



Town of Beaufort, NC

701 Front St. - P.O. Box 390 - Beaufort, N.C. 28516
252-728-2141 - 252-728-3982 fax - www.beaufortnc.org

Board of Commissioners Work Session

4:00 PM Monday, January 27, 2025

Train Depot, 614 Broad Street

Call To Order

Roll Call

Agenda Approval

Items for Review and Discussion

1. 2025 Parking Season
2. Mardi Gras Event Application
3. Sidewalks at the West End of Front Street

Project Updates

1. Professional Park Area Storm Water Study

Closed Session

1. Pursuant to NCGS 143-318.11 (a) (6)

Adjourn



Town of Beaufort, NC

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**Board of Commissioners
Work Session
4:00 PM – Monday, January 27, 2025
Train Depot, 614 Broad Street
Beaufort, NC 28516**

AGENDA CATEGORY: Items for Review and Discussion
SUBJECT: 2025 Parking Season

BRIEF SUMMARY:

Pivot Parking staff will be present to provide responses to questions/comments from the Board during the December 9th presentation. Additionally, the Board will be asked to act on any items where a change is requested for the 2025 season (passes, rates, etc.) Please see attached documents provided by Pivot Parking.

REQUESTED ACTION:

Discuss and take action on any requested changes related to the 2025 Parking Season.

EXPECTED LENGTH OF PRESENTATION:

20 minutes

SUBMITTED BY:

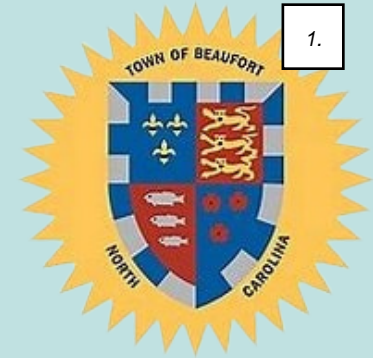
Christi Wood – Finance Director

BUDGET AMENDMENT REQUIRED:

No- unless there are items the Board requests to purchase for the 2025 season.

Beaufort, North Carolina

2025 Parking Considerations & Follow up



- **2025 Program Objectives**

- 2025 Season Rate Options for Considerations
- Pay stations Purchase Options
- Mobile LPR Information
- Signage
- Golf Cart Parking - Share the Space Program
- Customer Survey



2025 SEASON RATE OPTIONS FOR CONSIDERATION

1.

CURRENT OPERATIONS

- \$1.50/hr with four hour limit except for Front St. (east of Queen St. which is unlimited)
- \$3.00/hr in East and West Lots (no time restrictions)- no passes allowed
- Enforcement hours 8am-5pm - 7 days per week & March thru Oct 31st.
- Season Pass : \$200 each /Weekly Pass : \$ 25.00

OPTION 1

- Continue with current rate structure
- **Extend Paid time and Enforcement to 6pm**
- Projected increase to income - \$2k/month

OPTION 2

- **Parking rates modified to \$2.00/hr Non-Premium and \$4.00/hr Premium**
- **Paid and Enforcement hours remain 8am-5pm**
- **Modify Season Pass to \$300 each & Weekly Pass to \$75.00**
- Projected increase to income- \$8k/month

OPTION 3

- **Parking rates modified to \$2.00/hr Non-Premium and \$4.00/hr Premium**
- **Extend Paid time and Enforcement to 6pm**
- **Modify Season Pass to \$300 each & Weekly Pass to \$75.00**
- Projected increase to 4 come- \$10k/month



Pay Station Option



- Pay station offerings
 - Credit Card only with contactless (tap & go)
 - Color touchscreen display
 - Solar powered or AC with battery backup
 - Installed on post/pole
 - \$4,500 per unit (not including install & freight (approx =\$1,200 additional)
 - \$25 per month per unit software fees
 - Pay by plate platform (must enter license plate)

Recommendation is for minimum of 2 with installation along Front St.



 ADAPTABLE	<p>ENHANCED OPERATIONAL EFFICIENCY</p> <ul style="list-style-type: none"> • Cost efficient to allow for the deployment of multiple units, expanding accessibility and reducing wait times at pay stations. • Lightweight and portable for easy installation, and relocation. • Maintenance-free for a prolonged lifespan, ensuring reliable operation. <p>CUSTOMER CONVENIENT AND FLEXIBLE</p> <ul style="list-style-type: none"> • Ideal for unattended parking at universities, gateless garages, and other off-street parking areas. • Offers cashless transactions via credit card, contactless methods, or mobile payments for an express checkout experience. • Intuitive interface on a vibrant touchscreen with easy navigation and multilingual support. <p>INNOVATIVE AND FUTURE-PROOF</p> <ul style="list-style-type: none"> • Features an open interface for seamless integration with third-party applications. • Designed to enhance existing web and text payment capabilities in parking systems. • Flexible and adaptable to accommodate future feature updates aligned with evolving parking trends.
 INTUITIVE	
 MODULAR	
 POWER-EFFICIENT	

Mobile LPR

- A camera based enforcement system installed on a golf cart or vehicle
- Allows for more efficient enforcement
- Allows for capturing additional data that allows for occupancy per zone with specific detailed info.

Full system without vehicle/golf cart = \$65,000-\$70,000



Updated Signage

- Larger QR codes
- Convenience Fees notated
 - (Processing Fees may apply is currently on signage)
- Current 43 signs
 - if rates or times changed signage can be refaced with vinyl overlays
 - Estimates are \$50-75 per sign
- 10 new signs needed along Front Street
 - Estimates are \$300 per sign (\$3,000.00)
- If pay stations purchased, signage could also indicate where pay stations are located

Must be careful to not make signage too wordy or confusing.

Pivot will also assist with making instructional videos for social media posting and for the town's website.



Golf Carts

1.

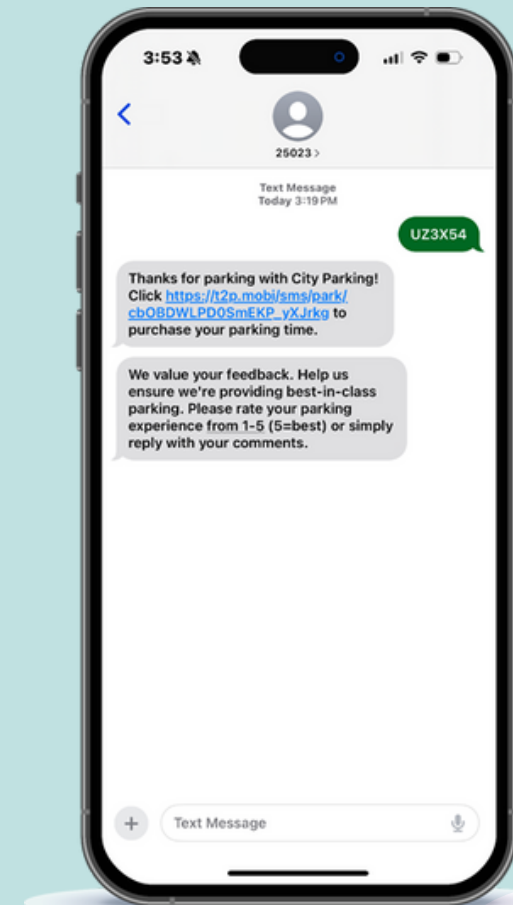


- There are currently 6 parking spaces dedicated to golf cart parking and Motorcycle parking (Turner and Front St.)
- There were 18 golf carts registered during the 2024 season
- Our team observed 5-8 golf carts on average during the hours of enforcement with the majority of golf carts utilizing parking after hours (mainly near Dockhouse).
- Creating a “share the space” program that allows regular vehicle spaces to accommodate 2 golf carts with a dotted line down the center would help in golf carts using a single space allowing more more space availability for vehicles



Customer Surveys

- Through the Text 2 Park payment platform customer surveys via text are available.
- Surveys typically rate experience in number scale. Some customization available.
- Cost = \$0.05 per survey





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**Board of Commissioners
Work Session**

4:00 PM – Monday, Jan. 27, 2025

AGENDA CATEGORY: Items for Review and Discussion
SUBJECT: Mardi Gras 2025

The Beaufort Business Association submitted an event application requesting to host Mardi Gras in Beaufort on Saturday, March 1, 2025. The event request as presented by the applicant asks for permission to allow alcohol in John Newton Park and on Middle Lane. The full closure of Middle Lane all day on Saturday, March 1, 2025, and an expanded parade that includes motor vehicles and travels from Gordon/Front to Turner Street.

The event application was received on Dec. 31, 2024. The application submission was outside of the required 90-day submittal time period for events over 500 people as outlined in the Town’s event guidelines. <https://www.beaufortnc.org/media/7196>. The late submittal has created a time crunch for staff to be able to work with the event organizers to ensure all safety aspects of the event are properly addressed and that the Town is adequately staffed.

In past year’s when an event of this size makes major changes, there are multiple meetings between staff and organizers to ensure the safety of all participants. The applicant is aware of this process as this was done in 2024 to accommodate for an expanded Mardi Gras footprint.

The BBA has a past due balance in the amount of \$1,620 for the 2024 Music in the Park concert series and holiday events.

Staff reviewed the request on Jan. 8, 2025. The application was denied as presented due to a variety of safety concerns raised by the Town’s public safety departments. Normally after staff review, staff requests a meeting with event organizers to discuss public safety concerns. However, there was not time for this step.

Staff presented the event organizers with the following alternatives:

- Remove the request for alcohol sales in John Newton Park and contain alcohol to Middle Lane and the BHA grounds. This eliminates the necessity of closing Front and Craven Streets and parking along that route in order to ensure pedestrian safety. Alcohol is currently only permitted on Town property in non-vehicular areas by permit and with the requirement to hire off-duty officers.
- Parade: Limit the parade to golf carts and pedestrians. Begin line-up at the intersection of Pollock and Front (West of Pollock). The parade route would be Pollock/Front to Turner/Front with pedestrian entries turning on Middle Lane with golf carts able to turn or continue straight and end the route by turning at Ann Street.

Staff's deadline to submit items for the Jan. 27 work session was Friday, Jan. 17, 2025 and requested the event organizers confirm the suggested changes in order to allow staff to present the event application at the meeting. As of 5 p.m. Jan. 27, 2025, Event/Public Safety staff had not received any official communications from the applicant.

Interim Town Manager Charlie Burgess received an email communication from the applicant as well as a request to meet in regards to the BBA's requests and staffs recommendations. At the time of the writing of this coversheet the Town Manager has scheduled a meeting on Thursday, Jan. 23 with staff and the applicant.

Staff will be prepared to update the BOC on any changes that may arise from that meeting.

Staff has prepared potential invoices and submitted those to the BBA for their review that outline the expenses of the event for both the staff recommended changes and for the requested event. Those are included in the agenda packet.

Event Overview: Mardi Gras 2025

- Paid Parking starts on March 1, 2025
- Ticketed events will occur on the BHA grounds.
- Vendors, street performers and the parade will take place on Town property.

Saturday, March 1, 2025: Parade and Vendor Festival

- Locations: Middle Lane (Also requested John Newton Park)
 - Parade route: TBD – Front & Turner
- Time: 11 a.m. – 5 p.m. – Parade at 3 p.m.
- Attendance: 3,000
- Alcohol Served: Middle Lane (Requested John Newton Park)
- Vendors on Middle Lane and in Aqua's parking lot
- Roaming Street Performers

Staff Approved Requests of the Town:

- **Closure of Middle Lane** from 6 a.m.-6 p.m. on Saturday, March 1. (for vendors, activities and a bar location)
- **Closure of Front Street and portions of Turner** (between Middle and Front) from 3-4 p.m. on Saturday, Feb. 10 for the duration of the parade.
- **Alcohol Waiver** for Middle Lane, valid 11 a.m.-4 p.m. Saturday, March 1.
- **Parade Route:** Start at Pollock/Front, turn at Turner/Front, turn on Turner/Middle and end at Middle/Craven (Approved by staff for pedestrian, bicycles and golf carts only)
- **10 trash cans on Middle Lane** - If John Newton Park is granted the BBA will be required to add an additional 3 solid waste cans at JNP.

Staff Denied Requests of the Town:

- Alcohol Waiver for John Newton Park
 - If permitted the following will also be required:
 - Closure of Craven Street between Ann and Front (14 parking spaces)– 6 a.m.-6 p.m. Saturday, March 1. (Public Safety requirement for safety and alcohol)
 - Closure of Front St 11 between Craven Street and Turner Street (25

parking spaces) from 6 a.m. – 6p.m. Saturday, Feb. 10 (Public Safety request for safety and alcohol)

- Full vehicle parade similar to Christmas/4th parades
 - If permitted the following will also need to be considered:
 - Full closure of all parking along the parade route for safety
 - Line-up and parade start must be West of Live Oak Street so as not to impede traffic
 - This will become an all hands on deck event for Town staff similar to the holiday parades. 12-14 staff members will need to be hired by the BBA for a minimum of 2 hours at the \$50 off-duty rate.

REQUESTED ACTION: Approval or Denial with a clear directive on how staff should proceed.

EXPECTED LENGTH OF PRESENTATION: 15-20 minutes

SUBMITTED BY: Rachel Johnson, Events Coordinator

Date Application Received:

Permit Number:



APPLICATION FOR SPECIAL EVENT PERMIT

Please return completed application form with permit fee and paperwork to:

Events Coordinator, Town of Beaufort
701 Front Street
P.O. Box 390
Beaufort, NC 28516
Phone: (252) 728-2141 Email: r.johnson@beaufortnc.org

Applications submitted late or incomplete may not receive approval and may not be issued a permit.

