

## TOWN OF RIVER BEND

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# RIVER BEND TOWN COUNCIL PROPOSED AGENDA

Work Session Meeting
March 13, 2025
River Bend Town Hall – 45 Shoreline Drive
5:00 p.m.

- 1. **VOTE** Agenda: Additions / Deletions / Adoption
- 2. VOTE Asset Management Plan Resolution Jackson
- 3. Discussion Sponsorship Policy Ferguson
- 4. Discussion Meeting Start Time Jackson
- 5. Discussion Pamlico Sound Regional Hazard Mitigation Plan Jackson
- 6. Review Agenda Nobles
- 7. Adjournment

Pledge: Benton

## RESOLUTION BY THE TOWN COUNCIL OF RIVER BEND, NORTH CAROLINA

# Adopting and Implementing the Town of River Bend's Water and Wastewater Systems Asset Management Plan

	RESOLUTION BY GOVERNING BODY OF APPLICANT			
WHEREAS,	The Town of River Bend has made a comprehensive effort to compile available information into a single document that presents an inventory and condition assessment of the water and wastewater systems infrastructure; and includes a 10-year Capital Improvements Plan with cost estimates; and includes an Operations and Maintenance Plan to ensure the proper management of the water and wastewater systems assets; and			
WHEREAS,	The plan, as designed, will be updated regularly and will serve the Town well as a management tool for the planning and operation and maintenance of the water wastewater systems; and			
WHEREAS,	The plan was presented to the Town Council of River Bend during the regular Council meeting held on March 13, 2025 for Council members' review, comment and adoption.			
NOW THERE	FORE BE IT RESOLVED, BY THE TOWN COUNCIL OF THE TOWN OF RIVER BEND			
	that the updated Town of River Bend's Water and Wastewater Systems Asset Management Plan is hereby adopted this date by the Town Council of the Town of River Bend.			
	ADOPTED, this the 13th day of March, 2025 at River Bend, North Carolina.			
Mark	Bledsoe, Mayor			
	(Seal)			

Kristie Nobles, NCCMC, MMC, Town Clerk

# **Water and Wastewater**

Asset Management Plan

10-Year Capital Improvement Plan

Adopted by the River Bend Town Council March 13, 2025





Excerpts from 182 page document

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- F. Water Distribution System Asset Inventory
- G. Wastewater Treatment and Collection System Asset Inventory
- H. Water Resources Department Operations & Maintenance Plan

#### **EXECUTIVE SUMMARY**

This Asset Management Plan (AMP) is for the Town of River Bend's water and wastewater systems and describes how the town will manage its infrastructure assets. The AMP was developed in accordance with the <u>"Asset Management Guidance Supplement to the Priority Rating System Guidance,"</u> as published by the NC Division of Water Infrastructure, and the Environmental Protection Agency's <u>"Check Up Program for Small Systems (CUPSS)."</u>

The AMP contains the following four (4) areas necessary to qualify for funding points under Line Item 3B of the Priority Rating System Form:

- Inventory of Assets, including maps;
- Assessment of the condition of the infrastructure in the inventory;
- A 10-Year Capital Improvements Plan (CIP) with projected cost estimates; and
- An Operations and Maintenance (O&M) Plan to ensure proper maintenance of the assets.

The following items summarize the utility's asset review and plan to provide for long-term improvements in the operation and maintenance of the water and wastewater systems:

- In August of 2022, the town was awarded two \$150,000 Asset Inventory and Assessment (AIA) grants from the North Carolina Division of Water Infrastructure. The town utilized the funding to update the water and wastewater system maps and database, develop a water system hydraulic model, perform a CCTV assessment of critical sections of the gravity sewer collection system and develop a combined Asset Management Plan (AMP) and 10-Year Capital Improvements Plan (CIP) for the water and wastewater systems.
- It is estimated that the town will spend a total of \$12,684,000 on various water and wastewater system improvement projects between FY 2025-2026 and FY 2035-2036 (see Tables 6-1 and 6-2).
- The town will strive to maintain operating ratios greater than or equal to 1.0 during the next 10 fiscal years.
- Several capital projects are required (see Tables 6-1 and 6-2) and the town should pursue funding for these projects.
- Consider increasing the water and wastewater user fees, when necessary, to provide for implementation of the Asset Management Plan and 10-Year CIP.

## RIVER BEND WATER AND WASTEWATER ASSET MANAGEMENT PLAN

#### 1. INTRODUCTION

This Asset Management Plan is for the Town of River Bend's water and wastewater systems and describes how the utility will manage the infrastructure assets associated with the Town-owned utilities that serve the Town of River Bend. This asset management plan focuses on the water and wastewater systems owned by the Town. Customer service demands and regulations require utilities to actively manage water and wastewater assets through careful maintenance, repair, and replacement decisions. This plan is an effective tool for combining technical, management and financial practices to ensure that the level of service required by the community is provided at the appropriate cost.

The plan has the following purposes:

- 1. To demonstrate responsible management of the town's water and wastewater assets;
- 2. To communicate and justify funding requirements indicated by the plan;
- 3. To provide a management roadmap for the town's water and wastewater systems;
- 4. To serve as a link between the town's water and wastewater systems and its customers.

The Asset Management Plan contains an overview of the water/wastewater utility, level of service agreement, asset inventory and assessment, operation, and maintenance strategy/plan, 10-year capital improvement plan, and financial strategies. This plan was developed using guidance from the NC Division of Water Infrastructure's <u>"Asset Management Guidance Supplement to the Priority Rating System Guidance,"</u> and the Environmental Protection Agency's <u>"Check Up Program for Small Systems (CUPSS)."</u>

#### 1.1 BACKGROUND

River Bend is a town located in Craven County, North Carolina and was incorporated in 1981. According to the United States Census Bureau (2020 census date), the town has a total area of 2.8 square miles and has a population of 2,902. River Bend is served by U.S. Highway 17 Business.

#### 1.2 MISSION STATEMENT

The mission statement defines the goals of the Town of River Bend's water and wastewater utilities and is the guide for level of service agreements discussed in Section 3. The Town of River Bend's water and wastewater utility mission statement is as follows:

"We commit to improving and maintaining the public health protection and performance of water and wastewater system assets, while minimizing the long-term cost of operating those assets. We strive to make the most cost-effective renewal and replacement investments and provide the highest-quality customer service possible."

#### 1.3 ASSET MANAGEMENT TEAM

The Town of River Bend utilities department has a staff that performs day-to-day functions to keep the water and wastewater systems functioning properly. These individuals are active members of the asset management team. Delane Jackson, the Town Manager, serves as the team leader and assumes asset management planning responsibilities. Mandy Gilbert is the Finance Director and will serve as the Asset Management Financial Leader. Brandon Mills, the Public Works Director, oversees the daily operation and maintenance of the water and wastewater systems. Craven County will carry the town's GIS infrastructure database and layers on the county's GIS website. Bryce Marquard, the county's GIS Administrator, oversees the county's GIS mapping system.

To the extent that other staff are involved with this or other projects, the asset management team is responsible for coordinating such involvement in developing, implementing, and updating this plan. More specific roles and responsibilities are listed in Table 1-1.

Table 1-1. Town of River Bend Water System Asset Management Team

Name	Title	Organization	Role / Responsibility on Project
Delane Jackson	Town Manager	River Bend	Asset Management Team Leader
Mandy Gilbert	Finance Director	River Bend	Asset Management Financial Leader
Brandon Mills	Public Works Director	River Bend	O&M Leader/Water& Wastewater
Bryce Marquard	GIS Administrator	Craven County	Oversees GIS database/mapping

#### 2. UTILITY OVERVIEW

#### Water System

The Town of River Bend's water system serves River Bend, NC with a population of 2,902, as reported in the 2020 U.S. Census. The following description and Table 2.1 demonstrate key statistics about the water utility and the population it serves. GIS Maps of the town's water system can be found in Figure 1.

The drinking water system consists of three wells, two filter/treatment plants, two elevated storage tanks, and a distribution system serving the entire town. The production capacity of the system is approximately 950,000 gallons per day when operated for the maximum twelve-hour limit allowed by the NCDEQ. The wells are equipped with standby power units to enable the town to continue to have drinking water available during extended power outages. The treatment process consists of feeding sodium hydroxide followed by compressed air at points between the well head and the filters. The sodium hydroxide increases the pH of the raw water which allows the air to enhance the oxidation process, enabling the filters to remove a greater amount of iron and manganese. The filters are pressure filters using synthetic media over rock bedding on a steel filter drain. After filtration sodium hexametaphosphate is fed to sequester any remaining iron particles and allow them to precipitate out at the dead ends of the system to be removed by scheduled flushing. The water is then disinfected with chlorine and fed into the distribution system and the two elevated towers.

