JOSH STEIN
Governor
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Secretary
SHADI ESKAF
Director

NORTH CAROLINA
Environmental Quality

June 9, 2026

Mr. Delane Jackson, Town Manager
Town of River Bend
45 Shoreline Drive
River Bend, NC 28562

Subject: Engineering Report Funding Approval
Town of River Bend
Drinking Water Improvements – Phase II
DWI Project Nos.: SRP-D-134-0033 and
SRF-D-2070

Dear Mr. Jackson:

The Division of Water Infrastructure (Division) has completed its review of the engineering report and environmental document for the subject project received on October 27, 2025. Based upon the review, the Division has determined that the above-referenced project is eligible for funding as follows:

Eligible:

A test well and two new Lower Castle Hayne Aquifer (LCHA) production wells. A new filter-softener WTP to include forced draft aeration with potassium permanganate feed, a raw water detention tank to settle precipitated iron and manganese, new water treatment facility to house filter feed/high service pumps, greensand filters, ion-exchange softeners, chemical feed systems and operations office/laboratory. Extension of water mains from existing wells to new WTP. Two filter backwash/softener regeneration waste settling lagoons and supernatant pumps at new WTP site, SCADA & Telemetry system, an emergency generator, an emergency Interconnect with New Bern, galvanized waterline replacement, a waste effluent force main from the WTP through a combined WTP/WWTP multi-port diffuser in the Trent River, and associated appurtenances.

Non-Eligible:

Paving of roadways in excess of the excavated area; spare parts, service contracts, and maintenance contracts; and extended warranties.

Based upon a detailed review of the future bid documents, the Division may determine that portions of the project are not eligible for funding and the total funding amount may be reduced.

Please note that funding is contingent on meeting the schedule provided in your Funding Deadline Extension request dated November 17, 2025, as tabulated below:

Milestone	**Date**
Design-and-Bid Package Submittal	July 1, 2028
Design-and-Bid Package Approval	November 1, 2028
Advertise Project, Receive Bids, Submit Bid Information, and Receive Authority to Award	March 1, 2029
Execute Construction Contract(s)	April 1, 2029

To facilitate the North Carolina Local Government Commission's (LGC) required review of the repayable-loan portion of the subject project, please complete (based on your organization's most recently completed, annual audit) the LGC's forms *LGC-108A* and *LGC-108C* and forward them to the LGC, and specifically, directly to the attention of Donna Davis, who can be reached via e-mail at donna.davis@nctreasurer.com. Copies of the necessary LGC forms are available at the following URL: https://www.deq.nc.gov/about/divisions/water-infrastructure/i-have-funding/construction-disbursement-funds#lgc-forms.

In addition, local government units intending to incur debt (i.e., service a repayable loan) as a means of financing capital-improvement projects (including, for example, drinking water, wastewater, and/or stormwater infrastructure-improvement projects), and which will require debt to be issued for an amount of **greater than $1,000,000** (in accordance with North Carolina General Statute (N.C.G.S.) 120-157.2), must prepare and submit a letter of notification to the North Carolina General Assembly's Joint Legislative Committee on Local Government (**JLC**). You are wholly responsible for preparing and submitting this letter to the necessary parties (see next paragraph), and for providing a copy of it to the Division.

The **JLC Notification Letter**, if required, shall be addressed to the attention of the Committee Chairs and Committee Assistant of the JLC, and to the Fiscal Research Division of the North Carolina General Assembly, and it shall be transmitted to them a minimum of **forty-five (45) days** prior to the anticipated date of your loan's presentation before the LGC (on one of their official monthly agenda). Please note that you must also submit a copy of the JLC Notification Letter to the LGC as well, as it is part of their staff's review of the requested loan.

Please submit Plans and Specifications via the new Online Supporting Documentation Submittal Form located at https://edocs.deq.nc.gov/Forms/DW-Document-Upload-Form. The link to the online submittal form and a list of frequently asked questions can also be accessed from the Division's "I Have Funding" page, https://www.deq.nc.gov/about/divisions/water-infrastructure/i-have-funding.

If you have any questions, please contact Aisha Lau, either by telephone at 910.970.6400 or by e-mail at aisha.lau@deq.nc.gov.

Sincerely,

Renee Parkman

Renee Parkman, P.E., Supervisor
Drinking Water Projects Unit

Attachments: EA/FONSI

EC: Delane Jackson, Town Manager, Town of River Bend (manager@riverbend nc.org)
Kevin D. Cooper, P.E., Rivers and Associates, Inc., (kcooper@riversandassociates.com)
Renee Parkman, P.E., (DWI, via e-mail)
Aisha Lau (DWI, via e-mail)
Mark Hubbard, P.E. (DWI, via e-mail)
Sumon Reza (DWI, via e-mail)
Susan Wallace (DWI, via e-mail)
Shane Beeson, REHS (DWI, via e-mail)
DWI Agreement ID 2000073755 (**ER/EID – ERAL**)

FINDING OF NO SIGNIFICANT IMPACT
AND ENVIRONMENTAL ASSESSMENT

TOWN OF RIVER BEND
WATER TREATMENT IMPROVEMENTS

RESPONSIBLE AGENCY: NORTH CAROLINA DEPARTMENT OF ENVIRONMENTAL QUALITY

CONTACT: KAVITHA AMBIKADEVI, SECTION CHIEF
WATER INFRASTRUCTURE FUND SECTION
DIVISION OF WATER INFRASTRUCTURE
1633 MAIL SERVICE CENTER
RALEIGH, NORTH CAROLINA 27699-1633
(919) 707-9048

April 30, 2026

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FINDING OF NO SIGNIFICANT IMPACT

Article I, Chapter 113A of the North Carolina General Statutes requires an action to be subject to the requirements of the North Carolina Environmental Policy Act (NCEPA) if it involves the expenditure of public funds and if a potential impact is anticipated to the environment. The project has been evaluated for compliance with the NCEPA and is determined to be a major agency action, which will affect the environment.

Project Applicant:	Town of River Bend, North Carolina
Project Description:	The proposed project includes installation of one (1) test well, two (2) new production wells and 0. 95 MGD water treatment plant (WTP) to serve the Town of River Bend, NC. The new filter -softener (FS) WTP will replace the Town' s existing water supply and treatment process in order to provide improved finished water quality to the Town. Treated supernatant waste from the filter backwash and softener regeneration process is proposed to be combined with the Town' s existing wastewater treatment plant discharge into a new multi -port diffuser in the Trent River. The proposed new wells will withdraw water from the Lower Castle Hayne Aquifer (LCHA), which has superior raw water quality compared to the Upper Castle Hayne (UCHA) currently utilized by the Town.
Project Number:	SRF-D-2070 & SRP-D-134-0033
Project Cost:	$20,843,600
Drinking Water State Revolving Fund:	$16,704,145
Special Appropriation:	$4,139,455

The review process indicated that significant adverse environmental impacts should not occur if mitigative measures are implemented, and an environmental impact statement will not be required. The decision was based on information in the Engineering Report/Environmental Information Document (ER/EID) submitted by the applicant and reviews by governmental agencies. The attached Environmental Assessment (EA), prepared by the Division based on the ER/EID, supports this action and outlines mitigative measures that must be followed. This Finding of No Significant Impact (FONSI) completes the environmental review record, which is available for inspection at the State Clearinghouse.

No administrative action will be taken on the proposed project for at least 30 days after notification that the FONSI has been published in the North Carolina Environmental Bulletin.

Sincerely,

Kavitha Ambikadevi

Kavitha Ambikadevi, P.E, Section Chief
Water Infrastructure Fund Section
Division of Water Infrastructure

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ENVIRONMENTAL ASSESSMENT

A. Proposed Facilities and Actions

The proposed project includes new wells and 0. 95 MGD water treatment plant (WTP) to serve the Town of River Bend, NC. The new filter -softener (FS) WTP will replace the Town' s existing water supply and treatment process in order to provide improved finished water quality to Town residents and businesses. Treated waste byproduct from the filter backwash and softener regeneration process is proposed to be combined with the Town' s existing wastewater treatment plant discharge into a new multi -port diffuser in the Trent River. The proposed project includes installation of one (1) test well and two (2) production wells which will withdraw from the Lower Castle Hayne Aquifer (LCHA). The LCHA has superior raw water quality compared to the Upper Castle Hayne (UCHA) currently utilized by the Town. Figure 4 is a vicinity map that depicts the location of the Town of River Bend. Figure 1 includes a schematic of the existing wells and WTPs. Figure 2 depicts the location of the proposed wells, WTP, pipelines and treated waste discharge.

