	ition of the Plan	
٠	Matrix that shows the location of the required elements as set forth in this Rule	Page 109
Commur	nity 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	Pages 12-16
	ion of the land use and development topics most important to the future of the area, including:	
•	Public Access	Page 16
•	Land Use Compatibility	Page 15
٠	Infrastructure Carrying Capacity	Page 15
٠	Natural Hazard Areas	Page 16
•	Water Quality	Page 17
Commur	nity 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 24 - Community Values, Vision, and Goals Page 89 - Future Land Use and Character Areas
	and Emerging Conditions	
-	on, Housing and Economy	
Discussio	on of the following data and trends:	
•	Permanent population growth trends using data from the two most decennial Censuses	Page 29
٠	Current permanent and seasonal population estimates	Page 30
٠	Key population characteristics including age and income	Page 32
•	Thirty-year projections of permanent and seasonal population in five-year increments	Pages 30-31
•	Estimate of current housing stock, including permanent and seasonal units, tenure, and types of units (single-family, multifamily, and manufactured)	Pages 38-39
٠	Description of employment by major sectors and community economic activity	Pages 35-36
Natural	Systems	
Descripti	ion of natural features in the planning jurisdiction to include:	
•	Areas of Environmental Concern (AECs) as set forth in Subchapter 15A NCAC 07H	Pages 46-53
•	Soil characteristics, including limitations for septic tanks, erodibility, and other factors related to development	Pages 54-57
•	Environmental Management Commission (EMC) water quality classifications and related use support designations	Page 61, Pages 64-67
•	Division of Marine Fisheries (DMF) shellfish growing areas and water quality conditions	Pages 65-66
•	Flood and other natural hazard areas	Pages 72-74
•	Storm surge areas	Pages 70-71

Matrix for Land Use Plan Elements – 15A NCAC 7B .07	702 Policy and/or Page Reference(s)
<ul> <li>Non-coastal wetlands, including forested wetlands, shrub-scrub freshwater marshes</li> </ul>	e wetlands and Pages 52-53
Water supply watersheds or wellhead protection areas	Page 58
Primary nursery areas	Page 67
<ul> <li>Environmentally fragile areas, such as wetlands, natural heritag containing endangered species, prime wildlife habitats, or mari</li> </ul>	
Additional natural features or conditions identified by the local	government n/a
• Submerged Aquatic Vegetation (SAV), climate change, and sea l	evel rise Page 49, Pages 76-78
Environmental Conditions	
Discussion of environmental conditions within the planning jurisdiction to assessment of the following conditions and features:	o include an
Status and changes of surface water quality; including:	
<ul> <li>Impaired streams from the most recent Division of Water Basin Planning Branch Reports</li> </ul>	Resources (DWR) Page 66
- Clean Water Act 303 (d) List	Page 66
- Other comparable data	Page 61
<ul> <li>Current situation and trends on permanent and temporary clos fishing waters as determined by the Report of Sanitary Survey be Sanitation and Recreational Water Quality Section of the DMF</li> </ul>	
Areas experiencing chronic wastewater treatment malfunctions	s n/a
<ul> <li>Areas with water quality or public health problems related to n pollution</li> </ul>	on-point source Page 67
Areas subject to recurrent flooding, storm surges and high wind	ds Page 70
<ul> <li>Areas experiencing significant shoreline erosion as evidenced b threatened structures or public facilities</li> </ul>	y the presence of Page 75
<ul> <li>Environmentally fragile areas (as defined in Part (c)(2)(A)(ix) of areas where resources functions are impacted as a result of devices.</li> </ul>	
<ul> <li>Natural resource areas that are being impacted or lost as a resupatible development. These may include, but are not limited to coastal wetlands, protected open space, and agricultural land.</li> </ul>	
Existing Land Use and Development	
MAP of existing land use patterns	Page 69
Description of the existing land use patterns	Page 68
• Estimates of the land area allocated to each land use category	Page 68
Characteristics of each land use category	Page 68
MAP of historic, cultural, and scenic areas designated by a state or federa the local government	l agency or by Page 63
• Descriptions of the historic, cultural and scenic areas	Page 62
Community Facilities	
Evaluation of existing and planned capacity, location and adequacy of cor to include:	nmunity facilities
MAP of existing and planned public and private water supply service area	s Page 59
Description of existing public and private water supply systems	to include:
- Existing condition	Page 58
- Existing capacity	Page 58