EVENT BASICS

Event Name: Mardi Gras Celebration

Location of Event Site: John Newton Park, Middle Lane

(If more than one site is being requested please be specific and list each one individually below)

Sat. March 1st John Newton park and Middle lane

Run by: Beaufort Business Association

Applicant (Organizer) Name: Nelson Owens Contact # 252-342-1427

Day of Event Contact #: Kristen Prescott Email: kristen@127middlelane.com

Type of Event:

- checked Festival
checked Parade - vehicles, walking, golf carts
radio 5K Race
radio 10K Race

- Music Event
- Other _____

Actual Event Date(s): 3/1 Time of Event: 11⁰⁰ am - 4⁰⁰ pm
 Set-Up Date: 3/1 Start Time: 8⁰⁰ am
 Tear Down Date: 3/1 End Time: _____
 Estimated Attendance: 1500 - 2000 Admission Fees: \$50 - \$150 varius
 Event Description: Beaufort Business Association Fundraising Free events
event. Street Festival, parade, vendors,
Childrens activities

ORGANIZER/APPLICANT INFORMATION

Name of Organization: Beaufort Business Association
 Primary Contact Person: Nelson Owens
 Mailing Address: 723 Comet Dr. Beaufort NC 28516
 Email: nelson.n.owens@gmail.com
 Daytime Phone #: 252 342 1427 Cell Phone #: 252 342 1427
 Alternate Contact Person: Kristen Pruett Phone #: 252-675-9231
 Is your group a non-profit organization? Yes If yes, please provide documentation with your application.

SITE PLAN

- Site Plan Attached
- Yes
 - No

(If you need help, please set up a meeting with the Town of Beaufort's Events Coordinator)

A detailed site plan must be included with your event application. The following, should they be relevant, must be included in your Site Plan.

- Location of all tents and temporary structures
- Location of requested barricades and road closures
- Emergency exits
- Fire extinguishers, propane storage
- Location of command post, medical & first aid station, emergency vehicle access points and all exits and entrances (both emergency and for the public)
- Fencing, staging, bleachers, stages, inflatables, etc.
- Food/refreshment tent vendors, refreshment tents
- Food Trucks
- Location of Restrooms
- 5K/10K race routes

If the Site Plan is not submitted with the event application, the deadline is 45 days before the event, otherwise a permit will not be issued.

PARKS & PARKING LOTS REQUESTED

Please mark all that apply:

- East Parking Lot
- West Parking Lot
- Craven Street Parking
- Middle Lane
- John Newton Park
- Lynn Eury Park
- Grayden Paul Park
- Topsail Marine Park
- Other Please list: _____

Specific Requirements: (Extra trash cans/recycling/electrical etc.) Please be specific and include each item on the Site Plan for the desired location. Please note extra charges may apply in accordance to the fee schedule. (Trash/Recycling Carts: \$10 each, Electricity: \$50)

10 extra trash cans - all located on middle lane

OTHER EVENT DETAILS

Please provide the name and contact information of all outside companies who are providing services during your event. IE: Tent Rentals, Inflatable Rentals, Port-A-Pottie Rentals, etc

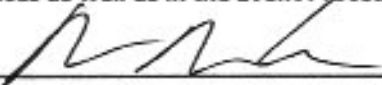
Beaufort Event Rentals, Craven Ag Services - Port a Pottie

Will there be canon/re-enactment fire during your event? NO If yes, please coordinate with the Beaufort Fire Department for safety procedures.

ALCOHOL

Alcohol at the event YES NO Attach all required paperwork. Applicant is responsible for obtaining applicable ABC License and Liquor Liability Insurance. Applicant must provide a clearly marked and contained area for alcohol consumption and hire two Town of Beaufort police officers at a rate of \$50 per hour for the duration. (The Police Chief will review the application for exceptions.) All local, state and Federal laws must be adhered to.

I/we have read, understand and will comply with the rules outlined by the Town of Beaufort in the Town Code of Ordinances as well as in the Event Procedures.

x  (Applicant's Signature)

ROAD CLOSURES

Does your event require a road closure? YES NO

Please provide specifics below:

Road	Set-Up Time	Event Start Time	Finish Time	Tear Down Time
Front St	3/1 2:00 pm	3:00 pm	4:00 pm	4:00 - 7:00 pm
Middle Ln	8:00 am 3/1	11:00 am	4:00 pm	

- Parade

If a road closure has any impact on area businesses and/or residents, the applicant will be required to inform all residents and/or businesses in the area of the road closure, by letter or hand-delivered flyer at least 14 days in advance of the event, of the particulars of the approved temporary road closure and any detour route available.

Emergency Vehicle Access Requirements: A road may be closed to regular traffic during an event, but an unobstructed fire lane must be left open at all times for emergency vehicles.

PARKING/PARKING LOTS

Parking lots required for Event set-up: (Please mark on the site map if applicable) (Please note charges may apply. The rate is \$18 per day per space in the East & West parking lots and \$9 per on street parking space per day for special event closure during Pay-To-Park season).

Please list all parking lots and spaces you are requesting. Spaces are numbered so please be specific. Also please note that parking space closures MUST be approved by the Board of Commissioners. Event organizers are not permitted to acquire additional spaces without Town permission prior to an event.

Please list off-site Parking Location for Vendors & Event Staff: A letter of permission is required for the use of private property per the event procedures. Please include this with your event application.

Vendors will be directed to DSS parking lot on Crown/Broad St

Bicycle Parking: Yes No

Additional Handicap Parking: Yes No Location: _____

Event Parking: (Please outline your plan for day of parking for event attendees. Please include parking lot locations and the name/contact information for any shuttle/trolley service):

Front St, East & West Parking lots, Turner St, Ann St, Queen, Pollock

PARADE/WALK INFORMATION

Parade Assembly Area: Front St Time: 2:00-2:30
Parade Dismissal Area: ~~_____~~ Time: 3:45-4:00
Parade Start Time: 3:00pm Turner St @ Court house

will line up w/ numbers like Christmas parade

EMERGENCY MANAGEMENT

Route Map Attached: YES NO (Please note a route map is required)

Designated Emergency personal/liaison (onsite): Kristen Prescott

Cell #: 052 675 9231 Other Contact: Nelson Dumas

How will your event staff react to severe weather?

Event will be called off in case of severe weather.

How will you alert visitors to the event to evacuate the site? (If multiple sites are being requested, a plan must be submitted for each location)

Important Announcements made on PA system

RISK ASSESSMENT

It is important for Event Organizers to identify risks and hazards associated with their event and know how to prevent these risks. Please identify possible risks for your event and list below (weather, food, fire, etc.) Please provide details.

Severe weather - event cancellation
Food - All vendors must comply w/ health code & be permitted to participate

What training will you provide to your volunteers/staff/participants regarding emergencies?

Pre-event meeting to discuss emergency protocol
Proper training of volunteers w/ ABC code

TENTS

Will you have tents at your event? YES NO

Please list the tent sizes: Small 10x10 vendor tents - large tent will be at BHA site

If your event includes tents, you must make arrangements with the Beaufort Fire Department for a tent permit. There is a \$50 fee. Please contact Tammy Turek at (252) 728-4325 to make arrangements. The Tent Permit Application and a list of requirements are available online at www.beaufortnc.org.

FOOD

Will there be food served at your event? YES NO

If yes, please provide a detailed list of all food vendors. List provided in Feb.

If yes, have you contacted the Carteret County Health Department to set up inspections? YES NO

All food vendors must have proper licensing, inspections, etc.

VENDORS

Will there be vendors selling items at your event? Yes No

Please note vendors are only permitted to sell during the event hours listed on this application. Any vendor selling before or after the listed hours is in violation and subject to being shut-down.

All vendors must have proper certifications and licenses. They must display the required state sales and use tax information and the event organizer must keep all of this information on file pursuant to North Carolina State laws.

CHECKLIST

Please submit the following documents with your event application. Once all forms (if applicable) are received and the event is approved an Event Permit will be issued.

- Tent Permit
- Detailed Site Plan
- Detailed Route Map (Parade/5K/10K)
- Map of Road Closures
- ABC Permit - *once received will send*
- Health Inspection Documentation
- Insurance
- Non-profit documentation
- Private property parking permission letter ~
- List of food vendors
- List of vendors
- Application Fee
- Application Signature

I/We the event organizer Nelson Owens, on behalf of Beaufort Business Association the party requesting the use of the Town of Beaufort facilities noted in the above application do hereby hold and save harmless and agree to indemnify the Town of Beaufort and its elected officials, directors, officers, employees, servants, agents, contractors and their respective heirs, executors, successors with respect to any and all liability, actions, debts, suits, demands, costs, damages and expenses whatsoever arising wither directly or indirectly as a result of the use of the Town of Beaufort's facilities, park, road or other and in accordance with the provisions contained in this policy. I/We have read and understand this application, the event procedures and the requirements placed upon this applicant and organization. I agree to abide by the Town of Beaufort rules, regulations and ordinances.

Applicant's Signature *[Signature]* Date 12/17/24

Internal Use Only

Permission is granted to the applicant and/or sponsoring organization to use the streets/facilities/parks as listed in the application for the special event described.

Permit Issue Date: _____
 Authorized Signature: _____

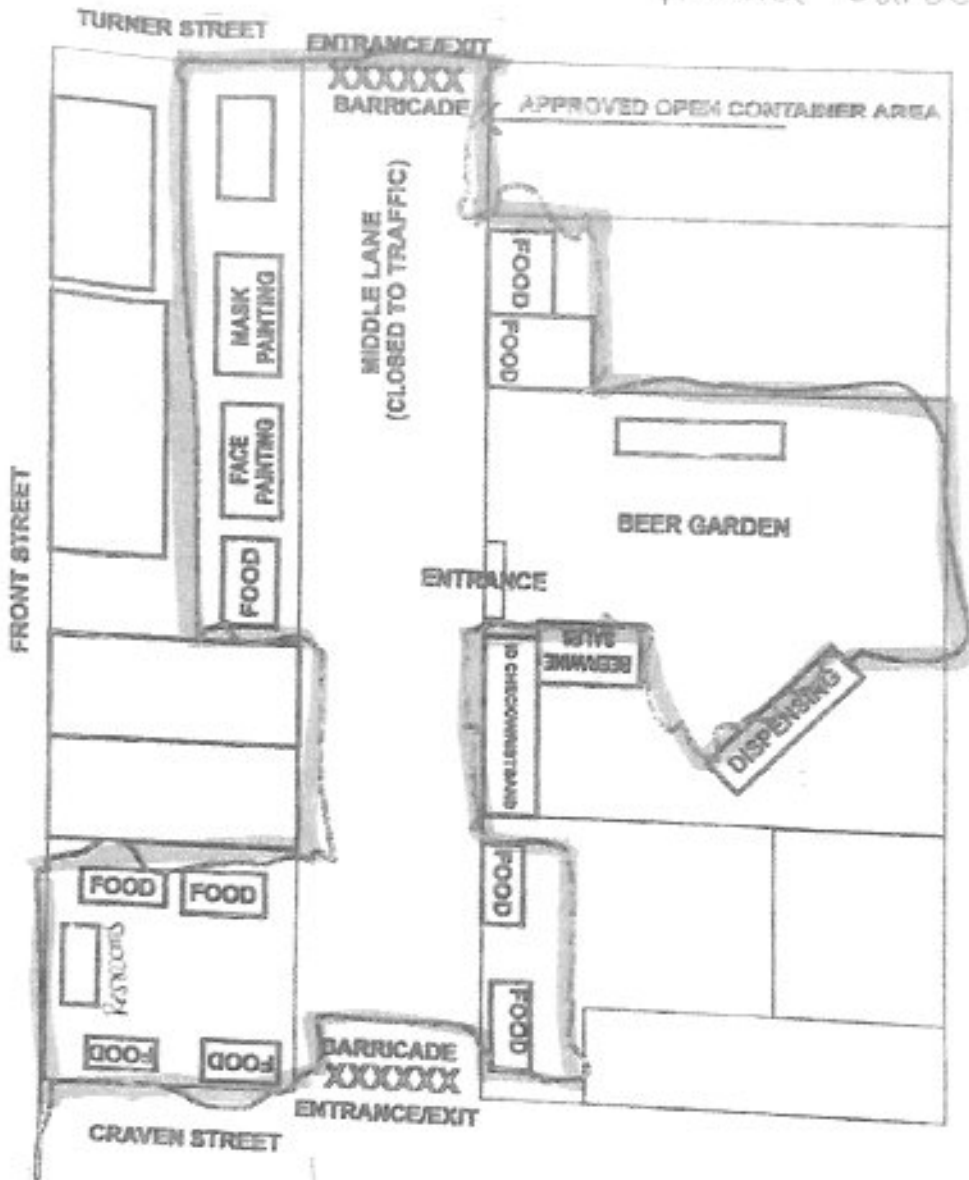
Insurance Certificate: Yes No
 Permit Fee: Yes No
 BOC Approval Date: _____
 Police Chief Approval: _____
 Fire Chief Approval: _____