Table 2-1. Town of River Bend Water System Overview

Category	Description		
Residential Connections	1,477		
Commercial Connections	14		
Industrial/Institutional Connections	1		
Finished Water Storage Capacity	Plantation Dr. Tank - 300,000 Gallons		
(Elevated Tanks)	Shoreline Dr. Tank – 100,000 Gallons		
Water Supply Wells (Groundwater)	3		
Water Filter/Treatment Plants	WTP (Well 3 – 0.3500 MGD)		
	WTP (Well 1, $2 - 0.6000 MGD$ )		
Water Distribution System Mains	21.35 miles		
Water System Fire Hydrants	102		

#### Wastewater System

The Town of River Bend's wastewater treatment and collection system serves River Bend, NC with a population of 2,902, as reported in the 2020 U.S. Census. The following description and Table 2.2 demonstrate key statistics about the wastewater utility and the population it serves. GIS Maps of the town's wastewater system can be found in Figure 2.

The wastewater treatment system consists of two extended air, activated sludge treatment plants operating in parallel, each consisting of an aerator, a digester, and a clarifier, a 40,000-gallon flow equalization tank, a 35,000-gallon sludge digester, a static screen to remove solids, three centrifugal blowers, and two standby generators (1-125 kw & 1-150 kw). The treatment system has a permitted capacity of 330,000 gallons per day.

#### RIVER BEND WATER AND WASTEWATER ASSET MANAGEMENT PLAN

The treatment process is accomplished by feeding the raw wastewater across the static screen to remove solids which are then taken to the land fill. The wastewater then flows through a grit settling chamber to allow fine inorganic matter to settle out and then flows on to the equalization tank which balances the flow to allow for surges during high flow periods. Wastewater is then pumped to the splitter box which splits the flow between two treatment plant trains and returns a portion of it to the equalization tank to allow for a more balanced flow. The wastewater enters the treatment trains at the beginning of the aerators and moves through the aeration cycle where it is acted on by organisms which use it as food. At the end of the aeration cycle, the partially treated wastewater enters the clarifiers where any remaining solids settle out and are returned to the aerators and the clear liquid flows over a weir to the chlorine contact chambers where it is disinfected. After disinfection the effluent is dechlorinated and discharged to the river.

The collection system serves approximately two thirds of the town and consists of eight (8) lift stations, 8.71 miles of gravity sewers, and 2.13 miles of force mains to convey wastewater to the treatment facility. The final lift station is located at the entrance to the wastewater treatment facility and feeds the wastewater to the static screen. Lift station Nos.1, 2, 3, 5 and 8 have on-site emergency power generators to provide standby power in case of power outages. The remaining stations are served by two (2) portable trailer mounted generators to power on a rotating basis, if needed.

Table 2-2. Town of River Bend Wastewater System Overview

Category	Description
Residential Connections	963
Commercial Connections	12
Industrial/Institutional Connections	1 (Institutional)
Wastewater Treatment Plant (NC0030406)	
Treated Effluent Discharge Points	1 (Trent River)
Type of Treatment	Extended aeration activated sludge
Permitted Capacity	330,000 Gallons per Day (GPD)
Current Average Monthly Discharge	0.1020 MGD (2023 LWSP)
Unit Operations	Static screen, surge basin, influent splitter box, (2) extended aeration treatment plants, sodium hypochlorite disinfection w/contact chamber, dichlorination, effluent flow meter, (3) aerated sludge digesters, standby emergency generator
Collection System Lift Stations	8
Force Mains	2.39 miles
Manholes	198
Collection System Gravity Mains	8.71 miles

#### 3. LEVEL OF SERVICE AGREEMENT

The goal of the Town of River Bend water and wastewater utility is to confirm drinking water and wastewater systems are managed effectively and efficiently by providing services that meet or exceed customer expectations and comply with federal, state, and local regulations. This section describes the utility's Level of Service goals and the key performance targets for each Level of Service goal for present and future performance. The Level of Service describes the characteristics of the utility's performance, such as "how much", "of what nature", and "how frequently." The utility's progress toward meeting those goals will be reviewed annually.

The Levels of Service determine the amount of funding that is required to maintain, renew, and upgrade the entire water and wastewater system infrastructure to provide the customers with the Levels of Service specified. The Level of Service goals are defined across the four service areas identified below. Changes to the Levels of Service goals and how the utility addresses the issues will affect funding requirements and how well the utility can provide the proper service to the community. The target Levels of Service that the utility has chosen to meet are presented in Table 3-1. This table lists the Level of Service goals and measures the success of each goal.

Table 3-1. Level of Service Goals

Service Area	Goal	Achieved	
Health, Safety, and Security	Comply with all federal, state, and local worker safety requirements	Meets all performance objectives	
Asset Preservation and Condition	Perform routine maintenance on all major equipment per factory or manufacturer's recommendations	Meets all performance objectives	
Conservation, Compliance, and Enhancement	Meet all federal, state, and local regulatory standards	Meets all performance objectives	
Samina Quality and Cost	Customer complaints will be addressed within 2 business days of receiving the compliant	Will begin tracking and update achievement status during annual review of asset management plan	
Service Quality and Cost	Provide safe, uninterrupted water and wastewater service to the service area	Meets all performance objectives	
	Water and wastewater rates are reviewed annually	Meets all performance objectives	

#### 4. INVENTORY AND ASSESSMENT OF CRITICAL WATER/WASTEWATER ASSETS

As part of a comprehensive asset inventory, River Bend has developed a GIS mapping system and Asset Management Plan that provides a complete inventory of assets, along with spreadsheets, that provide some condition and general information about each asset. Inventory data also provides limited condition assessment that is based mostly on existing pipe materials, physical site visits, historical personnel knowledge, and evaluation by Operations & Maintenance personnel. The town's water and wastewater system mapping database and infrastructure layers will be hosted by Craven County GIS.

#### Water Distribution System Inventory

The Town of River Bend water system includes assets associated with the supply, treatment, storage, and distribution of water to the town's customers. A map of the water system assets identifying the wells, tanks, water lines, valve and hydrant locations is provided in Figure 1. A summary of the water system assets can be found in Tables 4.1 thru 4.4, while a detailed inventory of the water system assets can be found in Appendix F.

The town's water system was originally constructed in the 1970's by a private business to serve an unincorporated area. The Town incorporated in 1981 and purchased the system from the original owner in 1996. Since that time the town has extended distribution lines into more areas of town. The age of water lines within the distribution system was generally estimated based on historic knowledge and pipe material, as follows:

		TOTAL 21.35	Miles
Ductile Iron	< 40 years old	0.43	miles
PVC	< 40 years old	20.92	2 miles

#### Wastewater Collection and Treatment System Inventory

The Town of River Bend wastewater system includes assets associated with the collection and treatment of wastewater for the town's customers. A map of the wastewater system assets identifying the type and size of gravity collection lines, manholes, service laterals, lift stations, forcemains and the WWTP is provided in Figure 2. A summary of the wastewater system assets can be found in Tables 4.5 thru 4.7, while a detailed inventory of the wastewater system assets can be found in Appendix G.

Much of the town's water and wastewater system was constructed by a private developer and acquired by the town in the 1996. The age of the wastewater collection system is generally estimated based on historic knowledge and pipe material, as follows:

PVC	< 40 years old	0.93 miles
Truss	< 40 years old	7.78 miles
PVC (Force Main)	unknown	2.39 miles
		TOTAL 11.10 Miles

### **DRAFT**

## TOWN OF RIVER BEND POLICY ON DONATIONS AND SPONSORSHIPS

## **Statement of Policy**

The Town of River Bend (hereinafter "Town") will allow donations to be made to the Town.

In allowing sponsorships, the Town will seek sponsors that further its mission by providing monetary or in-kind support for Town programs or services. The Town recognizes that the public trust and perception of its impartiality may be damaged by sponsorships that are aesthetically displeasing, politically oriented, or offensive to segments of its citizenry. When the Town loses public trust and public perception of impartiality, its ability to govern effectively in the interest of its citizens is impaired. Therefore, the Town permits private sponsorship of government programs or services in limited circumstances as a means to generate funds for improving or expanding those programs and services. The Town maintains its sponsorship program as a nonpublic forum and exercises sole discretion over who is eligible to become a sponsor according to the terms of this policy.

Whenever possible, sponsorships should be linked to specific Town-related activities, events, programs, or publications. The Town will neither seek nor accept sponsors that manufacture products or take positions inconsistent with local, state, or federal law or with Town policies, positions, or resolutions. The establishment of a sponsorship agreement does not constitute an endorsement by the Town of the sponsor's organization, products, or services.

#### **Definition of Terms**

"Donation" is a voluntary, unsolicited, monetary or in-kind contribution with no expectation of promotional benefits or sponsorship.

"Sponsorship" is the right of an external entity (for-profit or not-for-profit) to associate its name, products, or services with the Town's programs, services, properties, or name. Sponsorship is a business relationship in which the Town and the external entity exchange goods and/or services for the public display of a message on the Town's property acknowledging private support.

The use of a private event space for a Town activity, event, program, or publication, as allowed by § 3.05.005 of the Town's Ordinances, and subsequent designation of that private event space as the location for an activity, event, program, or publication in promotional materials is not in and of itself a sponsorship. For example, an advisory board event held at a restaurant and advertised as being held at said restaurant shall not be considered a sponsorship of that advisory board event. However, to the extent promotional materials for a Town activity, event, program or publication identifies the provider of a private space as a "partner," "co-sponsor," or similar status, that designation would be considered a sponsorship for the purposes of this Policy.

