

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY CATEGORICAL EXCLUSION

H&H JOB NO. TOK-001

NOVEMBER 15, 2024



Beeson Creek Stream Restoration – Reach 7

788 Beeson Road
Kernersville, North Carolina



SMARTER ENVIRONMENTAL SOLUTIONS

#C-1269 Engineering / #C-245 Geology

**United States Environmental Protection Agency
Beeson Creek Stream Restoration – Reach 7
Categorical Exclusion
788 Beeson Road
Kernersville, North Carolina
H&H Job No. TOK.001**

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**United States Environmental Protection Agency
Beeson Creek Stream Restoration – Reach 7
Categorical Exclusion
788 Beeson Road
Kernersville, North Carolina
H&H Job No. TOK.001**

1.0 Purpose and Need

1.1 Project Description & Location

The applicant, The Town of Kernersville, is in the process of submitting an application for financing to the United States Environmental Protection Agency (EPA) for the restoration of an unnamed tributary of Abbotts Creek located north of Cheryl Drive in Kernersville, Forsyth County, North Carolina (Site or subject Site; see Figure 1).

The Site is located north of Cheryl Drive and east of Union Cross Road in Kernersville, Forsyth County, North Carolina. The Site is comprised of portions of three tax parcels of land that total approximately 6.3 acres and are represented by Forsyth County Parcel Numbers 6875-85-7332.000, 6875-94-8711.000, and 6875-94-9887.000. The Site is currently comprised of undeveloped forested land.

Surrounding properties consist of residential properties to the north, Ivey M. Redmon Sports Complex to the east, residential properties to the south, and Union Cross Road to the west with residential properties located beyond.

The Beeson Creek Stream Restoration project includes several phases of restoration and flood resilience activities within the Beeson Creek Watershed. However, this Categorical Exclusion only applies to restoration activities proposed for Reach 7. The stream restoration project will include streambank stabilization, excavation of floodplain pools for water storage and habitat enhancement, and planting a diverse forest community to support wildlife. Specifically, the project proposed to complete the following activities:

- install a regenerative stormwater conveyance to restore a 15-foot headcut;
- address localized bank erosion through grading, matting, and vegetation;
- install log and boulder structures to provide grade control to protect streambanks;
- install grade control structures; and
- ensure the channel is 6-7 feet in width with stable riffles and pools.

A Categorical Exclusion and Extraordinary Circumstances Review Form is included as Appendix A. Further, the Reach 7 Conceptual Plan prepared by Jennings Environmental dated November 21, 2016, is provided as Appendix B.

1.2 Purpose and Need

The applicant, the Town of Kernersville, is seeking an EPA Community Grant for the proposed Beeson Creek Stream Restoration – Reach 7 project. The purpose of the project is to restore and stabilize a severely degraded stream reach. The stream restoration activities are intended to enhance the stream reach and prevent further erosion, which may cause impacts to surrounding residential properties. By completing the stream restoration efforts, the community will benefit as a whole. The project will not be funded by other state or federal agencies and will not commence until after EPA funding is secured.

During the proposed restoration activities, good erosion and sediment control practices will be followed. The development will comply with all local erosion and siltation ordinances. To minimize impacts to downgradient water bodies, temporary sediment and erosion control devices will be installed prior to beginning work and inspected at least once a week during construction. Extensive silt fencing will be used on the Site perimeter and along wetland boundaries. The contractor will maintain all temporary erosion control devices and will remove any accumulated silt. Disturbed areas will be reseeded promptly to prevent future erosion and sedimentation runoff, and stockpiling excavated soil will be avoided where possible. Following construction, the contractor will reestablish a vegetated buffer along the stream sufficient to prevent erosion prior to removing temporary erosion control structures.

2.0 Cross-Cutter Evaluation

2.1 State Historic Preservation Office and Tribal Historic Preservation Office

Based on a review of the NRHP list, none of the registered properties in Kernersville, Forsyth County are located on or near the subject Site. Based upon a review of the NC SHPO GIS viewer, H&H identified one Historic Preservation Office (HPO) listing within 1,000 feet of the subject Site – the Orville Beeson House (FY0343). The Orville Beeson House is listed as a surveyed only structure approximately 700 feet southwest of the Site.

In November 2023, H&H requested comment concerning the potential presence of historic, cultural, and/or archaeological sites on or near the project Site from the North Carolina SHPO. In a letter dated December 12, 2023, the SHPO indicated that no historic resources would be affected by the proposed project.

Additionally, in a letter dated December 6, 2023, the Catawba Indian Nation Tribal Historic Preservation Office (THPO) indicated that they did not have concerns associated with traditional cultural properties, sacred sites, or Native American sites on the project Site.

Letters obtained during evaluation of historical preservation are included in Appendix B.

2.1.1 Conclusion

The proposed project will not have significant environmental consequence to historic preservation. There will be no direct, indirect, or cumulative effects to historic preservation based on the lack of historic resources, cultural properties, sacred sites, or Native American sites located on or near the subject Site.

2.2 US Fish and Wildlife Service

H&H utilized the US FWS IPaC tool to generate a Site-specific list of federally-listed T&E species potentially present on the Site, which included the Schweinitz's sunflower (*Helianthus schweinitzii*) and Bog turtle (*Glyptemys muhlenbergii*). In an email dated December 14 2023, US FWS indicated that the proposed project is not likely to adversely affect Federally listed T&E

species, their formerly designated critical habitats, or species currently proposed for listing under the Endangered Species Act.

In addition, in a letter dated December 1, 2023, the North Carolina Wildlife Resources Commission (NC WRC) indicated that there are no national refuges or State-owned, wildlife-designated lands within the project vicinity, nor are there migratory or feeding grounds for anadromous fish.

H&H also reviewed the US FWS Critical Habitat for T&E Species interactive mapper and no Federally designated critical habitats were identified in the Site area on the US FWS website.

Support documents reviewed during the T&E species evaluation are included in Appendix C.

2.2.1 Conclusion

The proposed project will not have significant environmental consequence to T&E species. There will be no direct effects to T&E species based on the Site's geographic location and the lack of T&E species within the vicinity of the Site. It is possible that temporary erosion and increased stormwater runoff will occur during ground disturbance and construction activities, which may indirectly affect off-Site aquatic resources. However, the project will ultimately result in enhanced habitat for potential listed and non-listed species.

2.3 US Army Corps of Engineers

H&H personnel visited the Site and conducted a stream and wetland delineation on August 22, 2023. During the survey, H&H identified two stream channels and three wetland areas on the Site.

H&H received a Delineation Concurrence (DC) verification email from the U.S. Army Corps of Engineers (USACE) Charlotte Regulatory Field Office on August 26, 2024. The DC documentation is included in Appendix D.

2.3.1 Conclusion

The proposed project will not have significant environmental consequence to wetlands or streams. The project proposes to stabilize and enhance the on-Site stream channel. Impacts to streams and wetlands will be fully restored following the construction activities.

3.0 Other Resources

3.1 Human Health and Community

The proposed stream restoration project aims to enhance local water quality and habitat while promoting ecological resilience. By stabilizing stream banks, reducing erosion, and improving natural flow patterns, the project will mitigate flooding risks and enhance recreational opportunities, benefiting public health and well-being. Additionally, restoring the stream ecosystem will support biodiversity and improve the aesthetic value of the area. Overall, the project is expected to have positive effects on human health and community vitality while minimizing any potential adverse impacts.

3.1.1 Conclusion

The proposed project will not have significant environmental consequence to human health or the community.

3.2 Natural Resources

Wetlands

As discussed in section 2.3, three wetland areas exist on the Site. Although not anticipated, if the wetland areas are impacted during the stream restoration activities, appropriate permits will be secured and they will be fully restored following construction. The Preliminary Stream and Wetland Survey report is included in Appendix E.

Floodplains

Based upon a review of the Federal Emergency Management Agency (FEMA) Flood Insurance Rate Map (FIRM) Community Panel #3710688500J (January 2, 2009), the project Site is not

located within the 100- or 500-year flood zone (see Appendix F).

Significant Agricultural Lands

The Site is currently comprised of undeveloped forested land. There are no agricultural lands located on or adjacent to the Site. Furthermore, the proposed activities do not involve the conversion of agricultural land to non-agricultural use land.

Aquifer Recharge Zones

The stream restoration project will not result in added impervious surface area, and aquifer recharge zones are not likely to be negatively impacted.

Coastal Zones and Barrier Islands

The Coastal Zone Management Act of 1972 defines the coastal zone as the “coastal waters (including the lands therein and thereunder) and the adjacent shorelands (including the waters therein and thereunder), strongly influenced by each other and in proximity to the shorelines of the several coastal states, and includes islands, transitional and intertidal areas, salt marshes, wetlands, and beaches.” The project Site is not located within one of the 20 Coastal Area Management Act (CAMA) counties of North Carolina. Furthermore, the project Site is not located within the Coastal Barrier Zone of North Carolina. Support documents reviewed during the coastal area evaluation are included in Appendix G.

Wild and Scenic Rivers

Based upon a review of the NC OneMap Wild and Scenic Rivers GIS Data, there are no wild and scenic rivers on or near the project Site (see Appendix H).

Significant Fish and Wildlife Habitat

As noted above in section 2.2, the Site does not provide adequate habitat for federally listed threatened or endangered species. Furthermore, the project proposes to enhance wildlife habitat on the Site.

3.2.1 Conclusion

The proposed project will not have significant environmental consequence to natural resources.

3.3 Air Quality

The proposed development is expected to have minimal impacts to ambient air quality. According to air quality data obtained from AirNow.gov, Forsyth County typically reports as having “Good” or “Moderate” air quality. The Air Quality Index report generated for Forsyth County is included in Appendix I.

Heavy equipment required for the restoration activities is expected to pose minimal impacts to air quality in the vicinity of the Site during construction. Due to the nature of the proposed activity, NCDEQ Air Quality permits are not required for this project.

3.3.1 Conclusion

The proposed project will not have significant environmental consequence to air quality.

3.4 Land Ownership and Use

The Site is situated in a predominantly residential area north of Interstate 40 and encompasses approximately 6.3 acres of undeveloped forested land. It is privately owned by SMI Properties, LLC (Parcel Numbers 6875-85-7332.000 and 6875-94-8711.000) and Gary Snow (Parcel Number 6875-94-9887.000). Currently, the Site is zoned as a Residential Lot (RS20) and Common Area (RSQ-S), while the surrounding properties are primarily designated for community and residential use. The proposed restoration activities will not disturb surrounding properties, and land use will remain unchanged. Property details are included in Appendix J.

3.4.1 Conclusion

The proposed project will not have significant environmental consequence to surrounding land use.

4.0 Extraordinary Circumstances

Based on the conclusions made by this environmental report, H&H finds that the proposed restoration activities are eligible for Categorical Exclusion under 40 CFR 6.204(a)(1), and no Extraordinary Circumstances are present pursuant to 40 CFR 6.204(b). Therefore, neither an Environmental Assessment nor an Environmental Impact Statement appear to be warranted.

5.0 Coordination, Consultation, & Correspondence

The following agencies have been consulted and correspondence with the agencies are provided in the applicable Appendices:

- US FWS
- NC WRC
- NC SHPO
- Catawba Indian Nation THPO

6.0 List of Preparers

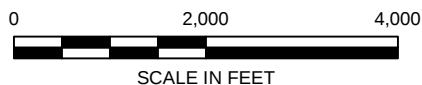
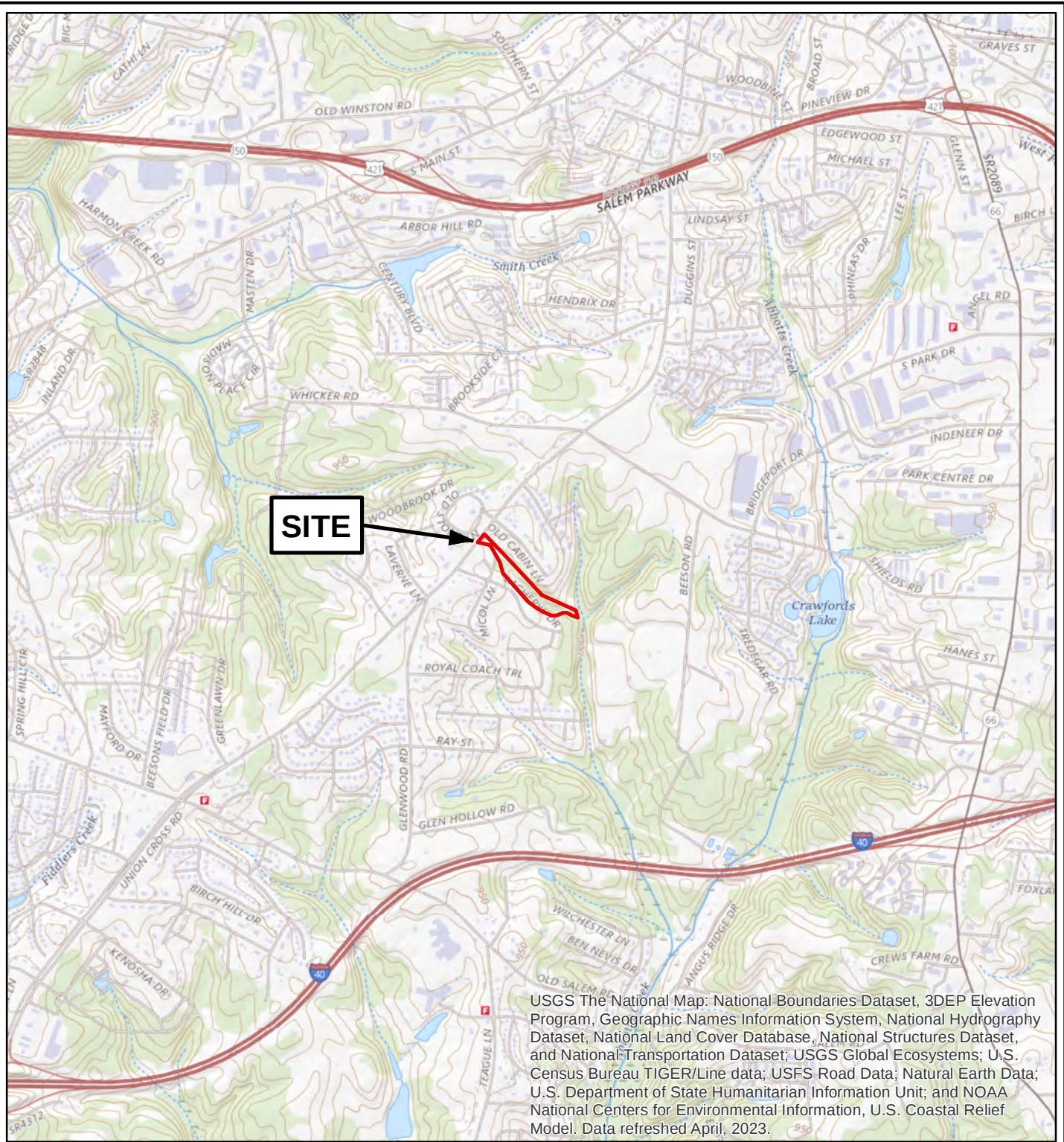
This environmental report was prepared and reviewed by:



Danielle Clark, PWS
Wetlands Manager
Hart & Hickman, PC



Dan McCauley, PWS
Sr. Project Environmental Scientist
Hart & Hickman, PC



U.S.G.S. QUADRANGLE MAP

**KERNERSVILLE,
NORTH CAROLINA 2022**

QUADRANGLE
7.5 MINUTE SERIES (TOPOGRAPHIC)

TITLE

SITE LOCATION MAP

PROJECT

**BEESON CREEK STREAM RESTORATION - REACH 7
788 BEESON ROAD
KERNERSVILLE, NORTH CAROLINA**



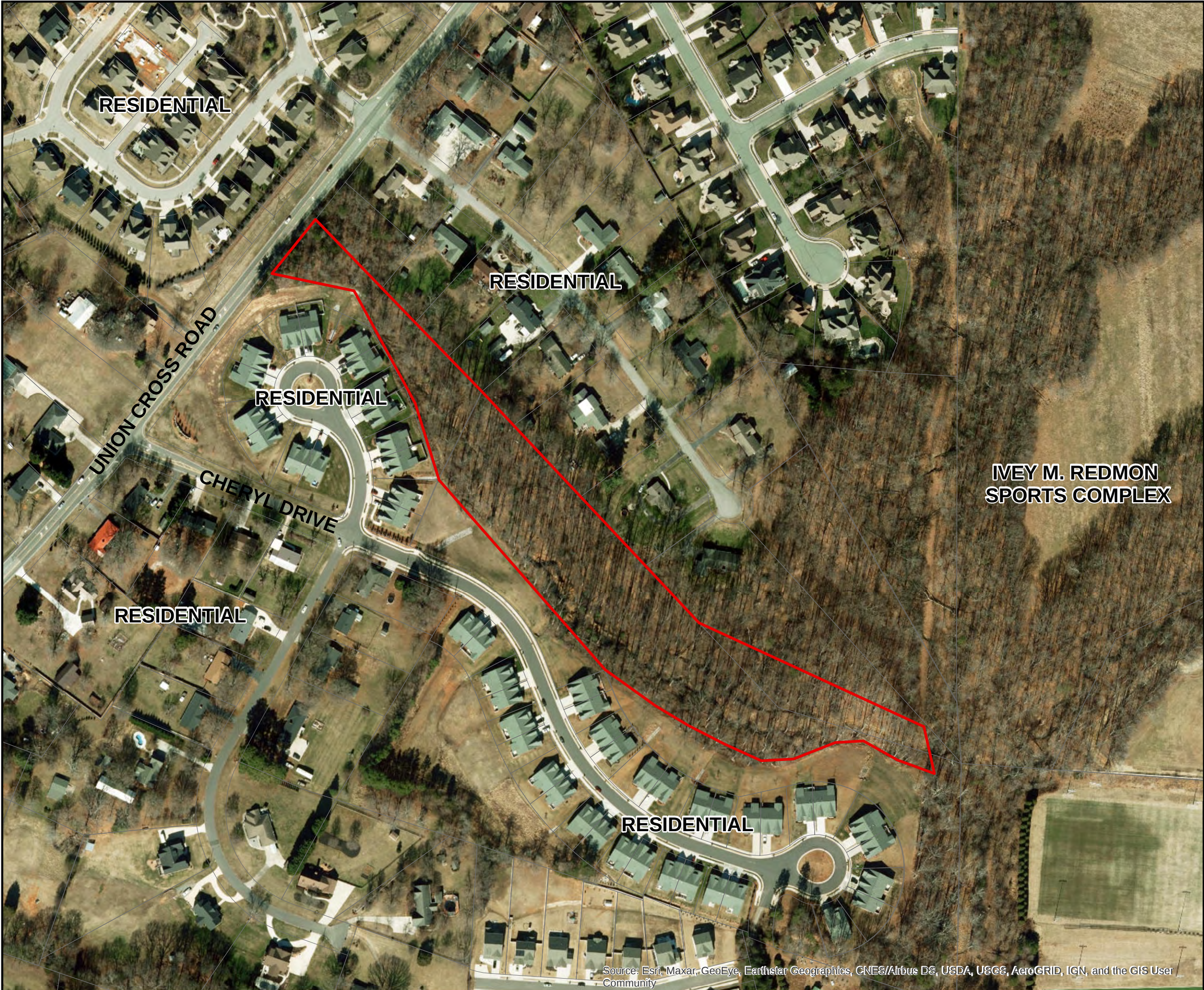
2923 South Tryon Street - Suite 100
Charlotte, North Carolina 28203
704-586-0007 (p) 704-586-0373 (f)
License # C-1269 / # C-245 Geology

DATE: 10/4/2023

REVISION NO: 0

JOB NO: TOK-001

FIGURE NO: 1

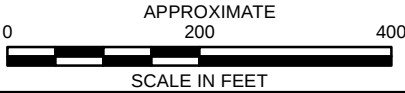


LEGEND

- SITE PROPERTY BOUNDARY
- PARCEL BOUNDARY

NOTES:

- 1. AERIAL IMAGERY OBTAINED FROM FORSYTH COUNTY GIS, 2024.