cvent

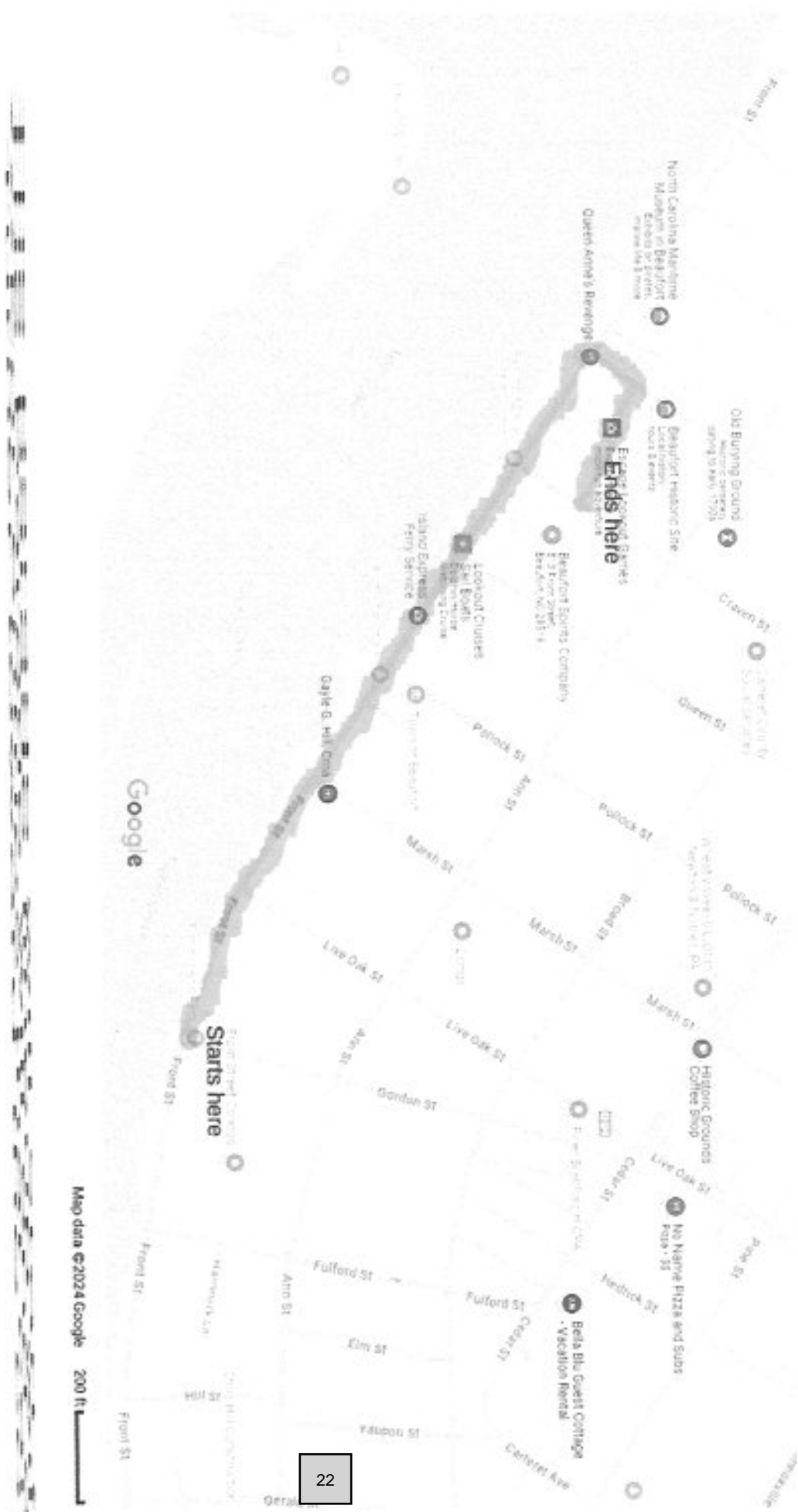


Middle Lane



Beaufort Development Association
PO Box 56
Beaufort, NC 28516

Google Maps Mardi Gras Parade Route



- The parade will start on Front Street at the intersection of Gordon street
- The parade lineup will begin on Front Street at Gordon and head east
- Parade entries will not be restricted to walking and golf carts. Other vehicle entries will be permitted
- The Parade will end at Middle and Craven Street
- **For entries that cannot make the turn onto middle lane - the parade will end at the intersection of Turner and Middle lane - they will exit up Turner toward the court house**

INTERNAL REVENUE SERVICE
P. O. BOX 2508
CINCINNATI, OH 45201

DEPARTMENT OF THE TREASURY

Date: **FEB 10 2015**

DOWNTOWN BEAUFORT DEVELOPMENT
ASSOCIATION
805 BROAD ST
BEAUFORT, NC 28516-0000

Employer Identification Number:
47-3032912
DLN:
26051440091285
Contact Person:
CUSTOMER SERVICE ID# 31954
Contact Telephone Number:
(877) 829-5500
Accounting Period Ending:
December 31
Public Charity Status:
509(a)(2)
Form 990/990-EZ/990-N Required:
Yes
Effective Date of Exemption:
February 5, 2015
Contribution Deductibility:
Yes
Addendum Applies:
No

Dear Applicant:

We're pleased to tell you we determined you're exempt from federal income tax under Internal Revenue Code (IRC) Section 501(c)(3). Donors can deduct contributions they make to you under IRC Section 170. You're also qualified to receive tax deductible bequests, devises, transfers or gifts under Section 2055, 2106, or 2522. This letter could help resolve questions on your exempt status. Please keep it for your records.

Organizations exempt under IRC Section 501(c)(3) are further classified as either public charities or private foundations. We determined you're a public charity under the IRC Section listed at the top of this letter.

If we indicated at the top of this letter that you're required to file Form 990/990-EZ/990-N, our records show you're required to file an annual information return (Form 990 or Form 990-EZ) or electronic notice (Form 990-N, the e-Postcard). If you don't file a required return or notice for three consecutive years, your exempt status will be automatically revoked.

If we indicated at the top of this letter that an addendum applies, the enclosed addendum is an integral part of this letter.

For important information about your responsibilities as a tax-exempt organization, go to www.irs.gov/charities. Enter "4221-PC" in the search bar to view Publication 4221-PC, Compliance Guide for 501(c)(3) Public Charities, which describes your recordkeeping, reporting, and disclosure requirements.

Letter 5436

DOWNTOWN BEAUFORT DEVELOPMENT

Sincerely,

Tamera Ripperda

Director, Exempt Organizations

Letter 5436



TOWN OF BEAUFORT
 701 FRONT ST.
 PO BOX 390
 BEAUFORT, NC 28516-0390

INVOICE #
25-00342

INVOICE DATE: 01/13/25
 DUE DATE: 02/24/25

ACCOUNT ID: BEAUF125 PIN: 67630C
 Beaufort Business Assoc.
 Nelson Owens
 PO Box 56
 Beaufort, NC 28516

QUANTITY/UNIT	SERVICE ID	DESCRIPTION	UNIT PRICE	AMOUNT
1.0000	SEAPPFEE	Special Event Application Fee	25.000000	25.00
6.0000/HR	POLICE	Police for Hire 1 Officer for Alcohol	50.000000	300.00
6.0000/HR	POLICE	Police for Hire 1 Officer for Alcohol	50.000000	300.00
8.0000/HR	POLICE	Police for Hire 4 Officers Parade - 2 hours	50.000000	400.00
10.0000	SESWCONT	SPECIAL EVENT SOLID WASTE CONT	10.000000	100.00
			TOTAL DUE:	\$ 1,125.00

PAYMENT COUPON - PLEASE DETACH AND RETURN THIS PORTION ALONG WITH YOUR PAYMENT

TOWN OF BEAUFORT
 701 FRONT ST.
 PO BOX 390
 BEAUFORT, NC 28516-0390

INVOICE #: 25-00342
 DESCRIPTION:
 ACCOUNT ID: BEAUF125 PIN: 676300
 DUE DATE: 02/24/25
 TOTAL DUE: \$ 1,125.00

Beaufort Business Assoc.
 Nelson Owens
 PO Box 56
 Beaufort, NC 28516





TOWN OF BEAUFORT
 701 FRONT ST.
 PO BOX 390
 BEAUFORT, NC 28516-0390

INVOICE #
25-00344

INVOICE DATE: 01/13/25

DUE DATE:

ACCOUNT ID: BEAUF125 PIN: 67630C
 Beaufort Business Assoc.
 Nelson Owens
 PO Box 56
 Beaufort, NC 28516

QUANTITY/UNIT	SERVICE ID	DESCRIPTION	UNIT PRICE	AMOUNT
1.0000	SEAPPFEE	Special Event Application Fee As Requested	25.000000	25.00
10.0000	SESWCONT	SPECIAL EVENT SOLID WASTE CONT Trash - Middle Lane	10.000000	100.00
3.0000	SESWCONT	SPECIAL EVENT SOLID WASTE CONT Trash - John Newton	10.000000	30.00
1.0000	SEELECT	SPECIAL EVENT ELECTRICITY FEE John Newton - Electricity	50.000000	50.00
12.0000/HR	POLICE	Police for Hire 2 officers @ 6hr JN Park/Front	50.000000	600.00
12.0000/HR	POLICE	Police for Hire 2 officers @ 6hr Middle Lane	50.000000	600.00
24.0000/HR	POLICE	Police for Hire Police - Parade - 8 @ 3 hours	50.000000	1,200.00
24.0000	SEPARK	SPECIAL EVENT PARKING FEE Front: Craven-Turner parking	13.500000	324.00
25.0000	SEPARK	SPECIAL EVENT PARKING FEE East Parking lot	27.000000	675.00
15.0000	SEPARK	SPECIAL EVENT PARKING FEE Craven Street	13.500000	202.50
16.0000	SEPARK	SPECIAL EVENT PARKING FEE Craven Street Parking lot	13.500000	216.00

PAYMENT COUPON - PLEASE DETACH AND RETURN THIS PORTION ALONG WITH YOUR PAYMENT

TOWN OF BEAUFORT
 701 FRONT ST.
 PO BOX 390
 BEAUFORT, NC 28516-0390

INVOICE #: 25-00344
 DESCRIPTION:
 ACCOUNT ID: BEAUF125 PIN: 676300
 DUE DATE:
 TOTAL DUE: See Last Page

Beaufort Business Assoc.
 Nelson Owens
 PO Box 56
 Beaufort, NC 28516





TOWN OF BEAUFORT
 701 FRONT ST.
 PO BOX 390
 BEAUFORT, NC 28516-0390

INVOICE #
25-00344

INVOICE DATE: 01/13/25

DUE DATE:

ACCOUNT ID: BEAUF125 PIN: 67630C
 Beaufort Business Assoc.
 Nelson Owens
 PO Box 56
 Beaufort, NC 28516

QUANTITY/UNIT	SERVICE ID	DESCRIPTION	UNIT PRICE	AMOUNT
			TOTAL DUE:	\$ 4,022.50

PAYMENT COUPON - PLEASE DETACH AND RETURN THIS PORTION ALONG WITH YOUR PAYMENT

TOWN OF BEAUFORT
 701 FRONT ST.
 PO BOX 390
 BEAUFORT, NC 28516-0390

INVOICE #: 25-00344
 DESCRIPTION:
 ACCOUNT ID: BEAUF125 PIN: 676300
 DUE DATE:
 TOTAL DUE: \$ 4,022.50

Beaufort Business Assoc.
 Nelson Owens
 PO Box 56
 Beaufort, NC 28516





Town of Beaufort, NC

701 Front St. - P.O. Box 390 - Beaufort, N.C. 28516
252-728-2141 - 252-728-3982 fax - www.beaufortnc.org

**Board of Commissioners
Work Session
4:00 PM – Monday, January 27, 2025
Train Depot, 614 Broad Street
Beaufort, NC 28516**

AGENDA CATEGORY: Items for Review and Discussion

SUBJECT: Sidewalks at the West End of Front Street

BRIEF SUMMARY:

Staff will provide a brief summary of sidewalk locations and ownership at the west end of Front Street. This topic was brought forth during public comment sessions at previous BOC meetings.

EXPECTED LENGTH OF PRESENTATION:

15 minutes

SUBMITTED BY:

Charlie Burgess, Interim Town Manager

BUDGET AMENDMENT REQUIRED:

N/A



Town of Beaufort, NC

701 Front St. - P.O. Box 390 - Beaufort, N.C. 28516
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**Board of Commissioners
Work Session
4:00 PM – Monday, January 27, 2025
Train Depot, 614 Broad Street
Beaufort, NC 28516**

AGENDA CATEGORY: Project Update
SUBJECT: Professional Park Area Storm Water Study

BRIEF SUMMARY:

Staff will provide a brief summary of the final version of the Professional Park Storm Water Study. The document is attached and included as part of the meeting packet. The Board will be able to ask questions and discuss the next steps as far as public outreach sessions and access to the interactive website.

EXPECTED LENGTH OF PRESENTATION:

20 minutes

SUBMITTED BY:

Sam Bell, Town Engineer

BUDGET AMENDMENT REQUIRED:

N/A



AN  ARDURRA COMPANY

Basis of Design Report

PROFESSIONAL PARK DRIVE AREA STORMWATER INVENTORY AND FLOOD STUDY

January 2025



BASIS OF DESIGN REPORT

for

**Professional Park Drive
Area Stormwater Inventory
and Flood Study**

January 2025

WKD # 20231155.00.RA

DWI # SRP-SW-ARP-0087

Prepared for

Town of Beaufort
701 Front St.
Beaufort, NC 28516



Prepared by
W.K. Dickson & Co., LLC
720 Corporate Center Drive
Raleigh, NC 27607
WKD Phone (919) 782-0495
NC License No. F-0374

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1. Executive Summary

This report outlines the findings and recommendations from the **Professional Park Drive Area Stormwater Inventory and Flood Study**, conducted to address persistent flooding issues along Professional Park Drive and Meeting Street, Beaufort, NC. This study evaluates the existing stormwater conditions, conducts hydrologic and hydraulic analyses, and proposes design alternatives aimed at mitigating flooding while balancing cost and constructability. The primary objective is to achieve a 10-year Level of Service (LOS) or provide the maximum feasible flood reduction within budgetary constraints. Generally, a 10-year LOS would be defined by the hydraulic grade line within a closed roadway stormwater pipe system. In the case of Meeting St and Professional Park Dr, where there is no underground stormwater drainage, a 10-year LOS is defined as ensuring roadways are passable by passenger vehicles during a 10-year design storm.

Frequent flooding in the project area is largely due to a lack of positive grade on drainage ditches, downstream tailwater restrictions, high groundwater, and apparent improper construction of Meeting Street. This results in significant water accumulation after rain events, affecting both property and road access. The 417-acre watershed, which drains into the Newport and North Rivers, is primarily residential, with an existing stormwater system that is inadequate to handle runoff during moderate to severe storms. Residents frequently report flooding that renders Meeting Street and Professional Park Drive impassable. A 2-D hydrologic and hydraulic (H&H) model was developed to simulate existing conditions and assess potential solutions for flood mitigation.

The study investigated various potential solutions but ultimately presents three main alternatives for flood reduction. Alternative 1 involves regrading and clearing ditches within and around the neighborhood to improve water flow, reducing flood levels and enabling vehicular access during a 10-year storm event. This alternative is estimated to cost \$2.7 million. Alternative 2 incorporates all the improvements from Alternative 1, while adding permeable pavers along sections of Meeting Street to improve drainage using underground water storage. Additionally, the roadway crown of Meeting Street would be raised to improve runoff. This alternative is expected to reduce flooding more effectively and is estimated to cost \$4.7 million. Alternative 3 involves raising Meeting Street and a portion Professional Park Drive to allow vehicular passage during a 10-year storm event. This alternative is estimated to cost \$2.1 million.

In addition to the three alternatives, resiliency recommendations are provided, including upgrading the existing pump station with automated controls and a backup generator. This would improve the reliability of the system, particularly during storm events, and reduce the risk of exacerbated flooding. The cost for these improvements is estimated at \$378,000.