The Town' s existing raw water is supplied by three (3) Upper Castle Hayne Aquifer UCHA)/ River Bend strata groundwater wells to two (2) existing water treatment plants. The existing WTPs make use of pressure sand filters with Birm© media followed by injection of a sequestering agent for removal and sequestration of iron and manganese. Soluble iron and manganese in the raw water are precipitated utilizing caustic soda (sodium hydroxide) to adjust the pH followed by compressed air injection to increase the dissolved oxygen concentration. A sequestering agent is injected following filtration to bind the remaining iron and manganese ions into a stable, soluble complex in an effort to prevent unwanted precipitates and stains. The Town' s existing facilities do not include softeners to reduce the hardness of the raw water. A combination of an inferior raw water quality from the existing UCHA water quality; aging wells, pumps, water treatment plant facilities and equipment; and lack of softening capability have resulted in numerous complaints about finished water quality from customers in recent years.

The proposed water treatment plant will include two (2) new LCHA raw water wells; forced draft aeration with potassium permanganate feed to precipitate iron and manganese; a raw water detention tank for settling of precipitated iron and manganese; a new water treatment facility to house filter feed/high service pumps, greensand filters, ion -exchange softeners, chemical feed systems, and operations office/laboratory. Primary disinfection will be accomplished using liquid sodium hypochlorite followed by the addition of ammonia to form chloramine to provide residual disinfection. Additional chemical feeds include fluoride, corrosion control and dechlorination. Two (2) filter backwash/ softener regeneration waste settling ponds will be operated in series with effluent waste supernatant pump station to pump treated waste effluent for disposal through a combined WTP/ WWTP multi -port diffuser in the Trent River.

Funding Status: The project is funded by two (2) funding sources administered by NCDEQ Division of Water Infrastructure. The first source of funding is a NC Legislative Special Appropriation. The funds earmarked for River Bend from SL 134- 2023 total $ 9,252,105. These

funds were designated for the Town' s use to fund water, wastewater, or stormwater infrastructure improvements. The Town has requested that $ 5,112,650 of these funds be allocated to the Town' s ongoing WWTP Enhancements Project leaving $4,139,455 of earmarked funds for the WTP Improvements project. The second source of funds is through Drinking Water SRF program. $10,429,895 is available with 75% principal forgiveness (up to a maximum of $3,500,000) with the remainder being paid at 0% interest. Proposed rate increase may be potentially significant particularly for customers who fall below the MHI. Ultimately, the improvements to water quality due to the project outweigh the potential financial burden to customers.

B. Existing Environment

Topography and Soils. The site is approximately 4. 5 acres of unattended forest with a mixed stand of Loblolly Pine, American Holly, White Oak, Water Oak, Yellow Poplar, etc. The site slopes generally southeastward into a small wetland forming the headwaters to an unnamed tributary of the Trent River. Near surface soils on the site are comprised predominantly of Goldsboro (GoA) and Onslow (On) soils series which are moderately well drained. The site is located well outside of the 100-year flood zone, and there is minimal risk of flooding.

Per the USGS Web Soil Survey, there are two (2) primary soil types within the proposed WTP site. Goldsboro loamy fine (GoA) sand between 0-2% slopes is the most abundant at 86. 5% of the total area. The remaining 13. 5% consists of Onslow loamy sand (On). Both of these soil types are well -drained and have characteristic seasonal high- water tables.

Surface Water. The surface water bodies in the vicinity of the proposed project are all Nutrient Sensitive Waters.

Water Supply. The aquifers that exist within the proximity of The Town of River Bend (from deepest to shallowest) include the Lower Cape Fear Aquifer, Upper Cape Fear Aquifer, Black Creek Aquifer, Peedee Aquifer, Beaufort Aquifer, Castle Hayne Aquifer and Surficial Aquifer. All of these aquifers, with the exception of the Castle Hayne Aquifer and Surficial Aquifer are brackish. The Castle Hayne Aquifer also is the most prolific aquifer in the vicinity of the Town of River Bend.

The proposed wells will be drawn from the Lower Castle Hayne Aquifer/Comfort Member. These wells will be subject to the Central Coastal Plain Capacity Use Area (CCPCUA) rules.

River Bend water supply existing — Upper Castle Hayne/ River Bend Strata
River Bend water supply proposed — Lower Castle Hayne/ Comfort Member
City of New Bern water supply — Lower Castle Hayne/ Comfort Member
Jones County water supply — Lower Castle Hayne/ Comfort Member

C. Existing Drinking Water Treatment Facilities

Prior to the Town of River Bend being incorporated, the area was originally developed as a retirement community known as River Bend Plantation. Construction of the development began in the late 1960' s and continued to expand in subsequent years. The homeowners living in River Bend Plantation elected to pursue incorporation in the late 1970' s, and the Town was subsequently chartered in 1981.

The water and sewer systems were originally constructed to support the River Bend Plantation development 40- 50 years ago, and were later sold by the original developer to Carolina Water Service (CWS). In 1995, the Town of River Bend purchased the water and sanitary sewer utilities from CWS. Shortly afterward, the Town extended water service to customers throughout the Town, and constructed an additional 300, 000-gallon elevated tank at the southern terminus of Plantation Drive. Portions of the original River Bend Plantation water system remain in service today.

D. Need for Proposed Facilities and Actions

The Town' s existing three (3) production wells tap into the Upper Castle Hayne Aquifer UCHA)/ River Bend Strata. These wells are relatively shallow at 110 feet deep and have limited yield due to minimal drawdown availability. In addition, the water quality tends to be high in iron, manganese and hardness. The Town of River Bend is the only water purveyor in the area that utilizes the River Bend strata. Other adjacent utilities are drawn from the LCHA. Due to its shallow depth, the UCHA is much more susceptible to contamination than the LCHA.

The Town has also experienced periodic customer complaints regarding random emergence of red or reddish -brown water at various locations throughout the distribution system. A Preliminary Water System Evaluation was conducted by Rivers & Associates, Inc. in 2020. The study suggests that the red/ brown water issues are a result of limitations with the current water treatment process and recommends WTP upgrades be considered moving forward. The Town' s existing WTPs and associated pumping and treatment equipment have outlived their useful service lives, and the Town desires to replace their existing water supply and treatment system with a new source and treatment facilities.

Development of the F/S WTP alternative results in a project that is somewhat similar to the existing River Bend WTPs except that water softening will also be incorporated. WTP capacity will be limited to the total existing capacity of the two (2) existing WTPs. New well sites and raw water transmission improvements will be required; a finished water main will need to be extended to properly connect to the existing distribution system, and a treated waste effluent force main and multi -port diffuser will need to be extended to the permitted discharge location. The following permits are anticipated:
USACE Nationwide 58 Permit
401 Water Quality Certification — NCDEQ DEMLR,
Approval of Plans and Specifications — NCDEQ DWR PWSS,
Erosion and Sedimentation Control Permit — NCDEQ DEMLR,
State Stormwater Permit — NCDEQ DEMLR,
Compliance with Neuse River Riparian Buffer Rules — NCDEQ DWR
CAMA General Permit — NCDEQ DCM,

Sewer Extension Permit — NCDEQ DWR
NPDES Discharge Permit — NCDEQ DWR NPDES,
NCDEQ DWR Authorization to Construct

E. Alternatives Analysis

Alternative 1 - No-Action: No Action continues status quo operations of the raw water wells and two (2) existing WTPs. The Operators would continue diligent routine maintenance and/ or equipment replacement as required in an effort to provide quality water to the Town. However, no substantive rehabilitation and/ or replacement of the water supply source would occur. In addition, no treatment improvements would be provided to further address water quality concerns.

Under this arrangement, operations would continue until a major, unanticipated malfunction occurs. This could be in the form of well/ aquifer contamination, filter vessel failure, loss of equipment function, etc. Depending on the nature of the failure, a portion of the water supply and/ or treatment system may be out of service for an extended period of time for demolition, repairs, replacement, installation, startup, etc. During this time, the Town' s ability to meet customer demands would be severely inhibited.

The capital cost for the No -Action Alternative 1 is $0. Operations without improvements to the existing water supply and treatment facilities may continue for the short- term; however, it is not an acceptable alternative for the long-term. Eventually, substantive failures will occur to the aging wells, filter vessels, piping, mechanical and/ or electrical equipment which could lead to substantive downtime and reactive efforts/ costs for repairs or replacement. The net present value of costs for Alternative 1 is estimated to be $10,609,310. The No -Action Alternative is not a responsible alternative and therefore is rejected.

Alternative 2 - New F/S WTP (Preferred Alternative): New F/S WTP has been selected as the preferred alternative as it is a cost-effective method to provide the Town with a good quality, long-term, sustainable water supply. It is also preferred based on numerous non -monetary criteria including greater reliability, better aquifer sustainability, favorable residual waste disposal, ability to permit, ease of operation, etc. Filter -softener treatment technology is a commonly used water treatment process throughout eastern North Carolina, particularly when the LCHA is utilized as the raw water supply source. Transitioning to a F/S WTP is expected to be relatively straightforward for the Town' s operators due to their prior experience operating water filtration processes. Alternative 2 includes a new wellfield to draw from the LCHA which has superior raw water quality to the UCHA currently utilized by the Town. The LCHA is a prolific aquifer which may reduce the number of wells required to meet design capacity. Alternative #2 also improves upon the Town' s existing treatment methods by including a proven and dependable process to precipitate and remove iron and manganese, as well as to provide ion -exchange softening to reduce hardness of the raw water supply. A combination of the new wells and improved treatment works will provide a high -quality drinking water for the Town for many

years to come. The net present value for Alternative 2 is $30,590,824 and is selected as the preferred alternative.