## **Authority Structure for Review and Approval**

The Town possesses sole and final decision-making authority for determining the appropriateness of a sponsorship relationship and/or an offer of a donation and reserves the right to refuse any offer of sponsorship or donation.

Sponsorship agreement proposals and donations offers will be reviewed according to the following procedures and guidelines:

- All sponsorships and donation shall be approved in consultation with the Town Manager or his/her designee.
- Sponsorship agreements or donation offers projected to generate \$1,000 or less (in actual monetary benefit or estimated in-kind benefit) shall require the written approval of the Town Manager, who shall inform the Town Council.
- Sponsorship agreements or donations offers projected to generate more than \$1,000 (in actual monetary benefit or estimated in-kind benefit) shall require the written approval of the Town Council.

In the discretion of the Town Manager, any proposed sponsorship agreement or donation offer may be referred to the Town Council for its approval.

## Criteria for Sponsorship Proposal Review

Proposals for sponsorship of Town programs or services shall be reviewed on the basis of a draft memorandum of understanding that clearly outlines the forms of support offered by the sponsor and the recognition to be given by the Town. The Town Manager may develop and implement a form that entities may use to submit this draft memorandum of understanding. A memorandum of understanding shall be created for each sponsorship relationship. It shall detail the following information, at a minimum:

- Activities, products, and services of the private entity and its subsidiaries:
- Benefits to be given to the proposed sponsor by the Town, and the estimated monetary value of those benefits:
- Benefits to be given to the Town by the proposed sponsor and the estimated monetary value of those benefits;
- Prominence of the proposed public recognition of support;
- Content of the proposed public recognition of support;
- Duration of the proposed public recognition of support; and
- Conditions under which the sponsorship agreement will be terminated.

The Town recognizes that entering into a sponsorship agreement with an external entity does not constitute an endorsement of the entity or its services and products but does imply an affiliation. Such affiliation can affect the reputation of the Town among its citizens and its ability to govern effectively. Therefore, if the Town Manager, in his or her sole discretion, determines any proposal for sponsorship of a Town program or service in which the involvement of an outside entity compromises the public's perception of the Town's neutrality or its ability to act in the public interest, the Town Manager will present the proposal to the Town Council for acceptance or rejection.

The Town shall consider the following criteria before entering into a sponsorship agreement:

- Extent and prominence of the public display of sponsorship;
- Aesthetic characteristics of the public display of sponsorship;
- Importance of the sponsorship to the mission of the Town;
- Level of support provided by the sponsor;
- Inconsistencies between Town policies and the known policies or practices of the potential sponsor; and
- Other factors that might undermine public confidence in the Town's impartiality or interfere with the efficient delivery of Town services or operations, including, but not limited to, current or potential conflicts of interest between the sponsor and Town employees, officials, or affiliates; and the potential for the sponsorship to tarnish the Town's standing among its citizens or otherwise impair the ability of the Town to govern its citizens.

## **Permissible Sponsors and Message Content**

Sponsorships on Town property are maintained as a nonpublic forum. The Town intends to preserve its rights and discretion to exercise full editorial control over the placement, content, appearance, and wording of sponsorship affiliations and messages. The Town may make distinctions on the appropriateness of sponsors on the basis of subject matter of a potential sponsorship recognition message. The Town will not deny sponsorship opportunities on the basis of the potential sponsor's viewpoint (e.g. a potential sponsor is known to advocate healthy eating through its food service menu and another potential sponsor is known as "the Greasy Spoon" serving delicious albeit unhealthy food, the Town cannot discriminate against one of these two potential sponsors on the preference of healthy eating). Sponsorship from an organization that is engaged in any of the following activities, that has a mission supporting any of the following subject matters, or that, in the sole discretion and judgment of the Town Manager, is deemed to be unsuitable for and contrary to community standards of appropriateness for government publications, shall be prohibited on any Town property:

- Promotion of the sale or consumption of alcoholic beverages, or promotion of establishments that are licensed to sell and primarily do sell alcoholic beverages, including bars; provided, however, that food service establishments or places of lodging may be authorized only when the sale of alcohol is incidental to providing food service or lodging;
- Promotion of the sale or consumption of tobacco products;
- Promotion of the sale of birth control products or services;
- Commentary, advocacy, or promotion of issues, candidates, and campaigns pertaining to political elections;
- Depiction in any form of profanity or obscenity, or promotion of sexually oriented products, activities, or materials;
- Promotion of the sale or use of firearms, explosives, or other weapons, or glorification of violent acts; and
- Promotion or depiction of illegal products, or glorification of illegal products, activities, or materials.

## **Permissible Recognition Messages**

Sponsorship recognition messages may identify the sponsor but shall not promote or endorse the organization or its products or services. Statements that advocate, contain price information or an indication of associated savings or value, request a response, or contain comparative or qualitative descriptions of products, services, or organizations will not be accepted. Only the following content will be deemed appropriate:

- The legally recognized name of the advertising organization;
- The advertiser's organizational slogan if it identifies rather than promotes the organization or its products or services;
- The advertiser's product or service line, described in brief, generic, objective terms. Generally, only one product or service line may be identified; and
- Brief contact information for the advertiser's organization, such as phone number, address, or Internet website. Contact information must be stated in a manner that avoids an implication of urging the reader to action.

The Town will not make any statements that directly or indirectly advocate or endorse a sponsor's organization, products, or services.

No materials or communications, including, but not limited to, print, video, Internet, broadcast, or display items developed to promote or communicate the sponsorship using the Town's name, marks, or logo, may be issued without written approval from the Town Manager.

Any application denied by the Town Manager may be appealed to the Town Council for consideration within five (5) business days of the denial by making that appeal request in writing to the Town Manager. In denying an application, the Town Manager shall inform the applicant of the right to appeal in writing.

LSS: 172732













\* Excerpts from 855 page document



## 1 INTRODUCTION

Section 1 provides a general introduction to hazard mitigation and an introduction to the Pamlico Sound Regional Hazard Mitigation Plan. This section contains the following subsections:

- 1.1 Background
- 1.2 Purpose and Authority
- 1.3 Scope
- 1.4 References
- 1.5 Plan Organization

## 1.1 BACKGROUND

This document comprises a Hazard Mitigation Plan for the Pamlico Sound Region of North Carolina.

Each year in the United States, natural and human-caused hazards take the lives of hundreds of people and injure thousands more. Nationwide, taxpayers pay billions of dollars annually to help communities, organizations, businesses, and individuals recover from disasters. These monies only partially reflect the true cost of disasters because additional expenses incurred by insurance companies and non-governmental organizations are not reimbursed by tax dollars. Many natural hazards are predictable, and much of the damage caused by hazard events can be reduced or even eliminated.

Hazards are a natural part of the environment that will inevitably continue to occur, but there is much we can do to minimize their impacts on our communities and prevent them from resulting in disasters. Every community faces different hazards, has different resources to draw upon in combating problems, and has different interests that influence the solutions to those problems. Because there are many ways to deal with hazards and many agencies that can help, there is no one solution for managing or mitigating their effects. Planning is one of the best ways to develop a customized program that will mitigate the impacts of hazards while accounting for the unique character of a community.

A well-prepared hazard mitigation plan will ensure that all possible activities are reviewed and implemented so that the problem is addressed by the most appropriate and efficient solutions. It can also coordinate activities with each other and with other goals and activities, preventing conflicts and reducing the costs of implementing each individual activity. This plan provides a framework for all interested parties to work together toward mitigation. It establishes the vision and guiding principles for reducing hazard risk and proposes specific mitigation actions to eliminate or reduce identified vulnerabilities.

In an effort to reduce the nation's mounting natural disaster losses, the U.S. Congress passed the Disaster Mitigation Act of 2000 (DMA 2000) to invoke new and revitalized approaches to mitigation planning. Section 322 of DMA 2000 emphasizes the need for state and local government entities to closely coordinate on mitigation planning activities and makes the development of a hazard mitigation plan a specific eligibility requirement for any local government applying for federal mitigation grant funds. These funds include the Hazard Mitigation Grant Program (HMGP), the Building Resilient Infrastructure and Communities (BRIC) program, and the Flood Mitigation Assistance (FMA) Program, all of which are administered by the Federal Emergency Management Agency (FEMA) under the Department of Homeland Security. Communities with an adopted and federally approved hazard mitigation plan thereby become pre-positioned and more apt to receive available mitigation funds before and after the next disaster strikes.

This plan was prepared in coordination with FEMA Region IV and the North Carolina Division of Emergency Management (NCEM) to ensure that it meets all applicable federal and state planning requirements. A Local Mitigation Plan Review Tool, found in Appendix A, provides a summary of FEMA's current minimum standards of acceptability and notes the location within this plan where each planning requirement is met.

## 1.2 PURPOSE AND AUTHORITY

This plan was developed in a joint and cooperative manner by members of a Hazard Mitigation Planning Committee (HMPC) which included representatives of County, City, and Town departments, federal and state agencies, citizens, and other stakeholders. This plan will ensure all jurisdictions in the Pamlico Sound Region remain eligible for federal disaster assistance including FEMA HMGP, PDM, and FMA programs.