TITLE		SITE MAP	
PROJECT		BEESON CREEK STREAM RESTORATION - REACH 7 788 BEESON ROAD KERNERSVILLE, NORTH CAROLINA	
		2923 South Tryon Street, Ste. 100 Charlotte, North Carolina 28203 704-586-0007 (p) 704-586-0373 (f) License # C-1269 / #C-245 Geology	
DATE: 10/24/2024		REVISION NO. 0	
JOB NO: TOK.001		FIGURE NO. 2	

S:\AAA-Master Projects\Town of Kernersville (TOK)\Task 001\Figure 2 new.mxd

Source: Esri, Maxar, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AeroGRID, IGN, and the GIS User Community

Appendix A

Categorical Exclusion and Extraordinary Circumstances Review Form

Categorical Exclusion Instructions and Checklist

Categorical exclusions (CATEXs) are categories of actions that do not individually or cumulatively have a significant effect on the quality of the human environment. CATEXs applicable to EPA actions are listed at 40 C.F.R. § 6.204(a).

Determining a project's eligibility for a CATEX is the first step in the environmental review process. As part of the CATEX determination, EPA determines whether there are any extraordinary circumstances that would prevent the project from being eligible for a CATEX. If the proposed project is eligible for a CATEX and no extraordinary circumstances are involved, no further NEPA review is required.

Recipients who believe their project may qualify for a CATEX, should work with EPA—preferably early in the project design stage—to provide sufficient information for EPA to make that determination early in the NEPA environmental review process. EPA has developed a checklist to determine if a project qualifies for a CATEX. You may use this checklist as a tool to assess your project's potential eligibility for a CATEX and to understand what types of information are needed by EPA to support the CATEX determination.

The types of information that recipients should gather and submit to support the CATEX determination include, but may not be limited to, the following:

- 1) Detailed description of the project and/or preliminary engineering report along with any site plan showing the project location and its construction footprint (area of disturbance in acreage or square footage, etc.). Documents should clearly describe the project, including pipe sizes and lengths, pump specifications, etc.
- 2) City or regional maps that show the project in relation to the local area and help demonstrate the physical extent of the project.
- 3) Documentation of coordination or concurrence from the applicable federal cross-cutter environmental agencies. The grant applicant should coordinate with EPA to determine the applicability of federal cross-cutters since EPA may need to participate or take the lead in compliance with these cross-cutters as the federal action agency. For CATEXs, this potentially includes, but is not limited to, those listed below:
 - a. State's Historical Preservation Office (obtained through National Historic Preservation Act Section 106 consultation),
 - b. U.S. Fish and Wildlife Service or National Marine Fisheries Service (obtained through Endangered Species Act informal consultation),
 - c. U.S. Army Corps of Engineers (obtained through coordination with the appropriate District Office and through permit reviews),
 - d. other cross-cutter federal agencies as appropriate.
- 4) A description of the project need (including: the need the project will address; whether the project will address a local problem or emergency; whether the project is being pursued in response to a compliance order).
- 5) A description of the environmental impact(s) (both construction and operational impacts). Impacts may be both beneficial and adverse.
- 6) A description of associated measures to avoid, minimize or compensate for impacts including any Best Management Practices (BMPs) and/or Standard Operating Procedures (SOPs), etc. Provide adequate supporting references and citations.
- 7) Explain whether the project will be funded by other state or federal agencies. If environmental reviews are required by other state or federal agencies, explain whether they have been started or not. Briefly describe additional funding and applicable environmental reviews.
- 8) Explain whether project construction has begun. If yes, describe activities and percent of project completed.

EPA will independently review the information provided, including that within the following checklist, and will determine whether a project is eligible for a CATEX. If EPA finds that a project meets the qualifications for a CATEX, EPA will prepare a CATEX determination.

Categorical Exclusion and Extraordinary Circumstances Review Form
United States Environmental Protection Agency
Region [XX]

I. General Information

Project Name	Program / Funding Authority	Grant ID Number (if known)
Beeson Creek Stream Restoration - Reach 7		
Grant Applicant Organization		
Town of Kernersville		
Project Location Description (street address/city/state/ZIP code; site characteristics)		
788 Beeson Road, Kernersville, North Carolina 27284		
Project Description (summary of project scope and project components)		
Project components will include streambank stabilization, excavation of floodplain pools for water storage and habitat enhancement, and planting a diverse forest community to support wildlife. The result will be a stable watershed with natural floodplain areas that hold floodwater to reduce downstream risk and improves ecological conditions in the watershed.		
II. EPA Contact for Environmental Review on this Project (If different from Responsible Official, EPA Use Only)		
Name/Title	Email	Phone Number

Complete Section III on Categorical Exclusion Eligibility.

III.A. Categorical Exclusion Eligibility (*Check YES or NO*) Complete the following questions in their entirety to determine if the project is eligible for a Categorical Exclusion (CATEX) pursuant to 40 CFR § 6.204(a)(1)(ii). Additionally, supporting statements and documentation must be included in Attachment 1.

40 CFR § 6.204(a)(1)(ii)

Question 1a: If yes to any, proceed to Question 1b.	Does the project involve actions relating to existing infrastructure systems (e.g., sewer systems; drinking water supply systems; and stormwater systems, including combined sewer overflow systems) and involve:	
YES	NO	
☐	☒	Minor upgrading
☐	☒	Minor expansion of system capacity or rehabilitation (including functional replacement) of the existing system and its components (such as the sewer collection network and treatment system; the system to collect, treat, store and distribute drinking water; and stormwater systems, including combined sewer overflow systems)
☐	☒	Construction of new minor ancillary facilities next to or on the same property as existing facilities
Question 1b: If yes to any, STOP . CATEX does not apply.	Will the project include actions that:	
YES	NO	
☐	☒	Involve new or relocated discharges to surface or ground water
☐	☒	Will likely result in the substantial increase in the volume or the loading of pollutant to the receiving water
☐	☒	Will provide capacity to serve a population 30% greater than the existing population
☐	☒	Are not supported by the state, or other regional growth plan or strategy
☐	☒	Directly or indirectly involve or relate to upgrading or extending infrastructure systems primarily for the purpose of future development

III.B. Categorical Exclusion Eligibility (*Check YES or NO*) Complete the following questions in their entirety to determine if the project is eligible for a Categorical Exclusion (CATEX) pursuant to 40 CFR § 6.204(a)(1)(iii). Additionally, supporting statements and documentation must be included in Attachment 1.

40 CFR § 6.204(a)(1)(iii)

Question 2a: If yes, proceed to Question 2b.	Does the project involve actions in unsewered communities involving:	
YES	NO	
☐	☒	Replacement of existing onsite systems
Question 2b: If yes to any, STOP . CATEX does not apply.	Will the project include actions that:	
YES	NO	
☐	☒	Involve relocated discharges
☐	☒	Will likely result in the substantial increase in the volume or the loading of pollutants from existing sources

Complete Sections IV.A. and IV.B. on Extraordinary Circumstances. Attach Supporting Statements and Documentation.

IV.A. Extraordinary Circumstances (*Check YES or NO*) Complete the following questions in their entirety to determine if the project involves any of the following extraordinary circumstances which would make it ineligible for a CATEX pursuant to 40 CFR § 6.204(b)(1) through (b)(10). Additionally, supporting statements and documentation must be included in Attachment 1.

YES	NO	
☐	☒	1) Is the action known or expected to have potentially significant environmental impacts on the quality of the human environment either individually or cumulatively over time?
☐	☒	2) Is the action known or expected to have disproportionately high and adverse human health or environmental effects on any community, including minority communities, low-income communities, or federally-recognized Indian tribal communities? Communities Present: ☐ Yes ☒ No [If yes, describe in Attachment 1]
☐	☒	3) Is the action known or expected to significantly affect federally listed threatened or endangered species or their critical habitat? Resources Present: ☐ Yes ☒ No [If yes, describe in Attachment 1]
☐	☒	4) Is the action known or expected to significantly affect national natural landmarks or any property with naturally significant historic, architectural, prehistoric, archaeological, or cultural value, including but not limited to, property listed on or eligible for the National Register of Historic Places? Resources Present: ☐ Yes ☒ No [If yes, describe in Attachment 1]
☐	☒	5) Is the action known or expected to significantly affect environmentally important natural resource areas such as wetlands, floodplains, significant agricultural lands, aquifer recharge zones, coastal zones, barrier islands, wild and scenic rivers, and significant fish or wildlife habitat? Resources Present: ☐ Yes ☒ No [If yes, describe in Attachment 1]
☐	☒	6) Is the action known or expected to cause significant adverse air quality effects? Describe Air Quality and Resources in Attachment 1
☐	☒	7) Is the action known or expected to have a significant effect on the pattern and type of land use (industrial, commercial, agricultural, recreational, residential) or growth and distribution of population, including altering the character of existing residential areas or may not be consistent with state or local government, or federally-recognized Indian tribe approved land use plans or federal land management plans? Describe Land Use in Attachment 1
☐	☒	8) Is the action known or expected to cause significant public controversy about potential environmental impacts of the proposed action?
☐	☒	9) Is the action known or expected to be associated with providing financial assistance to a federal agency through an interagency agreement for a project that is known or expected to have potentially significant environmental impacts?

☐	☒	10) Is the action known or expected to conflict with federal, state, local government, or federally-recognized Indian tribe environmental resource-protection, or land-use laws or regulations?
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IV.B. Extraordinary Circumstances Statement (Check *ONLY ONE* box) If the responses to Section III.A. or III.B. indicate the project is CATEX eligible, and if a **NO** response was recorded for each of the questions in Section IV.A, then no Extraordinary Circumstances are present pursuant to 40 CFR § 6.204(b) and one of the following statements should be selected.

☐	1) No extraordinary circumstances apply to the proposed action pursuant to 40 CFR §§ 6.204(a)(1) and 6.204(b). This statement is based on either (1) past experience with similar actions at the proposed action site resulting in a CATEX and/or (2) information gathered as part of a previous NEPA review or environmental due diligence review conducted at the proposed action site . A statement and supporting documentation is attached (e.g., SERP, prior CATEX determination, or other NEPA review and environmental documentation).
☒	2) No extraordinary circumstances apply to the proposed action pursuant to 40 CFR §§ 6.204(a)(1) and 6.204(b). This statement is based on information gathered as part of this NEPA evaluation. A statement and supporting documentation is attached explaining why no extraordinary circumstances exist or apply to the proposed action pursuant to 40 CFR §§ 6.204(a)(1) and 6.204(b).

EPA Use Only:

V. NEPA Review Determination and Responsible Official Signature (EPA Use Only)

Sections I through IV must be completed to satisfy EPA’s documentation requirements for CATEX eligibility. If completion of this form indicates that a CATEX *does apply*, the Responsible Official must sign below.

Categorical Exclusion Determination. EPA finds that the proposed action is eligible for exclusion from detailed environmental review under 40 CFR § 6.204(a)(1), and will not involve any of the extraordinary circumstances delineated under 40 CFR § 6.204(b)(1) through (b)(10). Consequently, EPA will not prepare an environmental impact statement or an environmental assessment for the proposed project. EPA may revoke this categorical exclusion if changes in the proposed action render it ineligible for exclusion or if new evidence emerges which indicates that serious local or environmental issues exist or federal, state, or local laws would be violated.

As the Responsible Official, I have determined that **this action is eligible for a Categorical Exclusion** per the substantive environmental review requirements under EPA regulations at 40 CFR § 6.204. Section III.C of this form has been completed providing the required Extraordinary Circumstances Statement.

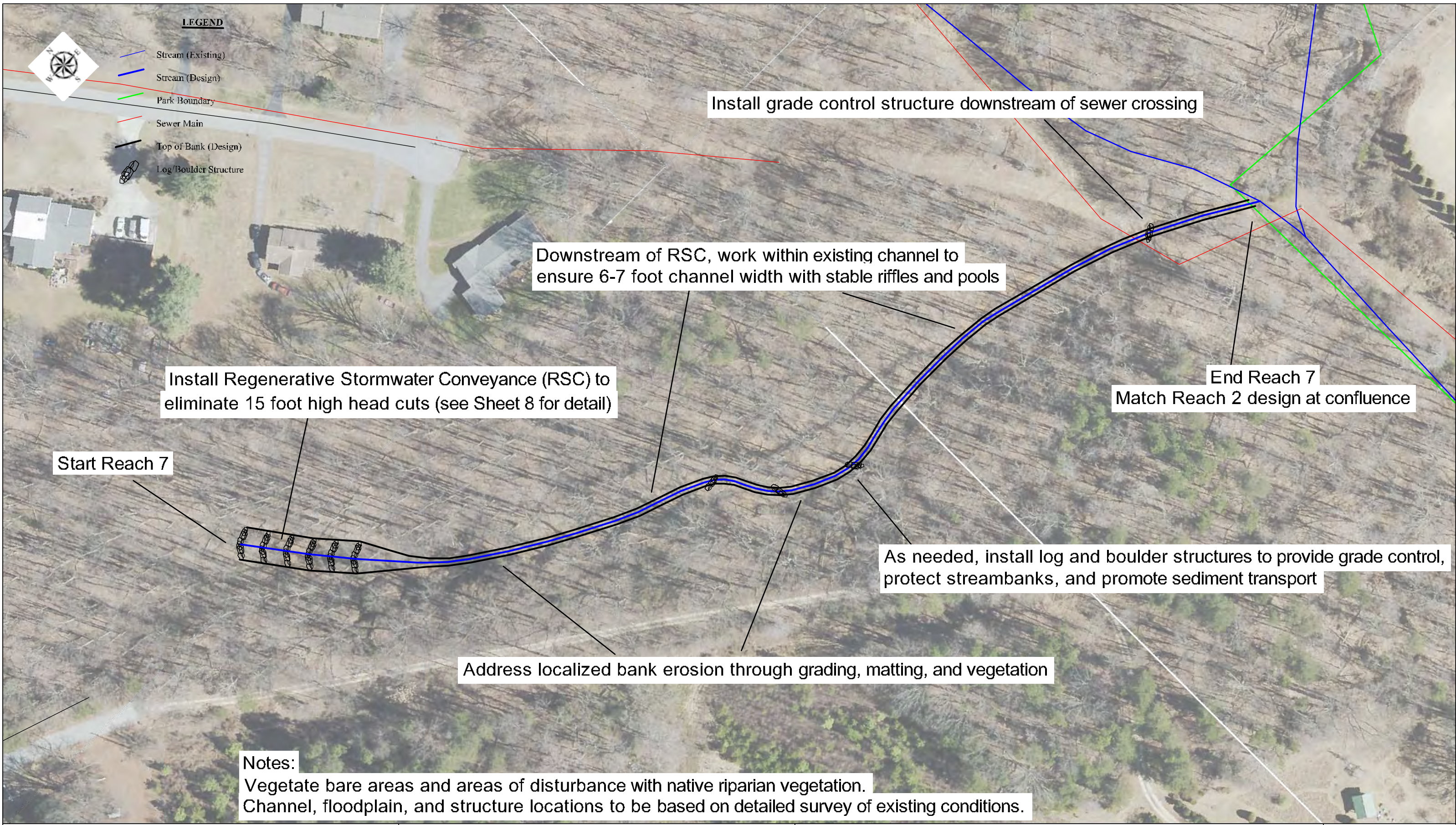
Signature of Responsible Official	Title	Date

NOTE: Signed Categorical Exclusion Determinations should be uploaded to the EPA NEPA Compliance Database (through Central Data Exchange (CDX)).

Use Attachment 1 to provide Statements and Supporting Documentation.

Project Name	Grant ID Number
Beeson Creek Stream Restoration - Reach 7	
Attachment 1. CATEX Eligibility and/or Extraordinary Circumstances Statement(s)	
The space below may be used for a statement and supporting documentation explaining CATEX eligibility and why no extraordinary circumstances exist or apply to the proposed action pursuant to 40 CFR §§ 6.204(a)(1) and 6.204(b). Attach additional pages as needed. Material incorporated by reference should briefly describe its content. Provide hyperlinks to the incorporated material, or attached incorporated material to this CATEX, or otherwise indicate how the public can access the material for inspection.	
See attached	

Appendix B
Conceptual Plan



Notes:

Vegetate bare areas and areas of disturbance with native riparian vegetation.
Channel, floodplain, and structure locations to be based on detailed survey of existing conditions.



REACH 7 CONCEPTUAL PLAN

Designed By: GDJ

Date:
November 21, 2016

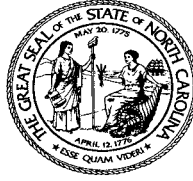
Scale:
1" = 80'

Beeson Creek Stream Restoration Opportunities

Ivey M. Redmon Sports Complex
Kernersville, North Carolina

Sheet
13

Appendix C
Historic Preservation



**North Carolina Department of Natural and Cultural Resources
State Historic Preservation Office**

Ramona M. Bartos, Administrator

Governor Roy Cooper
Secretary D. Reid Wilson

Office of Archives and History
Deputy Secretary, Darin J. Waters, Ph.D.

December 12, 2023

Julia McGuire
Hart & Hickman, PC
2923 South Tryon Street, Suite 100
Charlotte, NC 28203

jmcguire@harthickman.com

Re: Restore Beeson Creek Reach 7, 788 Beeson Road, Kernersville, Forsyth County, ER 23-2516

Dear Ms. McGuire:

Thank you for your letter of November 2, 2023, regarding the above-referenced undertaking. We have reviewed the submission and offer the following comments.

We have conducted a review of the project and are aware of no historic resources which would be affected by the project. Therefore, we have no comment on the project as proposed.

The above comments are made pursuant to Section 106 of the National Historic Preservation Act and the Advisory Council on Historic Preservation's Regulations for Compliance with Section 106 codified at 36 CFR Part 800.

Thank you for your cooperation and consideration. If you have questions concerning the above comment, contact Renee Gledhill-Earley, environmental review coordinator, at 919-814-6579 or environmental.review@dnrc.nc.gov. In all future communication concerning this project, please cite the above referenced tracking number.

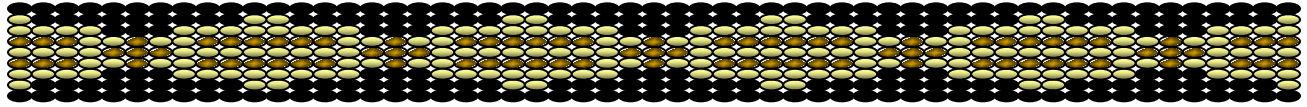
Sincerely,

A handwritten signature in blue ink that reads "Renee Gledhill-Earley".

for Ramona Bartos, Deputy
State Historic Preservation Officer

Catawba Indian Nation
Tribal Historic Preservation Office
1536 Tom Steven Road
Rock Hill, South Carolina 29730

Office 803-328-2427



December 6, 2023

Attention: Dan McCauley
Hart & Hickman
2923 South Tryon Street, Suite 100
Charlotte, NC 28203

Re. THPO #	TCNS #	Project Description
2024-534-2		Beeson Creek Stream Restoration – Reach 7 – 788 Beeson Road, Kernersville, NC

Dear Mr. McCauley,

The Catawba have no immediate concerns with regard to traditional cultural properties, sacred sites or Native American archaeological sites within the boundaries of the proposed project areas. **However, the Catawba are to be notified if Native American artifacts and / or human remains are located during the ground disturbance phase of this project.**

If you have questions please contact Caitlin Rogers at 803-328-2427 ext. 226, or e-mail Caitlin.Rogers@catawba.com.

Sincerely,

Wenonah G. Haire
Tribal Historic Preservation Officer

Appendix D
Threatened & Endangered Species



⊠ North Carolina Wildlife Resources Commission ⊠

Cameron Ingram, Executive Director

Via email

01 December 2023

Ms. Julia McGuire
Hart & Hickman PC
2923 S Tyron Street, Suite 100
Charlotte, NC 28203

Subject: Request for Environmental Review
Beeson Creek Stream Restoration – Reach 7
788 Beeson Road
Kernersville, Forsyth, North Carolina

Dear Ms. McGuire,

Biologists with the North Carolina Wildlife Resource Commission (NCWRC) received your email on 02 November 2023. Biologists with NCWRC have reviewed the subject information. Comments are provided in accordance with provisions of the Fish and Wildlife Coordination Act (48 Stat. 401, as amended; 16 U.S.C. 661-667e) and North Carolina General Statutes (G.S. 113-131 et seq.).