The proposed WTP will include the following major components:

- Forced draft aeration to begin precipitation of iron and manganese and to strip away any hydrogen sulfide present in the raw water.
- Potassium permanganate chemical feed to precipitate iron and manganese out of the raw water.
- Detention tank to allow for quiescent settling of precipitated iron and manganese prior to filtration.
- Dual filter feed/high service pumps to transmit raw water from the detention tank through the treatment process and into the elevated tank and distribution system.
- Three (3) equally sized greensand filters to remove iron and manganese.
- Two (2) equally sized zeolite ion -exchange softeners to reduce overall hardness to an acceptable level. Treated water of the desired hardness will be obtained by blending softened water with softener bypass water from the filters.
- Bulk salt tank and brine pumps to transmit brine to regenerate the softener resin.
- Chemical addition including polyphosphate for corrosion control, fluoride to prevent dental caries, sodium hypochlorite for primary disinfection followed by ammonia to form chloramine for residual disinfection of the distribution system.
- Two (2) geomembrane lined ponds operated in series for settling of precipitated iron and manganese and homogenization of filter backwash and softener regeneration wastewater.
- One (1) submersible duplex waste supernatant pump station to transmit treated supernatant waste to the proposed discharge location.
- Waste discharge force main and multi -port diffuser to discharge treated waste from the WTP and existing WWTP to the Trent River.

Alternative 3 - New Nanofiltration (NF) WTP: New Nanofiltration (NF) WTP was ultimately not selected due to the overall project costs associated with planning, design, permitting, and construction. Nanofiltration is an effective water treatment method that utilizes semipermeable membranes to remove contaminants from raw water. Due to the nature of the membranes, constituents must remain in an soluble form to avoid membrane fouling. For a water supply that is high in iron, pretreatment in the form of iron filters may be required in advance of the NF membranes which can add significantly to the cost of this alternative. NF requires greater raw water capacity as more waste concentrate reject water is generated from the NF process than with the F/ S backwash/ regeneration processes. Additionally, nanofiltration requires installation and operation of a pilot plant to confirm the expected performance and design parameters associated with the NF membranes. Although the cost of NF treatment is becoming more competitive, it is generally higher than that of a comparably sized F/ S treatment plant. The net present value of costs for Alternative 3 is $32,871,610.

Alternative 4 - Bulk Water Supply with Distribution System Upgrades: Bulk Water Supply with Distribution System Upgrades was not selected as the preferred alternative. There are three adjacent water systems that could potentially supply water to the Town of River Bend. These

include the City of New Bern, Jones County, and Craven County. However, upon reaching out to each of these entities, only the City of New Bern had sufficient capacity to meet River Bend' s demand requirements. In addition, the City indicated a willingness to serve as a wholesale supplier for the Town. New Bern has experienced significant growth in the western part of their water system which is in the vicinity of River Bend. While the City has plans to install hydraulic improvements in the area, they are not yet complete. Preliminary hydraulic modeling indicates that a new booster pump station would be required in order to meet the Town' s demand at reasonable system operating pressures. This significantly increases the upfront capital costs for this alternative compared to a basic interconnect. The net present value for Alternative 4 is $13,125,885.

Although the cost for Alternative 4 is lower than other alternatives, (1) the Town of River Bend would lose some autonomy to set and control water rates; (2) potential growth within the Town could be indirectly controlled by an outside political body; and (3) political animosity could be created between Municipal neighbors. The Town of River Bend has successfully operated their own in -town water and sanitary sewer systems for almost three decades. The expertise and willingness to continue doing so certainly appear to exist. Based on this, Alternative 4 was not selected.

F. Environmental Consequences and Mitigative Measures

Topography and Soils: The site is approximately 4. 5 acres of unattended forest with a mixed stand of Loblolly Pine, American Holly, White Oak, Water Oak, Yellow Poplar, etc. The site slopes generally southeastward into a small wetland forming the headwaters to an unnamed tributary of the Trent River. Near surface soils on the site are comprised predominantly of Goldsboro (GoA) and Onslow (On) soils series which are moderately well drained. The site is located well outside of the 100-year flood zone, and there is minimal risk of flooding.

The site will need to be cleared and graded to accommodate construction of the WTP building, the proposed waste settling ponds, utilities and access corridors. Site grading will incorporate vegetated swales to capture and transport stormwater runoff from areas around the WTP building and site in the same general direction as currently exists. Where unavoidable, small areas of wetlands will be filled to accommodate site grading and construction requirements. No permanent changes will occur that affect the 100-year floodplain.

Secondary and cumulative impacts from changes in topography and flooding are minimal. The WTP building and access drive will increase the overall impervious area, and the remaining wetlands on the site will receive the drainage from the vegetated swales. Construction is not anticipated to adversely impact downstream storm drainage features.

Erosion and sedimentation control measures will be installed per NCDEMLR permit requirements. Site drainage will be designed to comply with low density Stormwater permit requirements to include vegetated swales with culverts only where required to cross access roadways. To the extent possible, filling of wetlands will be avoided. Where unavoidable, a USACE Nationwide Permit 58 will be obtained, and mitigation credits will be purchased to offset the impacts. Design and construction will adhere to the River Bend Flood Damage Prevention Ordinance

Construction of the WTP will require suitable subgrade material to ensure structural integrity. Suitable fill may need to be brought in from off -site. Additionally, there is no public sewer within the vicinity of the site. The current design proposes utilizing an onsite septic tank and nitrification field with suitable repair area. The soils present suggest that this is a viable option. This will require approval and permitting through the Craven County Environmental Health Department.

Construction will require clearing and grubbing the existing trees and vegetation. The Contractor will be responsible for disposing of clearing debris off site at a permitted disposal site. Onsite burning is not allowed. Select and/ or suitable fill material may need to be imported from off -site borrow pits to ensure suitable foundation conditioning and structural integrity. Timber and/ or pre -stressed concrete piles are anticipated to be driven to take up depth beneath the WTP building, filter and softener vessels, bulk salt tank, aerator and raw water detention tank in order provide adequate bearing capacity and minimize potential settlement. Wherever practical, existing soils will be utilized for site grading.

Secondary impacts are minimal. The proposed WTP will have the same combined capacity of the existing WTPs that will be replaced. The project is not planned to expand service area or encourage future development.

Erosion and sedimentation control measures will be installed per NCDEMLR permit requirements. Control measures will be installed to prevent erosion and will adhere to the NC Erosion and Sediment Control Planning and Design Manual. Such measures include silt fence, straw wattles, sediment basins, rock dams, rip -rap, temporary Stormwater Design seeding, and permanent seeding. Site drainage will be designed to comply with low density Stormwater permit requirements to include vegetated swales with culverts only where required to cross access roadways.

Land Use: The site of the proposed WTP is an unattended mixed stand forest. The site appears to have been logged in the early 1990' s and has since been allowed to naturally revegetate. It has remained undisturbed since that time. There is no indication that the property has been farmed over the past six decades.

The site and properties located immediately adjacent and surrounding the proposed WTP site are within the Town limits. Existing and/ or proposed development to the northeast, east, and south of the site are residential. All undeveloped areas in this area are currently unattended woods land. The proposed WTP site is currently zoned as R20A, Residential - Agricultural 20,000 square feet per the 2023 zoning map. The WTP is an allowed usage within the current property zoning. The site and properties located immediately adjacent and surrounding the proposed WTP are zoned for Residential and/ or Residential - Agricultural development.

The Town of River Bend participates in a Regional CAMA Land Use Plan (LUP) with the City of New Bern and the Town of Trent Woods. The current LUP classifies the undeveloped area surrounding the proposed WTP site as Urban Transition. This classification describes areas on the periphery of developed zones that are poised for future growth. These areas also serve as a

buffer to Rural and open spaces. Land in this area is a mix of vacant and developed properties. Construction of the WTP will result in the loss of several acres of woodland. The WTP will contribute to the health and wellbeing of the community as it will provide a long-term source of potable drinking water to replace existing facilities that are aged and lacking in regard to production of water at the desired quality. Current zoning of the site allows for construction of the WTP. Construction activity will result in temporary nuisances such as noise, dust, etc. for nearby residents.

The development of the WTP is not expected to significantly contribute to secondary and cumulative impacts as the new WTP will provide the same cumulative capacity as the two existing WTPs that it is intended to replace. The proposed WTP site is located immediately adjacent to the Town' s new John R. Kirkland Public Works Facility and existing 300, 000-gallon elevated storage tank, all of which fit well within the existing residential environment. The site is to be developed and constructed to conform with proper zoning requirements including setbacks and buffers.