This plan has been prepared in compliance with Section 322 of the Robert T. Stafford Disaster Relief and Emergency Assistance Act (Stafford Act or the Act), 42 U.S.C. 5165, enacted under Section 104 of the Disaster Mitigation Act of 2000, (DMA 2000) Public Law 106-390 of October 30, 2000, as implemented at CFR 201.6 and 201.7 dated October 2007.

This plan will be adopted by each participating jurisdiction in accordance with standard local procedures. Copies of adoption resolutions are provided in Section 9 Plan Adoption.

## 1.3 SCOPE

This document comprises a Regional Hazard Mitigation Plan for the Pamlico Sound Region. The planning area includes all incorporated municipalities and unincorporated areas in the region. All participating jurisdictions are listed in Table 1.1.

Table 1.1 - Participating Jurisdictions in the Pamlico Sound Regional Hazard Mitigation Plan

<b>Beaufort County</b>		
Washington	Aurora	Bath
Belhaven	Chocowinity	Pantego
Washington Park		
<b>Carteret County</b>		
Atlantic Beach	Beaufort	Bogue
Cape Carteret	Cedar Point	Emerald Isle
Indian Beach	Morehead City	Newport
Peletier	Pine Knoll Shores	
Craven County	NUMBER OF STREET	THE PROPERTY OF THE PROPERTY OF THE PARTY.
Havelock	New Bern	Bridgeton
Cove City	Dover	River Bend
Trent Woods	Vanceboro	
Pamlico County	resources and resources of the section	Commence of the Commence of th
Alliance	Arapahoe	Bayboro
Grantsboro	Mesic	Minnesott Beach
Oriental	Stonewall	Vandemere

The Pamlico Sound Region followed the planning process prescribed by FEMA, and this plan was developed under the guidance of a HMPC comprised of representatives of County, City, and Town

departments; citizens; and other stakeholders. The HMPC conducted a risk assessment that identified and profiled hazards that pose a risk to the planning area, assessed the planning area's vulnerability to these hazards, and examined each participating jurisdiction's capabilities in place to mitigate them.

The plan evaluates and prioritizes hazards for the planning area using a Priority Risk Index, as determined through the risk and vulnerability assessments. Hazards are categorized as "low," "moderate," or "high" priority, however, mitigation strategies are identified for all profiled hazards. The hazards profiled in this plan are:

- Dam & Levee Failure
- Drought
- Earthquake
- Excessive Heat
- Flooding
- Hurricanes & Coastal Hazards
- Severe Winter Storm
- Tornadoes & Thunderstorms
- Wildfire
- Infectious Disease
- Cyber Threat

## 1.4 REFERENCES

The following FEMA guides and reference documents were used to prepare this document:

- FEMA 386-1: Getting Started. September 2002.
- FEMA 386-2: Understanding Your Risks: Identifying Hazards and Estimating Losses. August 2001.
- FEMA 386-3: Developing the Mitigation Plan. April 2003.
- FEMA 386-4: Bringing the Plan to Life. August 2003.
- FEMA 386-5: Using Benefit-Cost Review in Mitigation Planning. May 2007.
- FEMA 386-6: Integrating Historic Property and Cultural Resource Considerations into Hazard Mitigation Planning. May 2005.
- FEMA 386-7: Integrating Manmade Hazards into Mitigation Planning. September 2003.
- FEMA 386-8: Multijurisdictional Mitigation Planning. August 2006.
- FEMA 386-9: Using the Hazard Mitigation Plan to Prepare Successful Mitigation Projects. August 2008.
- FEMA. Local Mitigation Planning Handbook. March 2013.
- FEMA. Local Mitigation Plan Review Guide. October 1, 2011.
- FEMA National Fire Incident Reporting System 5.0: Complete Reference Guide. January, 2008.
- FEMA Hazard Mitigation Assistance Unified Guidance. June 1, 2010.
- FEMA. Integrating Hazard Mitigation into Local Planning: Case Studies and Tools for Community Officials. March 1, 2013.
- FEMA. Mitigation Ideas. A Resource for Reducing Risk to Natural Hazards. January 2013.

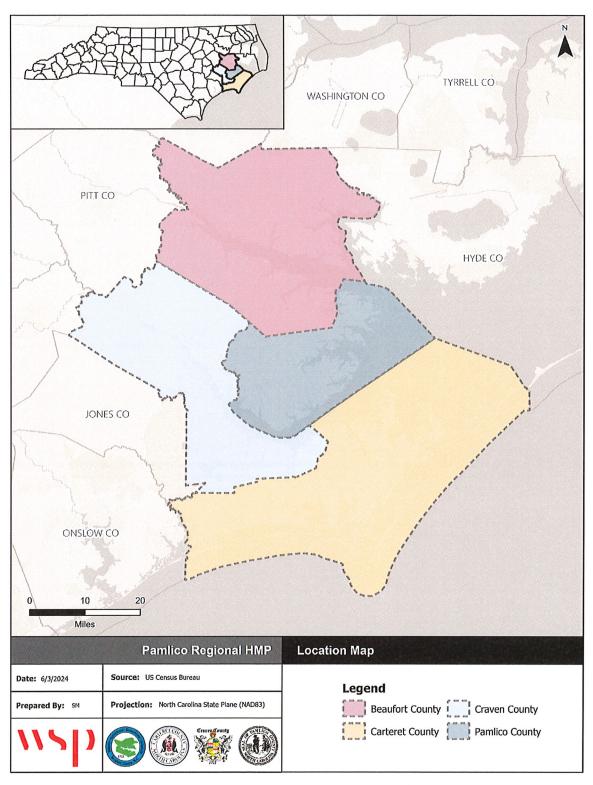
Additional sources used in the development of this plan, including data compiled for the Hazard Identification and Risk Assessment, are listed in Appendix D.

## 1.5 PLAN ORGANIZATION

The Pamlico Sound Regional Hazard Mitigation Plan is organized into the following sections:

- Section 1: Introduction
- Section 2: Planning Process
- Section 3: Planning Area Profile
- Section 4: Hazard Identification & Risk Assessment
- Section 5: Capability Assessment
- Section 6: Mitigation Strategy
- Section 7: Mitigation Action Plans
- Section 8: Plan Implementation and Maintenance
- Section 9: Plan Adoption
- Appendix A: Local Plan Review Tool
- Appendix B: Planning Process Documentation
- Appendix C: Mitigation Alternatives
- Appendix D: References

Figure 3.1 - Pamlico Sound Region Location Map



Source: U.S. Census Bureau

Map 15 - Future Land Use Source: Town of Pine Knoll Shores Legend Private Beach Access Private CON Conservation Private Recreation Government Public Beach Access Hotel/Conducter Recreation Marina Residential MF MF Office/Institutional Study Utility Parking

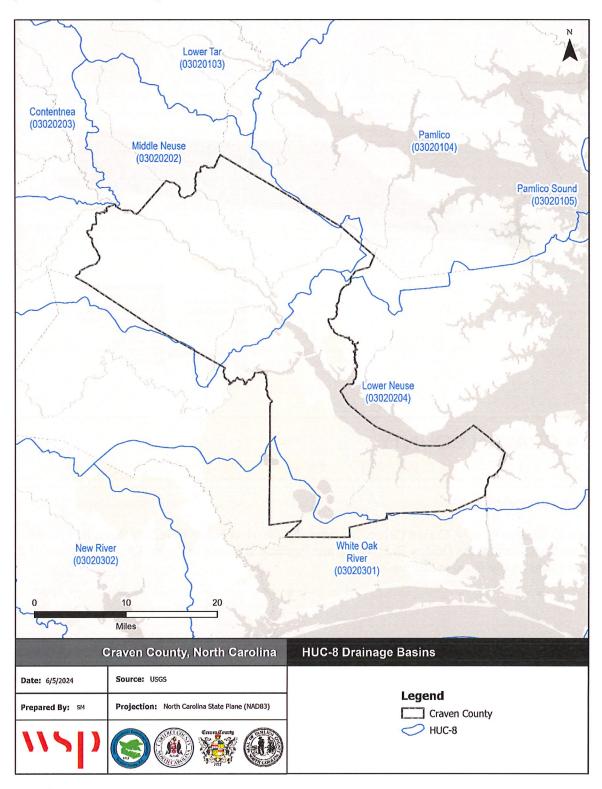
Figure 3.19 - Town of Pine Knoll Shores Future Land Use Map

## 3.4 CRAVEN COUNTY

## 3.4.1 HYDROLOGY

As with Carteret County, Craven County has three separate river basins traversing through its boundaries. These basins include the Onslow Bay, Neuse, and Pamlico, as shown in Figure 3.9. Descriptions of these river basins can be found in Section 3.2.8.

Figure 3.20 - Craven County, HUC8 River Basins



Source: National Hydrology Dataset

#### 3.4.2 PARKS AND OPEN SPACE

There are several parks located throughout Craven County, both within unincorporated portions of the County, as well as within participating municipalities. Additionally, a portion of the Croatan National Forest is located within Craven County. The Croatan National Forest is one of four National Forests in North Carolina and the only true coastal forest in the East. Refer to the Carteret County Parks and Open Space discussion for more details regarding the Croatan National Forest.