Hart & Hickman, PC (H&H) is requesting information on the potential impacts to threatened and endangered species and critical habitats at or near the proposed Beeson Creek Stream Restoration – Reach 7 located at 788 Beeson Road in Kernersville, Forsyth County, North Carolina. The 6.3-acre site is forested and surrounded by residential properties and Ivey M. Redmon Sports Complex.

The project involves the restoration of an unnamed tributary to Abbotts Creek. Abbotts Creek in the Yadkin – Pee Dee River Basin is classified as a Water Supply III stream by the NC Division of Water Resources. Wetlands occur within the southern portion of the site. H&H surveyed the site for federally protected species and their suitable habitat on 22 August 2023, and no individuals or their habitat were observed during the field survey. However, suitable habitat for the tricolored bat (*Perimyotis subflavus*), a federally proposed endangered species and a state endangered species, likely occurs on site.

Based upon the information provided, it is unlikely the project will adversely impact state protected species or critical habitats. However, we offer the following recommendations to minimize impacts to aquatic and terrestrial wildlife resources.

1. Avoid tree clearing activities during the active period (April 1 to November 14) for the tricolored bat.

Mailing Address: Habitat Conservation • 1721 Mail Service Center • Raleigh, NC 27699-1721
Telephone: (919) 707-0220 • **Fax:** (919) 707-0028

2. Native plants should be used for seeding disturbed areas. Avoid using Bermudagrass, redtop, tall fescue, and lespedeza, which are invasive and/or non-native. A list of alternatives to non-native species has been attached. Alternatively, use grains, such as oats, wheat, or rye for temporary cover and native seed mixes for permanent seeding. We recommend planting native, wildflower seed mixes that will create pollinator habitat within the project boundary.
3. We recommend a plant list that consists of species typically found in reference streams and the appropriate natural vegetation community, as described by M.P. Schafale in The Guide to the Natural Communities of North Carolina, Fourth Approximation (<https://www.ncnhp.org/references/nhp-publications/fourth-approximation-descriptions>) and plants found naturally in Forsyth County.
4. We recommend that riparian buffers that are to be reestablished be as wide as possible, given site constraints. NCWRC generally recommends a woody buffer of 100 feet on perennial streams to maximize the benefits of buffers, including bank stability, stream shading, treatment of overland runoff, and wildlife habitat.
5. Sediment and erosion control measures should be installed prior to any land-disturbing activity. Incorporate the following elements into erosion and sediment control plans: minimize clearing and grading, protect waterways, phase construction for larger construction sites (>25 acres), stabilize soils as rapidly as possible (<2 weeks), protect steep slopes, establish appropriate perimeter controls, employ advanced settling devices, implement a certified contractors program, and regularly inspect erosion control measures.
6. Erosion control matting made of plastic mesh or twine should not be used within the project area because it can injure or kill wildlife.
7. Monitoring is recommended to ensure successful channel and bank stabilization and vegetation growth. Invasive species control should occur regularly, including prior to construction if present. Invasive species outcompete native plants and provide minimal benefit to wildlife. Monitoring the site should occur once per year during the growing season for three years or three bankfull events.

If I can be of additional assistance, please call (336) 269-0074 or email olivia.munzer@ncwildlife.org.

Sincerely,



Olivia Munzer
Western Piedmont Habitat Conservation Coordinator
Habitat Conservation Program

Appendix E

US Army Corps of Engineers DC

From: [Lawrence, Jennifer L CIV USARMY CESAW \(USA\)](#)
To: [Dan McCauley](#)
Subject: SAW-2024-01118 (Beeson Creek Stream Restoration/SMI Properties LLC/Kernersville - Forsyth County) - Delineation Concurrence
Date: Monday, August 26, 2024 5:49:31 PM
Attachments: [SAW-2024-01118 feature map.pdf](#)

Mr. McCauley,

Reference is made to ORM ID SAW-2024-01118--please reference this number on any correspondence regarding this action.

We have reviewed the information provided by you concerning the aquatic resources, and by copy of this e-mail, are confirming that the aquatic resources delineation has been verified by the Corps to be a sufficiently accurate and reliable representation of the location and extent of aquatic resources within the identified review area. The location and extent of these aquatic resources are shown in callout areas on the attached delineation map(s), labeled 'Preliminary Wetland Map' dated 9/14/2023.

Regulatory Guidance Letter (RGL) 16-01

<https://usace.contentdm.oclc.org/utls/getfile/collection/p16021coll9/id/1256> provides guidance for Jurisdictional Determinations (JD) and states "The Corps generally does not issue a JD of any type where no JD has been requested." At this time, we are only verifying the delineation. This delineation may be relied upon for use in the permit evaluation process, including determining compensatory mitigation. "This verification does not address nor include any consideration for geographic jurisdiction on aquatic resources and shall not be interpreted as such. This delineation verification is not an Approved Jurisdictional Determination (AJD) and is not an appealable action under the Regulatory Program Administrative Appeal Process (33 CFR Part 331)."

Jennifer Lawrence, PWS (she/her)
Regulatory Specialist, Charlotte Regulatory Field Office
U.S. Army Corps of Engineers, Wilmington District
8430 University Executive Park Drive, Suite 615
Charlotte, NC 28262

Email: Jennifer.L.Lawrence@usace.army.mil
Cell: (980)392-9980

Appendix F
Preliminary Stream and Wetland Survey Report

Sent Via Email

October 5, 2023

Town of Kernersville
134 East Mountain Street
Kernersville, NC 27284

Attn: Ms. Wendi Hartup, CSM

Re: Preliminary Stream and Wetlands Survey
Beeson Creek Stream Restoration – Reach 7
788 Beeson Road
Kernersville, North Carolina
H&H Job No. TOK-001

Dear Wendi:

1.0 Introduction

Hart & Hickman, PC (H&H) is pleased to present this preliminary stream and wetlands survey on Stream Reach 7 of the Beeson Creek Stream Restoration project at the Ivey M. Redmon Sports Complex. Stream Reach 7 is located west of the Ivey M. Redmon Sports Complex and east of Forsyth Cross Road in Kernersville, Forsyth County, North Carolina (Site). The Site consists of portions of three parcels of land (Forsyth County Parcel Identification Numbers 6875-85-7332.000, 6875-94-8711.000, and 6875-94-9887.000) that total approximately 6.3 acres. The Site is comprised of undeveloped wooded land and an unnamed tributary of Abbotts Creek. A Site location map is provided as Figure 1, and the Site and surrounding area are shown in Figure 2.

H&H personnel visited the Site and conducted the delineation on August 22, 2023. The purpose of the preliminary survey activities was to identify Waters of the US (potential jurisdictional streams and wetlands) at the Site prior to potential future restoration activities. A summary of the preliminary stream and wetlands survey activities and results is provided in the following sections.

2.0 Preliminary Stream and Wetland Survey Activities

H&H conducted a preliminary stream and wetlands survey of the subject Site, which consisted of 1) a desktop review of maps and environmental documents; and 2) a Site-specific survey for streams, wetlands, and surface water features. A summary of the survey activities is provided below.

2.1 Map and Environmental Document Review

In order to evaluate the potential presence of streams and wetlands on the subject Site, H&H performed the following:

- reviewed the Kernersville, North Carolina (2022) US Geological Survey (USGS) 7.5-minute topographic maps with coverage of the subject Site;
- reviewed the Forsyth County Geographical Information System (GIS) website for the presence of water bodies and floodplains <https://mapf.maps.arcgis.com>);
- reviewed the US Fish and Wildlife Service (FWS) National Wetlands Inventory (NWI) map for the presence of potential jurisdictional wetlands and surface water features on the subject Site (<https://www.fws.gov/wetlands/data/mapper.html>);
- reviewed the United States Department of Agriculture (USDA) Natural Resources Conservation Service (NRCS) Web Soil Survey website for potential hydric soil series present on the subject Site (<https://websoilsurvey.sc.egov.usda.gov/App/HomePage.htm>);
- reviewed the USDA Soil Conservation Service (SCS) Published Soil Survey of Forsyth County (1976) for soil series and the presence of water bodies on the subject Site; and
- reviewed the Federal Emergency Management Agency (FEMA) Flood Insurance Rate Maps (FIRM) for presence of floodplains on the subject Site (<https://msc.fema.gov/portal/search>).

A copy of the USGS topographic map is included as Figure 1, and copies of the GIS information, NWI map, soil survey maps, and flood map are included in Appendix A. Information obtained from our review of these documents is summarized below.

USGS 7.5-Minute Topographic Map

H&H reviewed the USGS 7.5-minute topographic map with coverage of the subject Site. The USGS map depicts an unnamed tributary of Abbotts Creek flowing just off-Site along the southeastern Site boundary. The topographic gradient and surface drainage slope generally toward a crenulation in the central portion of the Site.

Forsyth County GIS

H&H reviewed the Forsyth County GIS website to determine if surface water bodies or floodplains are depicted on the subject Site. The Forsyth County GIS website depicts one stream located just off-Site along the southeastern Site boundary. The GIS website does not depict FEMA flood zones on the Site.

NWI Map

H&H reviewed the NWI map for potential jurisdictional wetlands and surface waters. The NWI does not depict surface water features on the Site.

USDA NRCS Web Soil Survey

H&H reviewed soil survey information and potentially hydric soil series were not identified on the Site.

USDA SCS Published Soil Survey

H&H reviewed soil information on the published soil survey and did not identify potentially hydric soils on the Site. The published soil survey depicts a surface water feature in the central portion of the Site flowing in a southeasterly direction off-Site.

FEMA FIRM

The FEMA FIRM panel does not depict flood zones on the Site.

2.2 Site-Specific Survey

On August 22, 2023, H&H performed a preliminary stream and wetlands survey on the Site in accordance with the *1987 US Army Corps of Engineers (Corps) Manual* and the *Regional Supplement to the Corps Wetland Delineation Manual – Eastern Mountains and Piedmont Region (Version 2.0)*, and the *North Carolina Department of Environmental Quality (DEQ) Division of Water Resources (DWR) Methodology for Identification of Intermittent and Perennial Streams and Their Origins (Version 4.11)*. Hydric soil, wetland hydrology, and wetland vegetation must be present to classify an area as a wetland. A defined bed and bank and an ordinary high-water mark (OHWM) must be present to classify a channel as a stream. Furthermore, in North Carolina, a stream channel must exhibit intermittent or perennial flow condition to be considered jurisdictional. H&H flagged potential stream channels and potential wetland areas in the field using an alphanumeric system, and flag locations were collected utilizing a handheld Global Positioning System (GPS) unit. A summary of the survey activities is provided below.

Stream Survey

H&H surveyed the Site for potential jurisdictional stream features. H&H observed the following potentially jurisdictional streams on the subject Site:

- *Stream Channel “A” (SCA)* – originates at a large headcut in the central portion of the Site and flows southeast off-Site. H&H observed a defined OHWM, defined bed and bank, and discernable baseflow within SCA. SCA appears to intersect the water table throughout the majority of the year. H&H used the DEQ DWR Stream Identification Form (version 4.11), which indicates that SCA has characteristics consistent with that of a perennial stream. SCA totals approximately 1,067 linear feet of on-Site length.

- *Stream Channel “B” (SCB)* – originates at a headcut in the central portion of the Site and flows southeast before reaching a confluence with SCA. Throughout its reach, a defined bed and bank and an Ordinary High Water Mark (OHWM) are present, and SCB appears to seasonally intersect the water table. H&H used DEQ DWR’s Stream Identification Form (version 4.11), which indicates that SCB has characteristics consistent with that of an intermittent stream. SCB totals approximately 46 linear feet of on-Site length.

The stream features are depicted on Figure 2, and representative data forms and photos are provided in Appendix B and Appendix C, respectively.

Wetland Survey

H&H checked potential wetland areas for the presence of hydrology indicators, hydrophytic vegetation, and hydric soil indicators. H&H advanced test pit borings in the potential wetland areas to document the wetland criteria and noted that soils sampled in the wetland areas exhibited characteristics consistent with those of a hydric soil. H&H also observed the primary and secondary hydrologic indicators and sufficient obligate to facultative wetland vegetation located at the wetland test pit borings within the potential wetland areas. In addition, test pit borings were advanced in upland areas at the Site to document upland conditions for comparative purposes. H&H observed the following potentially jurisdictional wetland areas on the subject Site:

- *Wetland Area “A” (WAA)* – is located in a depressional area in the southern portion of the Site. WAA drains in a southerly direction into SCA and encompasses 0.003 acre of on-Site area. Vegetation consists primarily of hardwood saplings and emergent species.
- *Wetland Area “B” (WAB)* – is a linear wetland located in a gully in the southern portion of the Site. WAB drains in a southeasterly direction into SCA and encompasses approximately 0.001 acre of on-Site area. The wetland is sparsely vegetated with herbaceous species.

- *Wetland Area "C" (WAC)* – is located in a valley in the western portion of the Site. WAC drains into SCA and encompasses approximately 0.005 acre of on-Site area. Vegetation consists primarily of hardwood trees and emergent species.

The wetland areas are depicted on Figure 2, and representative data forms and photos are provided in Appendix B and Appendix C, respectively.

Open Water Survey

H&H surveyed the Site for potential surface water features other than streams and wetlands and did not observe open waters on-Site during our survey.

3.0 Permitting for Stream and Wetland Impacts

Proposed impacts to streams, wetlands, and/or open water features require Section 404/401 permits from the Corps and DWR, respectively. H&H recommends that the streams and wetlands be verified by the Corps through a Jurisdictional Determination (JD) request. Only the Corps can determine if jurisdictional features exist. Please note that a recent Supreme Court ruling may affect the Corps' interpretation of jurisdictional features, and sizes and/or locations of features identified during the survey may be altered during a Site visit with the Corps. If the Corps concurs with the preliminary findings of this survey, Section 404/401 permits will be required if future development plans include impacts to the on-Site streams or wetlands.

The Corps published Nationwide Permits (NWP) including NWP #13, which went into effect on February 25, 2022. The NWP #13 allows for impacts to no more than 500 feet of streambank and no more than an average of one cubic yard per running foot of added material below the OHWM. Both of these criteria can be waived by the district engineer up to a total of 1,000 feet of streambank. In response to NWP #13, the North Carolina DEQ DWR has published a corresponding Water Quality Certification (WQC) #4245, which also went into effect on February 25, 2022. According to the WQC #4245, an Individual 401 WQC will be required if impacts surpass 500 feet of stream length, in-stream structures exceed a spacing of three



hart hickman
SMARTER ENVIRONMENTAL SOLUTIONS

Figures



LEGEND

SITE PROPERTY BOUNDARY

H&H IDENTIFIED POTENTIALLY JURISDICTIONAL WETLAND

H&H IDENTIFIED POTENTIALLY JURISDICTIONAL PERENNIAL STREAM

H&H IDENTIFIED POTENTIALLY JURISDICTIONAL INTERMITTENT STREAM

TEST PIT

PARCEL BOUNDARY LINE

POTENTIAL JURISDICTIONAL STREAM CHANNEL LENGTH	
STREAM CHANNEL ID	APPROXIMATE LENGTH (LF)
STREAM CHANNEL "A" (SCA)	1,067 (PERENNIAL)
STREAM CHANNEL "B" (SCB)	46 (INTERMITTENT)
STREAM TOTAL	1,113

POTENTIAL JURISDICTIONAL WETLAND AREA	
WETLAND AREA ID	APPROXIMATE AREA (AC)
WETLAND AREA "A" (WAA)	0.003
WETLAND AREA "B" (WAB)	0.001
WETLAND AREA "C" (WAC)	0.005
WETLAND TOTAL	0.009

- NOTES:
1. LF - LINEAR FEET
WA - WETLAND AREA
SC - STREAM CHANNEL

2. DELINEATION COMPLETED BY H&H ON 8/22/23.

3. SIZE AND LOCATIONS OF SITE FEATURES ARE APPROXIMATE AND WERE OBTAINED USING A TRIMBLE GPS UNIT.

4. FLAGGED BOUNDARIES OF FEATURES ARE SUBJECT TO THE REVIEW OF A US ARMY CORPS OF ENGINEERS REPRESENTATIVE AND MAY BE ALTERED DURING A JURISDICTIONAL DETERMINATION SITE VISIT, WHICH COULD CHANGE SIZES AND/OR LOCATIONS OF FEATURES.

5. AERIAL IMAGERY, TAX PARCELS, AND STREETS DATA OBTAINED FROM FORSYTH COUNTY GIS, 2022 AND 2023.

IN

0150300

APPROXIMATE

SCALE IN FEET

TITLE

PRELIMINARY WETLAND DELINEATION MAP

PROJECT

BEESON CREEK STREAM RESTORATION - REACH 7
788 BEESON ROAD
KERNERSVILLE, NORTH CAROLINA

hart

hickman

SMARTER ENVIRONMENTAL SOLUTIONS

2923 South Tryon Street, Ste. 100
Charlotte, North Carolina 28203
704-586-0007 (p) 704-586-0373 (f)
License # C-1269 / #C-245 Geology

DATE: 9/14/2023

REVISION NO. 0

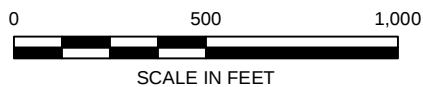
JOB NO: TOK--001

FIGURE NO. 2

Appendix A

Support Documents

- Forsyth County GIS Map (Figure A1)
- NWI Map (Figure A2)
- Soil Survey Maps (Figures A3 & A4)
- FEMA Flood Map (Figure A5)



U.S. FISH AND WILDLIFE SERVICE (USFWS)

HYDROLOGIC UNIT CODE 03040103

NATIONAL WETLANDS INVENTORY (NWI)

TITLE

NATIONAL WETLANDS INVENTORY MAP

PROJECT

BEESON CREEK STREAM - REACH 7
788 BEESON ROAD
KERNERSVILLE, NORTH CAROLINA



2923 South Tryon Street - Suite 100
Charlotte, North Carolina 28203
704-586-0007 (p) 704-586-0373 (f)
License # C-1269 / # C-245 Geology