The Engineer’s Opinion of Probable Cost (EOPC) for the proposed alternatives ranges from \$2.1 to \$4.7 million. Several funding opportunities are available to support the project, including state and federal grants. The recommended solution will be selected based on feasibility, cost, and the Town’s capacity for implementation and future maintenance. The proposed improvements are expected to significantly reduce flooding in the area.

2. Introduction

The Professional Park Drive Area Stormwater Inventory and Flood Study is proposed to evaluate design alternatives in the vicinity of Professional Park Drive and Meeting Street to achieve a 10-year Level of Service (LOS). If a 10-year LOS cannot be achieved due to cost constraints or constructability issues, alternatives will be evaluated to provide the maximum benefit to flood reduction within feasible cost constraints. This report provides information on existing conditions, hydrologic and hydraulic design basis, proposed alternatives, Engineer’s Opinion of Probable Cost (EOPC), and final recommendations.

Property flooding and impairment to vehicular travel is common in the Professional Park Drive and Meeting Street area due to frequent flooding of neighborhood drainage ditches and the inability to move water out of the neighborhood. Several factors influence flooding frequency and severity, including excessive vegetation growth in drainage channels due to infrequent maintenance, a high groundwater table and soils that do not allow for effective infiltration, and a lack of positive drainage in several outfall channels. Additionally, in reference to the surrounding streets and building finished floor elevations (FFE’s) from the survey completed by JMT, the Meeting Street roadway surface appears to be constructed approximately one foot lower than its intended elevation, increasing the likelihood of ponding water within the roadway. Finally, the primary retention pond for the neighborhood is solely drained by a pump that is manually operated and severely undersized, leaving little to no storage for stormwater during storm events.

A recent severe rain event caused flooding on Meeting Street to overtop the curb and spill into residents’ property. Meeting Street was rendered impassable for residents trying to leave the area during the event. Town staff provided Photo 1 and Photo 2 (shown below) from the aftermath of that rain event. Residents report that they experience flooding on Meeting Street and Professional Park Drive after almost every rain event.



Photo 1. Meeting Street flooding looking at 411 and 413 Meeting Street (Photo taken by Town resident 08/25/2022)



Photo 2. Flooding view between 407 and 409 Meeting Street looking SW after a 3.36" rainfall event (Photo taken Town of Beaufort Staff 08/07/2024)

WK Dickson created a 2-D PCSWMM Hydrologic and Hydraulic (H&H) model for the project area. A 2-D H&H analysis was performed to evaluate the most cost-effective design alternatives that would reduce neighborhood flooding, specifically on Meeting Street and Professional Park Drive.

Please refer to Figure 1 and Figure 2 for maps indicating the evaluated portion of the watershed draining to the project area.



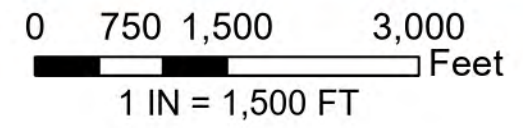
Legend

Project Study Area (318 AC)

Sources: Esri, Airbus DS, USGS, NGA, NASA, CGIAR, N Robinson, NCEAS, NLS, OS, NMA, Geodatastyrelsen, Rijkswaterstaat, GSA, Geoland, FEMA, Intermap and the GIS user community, Esri Community Maps Contributors, State of North Carolina DOT, Esri, TomTom, Garmin, SafeGraph, GeoTechnologies, Inc, METI/NASA, USGS, EPA, NPS, US Census Bureau, USDA, USFWS



Figure 1 - Vicinity Map
Professional Park Drive Stormwater Inventory and Flood Study



5/20/2024

3. Existing Conditions

The watershed area evaluated in the project is approximately 417 acres and is primarily bounded by Live Oak Street to the east and Highway 101 to the west as shown in Figure 2. The project area drains to four outfall channels that discharge into the North River to the east and the Newport River to the west as shown in Figure 3. The watershed is located within the White Oak River basin. The watershed area is primarily comprised of residential neighborhoods, wooded areas, and farmland. Much of the watershed drains to the existing neighborhood drainage ditches or stormwater retention ponds, crosses under Live Oak Street or Highway 70 and makes its way into intracoastal waterways.

The existing Meeting Street retention pond Water Surface Elevation (WSEL) is maintained by a 5 horsepower (HP) pump station as shown below in Photo 3 and Photo 4. This pump discharges to the network of neighborhood drainage ditches and eventually drains under Highway 70 and towards the Newport River. The other drainage device for Meeting Street is a network of drainage ditches that are extremely flat or have negative slopes shown in Photo 5. These ditches are known to hold water and flow in multiple directions.



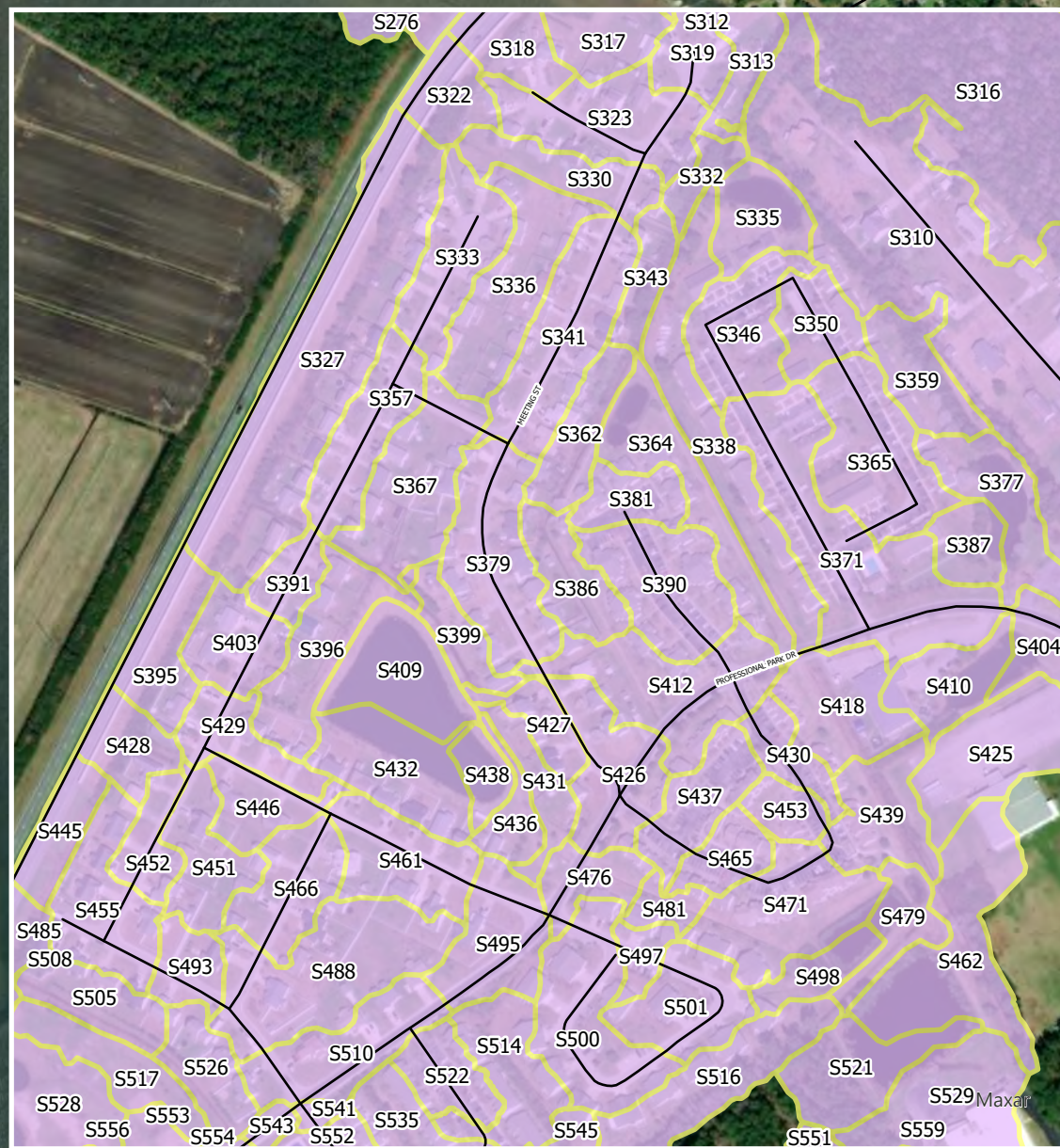
Photo 3. Meeting Street retention pond pump station (Photo taken by WKD Staff 02/08/24).



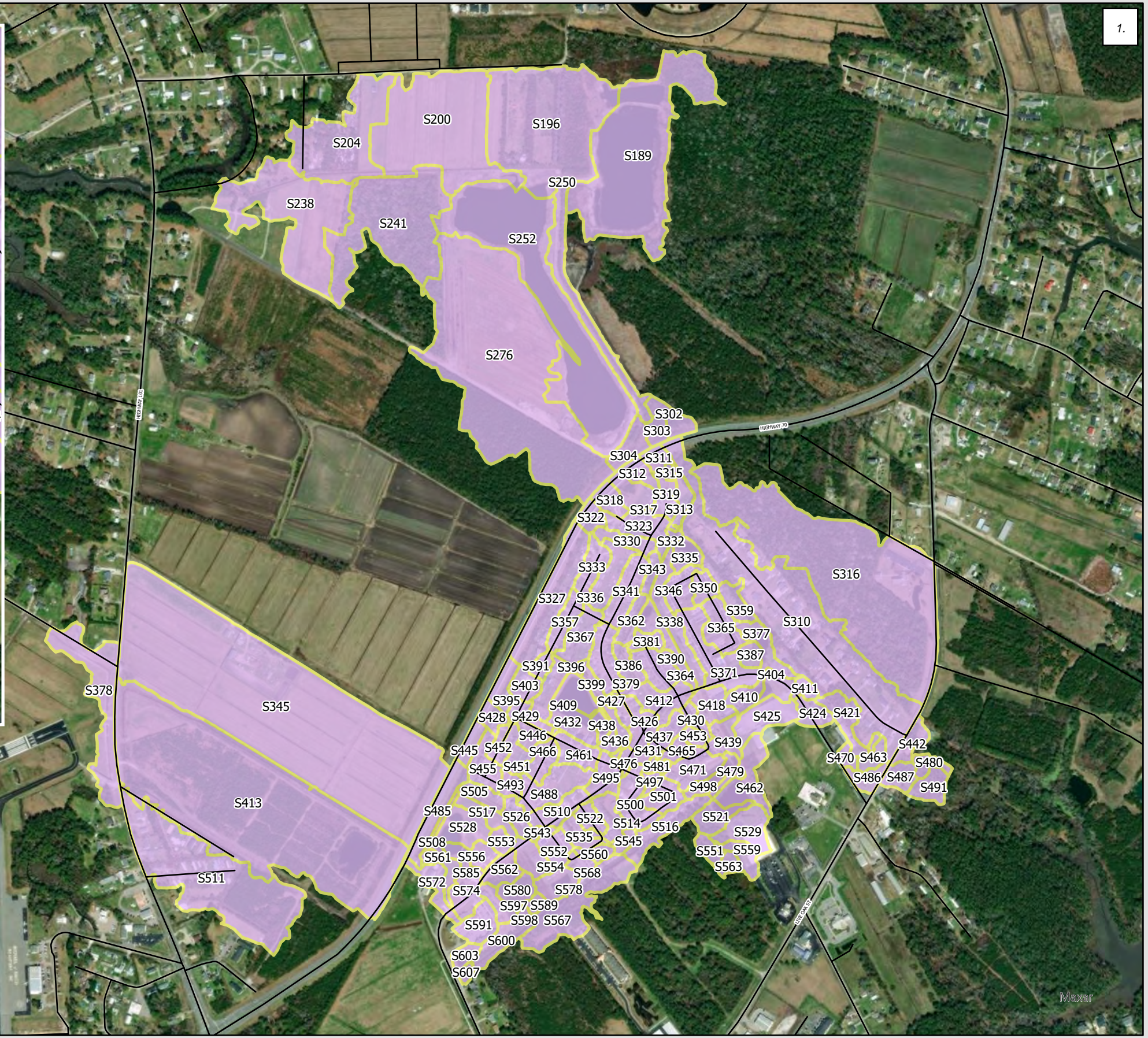
Photo 4. Drop inlet grate just upstream of the pump pond filled to the rim in non-flooding conditions (Photo taken by WKD Staff 02/08/24).



Photo 5. Meeting Street drainage ditch looking downstream toward northern outfall (Photo Taken by WKD Staff 02/08/24).