Wetlands: Wetland delineations were performed by Davey Resource Group in January 20, 2025 and August 26, 2025. Wetlands have been identified on the proposed WTP site and along the proposed access road to the proposed remote well site although neither of these areas are indicated on the National Wetland Inventory online mapping tool. The wetland areas are located in the headwaters of drainage basins of tributaries of the Trent Rivers (27- 101-(31)) which is classified as SB; Sw, NSW. Every effort will be made to minimize disturbance to wetlands; however, a small amount of fill (approximately 0. 17 +/- acres) in the upstream ends of the wetland areas will be required in order to accommodate construction of the WTP access and waste settling ponds, as well as the access corridor to the remote well site. This quantity and locations of the wetland disturbance is considered negligible relative to the existing wetland resources of the drainage basin.

Preliminary site plans call for filling 0. 17 +/- AC of the existing wetlands on the WTP site and remote well access corridor. This is to allow for the construction of the proposed access roads and waste settling ponds.

The proposed waste supernatant force main will be installed by directional drill beneath two (2) canal crossings enroute to the Trent River discharge near the existing WWTP. These are unnamed tributaries of the Trent River and are not classified by DEQ. This construction will have no impacts to wetlands or Waters of the U. S. The proposed WTP treated waste discharge will be combined with the Town' s WWTP discharge into the Trent River. This will be accomplished via directional drilling with a multiport diffuser installed in the river.

Secondary impacts include an ongoing treated waste discharge into the Trent River which will require a new combined NPDES discharge permit to replace the two (2) existing NPDES permits for the WTPs and WWTP. Both existing WTPs discharge to the Plantation Boating Canal which is tributary to the Trent River. In addition, the current WWTP discharges to the Trent River. Design and permitting of the new combined discharge will be accomplished to ensure proper dilution of the most limiting constituent into a regulatory mixing zone.

Mitigative measures include minimizing the disturbance of wetlands, using directional drilling where practical, adhering to the requirements of a USACE Nationwide Permit 58 for utility installation, purchasing wetland credits as required to offset unavoidable impacts, and providing erosion and sedimentation measures to prevent silt entering wetland and streams. Mitigative measures for SCI' s include ongoing monitoring/ testing of waste effluent to ensure compliance with the NPDES permit.

Important Farmlands: Significant impacts to important farmlands are not anticipated. The site for the proposed WTP contains soils that are considered prime farmlands per the USDA; however, the property is not currently being used for agriculture. At present, it is unattended woods land. Construction of the WTP will not have any secondary impacts. The proposed WTP will have the same combined capacity of the existing WTPs that will be replaced. The project is not planned to expand service area or encourage development that would result in the loss of additional prime and unique farmland.

Public Lands and Scenic, Recreational, and State Natural Areas: The primary impact during construction is limited access during installation of the treated waste supernatant force main. The route for the proposed force main is along the Plantation Drive right-of-way which extends past each of the aforementioned public parks. There are no permanent impacts to these recreational facilities. Operational impacts include public notifications for any potential downtime or limited access to these facilities. Mitigative measures include public notification in advance of any potential disruption or limited access.

Cultural Resources: Direct impacts to cultural and historic resources are not anticipated.

Air Quality: The Town of River Bend and the surrounding area are not known to have air quality issues. There are no major industrial emission sources in the project area. Odors are not considered a problem.

Soil disturbance during construction may generate dust particles to become temporarily suspended. Dust control measures will be required to ensure that conditions do not adversely degrade. All construction equipment will be governed by EPA standards for air quality and emissions. The only operational impact anticipated is due to stripping of hydrogen sulfide from the raw water well supply. A forced draft aerator will be utilized to strip hydrogen sulfide and provide oxidation. The discharge from the aerator will be at a sufficient height above ground to disperse and diffuse residual odors in ambient air conditions to avoid any nuisance.

There are no negative secondary or cumulative impacts to air quality expected to result from the proposed project. The treatment capacity and its service area are not being increased by this project. Dust control measures, i.e. wetting of soil areas, will be required to reduce suspension of dust during construction activities. Construction vehicles, equipment, and generators will have proper emission devices to comply with state emissions control regulations.

Noise Levels: No significant noise impacts are anticipated. The project is located within an urban transition zone. The proposed project site is located within the Town of River Bend' s corporate limits adjacent to the existing Public Works Facility and surrounding residential neighborhoods.

Existing noise levels are typical of residential and light commercial areas. The Town does not have a dedicated Noise Ordinance; however, excessive noise is regulated under the " General Offenses" ordinance. The rules are typical of those of a community of River Bend' s size. The ordinances provide specific language defining what is considered " excessive" noise depending on the time of day.

Construction of the WTP will result in noise levels typical of heavy construction machinery. Construction activities will be limited to normal working hours (between 7: 30 AM-5: 30 PM). Noise projection caused by construction can vary substantially between a few feet to several hundred feet depending on the specific equipment. Equipment will include excavators, saws, hauling trucks, etc.

There are no negative impacts to noise levels expected to result from the operation of the proposed WTP. There are no negative secondary or cumulative impacts to noise levels expected to result from the proposed project. The WTP capacity and service area are not being increased by this project. Generators will be specified to include sound attenuating enclosures to minimize nuisance.

Water Resources: No significant negative impacts to water resources are anticipated. The aquifers that exist within the proximity of The Town of River Bend (from deepest to shallowest) include the Lower Cape Fear Aquifer, Upper Cape Fear Aquifer, Black Creek Aquifer, Peedee Aquifer, Beaufort Aquifer, Castle Hayne Aquifer and Surficial Aquifer. All of these aquifers, with the exception of the Castle Hayne Aquifer and Surficial Aquifer are brackish. The Castle Hayne Aquifer also is the most prolific aquifer in the vicinity of the Town of River Bend. The proposed wells will draw from the Lower Castle Hayne Aquifer/Comfort Member. These wells will be subject to the Central Coastal Plain Capacity Use Area (CCPCUA) rules.

The new 0. 95 MGD WTP will be equivalent to the cumulative capacity of the two existing WTPs that it will replace. However, a slight increase in groundwater withdrawal and surface water discharge will occur as a function of the softening regeneration step being added to the treatment process (approximately 0. 1 MGD proposed vs 0. 05 MGD existing). This minor volume of additional water flow is negligent relative to the capacity of the Lower Castle Hayne Aquifer as the water supply and the Trent River as the receiving water. The primary impact during construction is erosion and sedimentation that could contaminate downstream waters if proper control techniques are not utilized. Horizontal directional drilling will be utilized for any stream crossings. Appropriate sedimentation control will be required to prevent discharge of sediment, drilling mud, etc. into adjacent water bodies.

The WTP site will be designed to comply with the NCDEMLR erosion and sedimentation permit requirements, as well as low density stormwater permit requirements. The waste settling basins will be designed to receive and provide quiescent settling of precipitated iron and manganese prior to decanting and pumping the supernatant to the proposed discharge location. Operators will be required to monitor the effluent waste quality to ensure compliance with the NPDES permit. Operators will also be required to monitor daily withdrawals to ensure compliance with the CCPCUA withdrawal limits.

Secondary impacts include ongoing treated waste discharge into surface water and increased stormwater runoff due to an increase in impervious area. The treated WTP waste supernatant discharge will be combined with the existing WWTP effluent discharge to the Trent River. The Trent River is a nutrient sensitive, saltwater body. The waste settling basins at the WTP will combine fresh filter backwash with brine softener regenerant to produce a brackish supernatant which combined with the fresh waste discharge from the WWTP aligns well with the receiving water body. The combined flow will further dilute the concentration of nutrients from the WWTP effluent, such as nitrogen and phosphorus, to minimize adverse impacts on surface water quality.

The total proposed impervious area on the WTP site, remote well access easement, and remote well site is approximately 62,200 SF. This area is a combination of the asphalt and stone access drives, WTP building, and concrete pads or walkways on the WTP and remote well site. This is equivalent to — 1.42 AC which is approximately 20% of the overall site area. As the built -upon area is less than 24% this is considered a low -density development for stormwater permitting purposes. Vegetated swales will be the primary conveyance method for sheet flow and will drain into existing downstream ditches and culverts.

Mitigative measures for construction include the use of directional drilling, adherence to the USACE Nationwide Permit 58 for utility installation, and erosion and sedimentation measures to prevent silt entering wetland and streams. Mitigative measures for SCI' s include ongoing monitoring/testing of waste effluent to ensure compliance with the NPDES permit, as well as adherence to post -construction stormwater requirements.

Coastal Resources: The Town of River Bend is within Craven County which is a CAMA county. The bulk of the project, including WTP site, remote well site, access roadways and linework, is not located in an Area of Environmental Concern (AEC). The exception is the installation of the new combined multi -port diffuser discharge into the navigable waters of the Trent River. A CAMA review package was submitted to a DCM Field Officer in Morehead City, who confirmed that a CAMA Major permit would be required for this project. Additionally, a Federal Consistency Determination concurrence letter was also obtained.