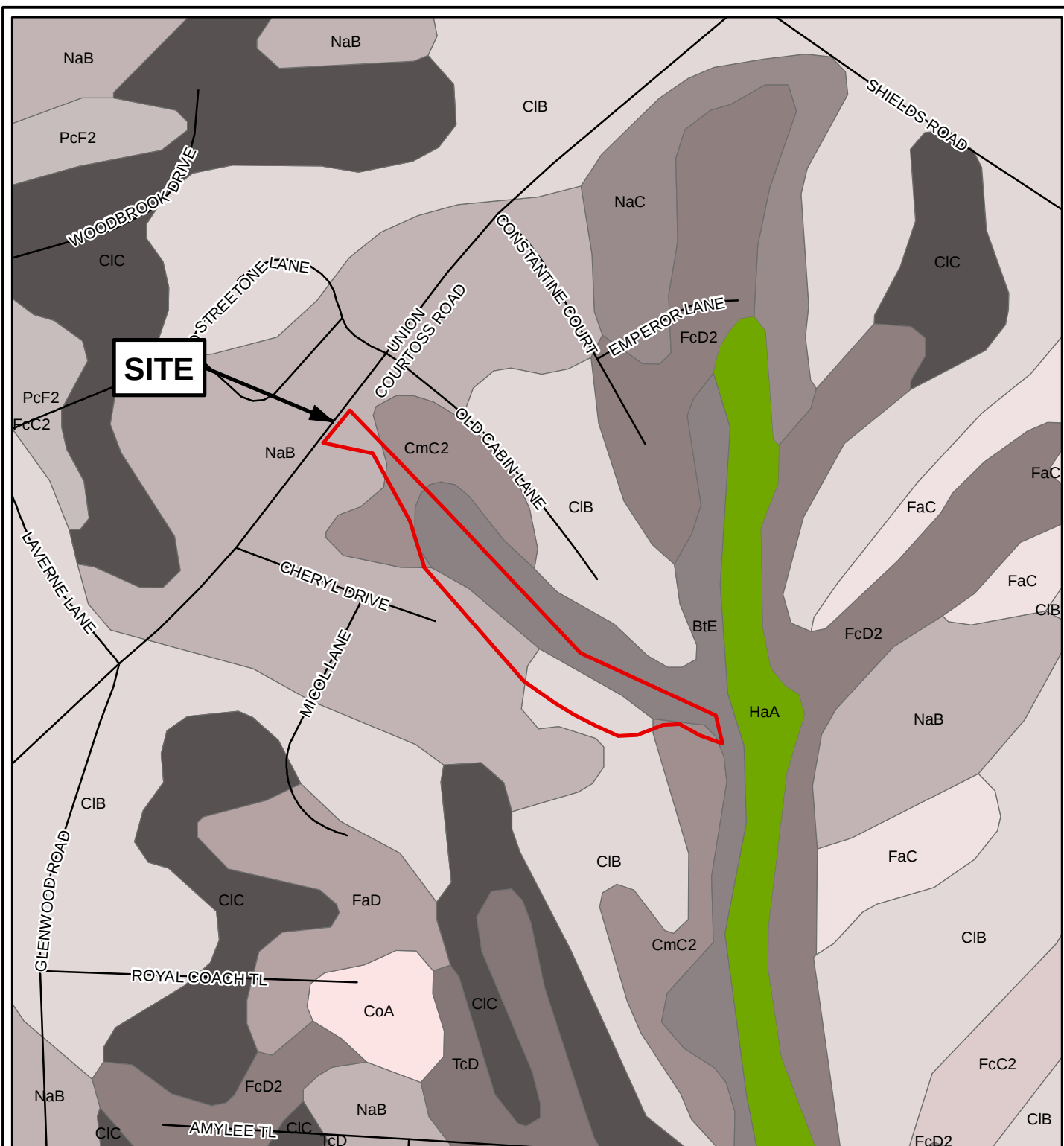
DATE: 10/4/2023

REVISION NO: 0

JOB NO: TOK-001

FIGURE NO: A2

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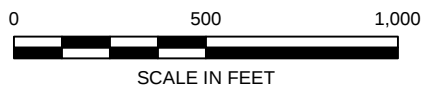
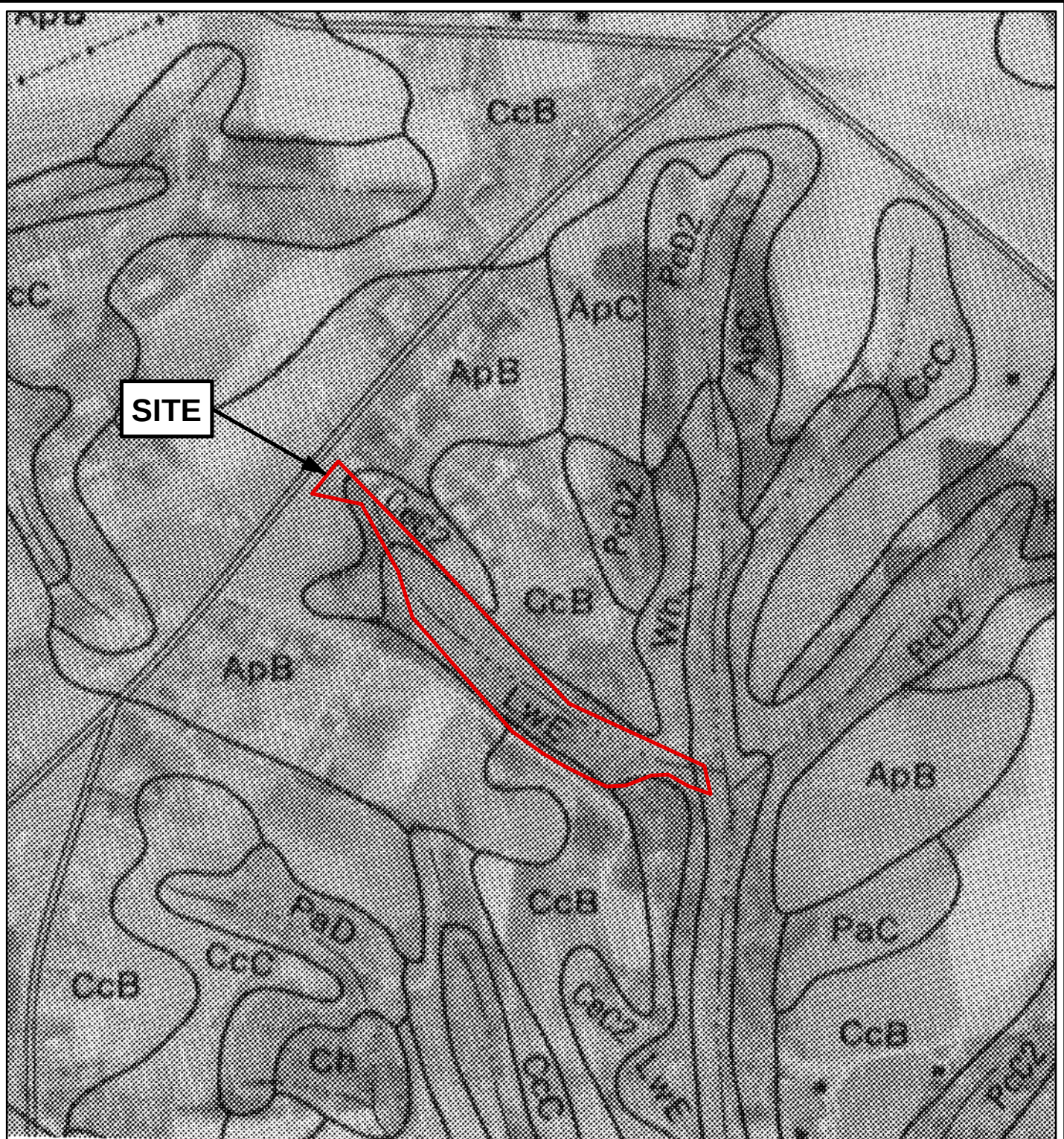


USDA SOIL CONSERVATION SERVICE (SCS)

FORSYTH COUNTY, NC067

WEB SOIL SURVEY

TITLE WEB SOIL SURVEY MAP	
PROJECT BEESON CREEK STREAM - REACH 7 788 BEESON ROAD KERNERSVILLE, NORTH CAROLINA	
 2923 South Tryon Street - Suite 100 Charlotte, North Carolina 28203 704-586-0007 (p) 704-586-0373 (f) License # C-1269 / # C-245 Geology	
DATE: 10/4/2023	REVISION NO: 0
JOB NO: TOK-001	FIGURE NO: A3

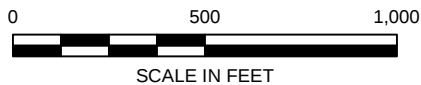
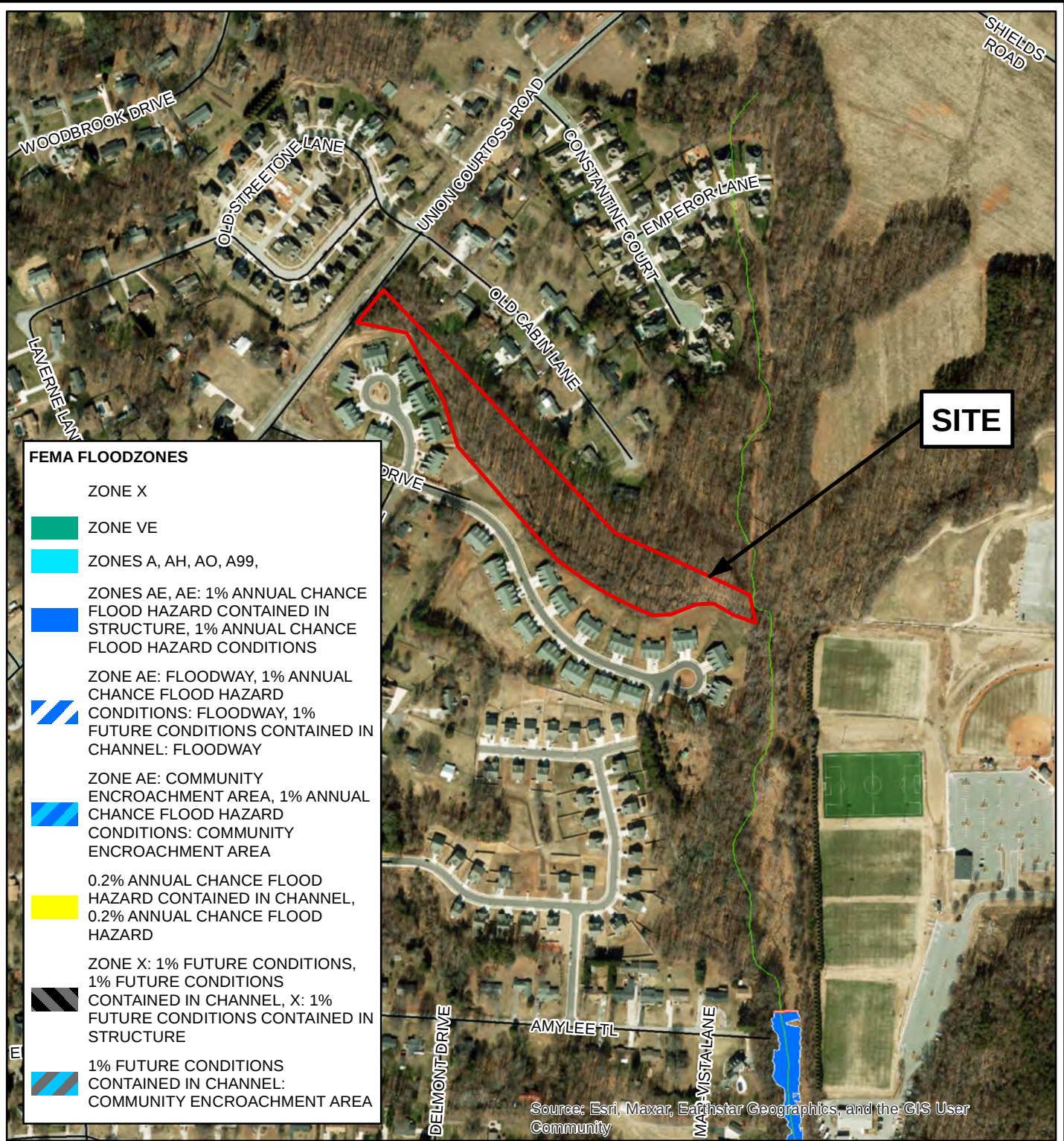


USDA SOIL CONSERVATION SERVICE (SCS)

**FORSYTH COUNTY, SHEET 33,
PUBLISHED 1976**

PUBLISHED SOIL SURVEY

TITLE PUBLISHED SOIL SURVEY MAP	
PROJECT BEESON CREEK STREAM - REACH 7 788 BEESON ROAD KERNERSVILLE, NORTH CAROLINA	
 2923 South Tryon Street - Suite 100 Charlotte, North Carolina 28203 704-586-0007 (p) 704-586-0373 (f) License # C-1269 / # C-245 Geology	
DATE: 10/4/2023	REVISION NO: 0
JOB NO: TOK-001	FIGURE NO: A4



FEDERAL EMERGENCY MANAGEMENT AGENCY (FEMA)

**PANEL 3710688500J,
REVISED 1/2/2009**

FLOOD INSURANCE RATE MAP (FIRM)

TITLE FEMA FLOOD INSURANCE RATE MAP	
PROJECT BEESON CREEK STREAM - REACH 7 788 BEESON ROAD KERNERSVILLE, NORTH CAROLINA	
 2923 South Tryon Street - Suite 100 Charlotte, North Carolina 28203 704-586-0007 (p) 704-586-0373 (f) License # C-1269 / # C-245 Geology	
DATE: 10/4/2023	REVISION NO: 0
JOB NO: TOK-001	FIGURE NO: A5

Appendix B
Survey Field Forms

NC DWQ Stream Identification Form Version 4.11

Date: 8/22/23

Evaluator: JKM

Total Points:
*Stream is at least intermittent if ≥ 19 or perennial if ≥ 30**

15.75

Project/Site: Beeson Creek Stream Restoration – Reach 7

County: Forsyth

Stream Determination: Ephemeral Intermittent Perennial

Ephemeral

Latitude:
36.094720

Longitude:
-80.085253

Other
Stream Name:
above Stream A.

A. Geomorphology

Subtotal = 6

	Absent	Weak	Moderate	Strong
1. Continuity of channel bed and bank*	0	1	2	3
2. Sinuosity of channel along thalweg	0	1	2	3
3. In-channel structure: ex. riffle-pool, step-pool, ripple-pool sequence	0	1	2	3
4. Particle size of stream substrate	0	1	2	3
5. Active/relict floodplain	0	1	2	3
6. Depositional bars or benches	0	1	2	3
7. Recent alluvial deposits	0	1	2	3
8. Headcuts	0	1	2	3
9. Grade control	0	0.5	1	1.5
10. Natural valley	0	0.5	1	1.5
11. Second or greater order channel	No = 0		Yes = 3	

*artificial ditches are not rated; see discussions in manual

B. Hydrology

Subtotal = 3

12. Presence of Baseflow	0	1	2	3
13. Iron oxidizing bacteria	0	1	2	3
14. Leaf litter	1.5	1	0.5	0
15. Sediment on plants or debris	0	0.5	1	1.5
16. Organic debris lines or piles	0	0.5	1	1.5
17. Soil-based evidence of high water table?	No = 0		Yes = 3	

C. Biology

Subtotal = 6.75

18. Fibrous roots in streambed	3	2	1	0
19. Rooted upland plants in streambed	3	2	1	0
20. Macrobenthos (note diversity and abundance)	0	1	2	3
21. Aquatic Mollusks	0	1	2	3
22. Fish	0	0.5	1	1.5
23. Crayfish	0	0.5	1	1.5
24. Amphibians	0	0.5	1	1.5
25. Algae	0	0.5	1	1.5
26. Wetland plants in streambed	FACW = 0.75; OBL = 1.5 Other = 0			0.75

*perennial streams may also be identified using other methods.

Notes:

Sketch:

NC DWQ Stream Identification Form Version 4.11

Date: 8/22/23

Evaluator: JKM

Total Points:
*Stream is at least intermittent if ≥ 19 or perennial if ≥ 30**

Project/Site: Beeson Creek Stream Restoration – Reach 7

County: Forsyth

Stream Determination: Ephemeral Intermittent Perennial

Latitude:
36.093873

Longitude:
-80.084101

Other
Stream Name:
Stream A

39.25

Perennial

A. Geomorphology

Subtotal = 21

	Absent	Weak	Moderate	Strong
1. Continuity of channel bed and bank*	0	1	2	3
2. Sinuosity of channel along thalweg	0	1	2	3
3. In-channel structure: ex. riffle-pool, step-pool, ripple-pool sequence	0	1	2	3
4. Particle size of stream substrate	0	1	2	3
5. Active/relict floodplain	0	1	2	3
6. Depositional bars or benches	0	1	2	3
7. Recent alluvial deposits	0	1	2	3
8. Headcuts	0	1	2	3
9. Grade control	0	0.5	1	1.5
10. Natural valley	0	0.5	1	1.5
11. Second or greater order channel	No = 0		Yes = 3	

*artificial ditches are not rated; see discussions in manual

B. Hydrology

Subtotal = 10.5

12. Presence of Baseflow	0	1	2	3
13. Iron oxidizing bacteria	0	1	2	3
14. Leaf litter	1.5	1	0.5	0
15. Sediment on plants or debris	0	0.5	1	1.5
16. Organic debris lines or piles	0	0.5	1	1.5
17. Soil-based evidence of high water table?	No = 0		Yes = 3	

C. Biology

Subtotal = 7.75

18. Fibrous roots in streambed	3	2	1	0
19. Rooted upland plants in streambed	3	2	1	0
20. Macrobenthos (note diversity and abundance)	0	1	2	3
21. Aquatic Mollusks	0	1	2	3
22. Fish	0	0.5	1	1.5
23. Crayfish	0	0.5	1	1.5
24. Amphibians	0	0.5	1	1.5
25. Algae	0	0.5	1	1.5
26. Wetland plants in streambed	FACW = 0.75; OBL = 1.5 Other = 0			0.75

*perennial streams may also be identified using other methods.

Notes:

Sketch:

NC DWQ Stream Identification Form Version 4.11

Date: 8/22/23	Project/Site: Beeson Creek Stream Restoration – Reach 7	Latitude: 36.094286
Evaluator: JKM	County: Forsyth	Longitude: -80.084841
Total Points: <i>Stream is at least intermittent if ≥ 19 or perennial if ≥ 30*</i> 28.5	Stream Determination: Ephemeral Intermittent Perennial Intermittent	Other Stream Name: Stream B

A. Geomorphology	Subtotal =	15	Absent	Weak	Moderate	Strong
1. Continuity of channel bed and bank*			0	1	2	3
2. Sinuosity of channel along thalweg			0	1	2	3
3. In-channel structure: ex. riffle-pool, step-pool, ripple-pool sequence			0	1	2	3
4. Particle size of stream substrate			0	1	2	3
5. Active/relict floodplain			0	1	2	3
6. Depositional bars or benches			0	1	2	3
7. Recent alluvial deposits			0	1	2	3
8. Headcuts			0	1	2	3
9. Grade control			0	0.5	1	1.5
10. Natural valley			0	0.5	1	1.5
11. Second or greater order channel			No = 0		Yes = 3	

*artificial ditches are not rated; see discussions in manual

B. Hydrology	Subtotal =	8.5				
12. Presence of Baseflow			0	1	2	3
13. Iron oxidizing bacteria			0	1	2	3
14. Leaf litter			1.5	1	0.5	0
15. Sediment on plants or debris			0	0.5	1	1.5
16. Organic debris lines or piles			0	0.5	1	1.5
17. Soil-based evidence of high water table?			No = 0		Yes = 3	

C. Biology	Subtotal =	5				
18. Fibrous roots in streambed			3	2	1	0
19. Rooted upland plants in streambed			3	2	1	0
20. Macroinvertebrates (note diversity and abundance)			0	1	2	3
21. Aquatic Mollusks			0	1	2	3
22. Fish			0	0.5	1	1.5
23. Crayfish			0	0.5	1	1.5
24. Amphibians			0	0.5	1	1.5
25. Algae			0	0.5	1	1.5
26. Wetland plants in streambed			FACW = 0.75; OBL = 1.5 Other = 0			0

*perennial streams may also be identified using other methods.

Notes:

Sketch:

U.S. Army Corps of Engineers WETLAND DETERMINATION DATA SHEET – Eastern Mountains and Piedmont Region See ERDC/EL TR-12-9; the proponent agency is CECW-CO-R	OMB Control #: 0710-0024, Exp:11/30/2024 Requirement Control Symbol EXEMPT: (Authority: AR 335-15, paragraph 5-2a)
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Project/Site: Beeson Creek Stream Restoration - Reach 7 City/County: Forsyth Sampling Date: 8-15-23
 Applicant/Owner: Town of Kernsville State: NC Sampling Point: TP-1
 Investigator(s): JKM Section, Township, Range: _____
 Landform (hillside, terrace, etc.): hillside Local relief (concave, convex, none): none Slope (%): 4
 Subregion (LRR or MLRA): LRR P, MLRA 136 Lat: 36.093433 Long: -80.083276 Datum: NAD83
 Soil Map Unit Name: Clifford sandy loam, 2 to 6 percent slopes (CIB) NWI classification: None
 Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No _____ (If no, explain in Remarks.)
 Are Vegetation _____, Soil _____, or Hydrology _____ significantly disturbed? Are "Normal Circumstances" present? Yes X No _____
 Are Vegetation _____, Soil _____, or Hydrology _____ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? Yes _____ No <u>X</u> Hydric Soil Present? Yes _____ No <u>X</u> Wetland Hydrology Present? Yes _____ No <u>X</u>	<table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 60%; padding: 5px;"> Is the Sampled Area within a Wetland? </td> <td style="width: 40%; padding: 5px;"> Yes _____ No <u>X</u> </td> </tr> </table>	Is the Sampled Area within a Wetland?	Yes _____ No <u>X</u>
Is the Sampled Area within a Wetland?	Yes _____ No <u>X</u>		
Remarks: Data point is representative of a non-jurisdictional upland area.			