MEETING STREET INSET
1 IN = 400 FT



Legend


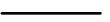
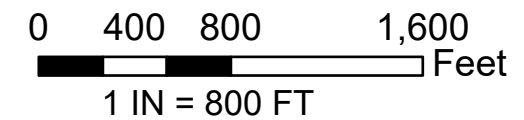
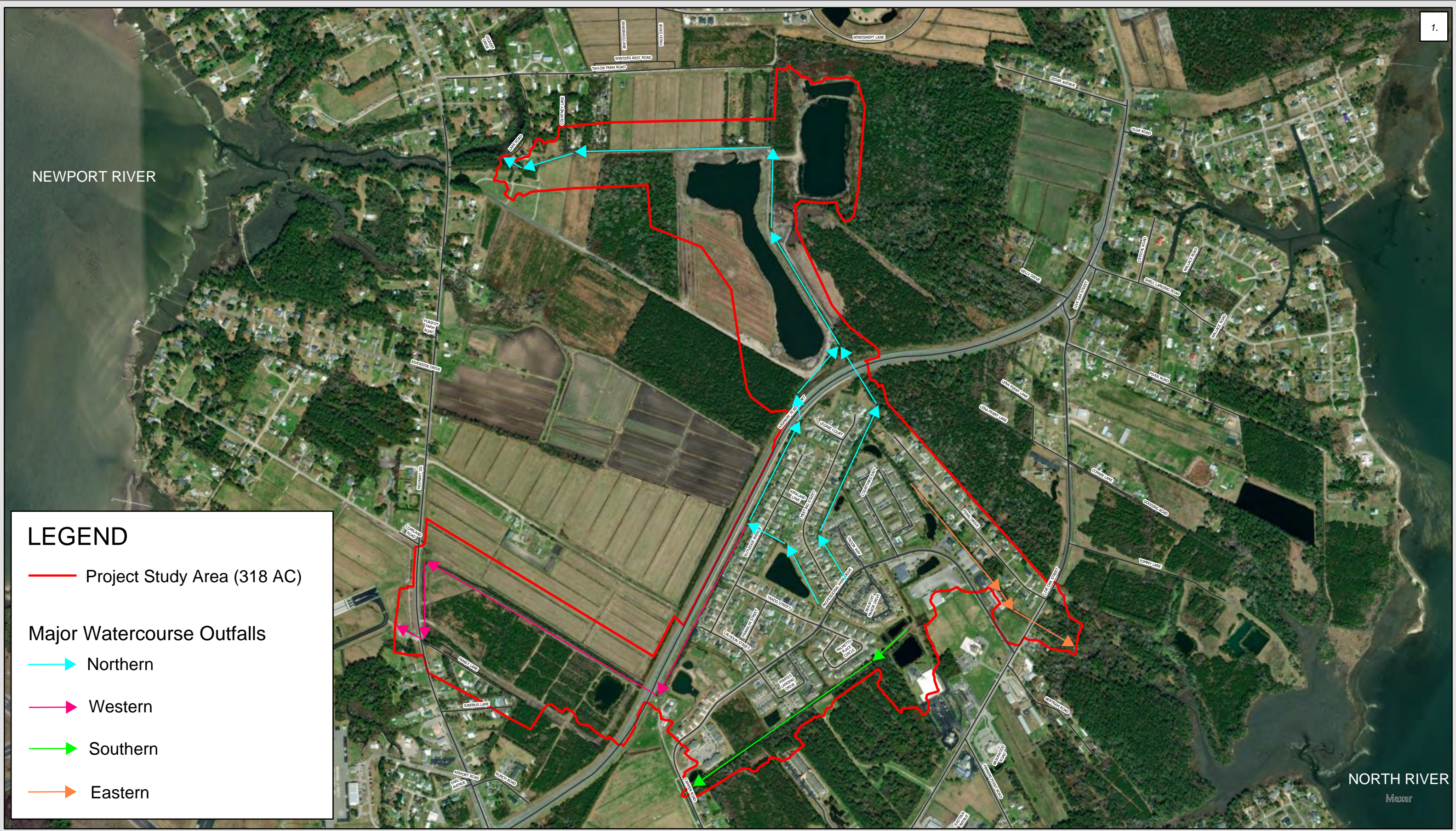
-  Subcatchments (417 AC)
-  Street Centerlines



Figure 2 - Watershed Map
Professional Park Drive Stormwater Inventory and Flood Study



1/10/2025



LEGEND

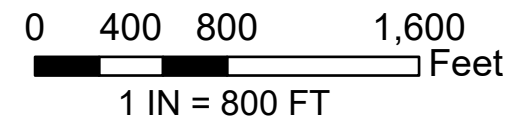
- Project Study Area (318 AC)

Major Watercourse Outfalls

- Northern
- Western
- Southern
- Eastern



Figure 3 - Flow Direction Map
Professional Park Drive Stormwater Inventory and Flood Study



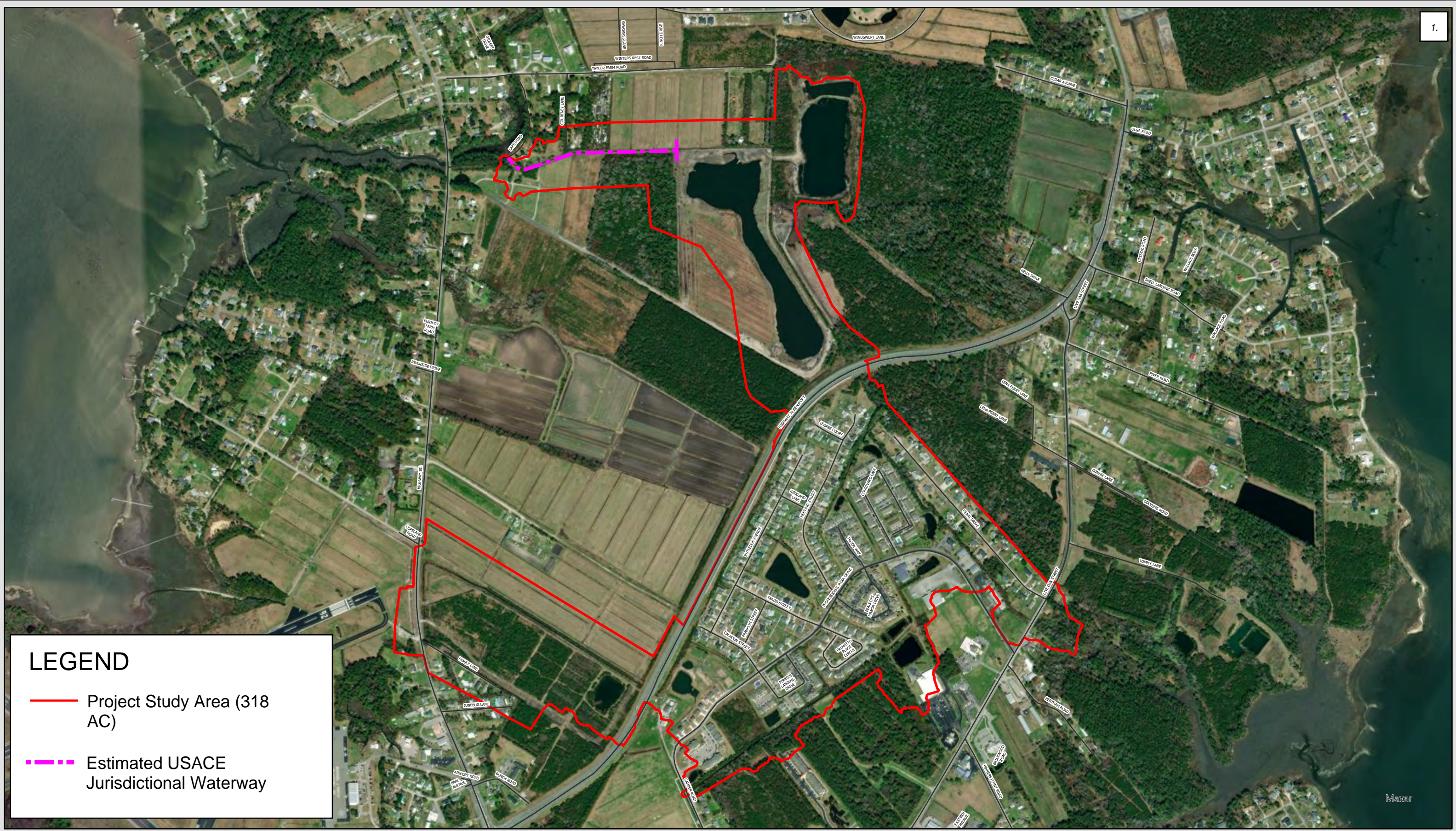
1/9/2025

4. Natural Resources

The streams and wetlands within the project area were evaluated based on the North Carolina Division of Water Resources (NCDWR) Stream Identification Method and the US Army Corps of Engineers (USACE) wetland delineation method described in the 1987 US Army Corps of Engineers Manual with further guidance from the Atlantic Gulf and Coastal Plain (AGCP) Regional Supplement. From this evaluation, it is probable that all the ditches within the neighborhood area will be considered non-jurisdictional. The northern outfall that heads under Highway 70, towards Wading Creek, has been determined to be non-jurisdictional until it reaches the mining pit outfall as shown in Figure 4.

The USFWS ECOS-IPaC data source was used to evaluate on-site habitat for suitability to support threatened and endangered species. A consultation with the US Fish and Wildlife Service (Project Code 2024-0114163) indicates a total of 13 threatened, endangered, or candidate species should be considered in an effects analysis by this project. There are no critical habitats within this project, and no habitat for potentially occurring species will be impacted by this project. See Appendix C for the full threatened and endangered species report.

An analysis of historic and cultural resources was performed for the project area. The NC State Historic Preservation Office (NC SHPO) online resources were used to determine existing structures as shown in Figure 5.

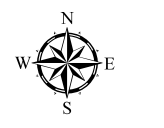
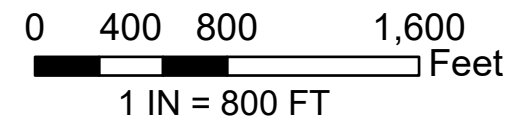


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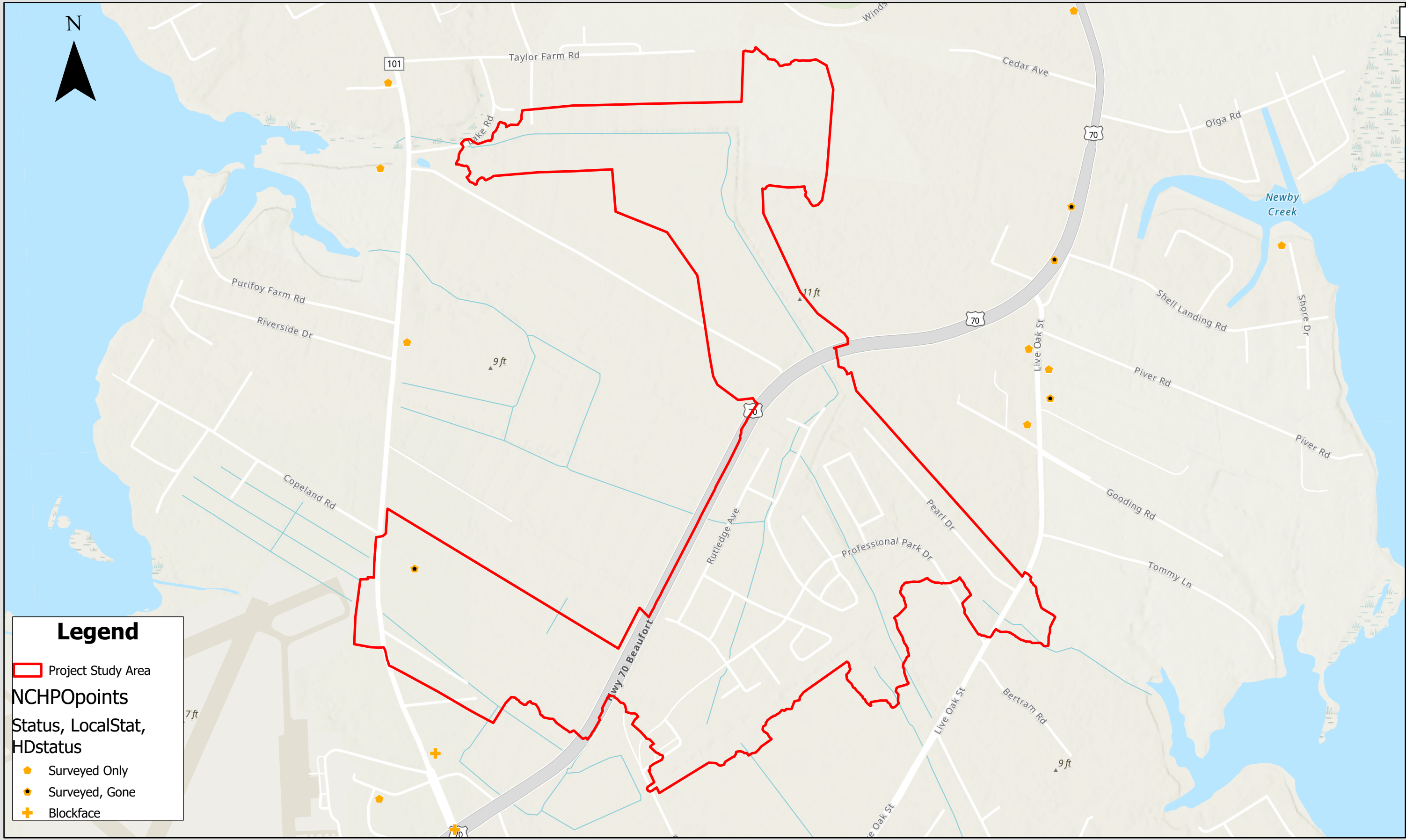
- Project Study Area (318 AC)
- - - Estimated USACE Jurisdictional Waterway



Figure 4 - Waters of the US Map
Professional Park Drive Stormwater Inventory and Flood Study



1/10/2025



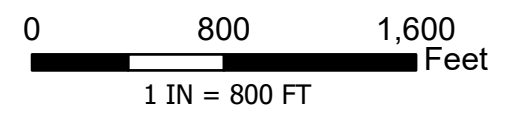
Legend

- Project Study Area

NCHPO points
Status, LocalStat, HDstatus

- ◆ Surveyed Only
- ◆ Surveyed, Gone
- + Blockface

**Figure 5 - State Historic Preservation Office Map
Professional Park Drive Stormwater Inventory and Flood Study**



5. Hydrologic and Hydraulic Analysis

5.1 Existing Conditions Modeling Overview

Data from The Wootens Company’s previously completed masterplan from the *Stormwater Capital Improvements Plan for the Town of Beaufort North Carolina* dated June 11, 2019, was utilized to supplement the 2-D Existing Conditions PCSWMM model for the Professional Park Drive area. Site plan information from recent development projects was utilized to determine inverts and locations of structures that were recently added to the project area. Asset Inventory with survey-grade elevation (NAD 83) has been incorporated into the Digital Terrain Model (DTM) and was supplemented with LiDAR (2019 NOAA NGS Topobathy Lidar, NAD 83) contours. This DTM includes any significant hydraulic obstructions that have been identified in field visits and the ortho-imagery. Also included in the model are existing pipe inverts, sizes, slopes, surface roughness calculations, hydraulic outlet structures elevations and overland drainage patterns.

After initial existing conditions modeling had been completed, additional data from geotechnical investigation and detailed surveying efforts was used to supplement the model. ECS Southeast’s groundwater data from the *Existing Conditions Groundwater Modeling Report* (provided in Appendix B) was incorporated into the DTM to improve the accuracy of model results. JMT’s detailed survey data from the *Plan of Topographic Drainage Survey of the Professional Park Drive Area* (provided in Appendix A) was used to increase the DTM accuracy in the neighborhood area and check existing pipe inverts and sizes.