Matrix for Land Use Plan Elements – 15A NCAC 7B .0702	Policy and/or P	age Reference(s)
<ul> <li>Documented overflows, bypasses or other problems that may degrade water quality or constitute a threat to public health as documented by the DWR</li> </ul>	n/a	
<ul> <li>Future water supply needs based on population projections</li> </ul>	Pag	ge 58
MAP of existing and planned public and private wastewater service areas	r	n/a
Description of existing public and private wastewater systems to include:		
- Existing condition	Pag	ge 60
- Existing capacity	Pag	ge 60
<ul> <li>Documented overflows, bypasses or other problems that may degrade water quality or constitute a threat to public health as documented by the DWR</li> </ul>		
- Future wastewater system needs based on population projections		
MAP of existing and planned multimodal transportation systems and port and airport facilities	Ра	ge 80
<ul> <li>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</li> </ul>	Pa	ge 82
<ul> <li>Description of highway facilities on the current thoroughfare plan or current transportation improvement plan</li> </ul>	Pa	ge 80
<ul> <li>Description of the impact of existing transportation facilities on land use pat- terns</li> </ul>	Pag	ge 80
Description of the existing public stormwater management system	Pag	ge 60
<ul> <li>Identification of existing drainage problems and water quality issues related to point-source discharges of stormwater runoff</li> </ul>		
Future Land Use	Future Land Use Map	Page 88
Policies		
<ul> <li>Policies that exceed the use standards and permitting requirements found in Subchapter 7H, State Guidelines for Areas of Environmental Concern</li> </ul>	n/a	Page 102-105
Policies that address the Coastal Resources Commission's (CRC's) management topics:		
<b>Public Access</b> 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		
Identify strategies to develop public access		
<ul> <li>Address provisions for all segments of the community, including persons with disabilities</li> </ul>	28	Page 104
<ul> <li>For oceanfront communities, establish access policies for beach areas targeted for nourishment</li> </ul>		
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	7, 41, 43,	Page 102, Page 105

Matrix for Land Use Plan Elements – 15A NCAC 7B .0702	Policy and/or P	Policy and/or Page Reference(s)		
Establish mitigation criteria and concepts to minimize conflicts	10, 17, 18, 20, & 23	Page 102-104		
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	2,18, 27,30	Page 102-104		
Ensure improvements minimize impacts to AECs and other fragile areas	15	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:				
<ul> <li>Establish mitigation and adaptation concepts and criteria for development and redevelopment, including public facilities</li> </ul>	42, 46	Page 105		
<ul> <li>Minimize threats to life, property and natural resources resulting from erosion, high winds, storm surge, flooding, or other natural hazards</li> </ul>	35	Page 104		
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:				
<ul> <li>Establish strategies and practices to prevent or control nonpoint source pollu- tion</li> </ul>	10, 11	Page 102-105		
Establish strategies and practices to maintain or improve water quality	1, 2, 4,5	Page 102-105		
Future Land Use Map				
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	Paį	ge 88		
<ul> <li>Descriptions of land uses and development associated with the future land use map designations</li> </ul>	Page 89			
Tools for Managing Development				
<ul> <li>Description of the role of plan policies, including the future land use map, in local decisions regarding land use and development</li> </ul>	Page 86			
<ul> <li>Description of the community's development management program, including local ordinances, codes, and other plans and policies</li> </ul>	Pages 86, 101			
Action Plan and Implementation Schedule				
• Description of actions that will be taken by the local government to implement policies that meet the CRC's management topic goals and objectives, specifying fiscal year(s) in which each action is anticipated to start and finish	Page 102-105			
Identification of specific steps the local government plans to take to implement	Page 102-105			

# Pasquotank County CAMA Land Use Plan

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Pasquotank County Planning & Inspections Department 206 E Main Street Elizabeth City, NC 27909 https://www.pasquotankcountync.org/planning