The following provides a listing of parks and recreational facilities located in Craven County:

- Creekside Park 1821 Old Airport Rd, New Bern, NC
- West Craven Park 2791 Streets Ferry Rd, Vanceboro, NC
- Latham-Whitehurst Nature Park 1095 Broad Creek Rd, New Bern, NC
- Rocky Run Park 411 Rocky Run Rd, New Bern, NC

#### 3.4.3 DEMOGRAPHICS

#### POPULATION TOTAL

The total population of Craven County according to the 2023 American Community Survey was 101,074 persons. Population growth throughout unincorporated portions of Craven County has been moderate since Census year 2000 at a rate of 18.5 percent while some municipalities have experienced rapid growth like Bridgeton (71 percent), Cove City (34.6 percent), and New Bern (36.6 percent). On the contrary, some participating municipalities have experienced declining populations during the same time period including Dover (-14.5 percent), Havelock (-26.6 percent), River Bend (-0.9 percent), and Trent Woods (-3.3 percent).

Table 3.18 provides a breakdown of total population for Craven County and the participating municipalities for the years 2000, 2010, 2020, and 2023.

**Table 3.18 - Craven County Total Population** 

Jurisdiction	2000	2010	2020	2023	% Change 2010-2023	Overall % Change 2000-2023
Bridgeton	328	454	346	561	-23.7%	71.0%
Cove City	433	399	381	583	-4.5%	34.6%
Dover	443	401	349	379	-13.0%	-14.5%
Havelock	22,442	20,735	16,688	16,471	-19.5%	-26.6%
New Bern	23,111	29,524	31,287	31,563	6.0%	36.6%
River Bend	2,923	3,119	2,899	٠2,896	-7.1%	-0.9%
Trent Woods	4,224	4,155	4,079	4,086	-1.8%	-3.3%
Vanceboro	898	1,055	872	939	-17.4%	4.6%
Municipalities	54,802	59,842	56,901	57,478	-4.9%	4.9%
Unincorporated Areas	36,784	36,721	43,891	43,596	19.5%	18.5%
Total	91,586	96,563	100,792	101,074	4.4%	10.4%

Source: US Census Bureau American Community Survey.

## **GROWTH TRENDS**

Table 3.12 provides population forecast through the year 2050 for Craven County, as well as all participating municipal jurisdictions. Municipal forecasts are based on the annual growth rate calculated from 2000 and 2023 population change presented in Table 3.18. According to the North Carolina Office

Pamlico Sound Regional Hazard Mitigation Plan of State Budget and Management (NCOSBM), the population of Craven County is expected to increase by approximately 2.2 percent by 2050 (a total of 2,261 more persons).

Table 3.19 - Craven County Population Projections, 2023-2050

Jurisdiction	2023	2030	2040	2050	% Change 2023-2050
Bridgeton	561	631	731	831	48.1%
Cove City	583	625	685	745	27.8%
Dover	379	365	345	325	-14.3%
Havelock	16,471	14,658	12,068	9,478	-42.5%
New Bern	31,563	34,132	37,802	41,472	31.4%
River Bend	2,896	2,889	2,879	2,869	-0.9%
Trent Woods	4,086	4,044	3,984	3,924	-4.0%
Vanceboro	939	932	922	912	-2.9%
Municipalities	57,478	58,290	59,450	60,610	5.5%
Unincorporated Areas	43,596	45,668	48,628	51,588	18.3%
Craven County*	101,074	103,334	103,336	103,335	2.2%

Source: US Census Bureau American Community Survey and NCOSBM State/County Population Projections Note: Municipal population projections were calculated using the linear growth formula, which assumes the same growth occurs annually. The annual growth rate (in persons) was determined by subtracting the initial population (2000) from the base population (2023) dividing it by the number of years (23 years). The annual growth rate (in person) was then multiplied by base population (2023) and number of years (7 years for 2030, 17 years for 2040, and 27 years for 2050).

\*Unlike the Municipal population projections, the County population projections were forecasted and provided by NCOSBM, which considers estimates of births, deaths, migration, and other demographic data.

#### RACIAL DEMOGRAPHICS

The overall Craven County population is predominantly Caucasian comprising 67.4 percent of residents, while most of the remaining population is African American (20.3 percent). The racial composition of the County's municipal jurisdictions varies substantially. The Town of Dover is predominantly African American (59.6 percent), while Cove City, New Bern, and Vanceboro have an African American population over 25 percent. One other unique characteristic is that the City of New Bern maintains an Asian population of 5.8 percent. Overall, Craven County has a Hispanic/Latino population of 7.4 percent. Municipalities with the largest Hispanic population in the County include Bridgeton (38.9 percent) and Havelock (15.1 percent).

According to the American Community Survey, the 2023 median age in Craven County was 39.2 years. Approximately 78 percent of the County's population is over the age of eighteen, while 50 percent is male and 50 percent is female. Table 3.20 provides a summary of racial composition for Craven County, as well as all participating municipal jurisdictions.

**Table 3.20 - Craven County Racial Composition** 

Jurisdiction	Caucasian	African- American	Asian	Other Race*	Two or More Races	Persons of Hispanic or Latino Origin**
Bridgeton	80.2%	10.9%	0.0%	8.9%	0.0%	38.9%
Cove City	61.1%	28.0%	0.0%	1.4%	9.6%	7.7%
Dover	33.0%	59.6%	0.0%	0.0%	7.4%	0.3%
Havelock	61.3%	18.2%	3.8%	3.4%	13.1%	15.1%
New Bern	55.0%	28.9%	5.8%	3.8%	6.6%	6.1%
River Bend	83.7%	12.6%	0.0%	0.5%	3.1%	3.3%



Jurisdiction	Caucasian	African- American	Asian	Other Race*	Two or More Races	Persons of Hispanic or Latino Origin**		
Trent Woods	99.0%	0.0%	0.0%	0.1%	0.8%	0.1%		
Vanceboro	50.2%	45.2%	0.0%	2.3%	2.3%	3.0%		
<b>Craven County</b>	67.4%	20.3%	2.7%	2.8%	6.8%	7.4%		

<sup>\*</sup>Other races includes American Indian, Alaskan Native, Native Hawaiian, Pacific Islander, etc.

Source: US Census Bureau American Community Survey.

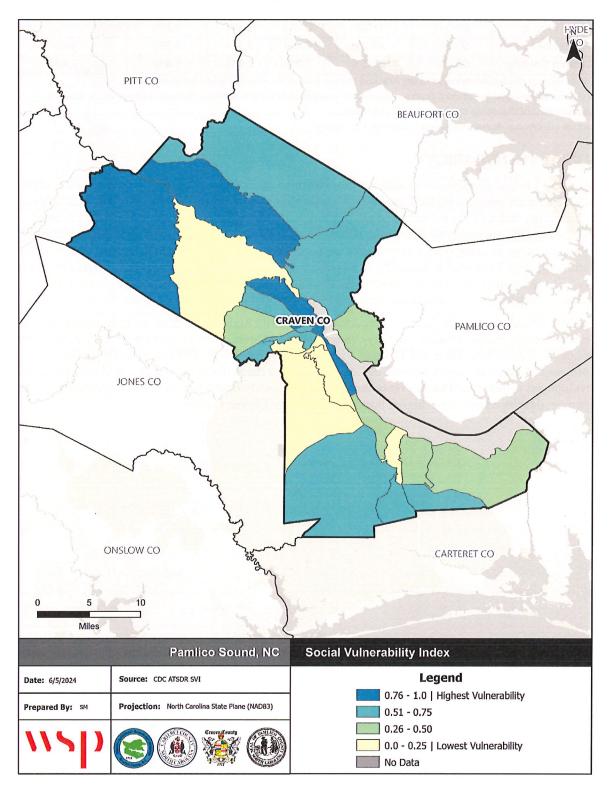
#### **SOCIAL VULNERABILITY**

Figure 3.21 below displays social vulnerability information for Craven County by census tract according to 2022 data and analysis by the Centers for Disease Control and Prevention (CDC). The CDC's Social Vulnerability Index (SVI) indicates the relative vulnerability within census tracts based on 15 social factors: poverty, unemployment, income, education, age, disability, household composition, minority status, language, housing type, and transportation access. Higher social vulnerability is an indicator that a community may be limited in its ability to respond to and recover from hazard events. Therefore, using this SVI information can help the County and municipal jurisdictions to prioritize pre-disaster aid, allocate emergency preparedness and response resources, and plan for the provision of recovery support.

The SVI throughout Craven County is moderate to high with highest vulnerability in Northern portions of Craven County, in and around Cove City, Vanceboro, and Dover. Central portions of the County in and around the City of New Bern and Town of Bridgeton also have a high SVI index, while portions Northwest of Havelock and Southeast of Cove City have a much lower SVI score. Within Craven County development is distributed more evenly throughout the County than other portions of Pamlico Region; however, developed density is higher throughout northern Craven County.

<sup>\*\*</sup>Persons of Hispanic or Latino Origin are classified regardless of race; therefore, this percentage is considered independent of the other race classifications listed.