Existing conditions have been modeled and the output is provided in Appendix E. Figures are provided to illustrate the 1%, 2%, 4%, 10%, and 50% 24-hour probability storm event flooding depths when routed through the existing conditions. The model indicates that Meeting Street does not meet the 10-year design storm LOS requested by the Town of Beaufort. This analysis is supported by multiple instances of property flooding reported to the Town.

5.1.1 H&H Model Considerations

The modeling software used for the Professional Park Drive model was PCSWMM (running engine version SWMM5.2.4) by CHI Software, chosen due to its ability to effectively combine 1D and 2D modeling elements to handle complex flow. For this project, WK Dickson utilized a “quasi” rain on grid method to evaluate existing and proposed flows. This method utilizes elements of both traditional subcatchment hydrology and rain-on-grid hydrology by subdividing the watershed into smaller local subcatchments that apply flow directly to the mesh. The project area is extremely flat, so using a “quasi” rain-on-grid style model allows for traditional subcatchment flow calculations and for water to flow in different directions based upon the DTM. The PCSWMM model was then utilized to reflect

the existing flooding conditions and provide a tool with which to evaluate the effects of proposed design alternatives

5.1.2 *Updates to the Previous Drainage Study*

Survey Data

An initial asset inventory survey of the project area was conducted in support of the existing conditions 2-D modeling effort. The inventory obtained from the previous masterplan was not comprehensive of the project area. As a result, additional inventory was needed to fill in the gaps where information was missing. As shown in Figure 6, the asset inventory was conducted throughout the neighborhood and along the outfall channels. This included fifteen (15) cross-sections and forty (40) structures. A Professional Land Surveyor (PLS) provided survey grade elevation shots at each of the asset fifty-five (55) inventory locations.

A limited topographic land survey was conducted after proposed alternatives had been selected to gather detailed information on the topography and structure inverts within the extents of the proposed alternative within the project limits. The survey extents were composed of a mixture of detailed and limited detail areas. This was done to obtain a high amount of detail in known critical areas while also covering as much ground as possible within the allotted budget. The survey was incorporated into the PCSWMM model in two ways. Firstly, the Digital Elevation Model (DEM) precision was enhanced with the topographic information. Secondly, the 1D elements of the model (representing pipes, channels, etc.) were updated with current invert elevations. Confirmations were also made for materials, inlet/outlet characteristics and drainage system integrity.

The 2D components of the model (which carry the overland flow when conveyance structures are exceeded), sometimes referred to as a “grid” or “mesh”, consist of thousands of discrete units which are individually assigned an elevation from the underlying topography data. Originally, the topography used was LIDAR data. As a bulk data product, LIDAR is an effective source of elevation data for planning-level analysis. Since this project now is considering detailed design alternatives, detailed survey points collected allowed for the creation of a more accurate DTM with which to construct an improved 2D mesh.

5.1.3 *Model Validation*

To establish a higher level of confidence in the performance of a hydraulic model, field observations of water surfaces can be visually compared with results from the model. Town staff were able to provide photos of rain events that were compared with model output for flooding location and

approximate depth validation. In addition, Town staff compared existing conditions flooding inundation maps to location of known flooding complaints within the project area.

5.2 Rainfall

Rainfall depths for the 24-hour design storms were obtained from NOAA Atlas 14, Station Morehead City, North Carolina. Table 1 summarizes the rainfall depths used for the simulation. Please refer to Appendix D for the complete NOAA rain gauge output used to create the model simulation.

Table 1. Design Storm Rainfall Depths

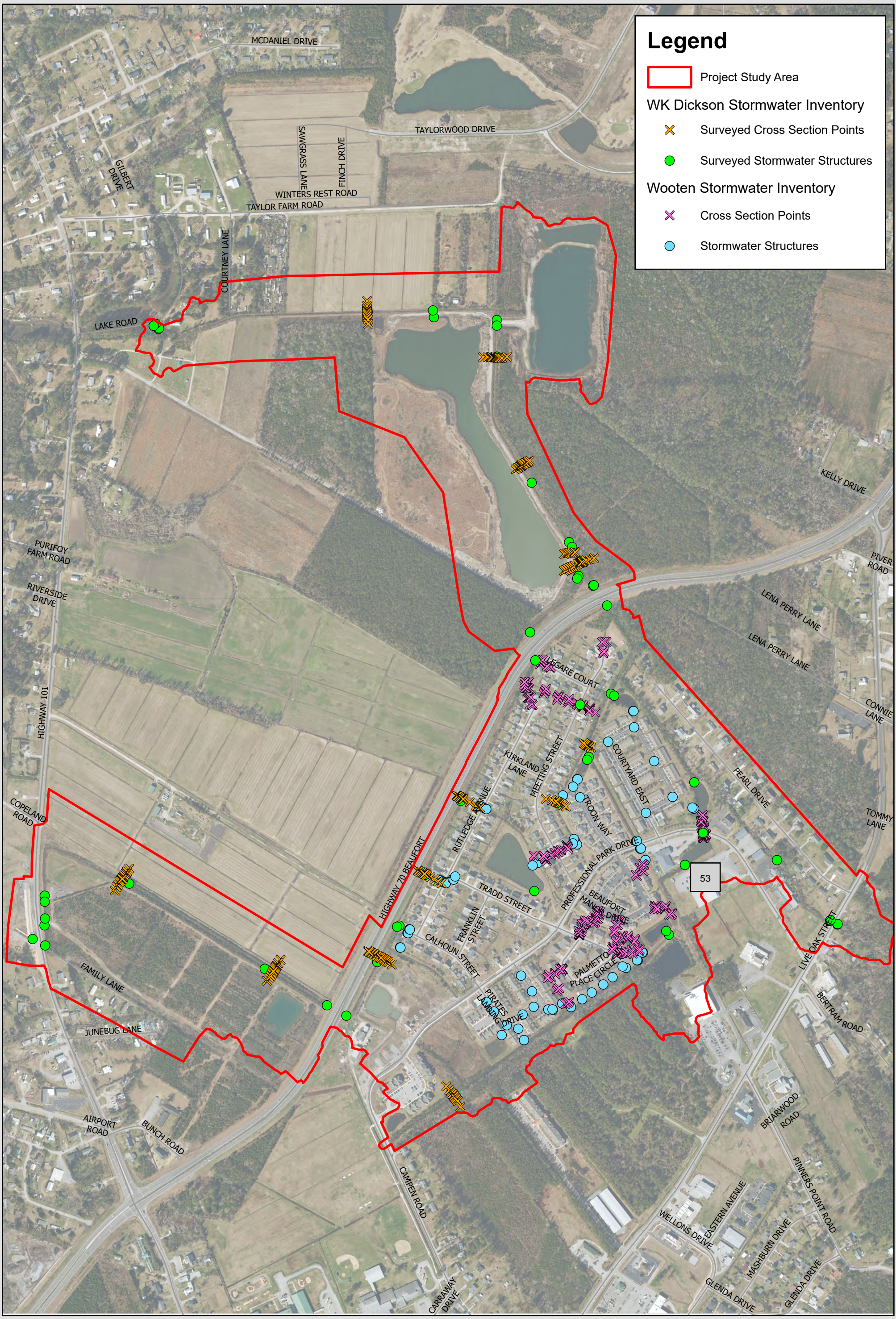
Design Storm Rainfall Depths (inches)				
2-year, 24-hour	10-year, 24-hour	25-year, 24-hour	50-year, 24-hour	100-year, 24-hour
4.46	6.87	8.49	9.90	11.40

5.3 Modeling Assumptions

The following modeling assumptions were used in the analysis of this system:

- Model publicly owned pipes (greater than 12" in diameter), culverts and channels within project boundary limits, as shown in Appendix A.
- Hydrologic Assumptions (see Appendix H – Hydrologic Parameters)
 - Land use based on Carteret County tax parcel data and converted to equivalent TR-55 land uses
 - Hydrologic Soil Groups determined from web soil survey
 - Weighted curve numbers for each subcatchment are calculated utilizing PCSWMM tool "Spatial Weighting" with a curve number layer as the data source.
 - Subcatchment flow length is calculated utilizing PCSWMM tool Set Flow Length/Width with a flow path layer.
 - Subcatchment slope is calculated utilizing PCSWMM tool Slope from DEM.
- The downstream boundary conditions for the model shall be normal depth.
- Use standard 2-D PCSWMM (impervious percent, basin widths, basin slopes) along with NRCS methods (RCN values) to calculate the infiltration losses for the watershed.
- Produce model results for the 2-YR (50% AEP), 10-YR (10% AEP), 25-YR (4% AEP), 50-YR (2% AEP), and the 100-YR (1% AEP) Storm Events utilizing the recent NOAA precipitation depths.
- Existing project area stormwater inventory will be incorporated into the 2-D PCSWMM model with best available data from existing Wooten masterplan and recent development projects.
- Structure elevations from the Wooten masterplan were assumed to be rim elevations with one (1) foot of cover over stormwater pipes.

- The pump station is not included in the existing conditions model since it does not run during storms.
- Constant grade is assumed in channels between areas of surveyed cross sections and/or invert elevations.
- Tidal influence will not be modeled as a part of this project.
- Observed ground water elevations were incorporated into the DTM instead of the seasonal high water table (SHWT). Producing cost feasible solutions using the seasonal high-water table within the project area would be unlikely. Severe storm events are less likely during the same season as the SHWT.

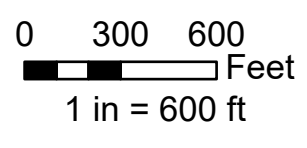


Legend

- Project Study Area
- WK Dickson Stormwater Inventory**
- X Surveyed Cross Section Points
- Surveyed Stormwater Structures
- Wooten Stormwater Inventory**
- X Cross Section Points
- Stormwater Structures



Figure 6
Stormwater Inventory Comparison
Professional Park Dr SW Inventory & Flood Study



1/9/2025

6. Proposed Alternatives

Due to uncertainties related to factors such as property acquisition, permitting, and material cost, a variety of alternatives to address flooding concerns were evaluated. Design objectives for all alternatives include:

- Reduction of Meeting Street and Professional Park Drive flooding during frequent rain events, and
- Balance of cost-benefit.

Please refer to Figure 7 for proposed alternative illustrations. Appendix F contains the model results from the proposed alternatives described below.

6.1 Alternative Investigations

The proposed alternatives in this report are composite results of iterative modeling through various alternatives to provide options with the greatest benefit to Meeting St and Professional Park Dr. Due to the severity of flooding along Meeting Street vs Professional Park Drive, the majority of the proposed alternatives are geared toward reducing the maximum WSEL on Meeting Street. A comprehensive list of alternative options that were evaluated is shown below:

1. Re-grading, clearing, and widening of ditches internal to the residential neighborhoods within the project area.
 - a. Numerous model iterations were conducted to determine the most beneficial and economic combination of ditches to be graded within the neighborhood.
 - b. These iterations included replacement/relocation of existing stormwater drainage infrastructure in the neighborhood as well.
2. Re-grading, clearing, and widening ditches external to the residential neighborhoods within the project area.
 - a. Numerous model iterations were conducted to determine the most beneficial and economic combination of outfall ditches to be graded.
 - b. The proposed grading in these iterations occurred primarily in the northern and southern outfall ditches along Highway 70 that feed into the Newport River to the west and North River to the east.
 - c. These iterations included replacement/removal of existing culverts along the outfall ditches as well.
3. Upsizing NCDOT culverts under Highway 70.
 - a. Due to backwater conditions in the outfall ditches, this alternative did not achieve any reduction in WSEL neighborhood roads.

4. Leveraging the old mining pond along the northern outfall for additional volume storage.
 - a. Grading small channels connecting the outfall channel to the pond on the upstream and downstream side.
5. Floodplain benching along the northern outfall.
6. Improving functionality of the pump in the Meeting Street pond.
 - a. Automating the pump station to keep the pond WSEL close to observed groundwater elevation (6') before storm events.
 - b. An iteration simulating a greatly upsized pump was investigated but it was determined that the measure would be impractical and expensive.
7. Increasing the Meeting Street roadway crown elevation.
 - a. Iterations were run with the curb elevations at existing grade.
8. Catch basins and outfall pipes at the two low points on Meeting Street.
9. Permeable pavers along the inundated areas of Meeting Street to provide better roadway drainage and volume storage.
10. Small infiltration practices such as rain gardens and bioretention cells were considered but not modeled. Such practices were determined to be infeasible due to the high groundwater table, soils with low infiltration rates, and lack of available positive drainage to outfall channels.
11. Removing the pump from Meeting Street Pond and grading an overflow weir.
 - a. Grading a small channel connecting the pond to the ditch that runs alongside it.
 - b. For water to be discharged into the ditch, the WSEL in the pond would have to raise so much, that this measure resulted in increased inundation durations on Meeting St.
12. Raising Meeting Street and Professional Park Drive.
 - a. Raising both street elevations by a maximum of 0.75' and tying back into existing elevations at the town right-of-way limits.

6.2 Alternative 1 – Neighborhood and Outfall Ditch Improvements

This alternative recommends clearing and grading along conveyance ditches in the project area to provide positive drainage and decreased flow obstruction within the system. The proposed improvements in this alternative will allow vehicles to travel along the center of the roadway on Meeting St. and Professional Park Dr. during a 10-year storm event. All grading is assumed to be in non-jurisdictional waters of the US. Any grading in jurisdictional waters will be above the ordinary high-water mark to reduce environmental permitting requirements.

There are two main sections of ditch within the neighborhood that were targeted as locations for regrading. Area 1 drains from Professional Park Dr, in between the pumped pond and the southwest side of Meeting St, then drains toward the outfall at Highway 70. Area 2 conveys flow from Professional Park Dr, along the northeast side of Meeting St until it reaches the northern outfall at

Highway 70. Additional areas to be regraded include all swales draining Meeting St and Rutledge Ave. The northern outfall channel that feeds into Wading Creek is also recommended to be cleared and regraded as part of this alternative. This channel is inundated with groundwater and only bank grading is proposed. The northern outfall channel runs along a large mining pond that is proposed to be hydraulically connected on the upstream and downstream sides to provide additional storage during storm events. All areas will be graded with a 3 to 1 (H:V) side slope but grading depths will vary by location. It is also recommended that pipes/culverts in the neighborhood and outfall channels be cleared of debris and sediment.