HYDROLOGY

Wetland Hydrology Indicators: <u>Primary Indicators (minimum of one is required; check all that apply)</u> _____ Surface Water (A1) _____ True Aquatic Plants (B14) _____ High Water Table (A2) _____ Hydrogen Sulfide Odor (C1) _____ Saturation (A3) _____ Oxidized Rhizospheres on Living Roots (C3) _____ Water Marks (B1) _____ Presence of Reduced Iron (C4) _____ Sediment Deposits (B2) _____ Recent Iron Reduction in Tilled Soils (C6) _____ Drift Deposits (B3) _____ Thin Muck Surface (C7) _____ Algal Mat or Crust (B4) _____ Other (Explain in Remarks) _____ Iron Deposits (B5) _____ _____ Inundation Visible on Aerial Imagery (B7) _____ _____ Water-Stained Leaves (B9) _____ _____ Aquatic Fauna (B13) _____	<u>Secondary Indicators (minimum of two required)</u> _____ Surface Soil Cracks (B6) _____ Sparsely Vegetated Concave Surface (B8) _____ Drainage Patterns (B10) _____ Moss Trim Lines (B16) _____ Dry-Season Water Table (C2) _____ Crayfish Burrows (C8) _____ Saturation Visible on Aerial Imagery (C9) _____ Stunted or Stressed Plants (D1) _____ Geomorphic Position (D2) _____ Shallow Aquitard (D3) _____ Microtopographic Relief (D4) _____ FAC-Neutral Test (D5)		
Field Observations: Surface Water Present? Yes _____ No <u>X</u> Depth (inches): _____ Water Table Present? Yes _____ No <u>X</u> Depth (inches): _____ Saturation Present? Yes _____ No <u>X</u> Depth (inches): _____ (includes capillary fringe)	<table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 60%; padding: 5px;"> Wetland Hydrology Present? </td> <td style="width: 40%; padding: 5px;"> Yes _____ No <u>X</u> </td> </tr> </table>	Wetland Hydrology Present?	Yes _____ No <u>X</u>
Wetland Hydrology Present?	Yes _____ No <u>X</u>		
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:			
Remarks: Indicators of wetland hydrology are not present.			

VEGETATION (Four Strata) – Use scientific names of plants.

 Sampling Point: TP-1

Tree Stratum (Plot size: <u>30</u>)	Absolute % Cover	Dominant Species?	Indicator Status	
1. <i>Liriodendron tulipifera</i>	20	Yes	FACU	Dominance Test worksheet: Number of Dominant Species That Are OBL, FACW, or FAC: <u>1</u> (A) Total Number of Dominant Species Across All Strata: <u>6</u> (B) Percent of Dominant Species That Are OBL, FACW, or FAC: <u>16.7%</u> (A/B)
2. <i>Prunus serotina</i>	15	Yes	FACU	
3. <i>Quercus alba</i>	5	No	FACU	
4. <i>Quercus rubra</i>	5	No	FACU	
5. <i>Fraxinus pennsylvanica</i>	5	No	FACW	
6. <i>Cornus florida</i>	5	No	FACU	
7. _____				
55 =Total Cover				Prevalence Index worksheet: Total % Cover of: _____ Multiply by: _____ OBL species _____ x 1 = _____ FACW species _____ x 2 = _____ FAC species _____ x 3 = _____ FACU species _____ x 4 = _____ UPL species _____ x 5 = _____ Column Totals: _____ (A) _____ (B) Prevalence Index = B/A = _____
50% of total cover: <u>28</u> 20% of total cover: <u>11</u>				
Sapling/Shrub Stratum (Plot size: <u>15</u>)				
1. _____				Hydrophytic Vegetation Indicators: <u>1</u> - Rapid Test for Hydrophytic Vegetation <u>2</u> - Dominance Test is >50% <u>3</u> - Prevalence Index is ≤3.0 ¹ <u>4</u> - Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet) <u>Problematic Hydrophytic Vegetation¹ (Explain)</u> ¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.
2. _____				
3. _____				
4. _____				
5. _____				
6. _____				
7. _____				
8. _____				
9. _____				
10. _____				
_____ =Total Cover				
50% of total cover: _____ 20% of total cover: _____				
Herb Stratum (Plot size: <u>5</u>)				
1. <i>Asplenium platyneuron</i>	10	Yes	FACU	Definitions of Four Vegetation Strata: Tree – Woody plants, excluding vines, 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height. Sapling/Shrub – Woody plants, excluding vines, less than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall. Herb – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall. Woody Vine – All woody vines greater than 3.28 ft in height.
2. <i>Lycopodium digitatum</i>	10	Yes	UPL	
3. _____				
4. _____				
5. _____				
6. _____				
7. _____				
8. _____				
9. _____				
10. _____				
11. _____				
20 =Total Cover				
50% of total cover: <u>10</u> 20% of total cover: <u>4</u>				
Woody Vine Stratum (Plot size: <u>30</u>)				
1. <i>Parthenocissus quinquefolia</i>	10	Yes	FACU	Hydrophytic Vegetation Present? Yes _____ No <u>X</u>
2. <i>Amphicarpaea bracteata</i>	10	Yes	FAC	
3. _____				
4. _____				
5. _____				
20 =Total Cover				
50% of total cover: <u>10</u> 20% of total cover: <u>4</u>				
Remarks: (Include photo numbers here or on a separate sheet.) 16.7% of dominant vegetation is FAC or wetter.				

SOIL

Sampling Point: TP-1

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)								
Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²		
0-3	10YR 5/2	100					Loamy/Clayey	
3-20	10YR 5/4	100					Loamy/Clayey	

¹Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains. ²Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators: ☐ Histosol (A1) ☐ Histic Epipedon (A2) ☐ Black Histic (A3) ☐ Hydrogen Sulfide (A4) ☐ Stratified Layers (A5) ☐ 2 cm Muck (A10) (LRR N) ☐ Depleted Below Dark Surface (A11) ☐ Thick Dark Surface (A12) ☐ Sandy Mucky Mineral (S1) ☐ Sandy Gleyed Matrix (S4) ☐ Sandy Redox (S5) ☐ Stripped Matrix (S6) ☐ Dark Surface (S7)	☐ Polyvalue Below Surface (S8) (MLRA 147, 148) ☐ Thin Dark Surface (S9) (MLRA 147, 148) ☐ Loamy Mucky Mineral (F1) (MLRA 136) ☐ Loamy Gleyed Matrix (F2) ☐ Depleted Matrix (F3) ☐ Redox Dark Surface (F6) ☐ Depleted Dark Surface (F7) ☐ Redox Depressions (F8) ☐ Iron-Manganese Masses (F12) (LRR N, MLRA 136) ☐ Umbric Surface (F13) (MLRA 122, 136) ☐ Piedmont Floodplain Soils (F19) (MLRA 148) ☐ Red Parent Material (F21) (MLRA 127, 147, 148)	Indicators for Problematic Hydric Soils³: ☐ 2 cm Muck (A10) (MLRA 147) ☐ Coast Prairie Redox (A16) (MLRA 147, 148) ☐ Piedmont Floodplain Soils (F19) (MLRA 136, 147) ☐ Red Parent Material (F21) (outside MLRA 127, 147, 148) ☐ Very Shallow Dark Surface (F22) ☐ Other (Explain in Remarks)
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³Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if observed): Type: _____ Depth (inches): _____	Hydric Soil Present? Yes _____ No <u>X</u>
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Remarks:
 Indicators of hydric soils are not present.

U.S. Army Corps of Engineers WETLAND DETERMINATION DATA SHEET – Eastern Mountains and Piedmont Region See ERDC/EL TR-12-9; the proponent agency is CECW-CO-R	OMB Control #: 0710-0024, Exp:11/30/2024 Requirement Control Symbol EXEMPT: (Authority: AR 335-15, paragraph 5-2a)
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Project/Site: Beeson Creek Stream Restoration - Reach 7 City/County: Forsyth Sampling Date: 8-15-23

Applicant/Owner: Town of Kernsville State: NC Sampling Point: TP-2

Investigator(s): JKM Section, Township, Range: _____

Landform (hillside, terrace, etc.): depression Local relief (concave, convex, none): concave Slope (%): 4

Subregion (LRR or MLRA): LRR P, MLRA 136 Lat: 36.093825 Long: -80.083982 Datum: NAD83

Soil Map Unit Name: Clifford sandy loam, 2 to 6 percent slopes (CIB) NWI classification: none

Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No _____ (If no, explain in Remarks.)

Are Vegetation _____, Soil _____, or Hydrology _____ significantly disturbed? Are "Normal Circumstances" present? Yes X No _____

Are Vegetation _____, Soil _____, or Hydrology _____ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? Yes <u>X</u> No _____ Hydric Soil Present? Yes <u>X</u> No _____ Wetland Hydrology Present? Yes <u>X</u> No _____	Is the Sampled Area within a Wetland? Yes <u>X</u> No _____
Remarks: Data point is representative of jurisdictional wetland area A.	

HYDROLOGY

Wetland Hydrology Indicators: <u>Primary Indicators (minimum of one is required; check all that apply)</u> _____ Surface Water (A1) _____ True Aquatic Plants (B14) <u>X</u> High Water Table (A2) _____ Hydrogen Sulfide Odor (C1) <u>X</u> Saturation (A3) _____ Oxidized Rhizospheres on Living Roots (C3) _____ Water Marks (B1) _____ Presence of Reduced Iron (C4) _____ Sediment Deposits (B2) _____ Recent Iron Reduction in Tilled Soils (C6) _____ Drift Deposits (B3) _____ Thin Muck Surface (C7) _____ Algal Mat or Crust (B4) _____ Other (Explain in Remarks) _____ Iron Deposits (B5) _____ Inundation Visible on Aerial Imagery (B7) _____ Water-Stained Leaves (B9) _____ Aquatic Fauna (B13)	<u>Secondary Indicators (minimum of two required)</u> _____ Surface Soil Cracks (B6) _____ Sparsely Vegetated Concave Surface (B8) _____ Drainage Patterns (B10) _____ Moss Trim Lines (B16) _____ Dry-Season Water Table (C2) _____ Crayfish Burrows (C8) _____ Saturation Visible on Aerial Imagery (C9) _____ Stunted or Stressed Plants (D1) <u>X</u> Geomorphic Position (D2) _____ Shallow Aquitard (D3) _____ Microtopographic Relief (D4) _____ FAC-Neutral Test (D5)
Field Observations: Surface Water Present? Yes _____ No <u>X</u> Depth (inches): _____ Water Table Present? Yes <u>X</u> No _____ Depth (inches): <u>12</u> Saturation Present? Yes <u>X</u> No _____ Depth (inches): <u>8</u> (includes capillary fringe)	Wetland Hydrology Present? Yes <u>X</u> No _____
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available: Remarks: Indicators of wetland hydrology are present.	

VEGETATION (Four Strata) – Use scientific names of plants.

 Sampling Point: TP-2

Tree Stratum (Plot size: <u>30</u>)	Absolute % Cover	Dominant Species?	Indicator Status																	
1. _____	_____	_____	_____	Dominance Test worksheet: Number of Dominant Species That Are OBL, FACW, or FAC: <u>3</u> (A) Total Number of Dominant Species Across All Strata: <u>4</u> (B) Percent of Dominant Species That Are OBL, FACW, or FAC: <u>75.0%</u> (A/B)																
2. _____	_____	_____	_____																	
3. _____	_____	_____	_____																	
4. _____	_____	_____	_____																	
5. _____	_____	_____	_____																	
6. _____	_____	_____	_____																	
7. _____	_____	_____	_____																	
=Total Cover				Prevalence Index worksheet: <table style="width: 100%;"> <tr> <th style="width: 50%;">Total % Cover of:</th> <th style="width: 50%;">Multiply by:</th> </tr> <tr> <td>OBL species _____</td> <td>x 1 = _____</td> </tr> <tr> <td>FACW species _____</td> <td>x 2 = _____</td> </tr> <tr> <td>FAC species _____</td> <td>x 3 = _____</td> </tr> <tr> <td>FACU species _____</td> <td>x 4 = _____</td> </tr> <tr> <td>UPL species _____</td> <td>x 5 = _____</td> </tr> <tr> <td>Column Totals: _____ (A)</td> <td>_____ (B)</td> </tr> <tr> <td colspan="2" style="text-align: center;">Prevalence Index = B/A = _____</td> </tr> </table>	Total % Cover of:	Multiply by:	OBL species _____	x 1 = _____	FACW species _____	x 2 = _____	FAC species _____	x 3 = _____	FACU species _____	x 4 = _____	UPL species _____	x 5 = _____	Column Totals: _____ (A)	_____ (B)	Prevalence Index = B/A = _____	
Total % Cover of:	Multiply by:																			
OBL species _____	x 1 = _____																			
FACW species _____	x 2 = _____																			
FAC species _____	x 3 = _____																			
FACU species _____	x 4 = _____																			
UPL species _____	x 5 = _____																			
Column Totals: _____ (A)	_____ (B)																			
Prevalence Index = B/A = _____																				
50% of total cover: _____ 20% of total cover: _____																				
Sapling/Shrub Stratum (Plot size: <u>15</u>)																				
1. <i>Ligustrum sinense</i>	15	Yes	FACU																	
2. <i>Liquidambar styraciflua</i>	5	Yes	FAC																	
3. _____	_____	_____	_____																	
4. _____	_____	_____	_____																	
5. _____	_____	_____	_____																	
6. _____	_____	_____	_____																	
7. _____	_____	_____	_____																	
8. _____	_____	_____	_____																	
9. _____	_____	_____	_____																	
20 =Total Cover				Hydrophytic Vegetation Indicators: <u>1</u> - Rapid Test for Hydrophytic Vegetation <u>X</u> 2 - Dominance Test is >50% <u>3</u> - Prevalence Index is ≤3.0 ¹ <u>4</u> - Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet) <u> </u> Problematic Hydrophytic Vegetation ¹ (Explain) ¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.																
50% of total cover: <u>10</u> 20% of total cover: <u>4</u>																				
Herb Stratum (Plot size: <u>5</u>)																				
1. <i>Microstegium vimineum</i>	60	Yes	FAC																	
2. <i>Arundinaria gigantea</i>	20	Yes	FACW																	
3. <i>Asplenium platyneuron</i>	10	No	FACU																	
4. _____	_____	_____	_____																	
5. _____	_____	_____	_____																	
6. _____	_____	_____	_____																	
7. _____	_____	_____	_____																	
8. _____	_____	_____	_____																	
9. _____	_____	_____	_____																	
10. _____	_____	_____	_____																	
11. _____	_____	_____	_____																	
90 =Total Cover				Definitions of Four Vegetation Strata: Tree – Woody plants, excluding vines, 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height. Sapling/Shrub – Woody plants, excluding vines, less than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall. Herb – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall. Woody Vine – All woody vines greater than 3.28 ft in height.																
50% of total cover: <u>45</u> 20% of total cover: <u>18</u>																				
Woody Vine Stratum (Plot size: <u>30</u>)																				
1. _____	_____	_____	_____																	
2. _____	_____	_____	_____																	
3. _____	_____	_____	_____																	
4. _____	_____	_____	_____																	
5. _____	_____	_____	_____																	
=Total Cover				Hydrophytic Vegetation Present? Yes <u>X</u> No _____																
50% of total cover: _____ 20% of total cover: _____																				
Remarks: (Include photo numbers here or on a separate sheet.) 75.0% of dominant vegetation is FAC or wetter.																				

SOIL

Sampling Point: TP-2

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)								
Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²		
0-4	10YR 5/2	80	10YR 5/4	20	C	M	Loamy/Clayey	Distinct redox concentrations
4-10	10YR 5/2	80	10YR 5/6	20	C	M	Loamy/Clayey	Prominent redox concentrations
10-20	10YR 5/2	80	10YR 5/6	20	C	M	Sandy	Prominent redox concentrations

¹Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains. ²Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:		Indicators for Problematic Hydric Soils ³ :
☐ Histosol (A1)	☐ Polyvalue Below Surface (S8) (MLRA 147, 148)	☐ 2 cm Muck (A10) (MLRA 147)
☐ Histic Epipedon (A2)	☐ Thin Dark Surface (S9) (MLRA 147, 148)	☐ Coast Prairie Redox (A16)
☐ Black Histic (A3)	☐ Loamy Mucky Mineral (F1) (MLRA 136)	☐ (MLRA 147, 148)
☐ Hydrogen Sulfide (A4)	☐ Loamy Gleyed Matrix (F2)	☐ Piedmont Floodplain Soils (F19)
☐ Stratified Layers (A5)	☒ Depleted Matrix (F3)	☐ (MLRA 136, 147)
☐ 2 cm Muck (A10) (LRR N)	☐ Redox Dark Surface (F6)	☐ Red Parent Material (F21)
☐ Depleted Below Dark Surface (A11)	☐ Depleted Dark Surface (F7)	☐ (outside MLRA 127, 147, 148)
☐ Thick Dark Surface (A12)	☐ Redox Depressions (F8)	☐ Very Shallow Dark Surface (F22)
☐ Sandy Mucky Mineral (S1)	☐ Iron-Manganese Masses (F12) (LRR N, MLRA 136)	☐ Other (Explain in Remarks)
☐ Sandy Gleyed Matrix (S4)	☐ Umbric Surface (F13) (MLRA 122, 136)	³ Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.
☐ Sandy Redox (S5)	☐ Piedmont Floodplain Soils (F19) (MLRA 148)	
☐ Stripped Matrix (S6)	☐ Red Parent Material (F21) (MLRA 127, 147, 148)	
☐ Dark Surface (S7)		

Restrictive Layer (if observed): Type: _____ Depth (inches): _____	Hydric Soil Present? Yes ☒ No ☐
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Remarks:
Indicators of hydric soils are present.

U.S. Army Corps of Engineers WETLAND DETERMINATION DATA SHEET – Eastern Mountains and Piedmont Region See ERDC/EL TR-12-9; the proponent agency is CECW-CO-R	OMB Control #: 0710-0024, Exp:11/30/2024 Requirement Control Symbol EXEMPT: (Authority: AR 335-15, paragraph 5-2a)
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Project/Site: Beeson Creek Stream Restoration - Reach 7 City/County: Forsyth Sampling Date: 8-15-23

Applicant/Owner: Town of Kernsville State: NC Sampling Point: TP-3

Investigator(s): JKM Section, Township, Range: _____

Landform (hillside, terrace, etc.): gully Local relief (concave, convex, none): concave Slope (%): 15

Subregion (LRR or MLRA): LRR P, MLRA 136 Lat: 36.093601 Long: -80.082998 Datum: NAD83

Soil Map Unit Name: Bannertown-Toast complex, 15 to 25 percent slopes (BtE) NWI classification: none

Are climatic / hydrologic conditions on the site typical for this time of year? Yes _____ No _____ (If no, explain in Remarks.)

Are Vegetation _____, Soil _____, or Hydrology _____ significantly disturbed? Are "Normal Circumstances" present? Yes _____ No _____

Are Vegetation _____, Soil _____, or Hydrology _____ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? Yes <u>X</u> No _____ Hydric Soil Present? Yes <u>X</u> No _____ Wetland Hydrology Present? Yes <u>X</u> No _____	Is the Sampled Area within a Wetland? Yes <u>X</u> No _____
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Remarks:
 Data point is representative of jurisdictional wetland area B.

HYDROLOGY

Wetland Hydrology Indicators: <u>Primary Indicators (minimum of one is required; check all that apply)</u> ☒ Surface Water (A1) ☐ True Aquatic Plants (B14) ☒ High Water Table (A2) ☒ Hydrogen Sulfide Odor (C1) ☒ Saturation (A3) ☐ Oxidized Rhizospheres on Living Roots (C3) ☐ Water Marks (B1) ☐ Presence of Reduced Iron (C4) ☐ Sediment Deposits (B2) ☐ Recent Iron Reduction in Tilled Soils (C6) ☐ Drift Deposits (B3) ☐ Thin Muck Surface (C7) ☐ Algal Mat or Crust (B4) ☐ Other (Explain in Remarks) ☐ Iron Deposits (B5) ☐ Inundation Visible on Aerial Imagery (B7) ☒ Water-Stained Leaves (B9) ☐ Aquatic Fauna (B13)	<u>Secondary Indicators (minimum of two required)</u> ☐ Surface Soil Cracks (B6) ☒ Sparsely Vegetated Concave Surface (B8) ☐ Drainage Patterns (B10) ☐ Moss Trim Lines (B16) ☐ Dry-Season Water Table (C2) ☐ Crayfish Burrows (C8) ☐ Saturation Visible on Aerial Imagery (C9) ☐ Stunted or Stressed Plants (D1) ☒ Geomorphic Position (D2) ☐ Shallow Aquitard (D3) ☐ Microtopographic Relief (D4) ☐ FAC-Neutral Test (D5)
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Field Observations: Surface Water Present? Yes <u>X</u> No _____ Depth (inches): <u>0</u> Water Table Present? Yes <u>X</u> No _____ Depth (inches): <u>2</u> Saturation Present? Yes <u>X</u> No _____ Depth (inches): <u>0</u> (includes capillary fringe)	Wetland Hydrology Present? Yes <u>X</u> No _____
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Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:
 Indicators of wetland hydrology are present.