Figure 3.21 - Craven County Social Vulnerability Index



## 3.4.4 HOUSING CHARACTERISTICS

According to the American Community Survey, there were approximately 47,404 housing units in Craven County as of 2023. This figure marks a 7 percent, or 3,102 unit, increase since 2010 for unincorporated portions of Craven County. Although the County's housing unit growth has been somewhat modest, several County municipalities have experienced a much more rapid increase in their housing stock. Housing unit counts have increased by roughly 24.7 percent in Bridgeton and 33.2 percent in Vanceboro over the same period. With the exception of these two municipalities, housing starts have been slow throughout Craven County.

Housing in Craven County is predominantly comprised of owner occupants (69.9 percent). Overall, the County and its municipalities maintain a fairly high owner occupancy rate. Of the eight (8) municipal jurisdictions, six (6) have an owner occupancy rate above 50 percent. This factor is important in regards to mitigation and post disaster recovery due to the fact that homeownership directly correlates to the long term maintenance and flood proofing of property, as well as the eligibility for funding of impacted units following a flooding event associated with nor'easters and tropical storm/hurricanes.

In terms of vulnerability associated with natural hazard events such as tropical storms, hurricanes, and tornadoes, roughly 13.2 percent of the Craven County housing stock is comprised of manufactured homes, which is higher than the state average of 10.5 percent. The prevalence of manufactured housing poses a unique threat regarding both sustainability, as well as emergency response within defined flood hazard areas.

Table 3.21 below provides a summary of housing characteristics for Craven County, as well as participating municipal jurisdictions.

Table 3.21 - Craven County Housing Characteristics

Jurisdiction	Housing Units (2010)	Housing Units (2023)	% Change 2010-2023	% Owner Occupied (2023)	% Vacant Units (2023)
Bridgeton	194	242	24.7%	58.3%	14.9%
Cove City	230	248	7.8%	66.8%	5.2%
Dover	258	194	-24.8%	64.7%	12.4%
Havelock	6,844	5,840	-14.7%	45.0%	12.3%
New Bern	14,504	16,314	12.5%	60.1%	12.1%
River Bend	1,618	1,627	0.6%	88.3%	17.3%
Trent Woods	1,805	1,867	3.4%	92.8%	6.7%
Vanceboro	359	478	33.2%	46.4%	15.7%
<b>Craven County</b>	44,302	47,404	7.0%	69.9%	12.5%

Source: US Census Bureau American Community Survey.

## 3.4.5 WAGES, EMPLOYMENT AND INDUSTRY

The 2023 American Community Survey reports that the median household income for the Craven County was \$64,635, which is slightly lower than the state's median household income of (\$69,904). However, approximately 17.6 percent of the population is living below the poverty level. Moreover, 31.3 percent of people under 18 years of age are living below the poverty level.

Within Craven County, approximately 58.9 percent of the population is in the labor force. This is generally characteristic of all participating municipal jurisdictions as well, apart from Cove City, River Bend, and Dover which fall under 50 percent. According to the American Community Survey, the

unemployment rate for Craven County overall was 4.5 percent. Additionally, as of 2023, approximately 15.9 percent of households throughout Craven County relied on food stamps/SNAP benefits.

The following tables provides a summary of key economic indicators and population employed by industry for both incorporated and unincorporated portions of Craven County.

**Table 3.22 - Craven County Key Economic Indicators** 

Jurisdiction	Population in Labor Force	Percent Employed (%)	Percent Unemployed (%)	Percent Not in Labor Force (%)	Unemployment Rate (%)		
Bridgeton	54.3%	44.9%	6.5%	45.7%	12.6%		
Cove City	44.7%	44.7%	0.0%	55.3%	0.0%		
Dover	43.8%	41.4%	2.4%	56.2%	5.5%		
Havelock	77.0%	41.3%	2.2%	23.0%	5.1%		
New Bern	60.1%	55.5%	2.4%	39.9%	4.1%		
River Bend	45.7%	44.3%	1.4%	54.3%	3.2%		
Trent Woods	56.6%	55.0%	1.6%	43.4%	2.9%		
Vanceboro	55.0%	53.1%	1.9%	45.0%	3.5%		
Craven County	58.9%	49.8%	2.4%	41.1%	4.5%		

Source: US Census Bureau American Community Survey.

**Table 3.23 - Craven County Employment by Industry** 

Jurisdiction	Management, Business, Science and Arts (%)	Service Sales and Office (%)		Natural Resources, Construction, and Maintenance (%)	Production, Transportation, and Material Moving (%)		
Bridgeton	37.3%	15.0%	23.5%	16.3%	7.8%		
Cove City	37.3%	17.9%	14.6%	23.6%	6.6%		
Dover	22.5%	10.1%	17.4%	24.6%	25.4%		
Havelock	33.4%	24.2%	22.2%	5.8%	14.5%		
New Bern	38.5%	19.8%	20.6%	6.6%	14.6%		
River Bend	42.4%	12.9%	24.7%	1.3%	18.7%		
Trent Woods	52.1%	19.1%	19.2%	3.4%	6.3%		
Vanceboro	50.9%	19.9%	12.3%	7.9%	9.0%		
Craven County	36.5%	19.6%	20.8%	8.1%	14.9%		

Source: US Census Bureau American Community Survey.

The top industries in Craven County include (1) Management, Business, Science, and Arts, (2) Sales and Office, and Service industries. The top 10 employers in the County are listed below:

- Department of Defense
- Carolina East Health System
- Craven County Board of Education
- BSH Home Appliances Corporation
- Wal-Mart Associates, Inc.
- Craven County
- Moen Incorporated
- Marine Corps Exchange Service

- Craven Community College
- City of New Bern

#### 3.4.6 HISTORIC PROPERTIES

As of January 2025, Craven County had 57 listings on the National Register of Historic Places. This list includes 51 Historic Structures and 6 Historic Districts. Presence on the National Register signifies that these structures have been determined to be worthy of preservation for their historical or cultural values. The following provides a comprehensive listing of all Nationally Registered Properties in Craven County.

- Attmore-Oliver House (New Bern) 1/20/1972
- Barber, J.T., School (New Bern) 12/20/2006
- Baxter Clock (New Bern) 7/2/1973
- Bellair (New Bern) 8/25/1972
- Blades House (New Bern) 1/14/1972
- Bryan House and Office (New Bern) 3/24/1972
- Cedar Grove Cemetery (New Bern) 12/5/1972
- Cedar Street Recreation Center (New Bern) 8/21/2003
- Centenary Methodist Church (New Bern) 9/11/1972
- Central Elementary School (New Bern) 1/20/1972
- Christ Episcopal Church and Parish House (New Bern) 4/13/1973
- Clear Springs Plantation (Jasper) 3/14/1973
- Coor-Bishop House (New Bern) 11/9/1972
- Coor-Gaston House (New Bern) 2/1/1972
- Craven Terrace (New Bern) 8/19/2014
- DeGraffenried Park Historic District (New Bern) 8/9/2006
- Ebenezer Presbyterian Church (New Bern) 6/30/1997
- First Baptist Church (New Bern) 3/24/1972
- First Church of Christ, Scientist (New Bern) 10/2/1973
- First Missionary Baptist Church (New Bern) 6/30/1997
- First Presbyterian Church and Churchyard (New Bern) 2/1/1972
- Ghent Historic District (New Bern) 3/17/1988
- Gull Harbor (New Bern) 8/14/1973
- Harvey Mansion (New Bern) 11/12/1971
- Hawks House (New Bern) 3/16/1972
- Hollister, William, House (New Bern) 6/30/1972
- Jerkins, Thomas, House (New Bern) 10/18/1972
- Jerkins--Duffy House (New Bern) 3/17/1988
- Jones-Jarvis House (New Bern) 4/11/1973
- Mace, Ulysses S., House (New Bern) 6/4/1973
- Masonic Temple and Theater (New Bern) 3/16/1972
- Mount Shiloh Missionary Baptist Church (New Bern) 3/1/2007
- New Bern Battlefield Site (New Bern) 10/19/2001

- New Bern Historic District (New Bern) 6/19/1973
- New Bern Historic District (Boundary Increase) (New Bern) 9/25/2003
- New Bern Historic District (Boundary Increase II) (New Bern) 1/5/2016
- New Bern Municipal Building (New Bern) 6/4/1973
- New Bern National Cemetery (New Bern) − 1/31/1997
- Rhem-Waldrop House (New Bern) 10/18/1972
- Riverside Historic District (New Bern) 2/9/1988
- Rue Chapel AME Church (New Bern) 6/30/1997
- Simpson-Oaksmith-Patterson House (New Bern) 1/20/1972
- Sloan, Dr. Earl S., House (Trent Woods) 8/14/1986
- Slover-Bradham House (New Bern) 4/11/1973
- Smallwood, Eli, House (New Bern) 12/15/1972
- Smith Jr., Isaac H., House (New Bern) 9/14/2002
- Smith, Benjamin, House (New Bern) 4/13/1972
- Smith-Whitford House (New Bern) 4/13/1972
- St. John's Missionary Baptist Church (New Bern) 6/30/1997
- St. Paul's Roman Catholic Church (New Bern) 3/24/1972
- St. Peter's AME Zion Church (New Bern) 6/30/1997
- Stanly, Edward R., House (New Bern) 3/24/1972
- Stanly, John Wright, House (New Bern) 2/26/1970
- Stevenson House (New Bern) 8/26/1971
- Taylor, Isaac, House (New Bern) 12/27/1972
- Tisdale-Jones House (New Bern) 4/25/1972
- York-Gordon House (New Bern) 6/18/1973

## 3.4.7 LAND DEVELOPMENT TRENDS

Throughout Craven County, approximately 77 percent of parcels are currently developed. Table 3.24 provides an overview of developed and undeveloped properties located throughout Craven County. A majority of development is focused within the urban communities of New Bern and Havelock. Additionally, increased growth has begun to occur within communities adjacent to New Bern including Trent Woods, River Bend, and Vanceboro. Development is also centralized along key highway corridors, especially throughout portions of the County adjacent to Havelock between New Bern and the Carteret County line. It should also be noted that agriculture and associated land uses are a critical component of the County's economy.