As a part of this alternative, the Meeting Street pond will be pumped to elevation 6' in preparation for storm events. Replacing the pump, as described in the resiliency recommendations below, will allow this task to be automated. If the pump is not upgraded, the engineering plans (Stroud Engineering, PA) for the existing pump indicate that the pump is capable of pumping the pond elevation to 6'.

Once these improvements have been installed, routine maintenance should be performed to maintain the required conveyance capacity.

6.3 Alternative 2 – Permeable Pavers and Internal/External Ditch Improvements

Alternative 2 is an additive alternative, and it includes everything described in Alternative 1 with the addition of replacing two portions of asphalt roadway on Meeting Street with approximately 1100 LF of permeable pavers. Approximately 1500 LF of Meeting Street's road crown is proposed to be raised to produce a 3% cross slope to improve roadway drainage. This also allows Meeting St. and Professional Park Dr. north of Tradd St. to achieve a 10-year level of service (LOS) and is travelable during a 25-year storm event. The existing curb and gutter within the proposed permeable paver area is recommended to remain in place with only the existing asphalt area being impacted.

The permeable pavers will have underground detention capabilities using both the void space within the stone base as well as storage chambers. This storage will fill up during a rain event and drain to the pond or to outfall ditches through an underdrain system. Differing storage depths and capacities were used at the two flood prone areas of Meeting Street based on ability for the underdrain system to achieve positive drainage to the nearest outfall. Due to the high groundwater level within the project area, it is recommended to use an impermeable liner around the permeable paver subgrade and undrain system to avoid groundwater inundation.

Like the ditch improvements, these permeable pavers will require routine maintenance to ensure they do not get clogged or damaged. The paver areas will require periodic vacuuming to remove surface clogging sediment per the manufacturer's recommendation.

6.4 Alternative 3 – Road Raise and Internal Ditch Improvements

Alternative 3 recommends raising the majority of Meeting Street and a portion of Professional Park Drive by 0.75 feet. As previously mentioned, Meeting Street appears to be constructed lower than other neighborhood roads in relation to Finished Floor Elevations (FFE) creating a “bowl” for stormwater to fill. Raising Meeting St. and Professional Park Dr. will allow the roads to be travelable during a 10-year storm event. The impacts of raising the roads are proposed to be contained within the town right-of-way. This alternative also includes grading two short spans of ditches that collect water from Professional Park Dr as well as the ditch running off of the Meeting Street cul-de-sac.

The proposed road raising will impact approximately 1,725 LF of Meeting Street and 425 LF of Professional Park Drive. This will create two new low points on Professional Park Dr. that will be drained by two ditches running parallel to Meeting St. As a result of these roads being raised, the existing curb and gutter, sidewalk, and driveways within the right-of-way will need to be replaced. The proposed road work has been specifically designed to raise the roads elevation as close to the original design intent as possible while maintaining positive drainage from the surrounding properties to the road.

As stated in the previous alternatives, routine maintenance will be required to keep the proposed ditches free from obstruction and maintain the required conveyance capacities.

It is important to note that while raising Meeting Street decreases depth of flooding, it slightly increases water surface elevation (WSEL) in certain areas within the neighborhood by a maximum of 0.05'. This means that the runoff from storm events will be dispersed more evenly throughout the neighborhood stormwater ditches instead of concentrating at Meeting Street. The small increase in WSEL will result in an increase in the surface area of the flooding footprint in certain places. The increased WSEL and spread is small, but needs to be taken into consideration in this alternative.

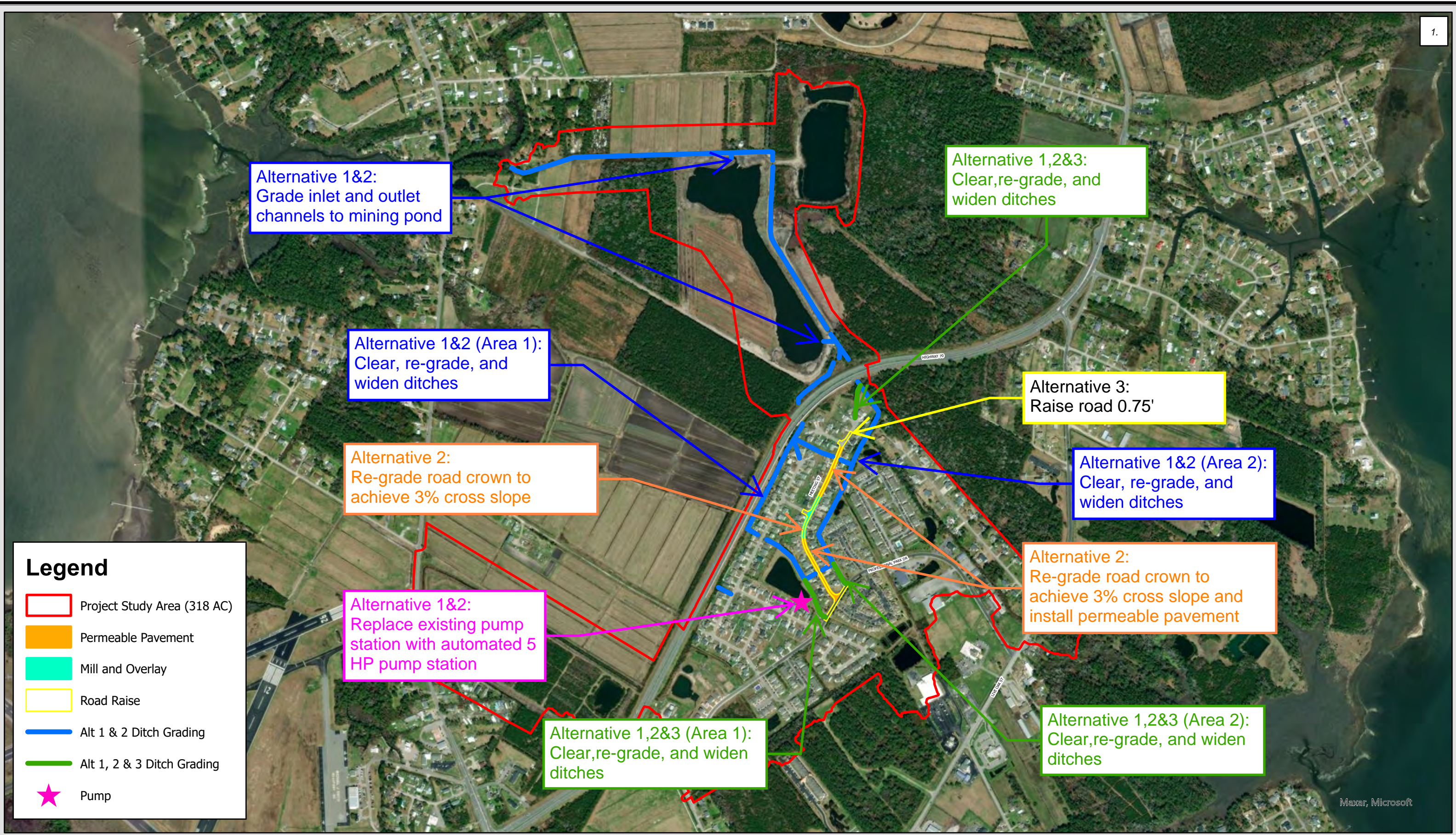
6.5 Resiliency Recommendations (Pump Station Improvements)

In addition to the three alternatives described above, there are several things the Town could consider to improve the project area’s resiliency to flooding.

For this study, the existing pump station at the neighborhood pond was assumed to be functional and the current permanent pool elevation maintained. However, should the pump station break or the manual operation of the pump be delayed, the pond WSEL would be higher at the beginning of a new storm event, and flooding along Meeting Street could be exacerbated. A duplex pump station with automated controls and backup generator is recommended to improve resiliency and maintain the

pond permanent pool elevation. No piping upgrades are recommended between the pump station and existing outfall location; therefore, proposed pumps shall be approximately 5-HP for compatibility with the existing piping.

Additionally, the Town could consider ongoing ditch and pipe clearing within the internal and external ditches without full regrading as described in the proposed Alternatives.



6.6 Proposed Alternatives Modeling Results

A key design objective of the project is to increase the health and safety of the residents of the Professional Park Dr community by reducing inundation levels and duration along Meeting St and Professional Park Dr. Table 2 and Table 3 below calculate the net reduction in water inundation depths at the low points of Meeting Street for each studied storm event. Table 4 and Table 5 below calculate the net reduction in water inundation duration at the low points of Meeting Street for each studied storm event. See Appendix F for complete proposed modeling results and figures.

Table 2. Inundation Depth (ft) at the Southern Low Point of Meeting St

Existing Conditions					
Frequency Storm	2-YR	10-YR	25-YR	50-YR	100-YR
Road Crown	0.42	1.1	1.45	1.73	1.95
Road Gutter	0.52	1.2	1.55	1.83	2.05
Alternative 1 – Ditch Improvements					
Frequency Storm	2-YR	10-YR	25-YR	50-YR	100-YR
Road Crown	0.08	0.26	0.72	1.1	1.46
Road Gutter	0.17	0.37	0.83	1.21	1.58
Crown Diff.	-0.34	-0.84	-0.73	-0.63	-0.49
Gutter Diff.	-0.35	-0.83	-0.72	-0.62	-0.47
Alternative 2 – Permeable Pavers					
Frequency Storm	2-YR	10-YR	25-YR	50-YR	100-YR
Road Crown	0	0	0	0.1	0.53
Road Gutter	0.12	0.13	0.22	0.35	0.78
Crown Diff.	-0.42	-1.1	-1.45	-1.63	-1.42
Gutter Diff.	-0.52	-1.07	-1.33	-1.48	-1.27
Alternative 3 – Road Raise					
Frequency Storm	2-YR	10-YR	25-YR	50-YR	100-YR
Road Crown	0	0.3	0.74	1.01	1.28
Road Gutter	0.05	0.56	1	1.28	1.55
Crown Diff.	-0.42	-0.8	-0.71	-0.72	-0.67
Gutter Diff.	-0.47	-0.64	-0.55	-0.55	-0.5

*No inundation, roadway surface elevation

Table 3. Inundation Depth (ft) at the Northern Low Point of Meeting St

Existing Conditions					
Frequency Storm	2-YR	10-YR	25-YR	50-YR	100-YR
Road Crown	0.36	1.03	1.56	1.85	2.07
Road Gutter	0.52	1.19	1.73	2.01	2.23
Alternative 1 – Ditch Improvements					
Frequency Storm	2-YR	10-YR	25-YR	50-YR	100-YR
Road Crown	0.02	0.24	0.7	1.05	1.39
Road Gutter	0.07	0.4	0.87	1.23	1.57
Crown Diff.	-0.34	-0.79	-0.86	-0.8	-0.68
Gutter Diff.	-0.45	-0.79	-0.86	-0.78	-0.66
Alternative 2 – Permeable Pavers					
Frequency Storm	2-YR	10-YR	25-YR	50-YR	100-YR
Road Crown	0	0	0.06	0.39	0.74
Road Gutter	0	0	0.24	0.62	0.97
Crown Diff.	-0.36	-1.03	-1.5	-1.46	-1.33
Gutter Diff.	-0.52	-1.19	-1.49	-1.39	-1.26
Alternative 3 – Road Raise					
Frequency Storm	2-YR	10-YR	25-YR	50-YR	100-YR
Road Crown	0	0.25	0.8	1.08	1.33
Road Gutter	0.01	0.41	0.96	1.28	1.5
Crown Diff.	-0.36	-0.78	-0.76	-0.77	-0.74
Gutter Diff.	-0.51	-0.78	-0.77	-0.73	-0.73

*No inundation, roadway surface elevation

Table 4. Inundation Duration > 0.5' (hrs) at the Southern Low Point of Meeting St

Existing Conditions					
Frequency Storm	2-YR	10-YR	25-YR	50-YR	100-YR
Road Crown	0	7.19	9.65	11.85	12.1
Road Gutter	0.46	8.4	10.68	12.05	12.18
Alternative 1 – Ditch Improvements					
Frequency Storm	2-YR	10-YR	25-YR	50-YR	100-YR
Road Crown	0	0	1.66	3.39	4.96
Road Gutter	0	0	2.19	4.04	5.51
Crown Diff.	0	-7.19	-7.99	-8.46	-7.14
Gutter Diff.	-0.46	-8.4	-8.49	-8.01	-6.67
Alternative 2 – Permeable Pavers					
Frequency Storm	2-YR	10-YR	25-YR	50-YR	100-YR
Road Crown	0	0	0	0	0.75
Road Gutter	0	0	0	0	2.98
Crown Diff.	0	-7.19	-9.65	-11.85	-11.35
Gutter Diff.	-0.46	-8.4	-10.68	-12.05	-9.2
Alternative 3 – Road Raise					
Frequency Storm	2-YR	10-YR	25-YR	50-YR	100-YR
Road Crown	0	0	4.51	6.2	7.38
Road Gutter	0	0.48	6.33	7.72	8.94
Crown Diff.	0	-7.19	-5.14	-5.65	-4.72
Gutter Diff.	-0.46	-7.92	-4.35	-4.33	-3.24

*No inundation, roadway surface elevation

Table 5. Inundation Duration > 0.5' (hrs) at the Northern Low Point of Meeting St

Existing Conditions					
Frequency Storm	2-YR	10-YR	25-YR	50-YR	100-YR
Road Crown	0	6.23	9.12	11.37	11.96
Road Gutter	1.56	7.77	10.42	12.06	12.21
Alternative 1 – Ditch Improvements					
Frequency Storm	2-YR	10-YR	25-YR	50-YR	100-YR
Road Crown	0	0	1.69	3.63	5.21
Road Gutter	0	0	2.6	4.69	6.11
Crown Diff.	0	-6.23	-7.43	-7.74	-6.75
Gutter Diff.	-1.56	-7.77	-7.82	-7.37	-6.1
Alternative 2 – Permeable Pavers					
Frequency Storm	2-YR	10-YR	25-YR	50-YR	100-YR
Road Crown	0	0	0	0	2.44
Road Gutter	0	0	0	1.26	4.01
Crown Diff.	0	-6.23	-9.12	-11.37	-9.52
Gutter Diff.	-1.56	-7.77	-10.42	-10.8	-8.2
Alternative 3 – Road Raise					
Frequency Storm	2-YR	10-YR	25-YR	50-YR	100-YR
Road Crown	0	0	4.24	6.04	7.34
Road Gutter	0	0	5.34	6.98	8.26
Crown Diff.	0	-6.23	-4.88	-5.33	-4.62
Gutter Diff.	-1.56	-7.77	-5.08	-5.08	-3.95

*No inundation, roadway surface elevation

7. Engineer’s Opinion of Probable Cost

An Engineer’s Opinion of Probable Cost (EOPC) was created for each alternative at a conceptual design level. The EOPC focuses on construction costs at a high-level and combines incidental costs into select drainage line items. Please refer to Table 6 for an alternative cost summary and Appendix G – for a detailed EOPC of each design alternative.