VEGETATION (Four Strata) – Use scientific names of plants.

 Sampling Point: TP-3

Tree Stratum (Plot size: <u>30</u>)	Absolute % Cover	Dominant Species?	Indicator Status	
1. _____	_____	_____	_____	Dominance Test worksheet: Number of Dominant Species That Are OBL, FACW, or FAC: <u>1</u> (A) Total Number of Dominant Species Across All Strata: <u>1</u> (B) Percent of Dominant Species That Are OBL, FACW, or FAC: <u>100.0%</u> (A/B)
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
5. _____	_____	_____	_____	
6. _____	_____	_____	_____	
7. _____	_____	_____	_____	
=Total Cover				Prevalence Index worksheet: Total % Cover of: _____ Multiply by: _____ OBL species _____ x 1 = _____ FACW species _____ x 2 = _____ FAC species _____ x 3 = _____ FACU species _____ x 4 = _____ UPL species _____ x 5 = _____ Column Totals: _____ (A) _____ (B) Prevalence Index = B/A = _____
50% of total cover: _____		20% of total cover: _____		
Sapling/Shrub Stratum (Plot size: <u>15</u>)				Hydrophytic Vegetation Indicators: <u>1</u> - Rapid Test for Hydrophytic Vegetation <u>X</u> 2 - Dominance Test is >50% <u>3</u> - Prevalence Index is ≤3.0 ¹ <u>4</u> - Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet) <u> </u> Problematic Hydrophytic Vegetation ¹ (Explain) ¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.
1. _____	_____	_____	_____	
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
5. _____	_____	_____	_____	
6. _____	_____	_____	_____	
7. _____	_____	_____	_____	
8. _____	_____	_____	_____	
9. _____	_____	_____	_____	
=Total Cover				
50% of total cover: _____		20% of total cover: _____		
Herb Stratum (Plot size: <u>5</u>)				Definitions of Four Vegetation Strata: Tree – Woody plants, excluding vines, 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height. Sapling/Shrub – Woody plants, excluding vines, less than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall. Herb – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall. Woody Vine – All woody vines greater than 3.28 ft in height.
1. <i>Microstegium vimineum</i>	<u>5</u>	<u>Yes</u>	<u>FAC</u>	
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
5. _____	_____	_____	_____	
6. _____	_____	_____	_____	
7. _____	_____	_____	_____	
8. _____	_____	_____	_____	
9. _____	_____	_____	_____	
10. _____	_____	_____	_____	
11. _____	_____	_____	_____	
=Total Cover				
50% of total cover: <u>3</u>		20% of total cover: <u>1</u>		
Woody Vine Stratum (Plot size: <u>30</u>)				
1. _____	_____	_____	_____	
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
5. _____	_____	_____	_____	
=Total Cover				
50% of total cover: _____		20% of total cover: _____		
Remarks: (Include photo numbers here or on a separate sheet.) 100.0% of dominant vegetation is FAC or wetter.				

SOIL

Sampling Point: TP-3

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)								
Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²		
0-5	10YR 5/2	90	10YR 5/4	10	C	M	Loamy/Clayey	Distinct redox concentrations
5-10	10YR 5/2	90	10YR 5/6	10	C	PL/M	Loamy/Clayey	Prominent redox concentrations
10-20	10YR 5/1	90	10YR 5/6	10	C	M	Loamy/Clayey	Prominent redox concentrations

¹Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains. ²Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:		Indicators for Problematic Hydric Soils ³ :	
☐ Histosol (A1)	☐ Polyvalue Below Surface (S8) (MLRA 147, 148)	☐ 2 cm Muck (A10) (MLRA 147)	
☐ Histic Epipedon (A2)	☐ Thin Dark Surface (S9) (MLRA 147, 148)	☐ Coast Prairie Redox (A16)	
☐ Black Histic (A3)	☐ Loamy Mucky Mineral (F1) (MLRA 136)	☐ (MLRA 147, 148)	
☒ Hydrogen Sulfide (A4)	☐ Loamy Gleyed Matrix (F2)	☐ Piedmont Floodplain Soils (F19)	
☐ Stratified Layers (A5)	☒ Depleted Matrix (F3)	☐ (MLRA 136, 147)	
☐ 2 cm Muck (A10) (LRR N)	☐ Redox Dark Surface (F6)	☐ Red Parent Material (F21)	
☐ Depleted Below Dark Surface (A11)	☐ Depleted Dark Surface (F7)	☐ (outside MLRA 127, 147, 148)	
☐ Thick Dark Surface (A12)	☐ Redox Depressions (F8)	☐ Very Shallow Dark Surface (F22)	
☐ Sandy Mucky Mineral (S1)	☐ Iron-Manganese Masses (F12) (LRR N,	☐ Other (Explain in Remarks)	
☐ Sandy Gleyed Matrix (S4)	☐ MLRA 136)		
☐ Sandy Redox (S5)	☐ Umbric Surface (F13) (MLRA 122, 136)		
☐ Stripped Matrix (S6)	☐ Piedmont Floodplain Soils (F19) (MLRA 148)		
☐ Dark Surface (S7)	☐ Red Parent Material (F21) (MLRA 127, 147, 148)		

³Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if observed): Type: _____ Depth (inches): _____	Hydric Soil Present? Yes ☒ No ☐
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Remarks:
Indicators of hydric soil are present.

U.S. Army Corps of Engineers WETLAND DETERMINATION DATA SHEET – Eastern Mountains and Piedmont Region See ERDC/EL TR-12-9; the proponent agency is CECW-CO-R	OMB Control #: 0710-0024, Exp:11/30/2024 Requirement Control Symbol EXEMPT: (Authority: AR 335-15, paragraph 5-2a)
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Project/Site: Beeson Creek Stream Restoration - Reach 7 City/County: Forsyth Sampling Date: 8-15-23
 Applicant/Owner: Town of Kernsville State: NC Sampling Point: TP-4
 Investigator(s): JKM Section, Township, Range: _____
 Landform (hillside, terrace, etc.): hillside Local relief (concave, convex, none): convex Slope (%): 20
 Subregion (LRR or MLRA): LRR P, MLRA 136 Lat: 36.093687 Long: -80.082855 Datum: NAD83
 Soil Map Unit Name: Bannertown-Toast complex, 15 to 25 percent slopes (BtE) NWI classification: None
 Are climatic / hydrologic conditions on the site typical for this time of year? Yes _____ No _____ (If no, explain in Remarks.)
 Are Vegetation _____, Soil _____, or Hydrology _____ significantly disturbed? Are "Normal Circumstances" present? Yes _____ No _____
 Are Vegetation _____, Soil _____, or Hydrology _____ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? Yes _____ No <u>X</u> Hydric Soil Present? Yes _____ No <u>X</u> Wetland Hydrology Present? Yes _____ No <u>X</u>	<table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 60%; padding: 5px;"> Is the Sampled Area within a Wetland? </td> <td style="width: 40%; padding: 5px;"> Yes _____ No <u>X</u> </td> </tr> </table>	Is the Sampled Area within a Wetland?	Yes _____ No <u>X</u>
Is the Sampled Area within a Wetland?	Yes _____ No <u>X</u>		
Remarks: Data point is representative of a non-jurisdictional upland area.			

HYDROLOGY

Wetland Hydrology Indicators: <u>Primary Indicators (minimum of one is required; check all that apply)</u> _____ Surface Water (A1) _____ True Aquatic Plants (B14) _____ High Water Table (A2) _____ Hydrogen Sulfide Odor (C1) _____ Saturation (A3) _____ Oxidized Rhizospheres on Living Roots (C3) _____ Water Marks (B1) _____ Presence of Reduced Iron (C4) _____ Sediment Deposits (B2) _____ Recent Iron Reduction in Tilled Soils (C6) _____ Drift Deposits (B3) _____ Thin Muck Surface (C7) _____ Algal Mat or Crust (B4) _____ Other (Explain in Remarks) _____ Iron Deposits (B5) _____ Inundation Visible on Aerial Imagery (B7) _____ Water-Stained Leaves (B9) _____ Aquatic Fauna (B13)	<u>Secondary Indicators (minimum of two required)</u> _____ Surface Soil Cracks (B6) _____ Sparsely Vegetated Concave Surface (B8) _____ Drainage Patterns (B10) _____ Moss Trim Lines (B16) _____ Dry-Season Water Table (C2) _____ Crayfish Burrows (C8) _____ Saturation Visible on Aerial Imagery (C9) _____ Stunted or Stressed Plants (D1) _____ Geomorphic Position (D2) _____ Shallow Aquitard (D3) _____ Microtopographic Relief (D4) _____ FAC-Neutral Test (D5)		
Field Observations: Surface Water Present? Yes _____ No <u>X</u> Depth (inches): _____ Water Table Present? Yes _____ No <u>X</u> Depth (inches): _____ Saturation Present? Yes _____ No <u>X</u> Depth (inches): _____ (includes capillary fringe)	<table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 60%; padding: 5px;"> Wetland Hydrology Present? </td> <td style="width: 40%; padding: 5px;"> Yes _____ No <u>X</u> </td> </tr> </table>	Wetland Hydrology Present?	Yes _____ No <u>X</u>
Wetland Hydrology Present?	Yes _____ No <u>X</u>		
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:			
Remarks: Indicators of wetland hydrology are not present.			

VEGETATION (Four Strata) – Use scientific names of plants.

 Sampling Point: TP-4

Tree Stratum (Plot size: <u>30</u>)	Absolute % Cover	Dominant Species?	Indicator Status	
1. <u>Quercus alba</u>	30	Yes	FACU	Dominance Test worksheet: Number of Dominant Species That Are OBL, FACW, or FAC: <u>2</u> (A) Total Number of Dominant Species Across All Strata: <u>5</u> (B) Percent of Dominant Species That Are OBL, FACW, or FAC: <u>40.0%</u> (A/B)
2. <u>Quercus rubra</u>	20	Yes	FACU	
3. _____				
4. _____				
5. _____				
6. _____				
7. _____				
50 = Total Cover				Prevalence Index worksheet: Total % Cover of: _____ Multiply by: _____ OBL species _____ x 1 = _____ FACW species _____ x 2 = _____ FAC species _____ x 3 = _____ FACU species _____ x 4 = _____ UPL species _____ x 5 = _____ Column Totals: _____ (A) _____ (B) Prevalence Index = B/A = _____
50% of total cover: <u>25</u> 20% of total cover: <u>10</u>				
Sapling/Shrub Stratum (Plot size: <u>15</u>)				
1. <u>Liquidambar styraciflua</u>	20	Yes	FAC	Hydrophytic Vegetation Indicators: <u>1</u> - Rapid Test for Hydrophytic Vegetation <u>2</u> - Dominance Test is >50% <u>3</u> - Prevalence Index is ≤3.0 ¹ <u>4</u> - Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet) <u>Problematic Hydrophytic Vegetation</u> ¹ (Explain) ¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.
2. <u>Quercus rubra</u>	5	No	FACU	
3. <u>Quercus alba</u>	5	No	FACU	
4. _____				
5. _____				
6. _____				
7. _____				
30 = Total Cover				
50% of total cover: <u>15</u> 20% of total cover: <u>6</u>				
Herb Stratum (Plot size: <u>5</u>)				
1. <u>Parthenocissus quinquefolia</u>	5	Yes	FACU	Definitions of Four Vegetation Strata: Tree – Woody plants, excluding vines, 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height. Sapling/Shrub – Woody plants, excluding vines, less than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall. Herb – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall. Woody Vine – All woody vines greater than 3.28 ft in height.
2. <u>Lycopodium clavatum</u>	5	Yes	FAC	
3. _____				
4. _____				
5. _____				
6. _____				
7. _____				
8. _____				
9. _____				
10. _____				
11. _____				
10 = Total Cover				
50% of total cover: <u>5</u> 20% of total cover: <u>2</u>				
Woody Vine Stratum (Plot size: <u>30</u>)				
1. _____				Hydrophytic Vegetation Present? Yes <u> </u> No <u> X </u>
2. _____				
3. _____				
4. _____				
5. _____				
= Total Cover				
50% of total cover: _____ 20% of total cover: _____				
Remarks: (Include photo numbers here or on a separate sheet.) 40.0% of dominant vegetation is FAC or wetter.				

SOIL

Sampling Point: TP-4

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)								
Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²		
0-2	7.5YR 5/4	100					Loamy/Clayey	
2-20	7.5YR 5/6	100					Loamy/Clayey	

¹Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains. ²Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:		Indicators for Problematic Hydric Soils ³ :
☐ Histosol (A1)	☐ Polyvalue Below Surface (S8) (MLRA 147, 148)	☐ 2 cm Muck (A10) (MLRA 147)
☐ Histic Epipedon (A2)	☐ Thin Dark Surface (S9) (MLRA 147, 148)	☐ Coast Prairie Redox (A16)
☐ Black Histic (A3)	☐ Loamy Mucky Mineral (F1) (MLRA 136)	☐ (MLRA 147, 148)
☐ Hydrogen Sulfide (A4)	☐ Loamy Gleyed Matrix (F2)	☐ Piedmont Floodplain Soils (F19)
☐ Stratified Layers (A5)	☐ Depleted Matrix (F3)	☐ (MLRA 136, 147)
☐ 2 cm Muck (A10) (LRR N)	☐ Redox Dark Surface (F6)	☐ Red Parent Material (F21)
☐ Depleted Below Dark Surface (A11)	☐ Depleted Dark Surface (F7)	☐ (outside MLRA 127, 147, 148)
☐ Thick Dark Surface (A12)	☐ Redox Depressions (F8)	☐ Very Shallow Dark Surface (F22)
☐ Sandy Mucky Mineral (S1)	☐ Iron-Manganese Masses (F12) (LRR N,	☐ Other (Explain in Remarks)
☐ Sandy Gleyed Matrix (S4)	☐ MLRA 136)	
☐ Sandy Redox (S5)	☐ Umbric Surface (F13) (MLRA 122, 136)	³ Indicators of hydrophytic vegetation and
☐ Stripped Matrix (S6)	☐ Piedmont Floodplain Soils (F19) (MLRA 148)	wetland hydrology must be present,
☐ Dark Surface (S7)	☐ Red Parent Material (F21) (MLRA 127, 147, 148)	unless disturbed or problematic.

Restrictive Layer (if observed): Type: _____ Depth (inches): _____	Hydric Soil Present? Yes _____ No <u>X</u>
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Remarks:
 Indicators of hydric soils are not present.

U.S. Army Corps of Engineers WETLAND DETERMINATION DATA SHEET – Eastern Mountains and Piedmont Region See ERDC/EL TR-12-9; the proponent agency is CECW-CO-R	OMB Control #: 0710-0024, Exp:11/30/2024 Requirement Control Symbol EXEMPT: (Authority: AR 335-15, paragraph 5-2a)
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Project/Site: <u>Beeson Creek Stream Restoration - Reach 7</u>	City/County: <u>Forsyth</u>	Sampling Date: <u>8-15-23</u>
Applicant/Owner: <u>Town of Kernsville</u>	State: <u>NC</u>	Sampling Point: <u>TP-5</u>
Investigator(s): <u>JKM</u>	Section, Township, Range: _____	
Landform (hillside, terrace, etc.): <u>valley</u>	Local relief (concave, convex, none): <u>concave</u>	Slope (%): <u>20</u>
Subregion (LRR or MLRA): <u>LRR P, MLRA 136</u>	Lat: <u>36.093549</u>	Long: <u>-80.082685</u>
Datum: <u>NAD83</u>		
Soil Map Unit Name: <u>Bannertown-Toast complex, 15 to 25 percent slopes (BtE)</u>	NWI classification: <u>none</u>	
Are climatic / hydrologic conditions on the site typical for this time of year? Yes <u>X</u> No _____ (If no, explain in Remarks.)		
Are Vegetation _____, Soil _____, or Hydrology _____ significantly disturbed? Are "Normal Circumstances" present? Yes <u>X</u> No _____		
Are Vegetation _____, Soil _____, or Hydrology _____ naturally problematic? (If needed, explain any answers in Remarks.)		

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? Yes <u>X</u> No _____ Hydric Soil Present? Yes <u>X</u> No _____ Wetland Hydrology Present? Yes <u>X</u> No _____	<table style="width: 100%;"> <tr> <td style="width: 60%;">Is the Sampled Area within a Wetland?</td> <td style="width: 40%;">Yes <u>X</u> No _____</td> </tr> </table>	Is the Sampled Area within a Wetland?	Yes <u>X</u> No _____
Is the Sampled Area within a Wetland?	Yes <u>X</u> No _____		
Remarks: Data point is representative of jurisdictional wetland area C.			

HYDROLOGY

Wetland Hydrology Indicators: <u>Primary Indicators (minimum of one is required; check all that apply)</u> ☐ Surface Water (A1) ☒ High Water Table (A2) ☒ Saturation (A3) ☐ Water Marks (B1) ☐ Sediment Deposits (B2) ☐ Drift Deposits (B3) ☐ Algal Mat or Crust (B4) ☐ Iron Deposits (B5) ☐ Inundation Visible on Aerial Imagery (B7) ☐ Water-Stained Leaves (B9) ☐ Aquatic Fauna (B13) ☐ True Aquatic Plants (B14) ☐ Hydrogen Sulfide Odor (C1) ☐ Oxidized Rhizospheres on Living Roots (C3) ☐ Presence of Reduced Iron (C4) ☐ Recent Iron Reduction in Tilled Soils (C6) ☐ Thin Muck Surface (C7) ☐ Other (Explain in Remarks)	<u>Secondary Indicators (minimum of two required)</u> ☐ Surface Soil Cracks (B6) ☐ Sparsely Vegetated Concave Surface (B8) ☒ Drainage Patterns (B10) ☐ Moss Trim Lines (B16) ☐ Dry-Season Water Table (C2) ☐ Crayfish Burrows (C8) ☐ Saturation Visible on Aerial Imagery (C9) ☐ Stunted or Stressed Plants (D1) ☒ Geomorphic Position (D2) ☐ Shallow Aquitard (D3) ☐ Microtopographic Relief (D4) ☐ FAC-Neutral Test (D5)		
Field Observations: Surface Water Present? Yes _____ No <u>X</u> Depth (inches): _____ Water Table Present? Yes <u>X</u> No _____ Depth (inches): <u>8</u> Saturation Present? Yes <u>X</u> No _____ Depth (inches): <u>4</u> (includes capillary fringe)	<table style="width: 100%;"> <tr> <td style="width: 60%;">Wetland Hydrology Present?</td> <td style="width: 40%;">Yes <u>X</u> No _____</td> </tr> </table>	Wetland Hydrology Present?	Yes <u>X</u> No _____
Wetland Hydrology Present?	Yes <u>X</u> No _____		
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:			
Remarks: Indicators of wetland hydrology are not present.			

VEGETATION (Four Strata) – Use scientific names of plants.