Forest Resources: No significant negative impacts to forest resources are anticipated. The proposed WTP Site is currently an unattended forest consisting of a mixed stand of Loblolly Pine, American Holly, White Oak, Water Oak, Yellow Poplar, etc. Aerial photographs suggest the site was last logged in the early 1990s. The forest appears not to have been re -planted, rather it appears to have re -vegetated naturally. There is no indication that the property has been farmed over the past six decades. Approximately 80 acres located immediately northeast of the proposed WTP site consisting of similar woodland was harvested within the past two years. Wildlife species found commonly in the proj ect area include White Tailed Deer, Raccoons, Grey Squirrels, Wild Turkeys, Wood thrushes, American robins, Sparrows, Blue Jays, various species of Snakes, Frogs, Salamanders, etc. Threatened and endangered species reported by U.S. Fish and Wildlife that have ranges that could potentially extend into the River Bend area include the Northern Long- eared Bat, Tricolored Bat, Eastern Black Rail, Red -cockaded Woodpecker, and the Red Knot. US Fish and Wildlife have not identified any critical habitats for threatened or endangered species in the project area. There are significant areas of forested habitat in the

vicinity of the proposed WTP site. Appropriate clearing limits, setbacks and buffers will be provided as referenced by the Town of River Bend Zoning Ordinance.

Shellfish or Fish and Their Habitats: No significant impacts to shellfish, fish and their habitats are expected. The Trent River in the vicinity of the project area is classified as Inland Fishing Waters and is described in 15A NCAC 03Q .0202. The Trent River habitat supports a wide range of popular game fish including Largemouth Bass, Striped Bass, Catfish, Crappie, Sunfish, Speckled Trout and White Perch. It is a Striped Bass Management Area. There are no shellfish habitat classified within the Trent River in the vicinity of the project area.

Impacts to threatened and endangered species will be minimal. Impacts are primarily temporary in nature and consist of potential erosion which can increase turbidity in downstream waters. The waste settling basins will be designed to provide quiescent settling of the filter backwash and softener regeneration waste. This will allow time for precipitated iron and manganese to settle out of the wastewater prior to decanting the supernate for discharge. Operators will be required to monitor the effluent waste quality to ensure compliance with the prospective NPDES permit to prevent degradation of water quality for fish habitats. Dechlorination will be provided to ensue Total Residual Chlorine is maintained within an acceptable limit.

Secondary impacts include ongoing treated waste effluent disposed into surface water. However, the treated waste effluent from the proposed WTP will be mixed with the treated effluent discharge from the existing WWTP providing further dilution. The multiport diffuser will be designed to dilute residual waste constituents within a regulatory mixing zone to minimize concerns for marine life. The WTP project adds no additional capacity, and is not intended to promote growth that may negatively impact fish, shellfish, nor their habitats

Mitigative measures include proper erosion and sedimentation control measures. Horizontal directional drilling installation of pipelines beneath stream crossings and proper monitoring and reporting with adherence to the NPDES permit.

Wildlife and Natural Vegetation: No significant impacts to wildlife and natural vegetation are expected. The proposed project site is located within an urban transition zone. The WTP site is located immediately adjacent to the Town' s Public Works Facility and in the vicinity of existing residential neighborhoods. Wildlife and vegetation are typical to that of an established eastern North Carolina city. Wildlife found in the project area includes deer, squirrels, birds, raccoons, possums, snakes, etc. The vegetation adjacent to the project area include pines, oaks, maples, greenbrier, wax myrtles, and various grasses.

The primary impact to threatened and endangered species includes loss of natural habitat due to clearing and grubbing the site. This is potentially more impactful for birds and bats which utilize trees for roosting. However, birds and bats prefer mature, old growth roost trees with cavities and exfoliating bark. The project area and adjacent woodlands are new growth forests that do not provide the preferred habitat. Craven County does, however, provide an abundance of nearby habitat for displaced wildlife, including nearby Croatan National Forest.

Impacts related to wildlife and natural vegetation are identical to those for threatened and endangered species. Following clearing and grading of the site, temporary and permanent seeding and mulching will be accomplished to provide a permanent stand of native grass and vegetation.

There are no secondary impacts anticipated to wildlife, vegetation, nor threatened and endangered species. This project is not intended to facilitate growth by adding treatment capacity. The finished water capacity of the proposed treatment plant will be the same as the combined capacity of the Town' s existing WTP' s. Appropriate clearing limits, setbacks and buffers will be provided in concurrence with River Bend Zoning Ordinance.

Introduction of Toxic Substances: The project is not expected to introduce toxic substances into the environment. Potential sources of toxic substances during construction may include exhaust emissions, oil, fuel and other vehicle fluids. Escape of these substances will be minimized by proper vehicle maintenance and collection and proper disposal of fluid containers. Contractors will be required to ensure that no uncured concrete is allowed to contact surface waters. Various chemicals will be utilized as part of the WTP process. These include potassium permanganate, sodium hypochlorite, polyphosphate, ammonia, and sodium bisulfite. Each of these chemicals will be stored in double -walled chemical storage tanks inside the WTP building. All chemical pumps will be housed inside dedicated chemical feed rooms within the WTP building.

Introduction of toxic substances will be minimized by proper vehicle maintenance and collection and proper disposal of fluid containers. Contractors will be required to ensure that no uncured concrete is allowed to contact surface waters. Chemicals will be stored in double -walled chemical storage tanks inside the WTP building. All chemical pumps will be housed inside dedicated chemical feed rooms within the WTP building.

The U.S. Fish and Wildlife Service was consulted and did not object to the project (2/3/26, IPaC Code 2024-0037220). The North Carolina Wildlife Resources Commission, Natural Heritage Program, and DWR Washington Regional Office do not object to the proposed project. The U.S. Army Corps of Engineers was consulted and provided guidance (December 4, 2025). The North Carolina Department of Natural and Cultural Resources is aware of no historic resources which will be impacted by the proposed project (January 7, 2026, ER 25-2810).

G. Public Participation, Sources Consulted

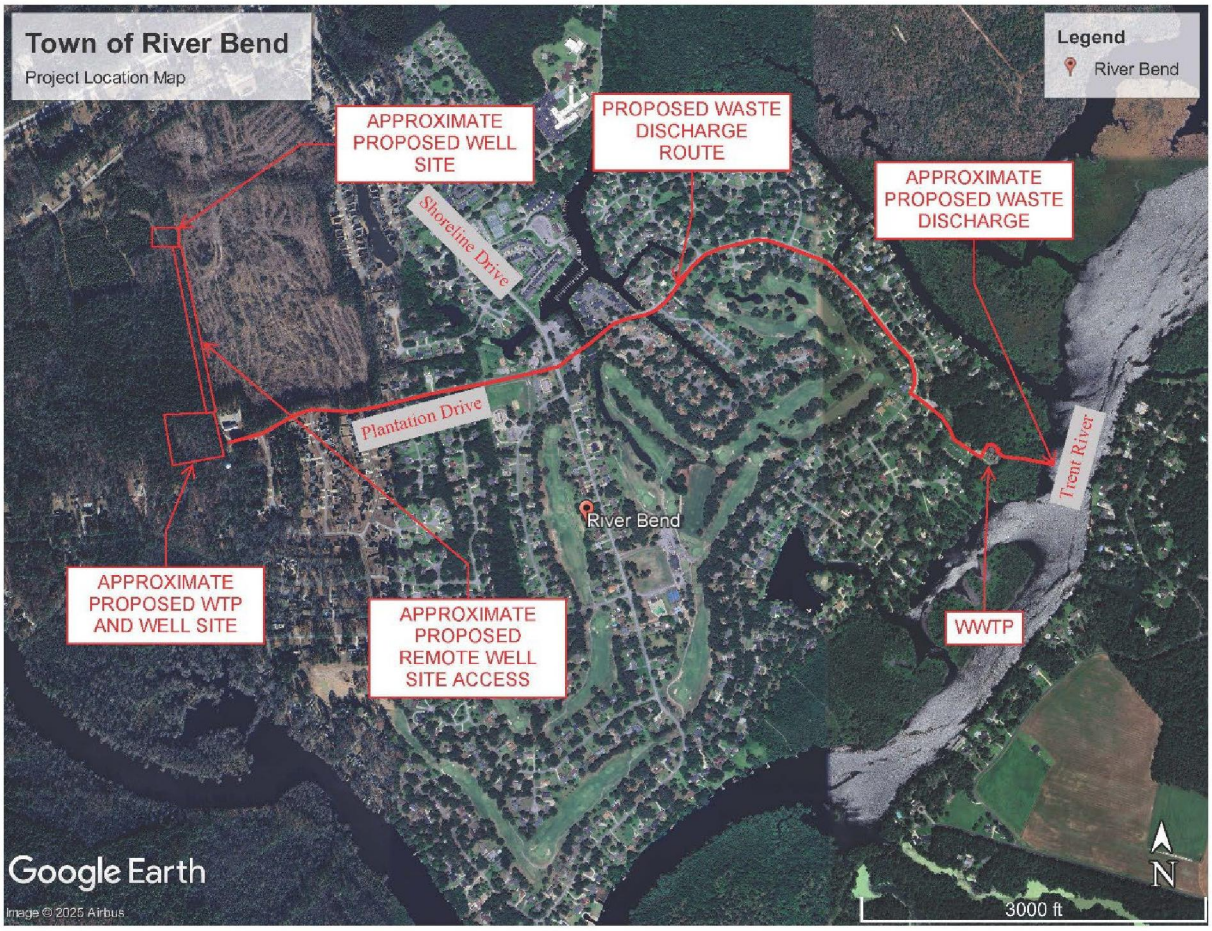
The Town of River Bend held a public meeting on March 19, 2026. The meeting included a presentation about the proposed project and opportunity for public comments.