Table 6. Proposed Alternatives Cost Summary

Alternative	EOPC
Alternative 1 – Neighborhood and Outfall Ditch Improvements	\$2,706,300.00
Alternative 2 – Permeable Pavers and Internal/External Ditch Improvements	\$4,671,800.00
Alternative 3 – Road Raise and Internal Ditch Improvements	\$2,064,400.00
Resiliency Recommendations (Pump Station Improvements)	\$378,000.00

8. Permitting Considerations

8.1.1 Anticipated Permitting

The chosen alternative will not require the project to be permitted through the USACE or North Carolina Department of Environmental Quality Division of Water Resources (NCDEQ DWR). The Resiliency Recommendations can be constructed without impacting any USACE jurisdictional waterways. If Alternative 1 or 2 is chosen, other potentially required NWP’s include but are not limited to Bank Stabilization (NWP-13) and/or Minor Discharges and Dredging (NWP’s 18 & 19).

All alternatives will have a disturbed area greater than 1 acre which will automatically trigger NCDEQ erosion and sedimentation control permitting requirements.

8.1.2 Land Considerations and Easement Acquisition

Several components of the work described in Alternative 1 and 2 will require various considerations for construction access. Because the neighborhood internal ditches currently have 20’ private drainage easements, grading work would require access agreements to allow the Town to complete maintenance in these areas. Areas of the external ditches and outfall channels would require temporary construction easements granted by property owners, with the exception of channels within NCDOT right-of-way, which would require NCDOT encroachment agreements for work to proceed.

Alternative 3 will require minimal easements due to the majority of the work taking place within the towns right-of-way. Temporary construction easements will be required to perform the ditch grading aspect of this alternative.

The proposed automated pump station is located on parcel PIN730608884162000 owned by Palmetto Plantation Master Association, Inc. It is recommended to obtain a permanent drainage easement (PDE) as a means of construction and maintenance access for the pump station and any areas outside of the ROW that will need to be permanently maintained by the Town.

8.1.3 Project Phasing

The project construction phasing plan will maintain residents’ access to buildings. Single lane road closure on Meeting Street will be required to perform pavement improvements. Coordination with the Town will be required to minimize service disturbance to residents, and public outreach will be a critical component of the project.

9. Funding Analysis

There are a few funding opportunities the Town of Beaufort could explore to fully fund or fund portions of this project. Additional investigation will be needed to determine complete project eligibility and competitiveness for each opportunity identified.

9.1 Clean Water State Revolving Fund (CWSRF)

Funding type:	Low interest loan
Application deadline:	Twice a year normally: <ul style="list-style-type: none"> • Fall (normally September) 2025 • Spring (normally April) 2025
Term:	35 years or the useful life of the project (<i>whichever is less</i>)
Interest rate:	Green infrastructure projects receive a 0% interest rate
Minimum loan amount:	n/a
Maximum loan amount:	\$35M
Funding availability	Around \$85M annually
Match component	n/a
Other funding considerations/conditions:	<ul style="list-style-type: none"> • Eligible Project - Stormwater management - Measures to manage, reduce, treat, or recapture stormwater or subsurface drainage water (i.e., storm sewers, green infrastructure).

- No match required
- Reimbursement based program

9.2 Local Assistance for Stormwater Infrastructure Investments Program (LASII)

*Funds will not be available Fall 2024 or Spring 2025. We are hoping this program will receive funding at the next legislative session.

9.3 319 Grant Program

This program ONLY funds projects that implement a DWR-approved watershed restoration plan to restore the water quality of waters impaired by nonpoint source (NPS) pollution. Funds are provided by the US Environmental Protection Agency pursuant to Section 319(h) of the Clean Water Act.

Funding type:	Grant
Application deadline:	Annual deadline around May each year with the FRP coming out in early 2025 Draft applications are due in March
Term:	Agreed upon in the grant agreement
Interest rate:	n/a
Minimum grant amount:	n/a
Maximum grant amount:	n/a however most projects range from \$50,000 - \$300,000
Funding availability	Around \$1.5M annually
Match component	40% of the total cost of the project must be paid for with non-federal matching funds The match can be from private, state, local, or non-profit sources
Other funding considerations/conditions:	Eligible Projects Include: <ul style="list-style-type: none"> • Targeted nutrient and sediment reduction projects in a single HUC-12 watershed. • Riparian restoration using bioengineering and/or green methods. • Wetland and floodplain restoration. • Stormwater management projects. • Stream restoration using natural channel design methodology and/or low head dam removal. • Development or significant update of nine-element watershed management plans in Underserved Communities.

Additional Match Information:

- Any expenses incurred before the agreement is fully executed, including applicant’s expenses for preparing a proposal and final development of workplan, budget, and timeline, are not eligible for match.
- The match can be cash or in-kind services.

9.4 NC Land and Water Fund

Funding type:	Grant
Application deadline:	Annual deadline around March (grant cycle opens in January)
Term:	
Interest rate:	n/a
Minimum grant amount:	n/a
Maximum grant amount:	n/a
Funding availability	Around \$5-9M in 2024
Match component	Not required but strongly recommended
Other funding considerations/conditions:	Grants available: <ul style="list-style-type: none"> • Restoration • Planning • Innovative Stormwater • Acquisition (land acquisitions for conservation purposes) <p style="text-align: right;">See additional information for each available grant below this table.</p>

Restoration Grant

- Awards ranged from \$150,000 to \$2,000,000 in 2023
- Funds restoration projects that restore the natural hydrology, stream channel, floodplain, and/or riparian habitat to provide ecological uplift and the long-term stability of natural resources.
- Eligible activities include:
 - Stream restoration, enhancement, or stabilization
 - Wetland restoration, creation, or enhancement
 - Other water quality related projects
 - Dam removal

- Culvert removal and replacement
- Requires a 50' vegetated conservation easement on both sides of the stream, if applicable.
- Ineligible activities:
 - Educational signage/facilities
 - Greenway/trail design or construction
 - Park improvements or amenities

Planning Grant

- Generally capped at \$75,000
- Funds planning projects to target reductions in surface water pollution. The intent is to conserve areas of high resource value or to restore degraded lands to re-establish their ability to protect water quality. E.G., watershed plans, river corridor plans, concept level feasibility and design, etc. Full design projects are best applied for under the Restoration grant program.
- Eligible activities include:
 - Stakeholder coordination
 - Monitoring, field work, GIS, analysis
 - Lab work, sample processing
 - Outreach, public meetings
 - Conceptual designs, renderings, cost estimates
 - Planning report development and production
 - Training of partners or volunteers

Innovative Stormwater

- Awards are \$250,000 on average
- Funds projects employing innovative technologies, applications, strategies, or approaches for managing stormwater for protecting and improving the quality of water in North Carolina.
- Innovative stormwater projects are those that:
 - Bring something new or different to practices in stormwater-quality management,
 - Build on experience and current practices,
 - Advance practices in stormwater-quality management regionally or statewide, or
 - Fit into the category of “local pilot project”
- Project must emphasize developing representative and defensible monitoring data and cost data, evaluating system effectiveness and performance in field applications, evaluating economic and social benefits, and disseminating findings and results.
- Grant requires long-term monitoring and sharing of the results to the stormwater community.
- Eligible activities include:

- Design and construction of innovative stormwater structures
- Project monitoring
- Project maintenance
- Dissemination of results: conference presentation, technical paper, website display, etc.
- Ineligible activities:
 - Educational signage/facilities
 - Property improvements or amenities

Acquisition

- Awards ranged from \$50,000 to \$5,000,000 in 2023
- See online manual for details here: [open \(nc.gov\)](https://open.nc.gov)

9.5 205J Water Quality Management Grant

Projects for this funding program involve identifying the nature, extent and cause of water quality problems or doing planning work to address those problems. Projects can include but are not limited to the development of EPA 9-Element Watershed Restoration Plans for a 12-digit or smaller USGS HUC, mapping stormwater infrastructure, conducting engineering designs for stormwater best management practices, and watershed assessments of pollutant sources.

**Only Reginal Councils of Government (COGs)/Regional Planning Organizations are eligible to apply, however, COGs may partner with any public or private sector organization to implement projects

Funding type:	Grant
Application deadline:	RFP is released annually in the summer and projects are selected in the fall
Term:	Once contracted, projects can run for a maximum of 18 months.
Interest rate:	n/a
Minimum grant amount:	n/a
Maximum grant amount:	n/a (awards have not exceeded \$150,000)
Funding availability	Previous years funding ranges from \$150,000 - \$406,000
Match component	Not required but strongly recommended
Other funding considerations/conditions:	Funds are dispersed on a quarterly reimbursement basis. See additional information for each available grant below this table.

9.6 Water Resources Development Grant

The purpose of this program is to provide cost-share grants and technical assistance to local governments throughout the state. Applications for grants are accepted for seven eligible project types: general navigation, recreational navigation, water management, stream restoration, water-based recreation, Natural Resources Conservation Service Environmental Quality Incentives Program (EQIP) stream restoration projects and feasibility/engineering studies.

Funding type:	Grant
Application deadline:	June 30, 2024 December 31, 2024
Term:	
Interest rate:	n/a
Minimum grant amount:	n/a
Maximum grant amount:	Encouraged not to exceed a \$200,000 request (\$50,000 for engineering/feasibility studies)
Funding availability	
Match component	50%
Other funding considerations/conditions:	Grants can be made for the following: <ul style="list-style-type: none"> • Stream Restoration: Restoration or stabilization of degraded streams & shorelines, aquatic barrier removals, etc. • Water Management: Stormwater control measures, drainage, flood control, hydrologic restoration, etc. • Water-based Recreation Sites: Greenways, Trails, Boardwalks; Paddle Access, Fishing Docks/Piers; land acquisition for water-based recreation sites operated by local governments. • Preliminary Feasibility or Engineering Study: towards implementation of one of the four eligible categories listed here. • NRCS Environmental Quality Incentives Program (EQIP) Stream Restoration Projects

9.7 Golden Leaf Foundation – Flood Mitigation Program

Funding type:	Grant
Application deadline:	December 12, 2023 March 5 2024
Term:	Golden Leaf will follow the schedule provided in the application but will allow extension requests.
Interest rate:	n/a
Minimum grant amount:	n/a
Maximum grant amount:	\$1,000,000
Funding availability	Approximately \$13M in 2024
Match component	n/a
Other funding considerations/conditions:	<p>Eligible Projects</p> <ul style="list-style-type: none"> • Repair of existing stormwater infrastructure damaged or destroyed by flooding, which must include improvements to mitigate against flooding • Improvement of existing stormwater infrastructure, including natural stormwater infrastructure (NOT general stream debris removal) • Construction of new stormwater infrastructure (including natural infrastructure) • Engineering expenses related to planning and development of flood mitigation solutions <p>Ineligible Projects</p> <ul style="list-style-type: none"> • Storm debris removal • Infrastructure alterations (including elevation of buildings, control or other improvements of water or sewer infrastructure) • Land Acquisition

There have been substantial changes in stormwater funding landscape over the last five years and new programs are continually being developed. As the Town navigates the current and future opportunities, niche funding opportunities may also be identified as we work identify the best funding scenario for this project. The key will be to evaluate the funding program, their priorities, and application deadlines and how they coincide with the Town’s timeline to complete the project. The Clean Water State Revolving Fund has the most funding available to fully fund the project with 0% interest loan dollars.

10. Recommendations

The proposed alternatives provide an increase in LOS within the project area and reduce property flooding potential.

Depending on the chosen alternative, increased flow capacity within the Professional Park community could increase flow rates in the channels just downstream of the project. Erosion along these sections of channel has not been identified, but the increase in flowrate, velocity, and flow depth may result in bank erosion. It is recommended that the Town monitor the downstream outfall channels and implement future bank stabilization if required.

10.1 Recommended Alternative

Although each of the alternatives have their own merits, Alternative 3 will reach the design objectives by balancing reducing flooding on Meeting Street and Professional Park Drive and the cost of improvement. It is recommended that Meeting Street and Professional Park Drive, at its intersection with Meeting Street, be raised by 0.75'. This is the most inexpensive alternative and requires the least amount of easements/access agreements. As noted before, this alternative does cause a small increase in water surface elevation within the neighborhood stormwater ditches.

Improvements Include:

- Professional Park Drive and Meeting Street travelable during 10-year storm event
- Decreased duration of flooding on both roads.

Appendices

Appendix A - Limited Detail Survey – Dated August 7th, 2024, Sealed by Walley Nero PLS#4314

Appendix B – Existing Conditions Groundwater Modeling Report

Appendix C – USFWS Threatened and Endangered Species List

Appendix D - Model Validation Input Data

Appendix E – PCSWMM Existing Conditions Modeling Results and Figures

Appendix F – PCSWMM Proposed Conditions Modeling Results and Figures

Appendix G – Engineer’s Opinion of Probable Costs

Appendix H – Hydrologic Parameters



Town of Beaufort, NC

701 Front St. - P.O. Box 390 - Beaufort, N.C. 28516 252-728-2141 - 252-728-3982 fax - www.beaufortnc.org

**Board of Commissioners
Work Session
4:00 PM Monday, January 27, 2025
Train Depot, 614 Broad Street
Beaufort, NC 28516**

AGENDA CATEGORY: Closed Session
SUBJECT: Pursuant to NCGS 143-318.11 (a) (6)

REQUESTED ACTION:
Motion to enter closed session pursuant to NCGS 143-318.11 (a) (6) to allow the Board of Commissioners to discuss personnel matters.

SUBMITTED BY:
Elizabeth Lewis
Assistant Town Manager/Town Clerk

BUDGET AMENDMENT REQUIRED:
No