 Sampling Point: TP-5

Tree Stratum (Plot size: <u>30</u>)	Absolute % Cover	Dominant Species?	Indicator Status	
1. <i>Liquidambar styraciflua</i>	30	Yes	FAC	Dominance Test worksheet: Number of Dominant Species That Are OBL, FACW, or FAC: <u>3</u> (A) Total Number of Dominant Species Across All Strata: <u>4</u> (B) Percent of Dominant Species That Are OBL, FACW, or FAC: <u>75.0%</u> (A/B)
2. <i>Liriodendron tulipifera</i>	10	Yes	FACU	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
5. _____	_____	_____	_____	
6. _____	_____	_____	_____	
7. _____	_____	_____	_____	
40 =Total Cover				Prevalence Index worksheet: Total % Cover of: _____ Multiply by: _____ OBL species _____ x 1 = _____ FACW species _____ x 2 = _____ FAC species _____ x 3 = _____ FACU species _____ x 4 = _____ UPL species _____ x 5 = _____ Column Totals: _____ (A) _____ (B) Prevalence Index = B/A = _____
50% of total cover: <u>20</u> 20% of total cover: <u>8</u>				
Sapling/Shrub Stratum (Plot size: <u>15</u>)				
1. <i>Liquidambar styraciflua</i>	40	Yes	FAC	Hydrophytic Vegetation Indicators: <u>1</u> - Rapid Test for Hydrophytic Vegetation <u>X</u> 2 - Dominance Test is >50% <u>3</u> - Prevalence Index is ≤3.0 ¹ <u>4</u> - Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet) <u> </u> Problematic Hydrophytic Vegetation ¹ (Explain) ¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.
2. <i>Quercus phellos</i>	10	No	FAC	
3. <i>Acer rubrum</i>	10	No	FAC	
4. _____	_____	_____	_____	
5. _____	_____	_____	_____	
6. _____	_____	_____	_____	
7. _____	_____	_____	_____	
60 =Total Cover				Definitions of Four Vegetation Strata: Tree – Woody plants, excluding vines, 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height. Sapling/Shrub – Woody plants, excluding vines, less than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall. Herb – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall. Woody Vine – All woody vines greater than 3.28 ft in height.
50% of total cover: <u>30</u> 20% of total cover: <u>12</u>				
Herb Stratum (Plot size: <u>5</u>)				
1. <i>Microstegium vimineum</i>	80	Yes	FAC	Hydrophytic Vegetation Present? Yes <u>X</u> No _____
2. <i>Arundinaria gigantea</i>	10	No	FACW	
3. <i>Carex pensylvanica</i>	5	No	UPL	
4. <i>Juncus effusus</i>	5	No	FACW	
5. _____	_____	_____	_____	
6. _____	_____	_____	_____	
7. _____	_____	_____	_____	
8. _____	_____	_____	_____	
9. _____	_____	_____	_____	
10. _____	_____	_____	_____	
11. _____	_____	_____	_____	
100 =Total Cover				
50% of total cover: <u>50</u> 20% of total cover: <u>20</u>				
Woody Vine Stratum (Plot size: <u>30</u>)				
1. _____	_____	_____	_____	
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
5. _____	_____	_____	_____	
_____ =Total Cover				
50% of total cover: _____ 20% of total cover: _____				
Remarks: (Include photo numbers here or on a separate sheet.) 75.0% of dominant vegetation is FAC or wetter.				

SOIL

Sampling Point: TP-5

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)								
Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²		
0-20	10YR 5/1	70	10YR 5/6	30	C	M	Loamy/Clayey	Prominent redox concentrations

¹Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains. ²Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators: ☐ Histosol (A1) ☐ Histic Epipedon (A2) ☐ Black Histic (A3) ☐ Hydrogen Sulfide (A4) ☐ Stratified Layers (A5) ☐ 2 cm Muck (A10) (LRR N) ☐ Depleted Below Dark Surface (A11) ☐ Thick Dark Surface (A12) ☐ Sandy Mucky Mineral (S1) ☐ Sandy Gleyed Matrix (S4) ☐ Sandy Redox (S5) ☐ Stripped Matrix (S6) ☐ Dark Surface (S7)	☐ Polyvalue Below Surface (S8) (MLRA 147, 148) ☐ Thin Dark Surface (S9) (MLRA 147, 148) ☐ Loamy Mucky Mineral (F1) (MLRA 136) ☐ Loamy Gleyed Matrix (F2) ☒ Depleted Matrix (F3) ☐ Redox Dark Surface (F6) ☐ Depleted Dark Surface (F7) ☐ Redox Depressions (F8) ☐ Iron-Manganese Masses (F12) (LRR N, MLRA 136) ☐ Umbric Surface (F13) (MLRA 122, 136) ☐ Piedmont Floodplain Soils (F19) (MLRA 148) ☐ Red Parent Material (F21) (MLRA 127, 147, 148)	Indicators for Problematic Hydric Soils³: ☐ 2 cm Muck (A10) (MLRA 147) ☐ Coast Prairie Redox (A16) (MLRA 147, 148) ☐ Piedmont Floodplain Soils (F19) (MLRA 136, 147) ☐ Red Parent Material (F21) (outside MLRA 127, 147, 148) ☐ Very Shallow Dark Surface (F22) ☐ Other (Explain in Remarks)
--	---	--

³Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if observed): Type: _____ Depth (inches): _____	Hydric Soil Present? Yes ☒ No _____
---	--

Remarks:
 Indicators of hydric soil are present.

U.S. Army Corps of Engineers WETLAND DETERMINATION DATA SHEET – Eastern Mountains and Piedmont Region See ERDC/EL TR-12-9; the proponent agency is CECW-CO-R	OMB Control #: 0710-0024, Exp:11/30/2024 Requirement Control Symbol EXEMPT: (Authority: AR 335-15, paragraph 5-2a)
--	--

Project/Site: Beeson Creek Stream Restoration - Reach 7 City/County: Forsyth Sampling Date: 8-15-23
 Applicant/Owner: Town of Kernsville State: NC Sampling Point: TP-6
 Investigator(s): JKM Section, Township, Range: _____
 Landform (hillside, terrace, etc.): hillside Local relief (concave, convex, none): convex Slope (%): 20
 Subregion (LRR or MLRA): LRR P, MLRA 136 Lat: 36.093520 Long: -80.082396 Datum: NAD83
 Soil Map Unit Name: Bannertown-Toast complex, 15 to 25 percent slopes (BtE) NWI classification: none
 Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No _____ (If no, explain in Remarks.)
 Are Vegetation _____, Soil _____, or Hydrology _____ significantly disturbed? Are "Normal Circumstances" present? Yes X No _____
 Are Vegetation _____, Soil _____, or Hydrology _____ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? Yes _____ No <u>X</u> Hydric Soil Present? Yes _____ No <u>X</u> Wetland Hydrology Present? Yes _____ No <u>X</u>	Is the Sampled Area within a Wetland? Yes _____ No <u>X</u>
Remarks: Data point is representative of a non-jurisdictional upland area.	

HYDROLOGY

Wetland Hydrology Indicators: <u>Primary Indicators (minimum of one is required; check all that apply)</u> _____ Surface Water (A1) _____ True Aquatic Plants (B14) _____ High Water Table (A2) _____ Hydrogen Sulfide Odor (C1) _____ Saturation (A3) _____ Oxidized Rhizospheres on Living Roots (C3) _____ Water Marks (B1) _____ Presence of Reduced Iron (C4) _____ Sediment Deposits (B2) _____ Recent Iron Reduction in Tilled Soils (C6) _____ Drift Deposits (B3) _____ Thin Muck Surface (C7) _____ Algal Mat or Crust (B4) _____ Other (Explain in Remarks) _____ Iron Deposits (B5) _____ _____ Inundation Visible on Aerial Imagery (B7) _____ _____ Water-Stained Leaves (B9) _____ _____ Aquatic Fauna (B13) _____	<u>Secondary Indicators (minimum of two required)</u> _____ Surface Soil Cracks (B6) _____ Sparsely Vegetated Concave Surface (B8) _____ Drainage Patterns (B10) _____ Moss Trim Lines (B16) _____ Dry-Season Water Table (C2) _____ Crayfish Burrows (C8) _____ Saturation Visible on Aerial Imagery (C9) _____ Stunted or Stressed Plants (D1) _____ Geomorphic Position (D2) _____ Shallow Aquitard (D3) _____ Microtopographic Relief (D4) _____ FAC-Neutral Test (D5)
Field Observations: Surface Water Present? Yes _____ No <u>X</u> Depth (inches): _____ Water Table Present? Yes _____ No <u>X</u> Depth (inches): _____ Saturation Present? Yes _____ No <u>X</u> Depth (inches): _____ (includes capillary fringe)	Wetland Hydrology Present? Yes _____ No <u>X</u>
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:	
Remarks: Indicators of wetland hydrology are not present.	

VEGETATION (Four Strata) – Use scientific names of plants.

 Sampling Point: TP-6

Tree Stratum (Plot size: <u>30</u>)	Absolute % Cover	Dominant Species?	Indicator Status	
1. <i>Liriodendron tulipifera</i>	20	Yes	FACU	Dominance Test worksheet: Number of Dominant Species That Are OBL, FACW, or FAC: <u>2</u> (A) Total Number of Dominant Species Across All Strata: <u>4</u> (B) Percent of Dominant Species That Are OBL, FACW, or FAC: <u>50.0%</u> (A/B)
2. <i>Fagus grandifolia</i>	20	Yes	FACU	
3. <i>Quercus alba</i>	5	No	FACU	
4. _____	_____	_____	_____	
5. _____	_____	_____	_____	
6. _____	_____	_____	_____	
7. _____	_____	_____	_____	
45 = Total Cover				Prevalence Index worksheet: Total % Cover of: _____ Multiply by: _____ OBL species _____ x 1 = _____ FACW species _____ x 2 = _____ FAC species _____ x 3 = _____ FACU species _____ x 4 = _____ UPL species _____ x 5 = _____ Column Totals: _____ (A) _____ (B) Prevalence Index = B/A = _____
50% of total cover: <u>23</u> 20% of total cover: <u>9</u>				
Sapling/Shrub Stratum (Plot size: <u>15</u>)				
1. <i>Acer rubrum</i>	30	Yes	FAC	Hydrophytic Vegetation Indicators: <u>1</u> - Rapid Test for Hydrophytic Vegetation <u>2</u> - Dominance Test is >50% <u>3</u> - Prevalence Index is ≤3.0 ¹ <u>4</u> - Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet) <u> </u> Problematic Hydrophytic Vegetation ¹ (Explain) ¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.
2. <i>Quercus alba</i>	5	No	FACU	
3. <i>Fraxinus pennsylvanica</i>	5	No	FACW	
4. _____	_____	_____	_____	
5. _____	_____	_____	_____	
6. _____	_____	_____	_____	
7. _____	_____	_____	_____	
40 = Total Cover				
50% of total cover: <u>20</u> 20% of total cover: <u>8</u>				
Herb Stratum (Plot size: <u>5</u>)				
1. <i>Microstegium vimineum</i>	40	Yes	FAC	Definitions of Four Vegetation Strata: Tree – Woody plants, excluding vines, 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height. Sapling/Shrub – Woody plants, excluding vines, less than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall. Herb – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall. Woody Vine – All woody vines greater than 3.28 ft in height.
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
5. _____	_____	_____	_____	
6. _____	_____	_____	_____	
7. _____	_____	_____	_____	
8. _____	_____	_____	_____	
9. _____	_____	_____	_____	
10. _____	_____	_____	_____	
11. _____	_____	_____	_____	
40 = Total Cover				
50% of total cover: <u>20</u> 20% of total cover: <u>8</u>				
Woody Vine Stratum (Plot size: <u>30</u>)				
1. _____	_____	_____	_____	Hydrophytic Vegetation Present? Yes <u> </u> No <u>X</u>
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
5. _____	_____	_____	_____	
_____ = Total Cover				
50% of total cover: _____ 20% of total cover: _____				
Remarks: (Include photo numbers here or on a separate sheet.) 50.0% of dominant vegetation is FAC or wetter.				

SOIL

Sampling Point: TP-6

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)								
Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²		
0-20	7.5YR 5/6	100					Loamy/Clayey	

¹Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains. ²Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:		Indicators for Problematic Hydric Soils ³ :
☐ Histosol (A1)	☐ Polyvalue Below Surface (S8) (MLRA 147, 148)	☐ 2 cm Muck (A10) (MLRA 147)
☐ Histic Epipedon (A2)	☐ Thin Dark Surface (S9) (MLRA 147, 148)	☐ Coast Prairie Redox (A16)
☐ Black Histic (A3)	☐ Loamy Mucky Mineral (F1) (MLRA 136)	☐ (MLRA 147, 148)
☐ Hydrogen Sulfide (A4)	☐ Loamy Gleyed Matrix (F2)	☐ Piedmont Floodplain Soils (F19)
☐ Stratified Layers (A5)	☐ Depleted Matrix (F3)	☐ (MLRA 136, 147)
☐ 2 cm Muck (A10) (LRR N)	☐ Redox Dark Surface (F6)	☐ Red Parent Material (F21)
☐ Depleted Below Dark Surface (A11)	☐ Depleted Dark Surface (F7)	☐ (outside MLRA 127, 147, 148)
☐ Thick Dark Surface (A12)	☐ Redox Depressions (F8)	☐ Very Shallow Dark Surface (F22)
☐ Sandy Mucky Mineral (S1)	☐ Iron-Manganese Masses (F12) (LRR N,	☐ Other (Explain in Remarks)
☐ Sandy Gleyed Matrix (S4)	☐ MLRA 136)	
☐ Sandy Redox (S5)	☐ Umbric Surface (F13) (MLRA 122, 136)	
☐ Stripped Matrix (S6)	☐ Piedmont Floodplain Soils (F19) (MLRA 148)	
☐ Dark Surface (S7)	☐ Red Parent Material (F21) (MLRA 127, 147, 148)	

³Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if observed): Type: _____ Depth (inches): _____	Hydric Soil Present? Yes _____ No <u>X</u>
---	---

Remarks:
 Indicators of hydric soils are not present.

Appendix C

Site Photographs



Photograph 1: General view of SCA in the south-central portion of the Site



Photograph 2: General view of SCB in the central portion of the Site



Photograph 3: General view of Wetland 'A' in the southern portion of the Site



Photograph 4: General view of Wetland 'B' in the southern portion of the Site



Photograph 5: General view of Wetland 'C' in the southern portion of the Site



Photograph 6: General view of the sewerline easement in the southeastern portion of the Site



Photograph 7: General view of upland area in the south-central portion of the Site



Photograph 8: Hydric soils observed in the southern portion of the Site



Photograph 9: Upland soils observed throughout the Site

Appendix G

Floodplains



Oct 24, 2024



Legend

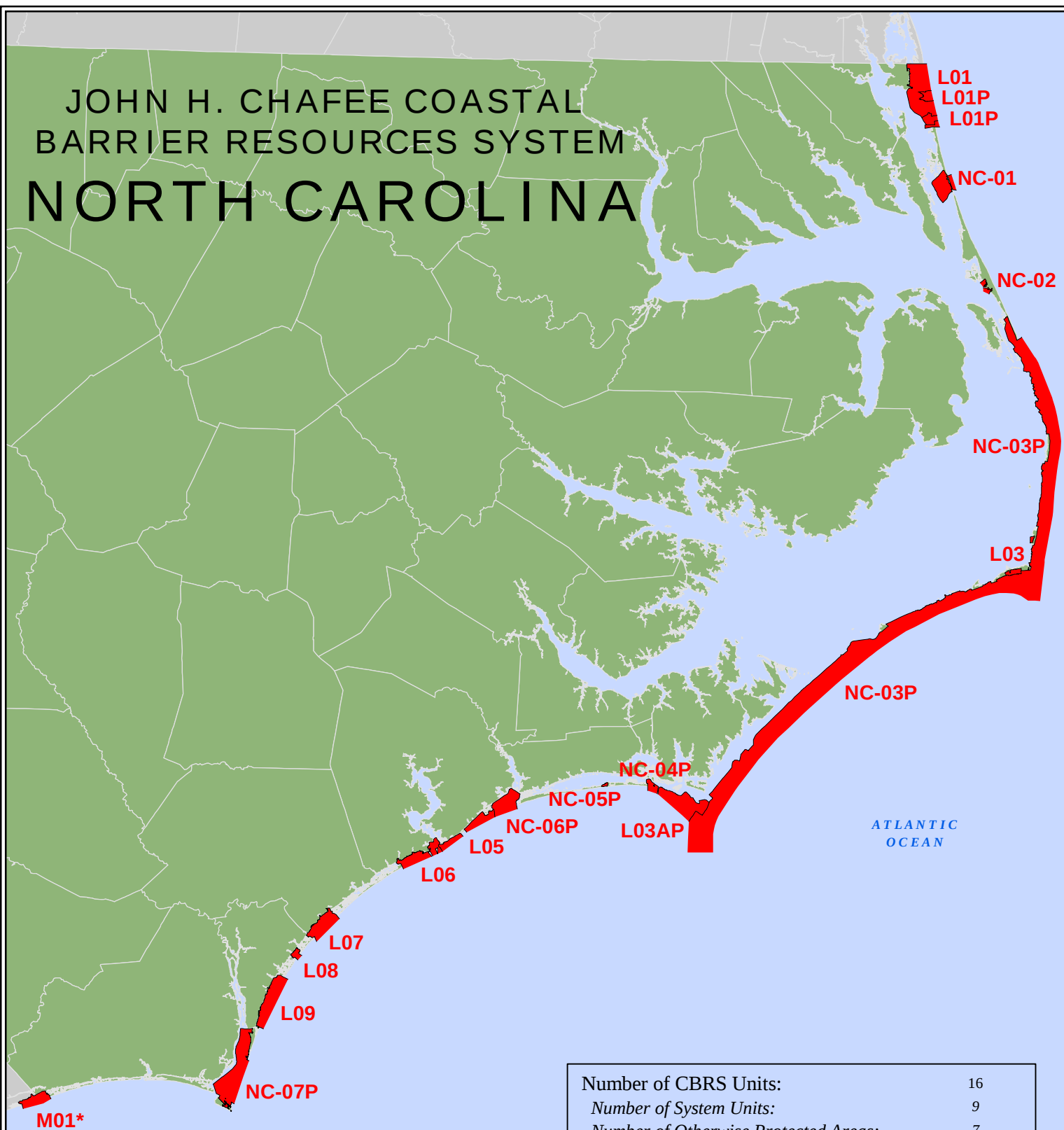
	Panels		AE
	Political Areas		Floodway (AE)
	Stream Centerline		0.2 % Chance Annual Flood Hazard
	Cross Sections		Future Conditions 1% Annual Chance Flood Hazard
	Levee		

North Carolina Floodplain Mapping Program



Appendix H
Coastal Zones and Barrier Islands

JOHN H. CHAFEE COASTAL BARRIER RESOURCES SYSTEM NORTH CAROLINA



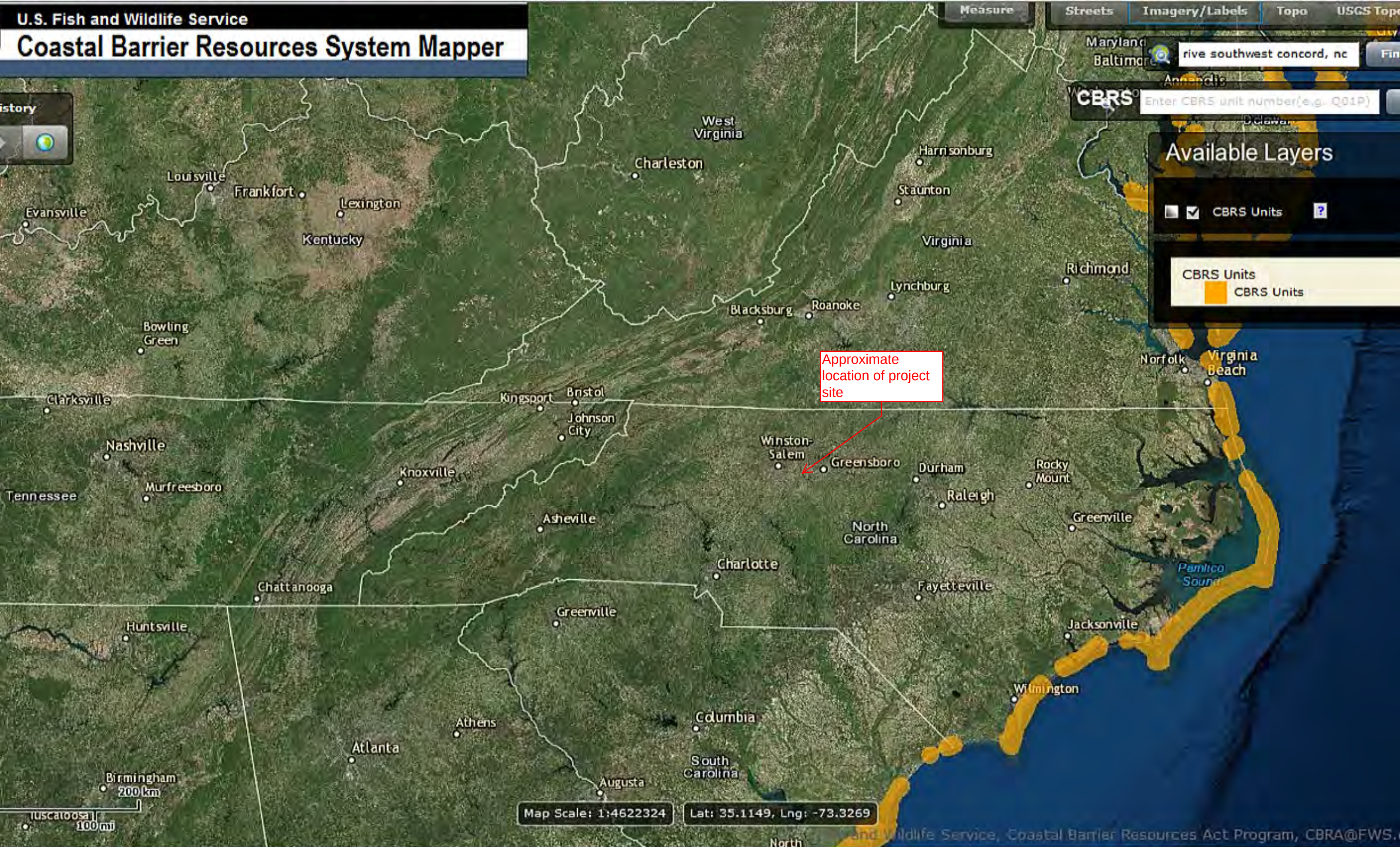
Number of CBRS Units:	16
Number of System Units:	9
Number of Otherwise Protected Areas:	7
Total Acres:	149,379
Upland Acres:	23,814
Associated Aquatic Habitat Acres:	125,565
Shoreline Miles:	193

Boundaries of the John H. Chafee Coastal Barrier Resources System (CBRS) shown on this map were transferred from the official CBRS maps for this area and are depicted on this map (in red) for informational purposes only. The official CBRS maps are enacted by Congress via the Coastal Barrier Resources Act, as amended, and are maintained by the U.S. Fish and Wildlife Service. The official CBRS maps are available for download at <http://www.fws.gov/CBRA>.