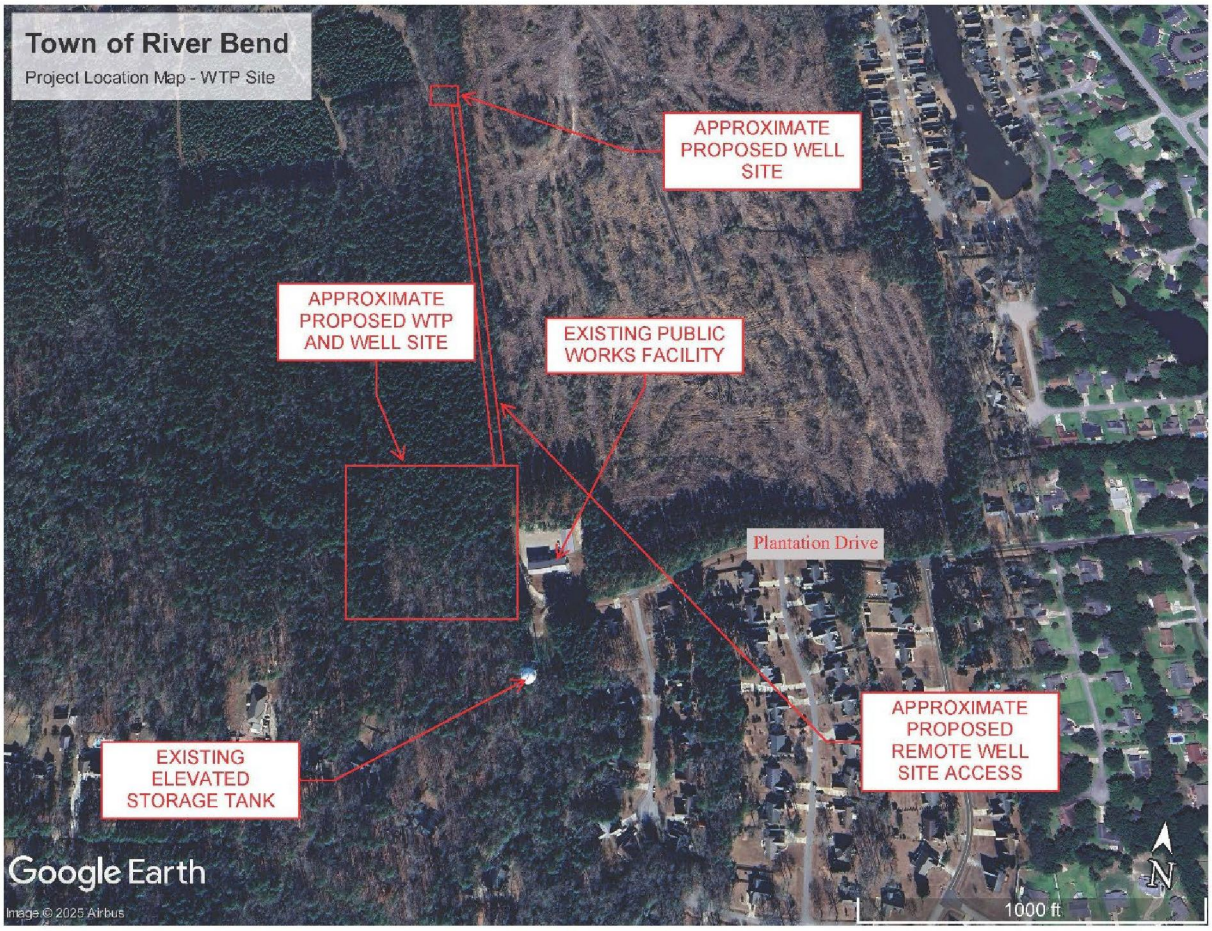
The project is estimated to cost $20,843,600. The sources of funding include SRF awards totaling $16,704,145 and a Special Appropriation totaling $4,139,455. User fees are anticipated to increase to pay for the loan principal as well as the new operation maintenance costs for the proposed WTP. The proposed rate increases may be potentially significant particularly for customers who fall below the MHI. Ultimately, the improvements to water quality due to the project outweigh the potential financial burden to customers.

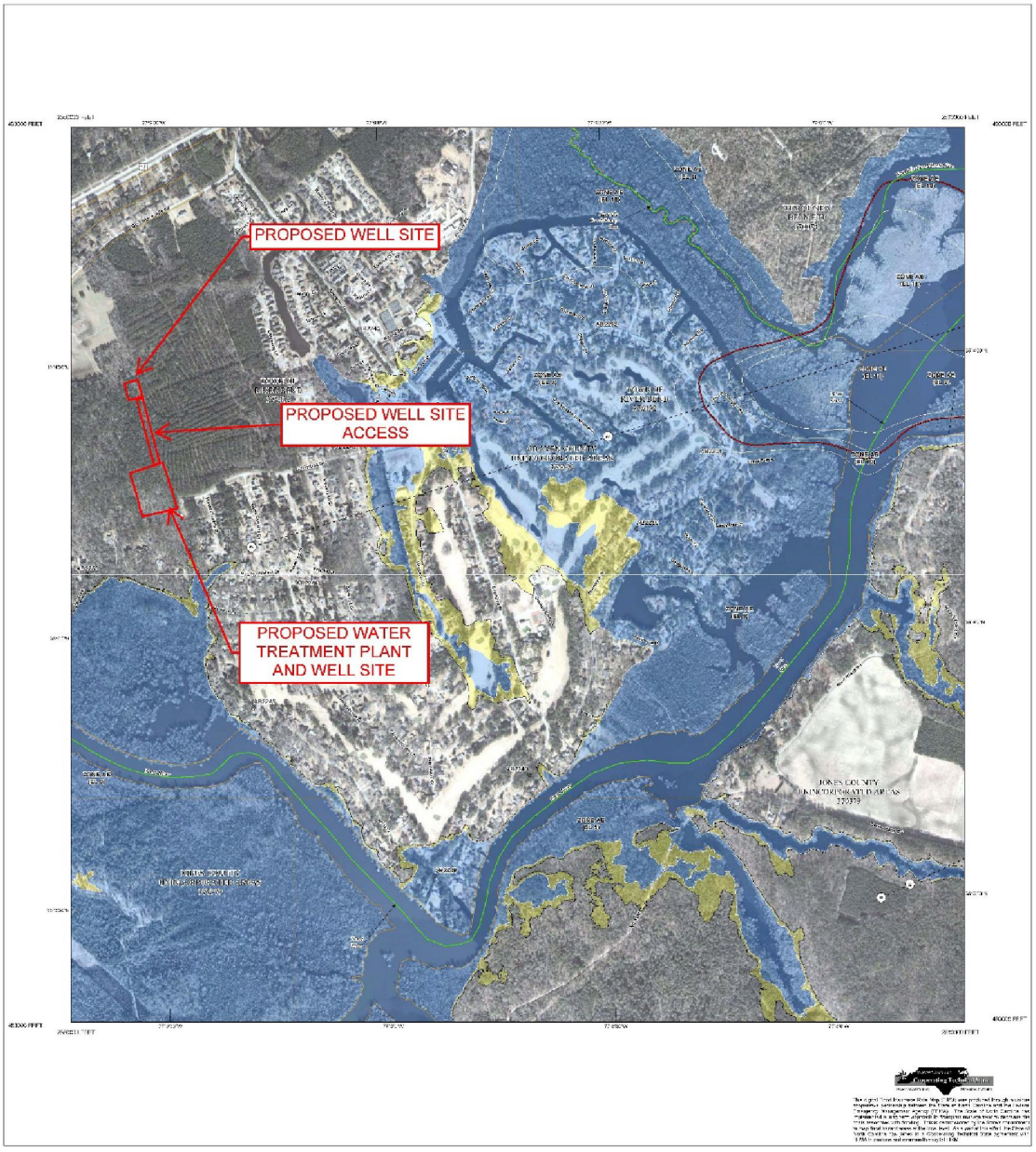
Sources consulted about this project for information or concurrence included:

1) Town of River Bend
2) Craven County
3) North Carolina Department of Environmental Quality
   -Wildlife Resources Commission
   -Natural Heritage Program
   -DEQ Washington Regional Office
   -Division of Air Quality
   -Division of Water Resources
   -Division of Forest Resources
   -Division of Environmental Assistance and Customer Service
   -Division of Waste Management
4) North Carolina Department of Natural and Cultural Resources
5) North Carolina State Clearinghouse
6) North Carolina Department of Public Safety
7) U.S. Fish and Wildlife Service
8) U.S. Army Corps of Engineers