Table 3.24 - Craven County Developed and Undeveloped Parcel Counts

Jurisdiction	Developed Parcels	Undeveloped Parcels	% Developed Parcels
Bridgeton	295	102	74.3%
Cove City	242	101	70.6%
Dover	264	111	70.4%
Havelock	4,711	266	94.7%
New Bern	14,702	2,956	83.3%
River Bend	1,583	174	90.1%



Jurisdiction	Developed Parcels	Undeveloped Parcels	% Developed Parcels		
Trent Woods	1,931	271	87.7%		
Vanceboro	465	174	72.8%		
Unincorporated Craven County	21,990	9,606	69.6%		
Total	46,183	13,761	77.0%		

Source: County Parcel GIS Data and iRisk Building Footprints

Craven County does not maintain zoning regulations within unincorporated areas. The County is characterized by rural landscapes interspersed with small towns that maintain a commercial core and moderate density residential development. However, Craven County has two large municipal jurisdictions including the City of New Bern and the City of Havelock. These two communities are connected by a fifteen mile stretch of US Highway 70.

It is anticipated that residential and non-residential development will continue to occur at a fairly rapid pace along this stretch. As this development continues, the County will consider instituting corridor planning and ultimately, there is potential for the establishment of corridor specific zoning regulations. In addition to US Highway 70 leading to Havelock, growth will also continue to materialize along US Highway 70 east of New Bern and along US Highway 17 north of New Bern to the Pitt County line.

As with many of the other municipalities in the region, development within New Bern and Havelock will continue to expand in a traditional fashion. It is expected that New Bern's downtown commercial core will continue to experience redevelopment and expansion. This is limited in some ways due to the historical protection measures which exist in this area. Development in Havelock will continue along the US Highway 70 corridor, which in many ways serves at the City's commercial core. Future growth within Havelock is dependent upon potential growth of Cherry Point Naval Air Station. The Town of River Bend is predominantly residential in character and is located outside the City of New Bern's corporate limits.

The Craven County land use plan, adopted in 2009, covers the unincorporated county and the Towns of Cove City, Dover, and Vanceboro. Bridgeton will participate in future county land use planning. The City of New Bern and the Towns of Trent Woods and River Bend have a regional land use plan, adopted in 2010 and 2011. The City of Havelock's land use plan was updated in 2023.



Figure 3.22 - Craven County Future Land Use Map

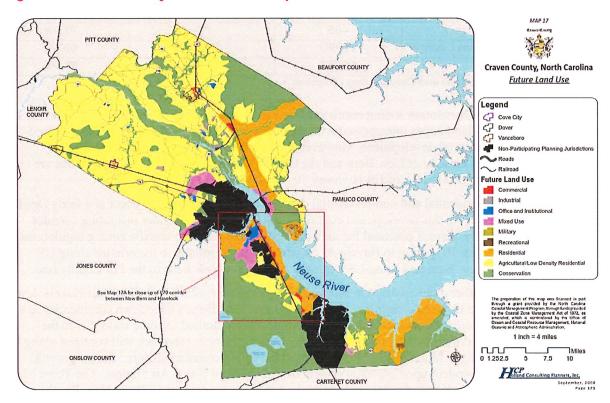
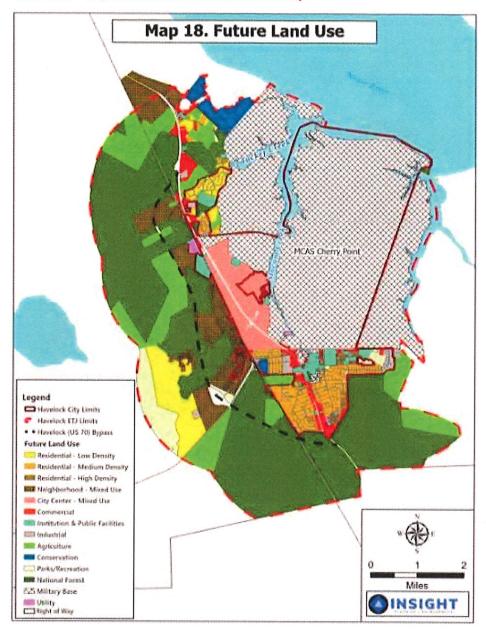


Figure 3.23 - City of Havelock Future Land Use Map



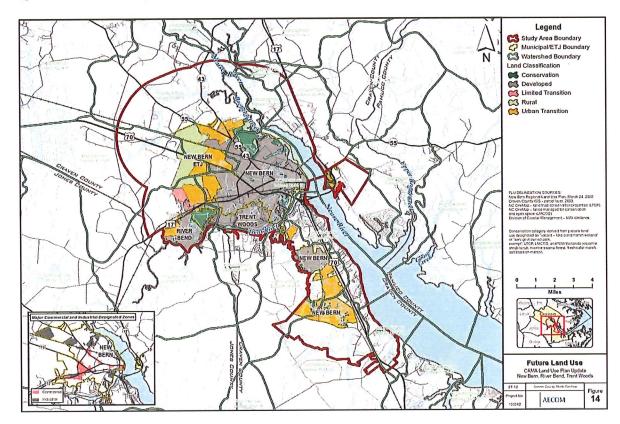


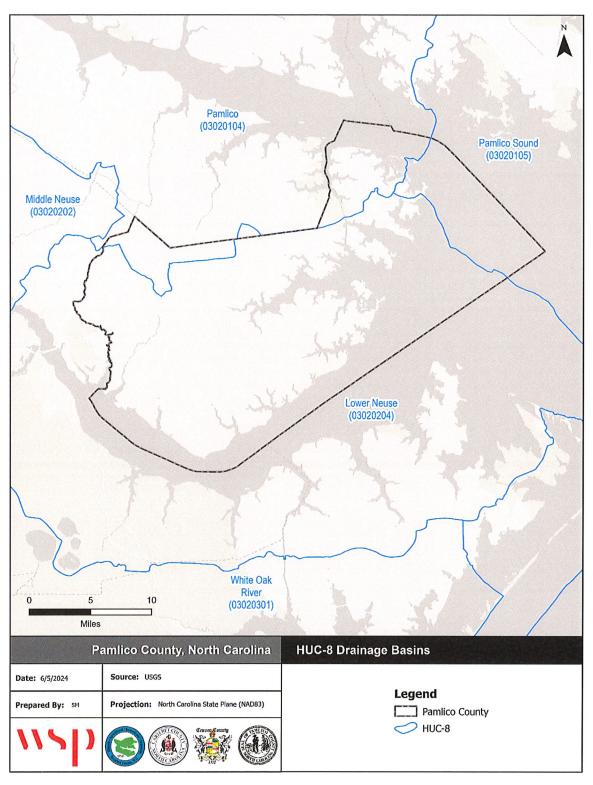
Figure 3.24 - New Bern, Trent Woods, and River Bend Future Land Use Map

## 3.5 PAMLICO COUNTY

## 3.5.1 HYDROLOGY

Pamlico County's waters are situated in two river basins: the northern portion of Goose Creek Island adjacent to the Pamlico River is in the Pamlico River Basin and the remainder of the County's estuarine waters are located in the Neuse River Basin, as shown in Figure 3.9. Descriptions of these river basins can be found in previous Section 3.2.8.