H. Maps and Figures


Town of River Bend
Project Location Map
Legend
River Bend
APPROXIMATE PROPOSED WELL SITE
PROPOSED WASTE DISCHARGE ROUTE
APPROXIMATE PROPOSED WASTE DISCHARGE
Shoreline Drive
Plantation Drive
Trent River
River Bend
APPROXIMATE PROPOSED WTP AND WELL SITE
APPROXIMATE PROPOSED REMOTE WELL SITE ACCESS
WWTP
Google Earth
Image © 2025 Airbus
N
3000 ft


Town of River Bend
Project Location Map - WTP Site
APPROXIMATE PROPOSED WELL SITE
APPROXIMATE PROPOSED WTP AND WELL SITE
EXISTING PUBLIC WORKS FACILITY
Plantation Drive
APPROXIMATE PROPOSED REMOTE WELL SITE ACCESS
EXISTING ELEVATED STORAGE TANK
Google Earth
Image © 2025 Airbus
1000 ft
N



FLOOD HAZARD INFORMATION

SEE FIS REPORT FOR ZONE DESCRIPTIONS AND INDEX MAP

THE INFORMATION DEPICTED ON THIS MAP AND SUPPORTING DOCUMENTATION ARE ALSO AVAILABLE IN DIGITAL FORMAT AT HTTP://FRIS.NC.GOV/FRIS

SPECIAL FLOOD HAZARD AREAS
- Without Base Flood Elevation (BFE) Zone A, V, A99
- With BFE or Depth Zone AE, AO, AH, VE, AR
- Regulatory Floodway

OTHER AREAS OF FLOOD HAZARD
- 0.2% Annual Chance Flood Hazard, Areas of 1% Annual Chance Flood with Average Depth Less Than One Foot or With Drainage Areas of Less Than One Square Mile Zone X
- Future Conditions 1% Annual Chance Flood Hazard Zone X
- Area with Reduced Flood Risk due to Levee See Notes Zone X

OTHER AREAS
- Areas Determined to be Outside the 0.2% Annual Chance Floodplain Zone X

GENERAL STRUCTURES
- Channel, Culvert, or Storm Sewer
- Accredited or Provisionally Accredited Levee, Dike, or Floodwall
- Non-accredited Levee, Dike, or Floodwall
- North Carolina Geodetic Survey bench mark
- National Geodetic Survey bench mark
- Contractor Est. NCEMP Survey bench mark
- Cross Sections with 1% Annual Chance Water Surface Elevation (BFE)
- Coastal Transect
- Coastal Transect Baseline
- Profile Baseline
- Hydrographic Feature
- Limit of Study
- Jurisdiction Boundary

OTHER FEATURES

NOTES TO USERS

Limit of Moderate Wave Action (LiMWA)

COASTAL BARRIER RESOURCES SYSTEM (CBRS) NOTE

CBRS Area — Otherwise Protected Area

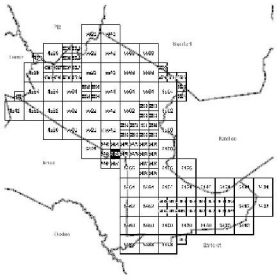
SCALE

1 inch = 500 feet 1:6,000

0 250 500 1,000 Feet

0 75 150 300 Meters

PANEL LOCATOR



FEMA

National Flood Insurance Program

NORTH CAROLINA FLOODPLAIN MAPPING PROGRAM
NATIONAL FLOOD INSURANCE PROGRAM
FLOOD INSURANCE RATE MAP

NORTH CAROLINA

FEMA

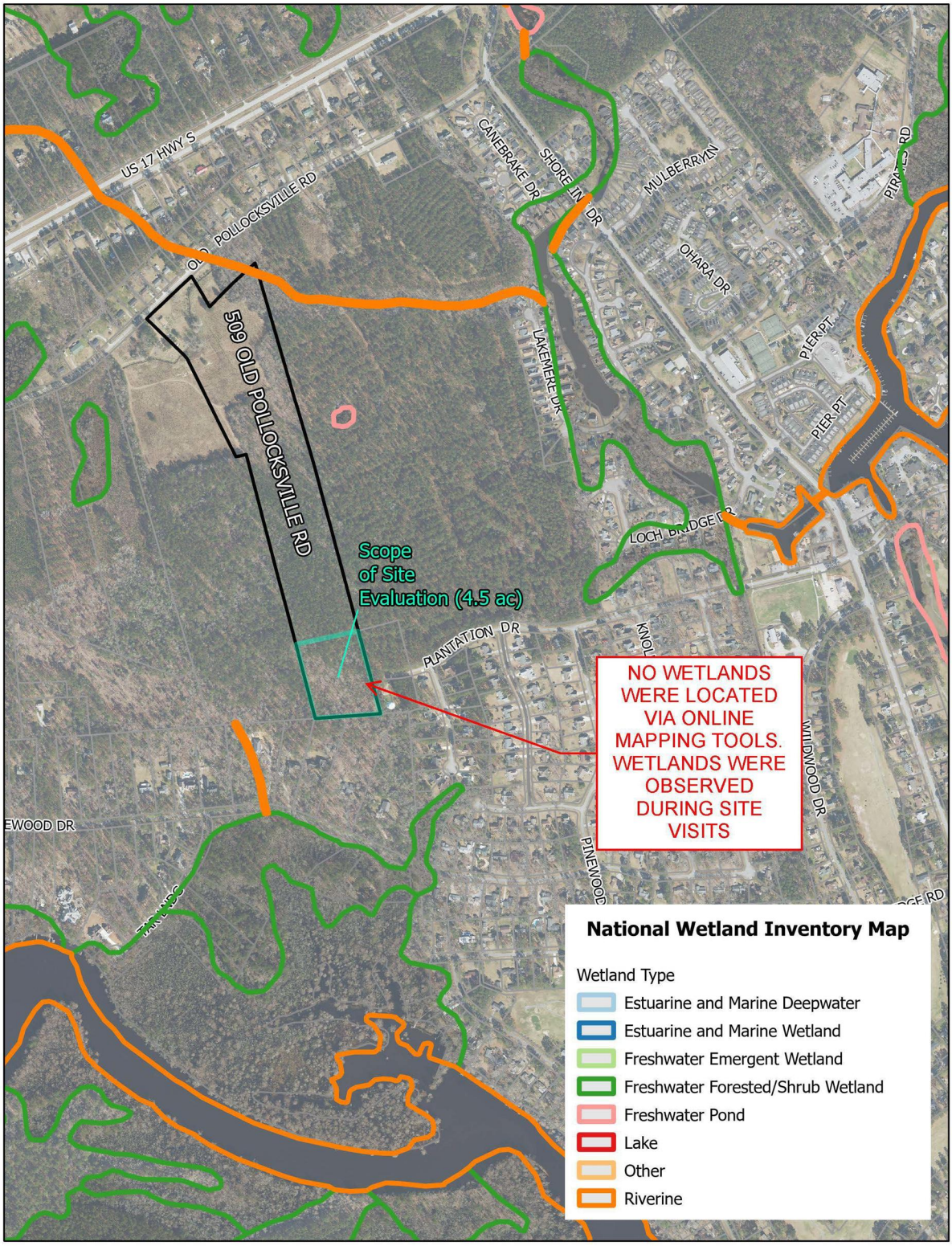
Panel Contains:

COMMUNITY	CID	PANEL	SUFFIX
JONES COUNTY	370306	5458	C
TRENTON, TOWN OF	370307	5458	C

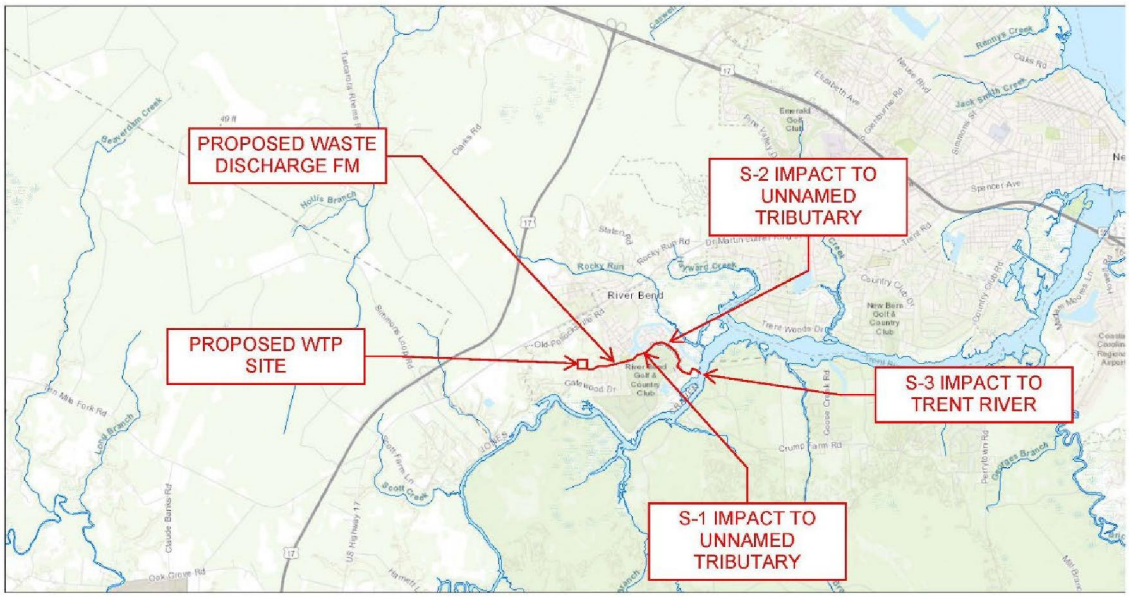
VERSION NUMBER
2.3.3.2

MAP NUMBER
37205458000H

MAP REVISED
June 15, 2022


US 17 HWY S
POLLOCKSVILLE RD
CANEBRAKE DR
SHORE LN DR
MULBERRY LN
OHARA DR
PIER PT
LAKEMERE DR
509 OLD POLLOCKSVILLE RD
Scope of Site Evaluation (4.5 ac)
PLANTATION DR
NO WETLANDS WERE LOCATED VIA ONLINE MAPPING TOOLS. WETLANDS WERE OBSERVED DURING SITE VISITS
WILDWOOD DR
PINEWOOD
National Wetland Inventory Map
Wetland Type
Estuarine and Marine Deepwater
Estuarine and Marine Wetland
Freshwater Emergent Wetland
Freshwater Forested/Shrub Wetland
Freshwater Pond
Lake
Other
Riverine

Surface Water Map



8/8/2025, 4:50:44 PM

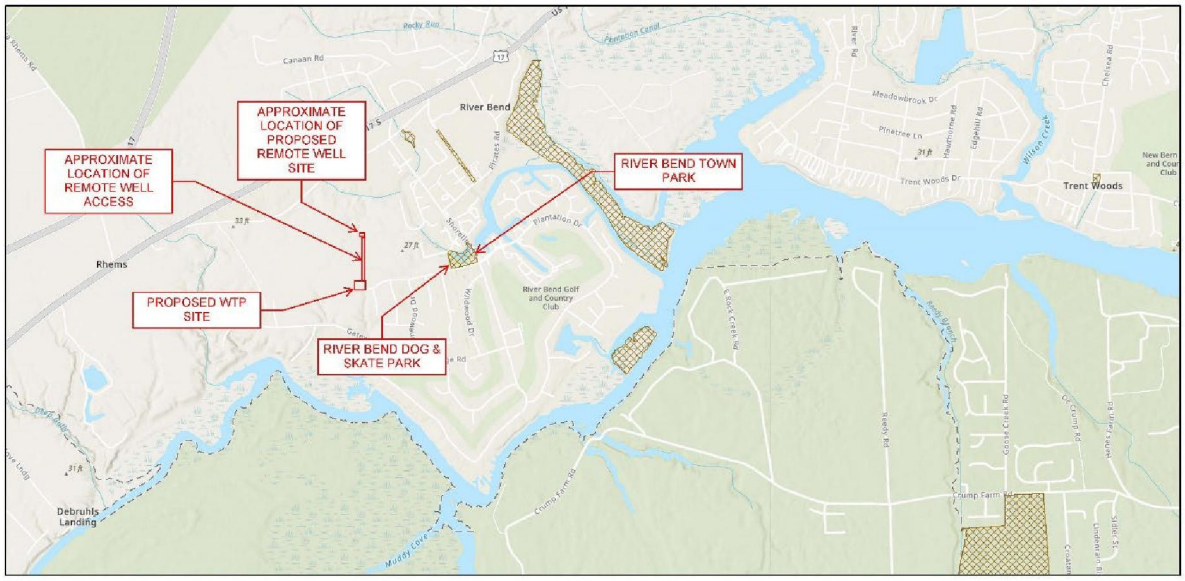
1:73,336

0 0.5 1 2

0 1 2

NCDENR - Division of Water Resources, S
DOT, Esri, HERE, Garmin, INCREMENT P
NGA, EPA, USDA

Natural Heritage Program Managed Areas



8/8/2025

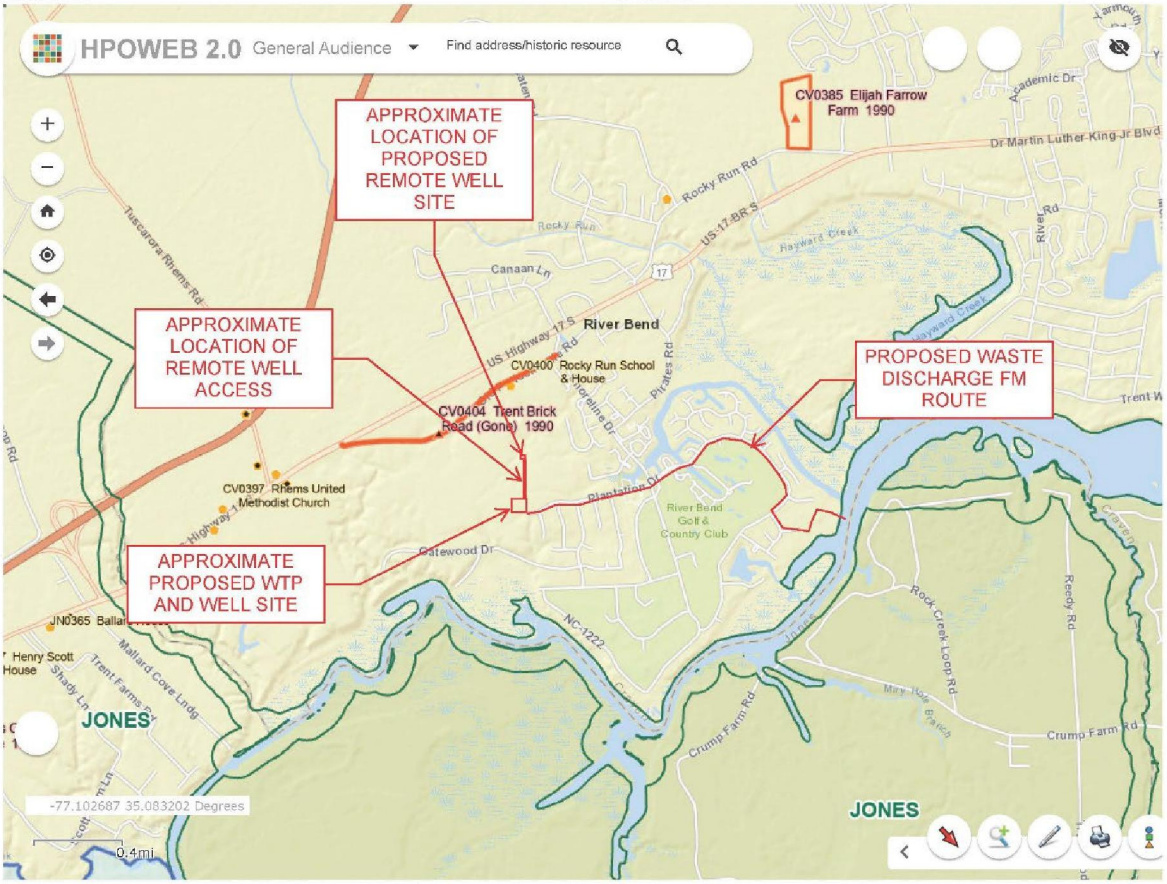
Managed Areas

- Dedicated Nature Preserve
- Registered Heritage Area
- Conservation Easement
- Other Protection
- Federal Ownership
- State Ownership
- Local Government Ownership
- Private
- World_Hillshade

1:26,374

0 0.25 0.5 1 mi

0 0.4 0.8 1.6 km


HPOWEB 2.0 General Audience
Find address/historic resource
APPROXIMATE LOCATION OF PROPOSED REMOTE WELL SITE
APPROXIMATE LOCATION OF REMOTE WELL ACCESS
APPROXIMATE PROPOSED WTP AND WELL SITE
PROPOSED WASTE DISCHARGE FM ROUTE
CV0385 Elijah Farrow Farm 1990
CV0400 Rocky Run School & House
CV0404 Trent Brick Road (Gone) 1990
CV0397 Rhems United Methodist Church
River Bend
JONES
JONES
Rocky Run Rd
US-17-BR S
US Highway 17 S
Canaan Ln
Pirates Rd
Plantation Dr
Gatewood Dr
River Bend Golf & Country Club
NC-1222
Crump Farm Rd
Rock Creek Loop Rd
Ready Rd
Dr Martin Luther King Jr Blvd
Academic Dr
River Rd
Tuscarora Rhems Rd
Mallard Cove Lndg
Trent Farms Dr
Shady Ln
Henry Scott House
-77.102687 35.083202 Degrees
0.4mi