Figure 3.25 - Pamlico County, HUC8 River Basins



Source: National Hydrology Dataset

Table 5.2 - NFIP and CRS Information

Jurisdiction	Date Joined NFIP	<b>Current CRS Class</b>	Current Effective Map Date			
Beaufort County	07/22/77		01/17/25			
City of Washington	02/20/73	7	06/19/20			
Town of Aurora	05/03/74		06/19/20			
Town of Bath	07/08/77	-	06/19/20			
Town of Belhaven	04/13/73	8	06/19/20			
Town of Chocowinity	05/15/03	-	06/19/20			
Town of Pantego	09/06/74	-	06/19/20			
Town of Washington Park	02/09/73	8	06/19/20			
<b>Carteret County</b>	02/14/75	9	01/17/25			
Town of Atlantic Beach	06/28/74	8	01/17/25			
Town of Beaufort	12/01/72	7	11/03/05			
Town of Bogue	02/14/75	-	01/17/25			
Town of Cape Carteret	05/24/74	8	01/17/25			
Town of Cedar Point	02/14/75	7	01/17/25			
Town of Emerald Isle	06/07/74	7	01/17/25			
Town of Indian Beach	03/04/85	-	01/17/25			
Town of Morehead City	02/22/74	5	11/03/05			
Town of Newport	03/01/74	8	01/17/25			
Town of Peletier	07/16/03		01/17/25			
Town of Pine Knoll Shores	07/11/75	6	01/17/25			
Craven County	12/20/74	8	01/17/25			
City of Havelock	09/13/74	7	06/19/20			
City of New Bern	02/22/74	8	06/15/22			
Town of Bridgeton	12/20/74	-	06/19/20			
Town of Cove City	07/02/04	riso reference	NSFHA			
Town of Dover	07/02/04	-	NSFHA			
Town of River Bend	05/14/82	8	06/15/22			
Town of Trent Woods	05/04/87	-	06/15/22			
Town of Vanceboro	12/20/74	-	06/19/20			
Pamlico County	01/31/75	8	06/19/20			
Town of Alliance	07/14/78	8	06/19/20			
Town of Arapahoe*	07/02/04	-	06/19/20			
Town of Bayboro	07/30/76	8	06/19/20			
Town of Grantsboro*	06/16/78	-	06/19/20			
Town of Mesic	07/30/76	8	06/19/20			
Town of Minnesott Beach	03/02/79	8	06/19/20			
Town of Oriental	01/31/75	8	06/19/20			
Town of Stonewall	01/31/75	8	06/19/20			
Town of Vandemere	01/31/75	8	06/19/20			

Source: FEMA NFIP Policy Statistics



<sup>\*</sup>Communities not currently participating in the NFIP.

#### SECTION 7: MITIGATION ACTION PLANS

Action #	Description	Applicable Jurisdictions	Hazards Addressed	Priority	Goal & Objective	Mitigation Category	Lead/Participating Agencies (Lead in bold)	Estimated Cost	Potential Funding Sources	Implementation Schedule	2025 Status	2025 Status Comments/ Explanation
CR26	Work to create drainage maps within all areas of the County that are outside regularly maintained NCDOT right of ways to help address localized drainage issues that often lead to flood damage to homes, land, crops and other structures within the County. Craven County will seek out any grant funding that may assist in the maintenance of drainage ditches, blueline streams or other tributaries that convey water to the river.	Craven County, Bridgeton, Cove City, Dover, Havelock, New Bern, River Bend, Trent Woods, Vanceboro	Flooding, Hurricanes and Costal Hazards, Dam Failure, Levee Failure, Tsunamis	Med	1.3	SP	Craven County Planning Department, Craven County Soil and Water Conservation	Based on need and availability of funding	GF, FEMA, NCDPS, Other	Ongoing-Next 5 years	New	Common flooding issues can be attributed to lack of maintenance to the existing drainage system. Often maintenance exceeds landowner capability to correct.
CR27	Integration of environmentally friendly flood control measures will be implemented where necessary, such as the installation of living shorelines, marsh sills, flood barriers etc. to protect environmentally sensitive areas and maintain the natural floodplain.	Craven County, Bridgeton, Cove City, Dover, Havelock, New Bern, River Bend, Trent Woods, Vanceboro	Flooding, Hurricanes and Costal Hazards, Dam Failure, Levee Failure, Tsunamis	Med	1.2	NRP	Craven County Planning Department, Craven County Soil and Water Conservation	Based on need and availability of funding	GF, FEMA, NCDPS, Other	Ongoing - as needed	New	Craven County will seek out funding opportunities to help reestablish shorelines and floodplain lost to natural disasters or other means of degradation through environmentally friendly methods and techniques.
CR28	Create or Update Community Wildfire Protection Plans in each fire district	Craven County, Bridgeton, Cove City, Dover, Havelock, New Bern, River Bend, Trent Woods, Vanceboro	Wildfire	Med	4.1	P, PIO	Craven County Staff, NC Forest Service	To Be Determined	Grant Funds	3-5 years	New	
CR29	Conduct Curbside Rapid Wildfire Risk Assessments within fire spread distance of the Croatan National Forest.	Craven County, Havelock, New Bern	Wildfire	High	4.1	P	Local fire departments, NC Forest Service, Croatan Area Fireshed Partnership	To Be Determined	Grant funds	1-2 years	New	
RB1	Construct new road through Northwest Quadrant Area, connecting Plantation Drive to Old Pollocksville Road to serve as additional ingress/egress route during flood events that block the primary and other access roads.	River Bend	Flooding, Hurricane & Coastal Hazards, Dam & Levee Failure	High	4.2	ES	River Bend Town Council	\$2,000,000	GF, FEMA, NCDPS, Town	Ongoing – next 5 years	New	
RB2	Relocate Water Wells #1 & #2 and Water Treatment Plants #1 & #2 outside of the 100-year floodplain.	River Bend	Flooding, Hurricane & Coastal Hazards	High	1.1	PP	River Bend Town Council	\$18,000,000	GF, FEMA, Town, NCDEQ	Ongoing - next 5 years	New	

#### SECTION 7: MITIGATION ACTION PLANS

Action #	Description	Applicable Jurisdictions	Hazards Addressed	Priority	Goal & Objective	Mitigation Category	Lead/Participating Agencies (Lead in bold)	Estimated Cost	Potential Funding Sources	Implementation Schedule	2025 Status	2025 Status Comments/ Explanation
RB3	Flood Mitigation at Wastewater Treatment Plant by raising top of structures to above base flood elevation and plus 2' freeboard where possible.	River Bend	Flooding, Hurricane & Coastal Hazards	High	1.1	PP	River Bend Town Council	\$5,000,000	GF, FEMA, Town, NCDEQ	Ongoing - next 5 years	New	
RB4	Relocate Wastewater Treatment Plant outside of the 100-year floodplain.	River Bend	Flooding, Hurricane & Coastal Hazards	Low	1.1	PP	River Bend Town Council	\$60,000,00	GF, FEMA, Town, NCDEQ	Ongoing - next 5 years	New	
RB5	Floodproof sewer lift stations in floodplain	River Bend	Flooding, Hurricane & Coastal Hazards	Med	1.1.	PP	River Bend Town Council	\$1,000,000	GF, FEMA, Town, NCDEQ	Ongoing - next 5	New	
RB6	Improve Stormwater Drainage System Capacity in flood hazard areas	River Bend	Flooding, Hurricane & Coastal Hazards	High	1.3	SP	River Bend Town Council	\$4,000,000	GF, FEMA, Town, NCDEQ	Ongoing - next 5	New	



#### **TOWN OF RIVER BEND**

45 Shoreline Drive River Bend, NC 28562

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## RIVER BEND TOWN COUNCIL DRAFT PROPOSED AGENDA

Regular Meeting March 20, 2025 River Bend Town Hall – 45 Shoreline Drive 7:00 p.m.

#### Pledge: Benton

- 1. Call to Order (Mayor Bledsoe Presiding)
- 2. Recognition of New Residents
- 3. Additions/Deletions to Agenda
- 4. Addresses to the Council NONE
- 5. Public Comment

The public comment period is set aside for members of the public to offer comments to the Council. It is the time for the Council to listen to the public. It is not a Question & Answer session between the public and the Council or Staff. All comments will be directed to the Council. Each speaker may speak for up to 3 minutes. A member of staff will serve as timekeeper. A sign-up sheet is posted by the meeting room door and will be collected prior to the start of the Public Comment Period. Speakers will be called on by the Mayor in the order that they signed up. In order to provide for the maintenance of order and decorum, the Council has adopted a policy for this section of the meeting. A copy of the policy is posted by the door for your review. Please follow the policy. If you have a specific question for staff, you are encouraged to contact the Town Manager or the appropriate Department Head at another time.

### 6. Public Hearings - NONE

7. Consent Agenda

All items listed under this section are considered routine by the Council and will be enacted by one motion in the form listed below. There will be no separate discussion of these items. If discussion is desired, that item will be removed from the Consent Agenda and will be considered separately.

#### A. Approve:

Minutes of February 13, 2025 Work Council Meeting Minutes of February 25, 2025 Special Council Meeting

8. Town Manager's Report - Delane Jackson

Activity Reports

- A. Monthly Police Report by Chief Joll
- B. Monthly Water Resources Report by Director of Public Works Mills
- C. Monthly Work Order Report by Director of Public Works Mills
- D. Monthly Zoning Report by Assistant Zoning Administrator McCollum

## **Administrative Reports:**

- 9. Parks & Recreation Councilman Weaver
  - A. Parks and Rec Report
  - B. Organic Garden Report
- 10. CAC Councilwoman Benton
  - A. CAC Report

River Bend Town Council Regular Meeting March 20, 2025 Page 2 of 2

- 11. Finance Councilman LeonardA. Financial Report Finance Director
- 12. Environment & Waterways Councilman Leonard A. EWAB Report
- 13. Planning Board Councilman SheffieldA. Planning Board Report
- 14. Public Safety Councilwoman NoonanA. Community Watch
- 15. Mayor's Report
- 16. Adjournment