Map date: May 4, 2015

* A portion of the unit falls outside of the state border.





CAMA Counties

The following counties are subject to the rules and policies of the Coastal Resources Commission, which administers the Coastal Area Management Act. If you are planning to develop in one of these counties, check to see whether your project is also in an [Area of Environmental Concern \(/about/divisions/coastal-management/coastal-management-permit-guidance/areas-of-concern\)](/about/divisions/coastal-management/coastal-management-permit-guidance/areas-of-concern). If it is, you may need a CAMA permit.

CAMA Counties		
------------------	--	--

CAMA Counties		
• Beaufort • Bertie • Brunswick • Camden • Carteret • Chowan • Craven • Currituck • Dare • Gates	• Hertford • Hyde • New Hanover • Onslow • Pamlico • Pasquotank • Pender • Perquimans • Tyrrell • Washington	

About Coastal Management

[DCM Offices & Program Areas \(/about/divisions/coastal-management/about-coastal-management/dcm-offices-program-areas\)](/about/divisions/coastal-management/about-coastal-management/dcm-offices-program-areas)

[Staff Listing \(/about/divisions/coastal-management/about-coastal-management/staff-listing\)](/about/divisions/coastal-management/about-coastal-management/staff-listing)

[CAMA Counties \(/about/divisions/coastal-management/about-coastal-management/cama-counties\)](/about/divisions/coastal-management/about-coastal-management/cama-counties)

[CAMA accomplishments \(/about/divisions/coastal-management/about-coastal-management/cama-accomplishments\)](/about/divisions/coastal-management/about-coastal-management/cama-accomplishments)

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(<https://www.facebook.com/sharer/sharer.php?u=https%3A%2F%2Fdeq.nc.gov%2Fabout%2Fdivisions%2Fcoastal-management%2Fabout-coastal-management%2Fcama-counties>)



[Twitter](#)

(<http://twitter.com/intent/tweet?url=https%3A%2F%2Fdeq.nc.gov%2Fabout%2Fdivisions%2Fcoastal-management%2Fabout-coastal-management%2Fcama-counties>)

Appendix I
Wild and Scenic Rivers

Wild and Scenic Rivers

NC OneMap
NC OneMap / State of North Carolina

Summary

This data was created to assist governmental agencies and others in making resource management decisions through use of a Geographic Information System (GIS).

[View Full Details](#)

[Download](#)

Details

-  **Dataset**
Feature Layer
-  **March 22, 2023**
Info Updated
-  **As Needed**
Data Updated: March 22, 2023
-  **May 13, 2008**
Published Date
-  **Records: 122**
[View data table](#)
-  **Public**
Anyone can see this content
-  **Custom License**
[View license details](#)

I want to use this

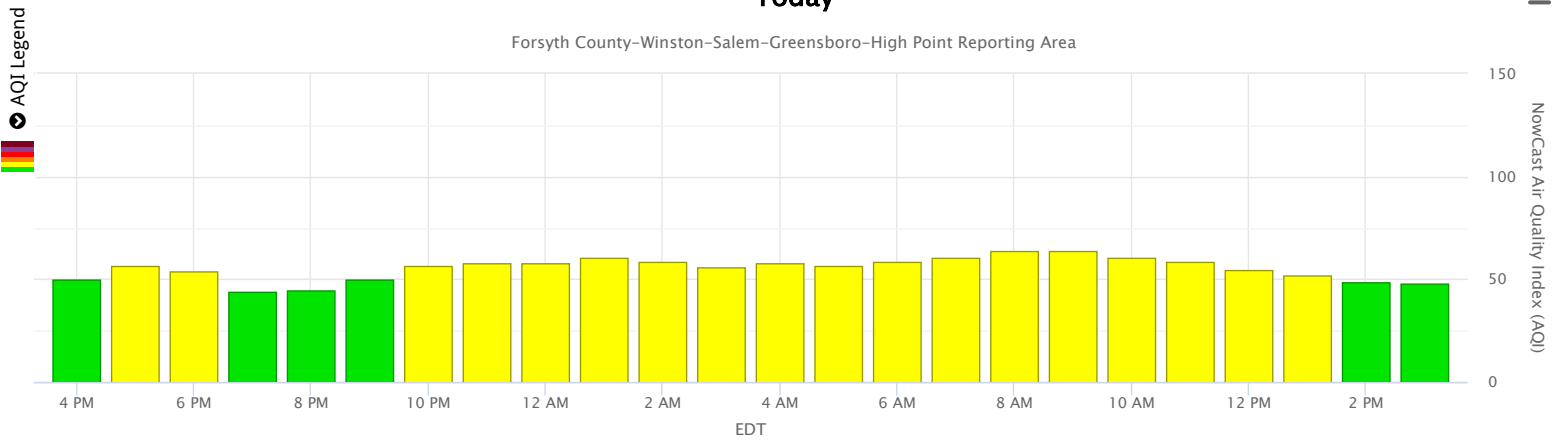


Appendix J

Air Quality

Trends

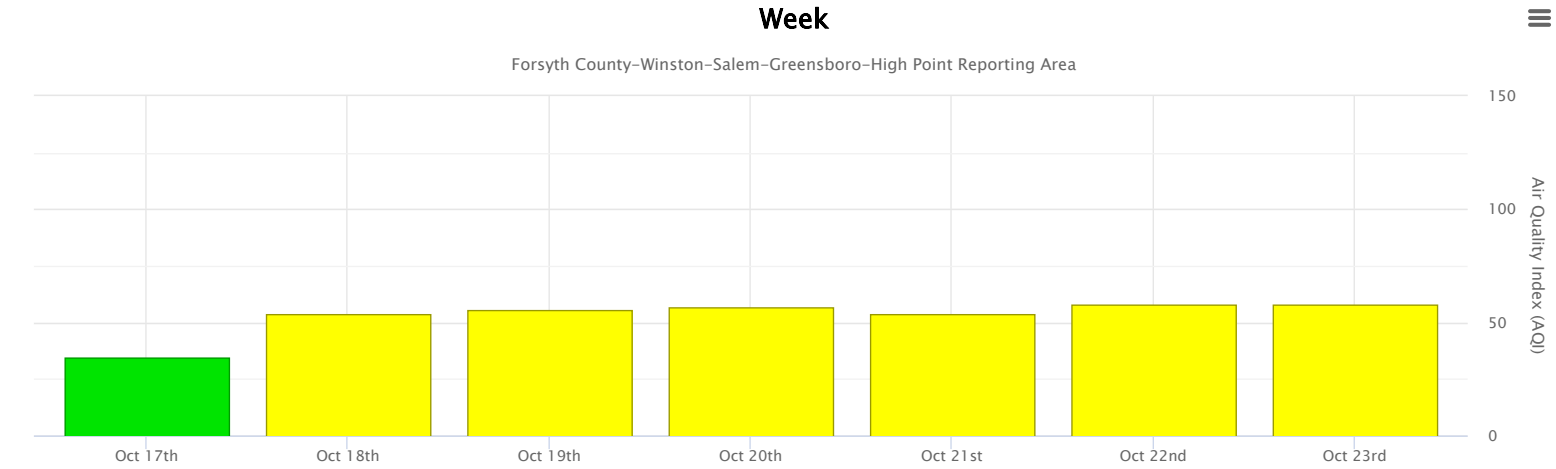
Today



This chart shows the NowCast AQI in your area for the previous 24 hours. Mouse over or tap a bar to see which pollutant (ozone or PM) was highest that hour.

AirNow.gov

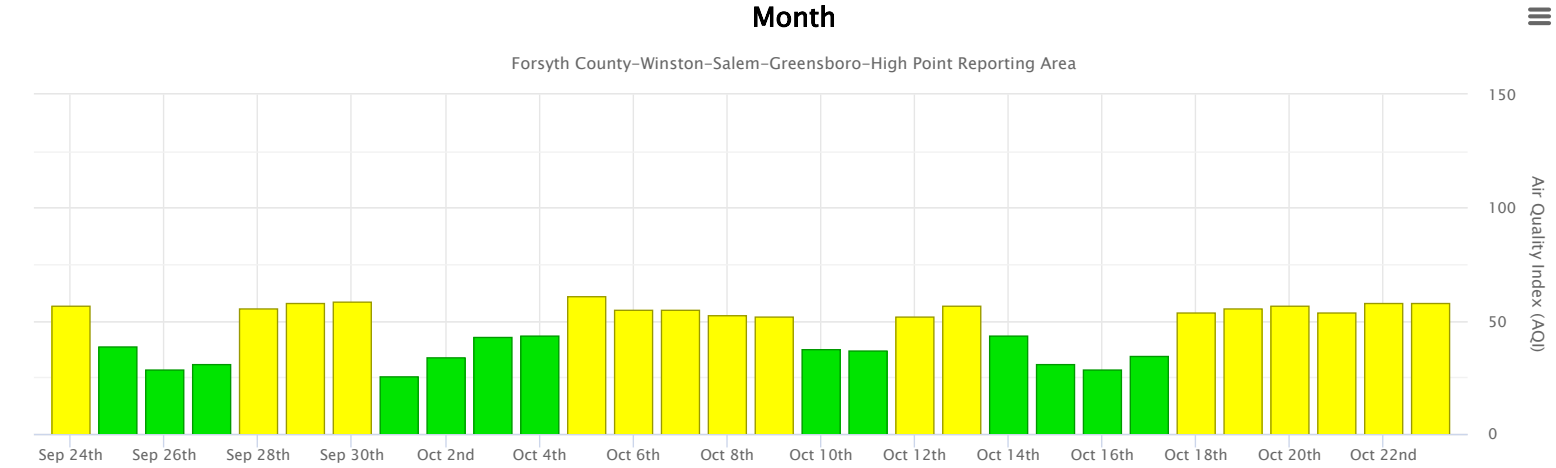
Week



This chart shows the daily AQI in your area for each of the last 7 days. Mouse over or tap a bar to see which pollutant (ozone or PM) was highest that day.

AirNow.gov

Month



This chart shows the daily AQI in your area for each of the last 30 days. Mouse over or tap a bar to see which pollutant (ozone or PM) was highest that day.

AirNow.gov

Appendix K
Property Details

Forsyth County Property Record Card

Property Summary

Tax Year: 2023

REID	6875949887000	PIN	6875-94-9887	Property Owner	Snow, Garry W
Location Address	116 Old Cabin LN	Property Description	LO:012A BL:5695	Owner's Mailing Address	116 Old Cabin LN Kernersville NC 27284

Administrative Data	
Plat Book & Page	
Old Map #	678854
Market Area	680855
Township	ABBOTTS CREEK
Planning Jurisdiction	COUNTY WIDE
City	KERNERSVILLE
Fire District	
Spec District	
Land Class	1.01-SFD Dwelling
History REID 1	
History REID 2	
Acreage	2.77
Permit Date	
Permit #	

Transfer Information	
Deed Date	1/1/2005
Deed Book	000000
Deed Page	00000
Revenue Stamps	
Package Sale Date	
Package Sale Price	
Land Sale Date	
Land Sale Price	

Improvement Summary	
Total Buildings	1
Total Units	0
Total Living Area	2,295
Total Gross Leasable Area	0

Property Value	
Total Appraised Land Value	\$57,600
Total Appraised Building Value	\$180,300
Total Appraised Misc Improvements Value	\$600
Total Cost Value	\$238,500
Total Appraised Value - Valued By Cost	\$238,500
Other Exemptions	
Exemption Desc	
Use Value Deferred	
Historic Value Deferred	
Total Deferred Value	
Total Taxable Value	\$238,500

Building Summary

Card 1 116 Old Cabin LN

Building Details	
Bldg Type	RESIDENTIAL
Units	0
Living Area (SQFT)	2295
Number of Stories	1.00
Style	CONVENTIONAL
Foundation	MASONRY
Frame	MASONRY
Exterior	BRICK
Const Type	
Heating	Heat Pump
Air Cond	HEAT PUMP
Baths (Full)	3
Baths (Half)	0
Extra Fixtures	0
Total Plumbing Fixtures	9
Bedrooms	4
Floor	CARPET-PLYWOOD
Roof Cover	Asphalt Shingle
Roof Type	GABLE
Main Body (SQFT)	1791

Building Description			
Year Built	1971	Effective Year	1992
Additions	7	Remodeled	0
Interior Adj	ADD FIREPLACE AVERAGE (1.00) FIREPLACE AVERAGE (1.00)		
Other Features	Vacuum 0.00		

Building Total & Improvement Details	
Grade	C 100%
Percent Complete	100
Total Adjusted Replacement Cost New	\$273,111
Physical Depreciation (% Bad)	AVER 34%
Depreciated Value	\$180,253
Economic Depreciation (% Bad)	0
Functional Depreciation (% Bad)	0
Total Depreciated Value	\$180,253
Market Area Factor	1
Building Value	\$180,300
Misc Improvements Value	\$600
Total Improvement Value	\$180,900
Assessed Land Value	
Assessed Total Value	

Addition Summary			
Story	Type	Code	Area
1.00	OPEN FRAME PORCH	OPEN	165
1.00	GAR/MAS/FLOOR/UNFIN	GAR/	576
1.00	FRAME ADDITION	FRAM	504
1.00	PATIO AVERAGE	PATI	180
1.00	FRAME DECK AVERAGE	FRAM	25
1.00	FRAME DECK AVERAGE	FRAM	336
1.00	BASEMENT-UNFIN-CF	BASE	1791

Building Sketch

Photograph



Card #	Unit Quantity	Measure	Type	Base Price	Eff Year	Phys Depr (% Bad)	Econ Depr (% Bad)	Funct Depr (% Bad)	Common Interest (% Good)	Value
1	1	SIZE	UTILITY-BLDG-R	\$684.93	2017	16	0	0		\$600
Total Misc Improvements Value Assessed: \$600										

Land Class: 1.01-SFD Dwelling			Deeded Acres: 2.77		Calculated Acres: 2.68		
Zoning	Soil Class	Description	Size	Rate	Size Adj. Factor	Land Adjustment	Land Value
RS20		RES-LOT	1.00 BY THE UNIT PRICE	\$32,000		TOPOGRAPHY-80.00 SHAPE-90.00 SIZE ADJUSTMENT-250.00	\$57,600
Total Land Value Assessed: \$57,600							

	Owner Name	Deed Type	% Ownership	Stamps	Sale Price	Book	Page	Deed Date
Current	Snow, Garry W	DEED	100	0		000000	00000	1/1/2005
1 Back	Snow, Garry W	DEED	100	0		000000	00000	1/1/2001
2 Back	Snow, Garry W	DEED	100	0		000000	00000	1/1/1997

Building Card	Date	Line	Notes
No Data			

Forsyth County Property Record Card

Property Summary

Tax Year: 2023

REID	6875857332000	PIN	6875-85-7332	Property Owner	SMI PROPERTIES LLC
Location Address	0 Micol LN	Property Description	BEESON OAKS COMMON AREA LO:000A PH:1 BL:5698	Owner's Mailing Address	221 JONESTOWN RD WINSTON-SALEM NC 27104

Administrative Data	
Plat Book & Page	
Old Map #	678854
Market Area	678855
Township	ABBOTTS CREEK
Planning Jurisdiction	COUNTY WIDE
City	KERNERSVILLE
Fire District	
Spec District	
Land Class	91.00-Vacant SF Res
History REID 1	
History REID 2	
Acreage	2.26
Permit Date	
Permit #	

Transfer Information	
Deed Date	7/17/2017
Deed Book	003357
Deed Page	04414
Revenue Stamps	
Package Sale Date	
Package Sale Price	
Land Sale Date	
Land Sale Price	

Improvement Summary	
Total Buildings	0
Total Units	0
Total Living Area	0
Total Gross Leasable Area	0

Property Value	
Total Appraised Land Value	\$100
Total Appraised Building Value	
Total Appraised Misc Improvements Value	
Total Cost Value	\$100
Total Appraised Value - Valued By Cost	\$100
Other Exemptions	\$100
Exemption Desc	
Use Value Deferred	
Historic Value Deferred	
Total Deferred Value	
Total Taxable Value	

Photograph
No Photo Found

Building Summary

Misc Improvements Summary

Card #	Unit Quantity	Measure	Type	Base Price	Eff Year	Phys Depr (% Bad)	Econ Depr (% Bad)	Funct Depr (% Bad)	Common Interest (% Good)	Value
No Data										
Total Misc Improvements Value Assessed:										

Land Summary

Land Class: 91.00-Vacant SF Res			Deeded Acres: 2.26		Calculated Acres: 2.25		
Zoning	Soil Class	Description	Size	Rate	Size Adj. Factor	Land Adjustment	Land Value
RSQ-S		COMMON-AREA	1.00 BY THE UNIT PRICE	\$100			\$100
Total Land Value Assessed: \$100							

Ownership History

	Owner Name	Deed Type	% Ownership	Stamps	Sale Price	Book	Page	Deed Date
Current	SMI PROPERTIES LLC	WARRANTY-DEED	100	0		003357	04414	7/17/2017

Notes Summary

Building Card	Date	Line	Notes
No Data			

Forsyth County Property Record Card

Property Summary

Tax Year: 2023

REID	6875948711000	PIN	6875-94-8711	Property Owner	SMI PROPERTIES LLC
Location Address	0 Cheryl DR	Property Description	BEESON OAKS LO:000B PH:2 BL:5698	Owner's Mailing Address	221 JONESTOWN RD WINSTON-SALEM NC 27104

Administrative Data	
Plat Book & Page	
Old Map #	678854
Market Area	678855
Township	ABBOTTS CREEK
Planning Jurisdiction	COUNTY WIDE
City	KERNERSVILLE
Fire District	
Spec District	
Land Class	91.00-Vacant SF Res
History REID 1	
History REID 2	
Acreage	8.44
Permit Date	
Permit #	

Transfer Information	
Deed Date	7/17/2017
Deed Book	003357
Deed Page	04414
Revenue Stamps	
Package Sale Date	
Package Sale Price	
Land Sale Date	
Land Sale Price	

Improvement Summary	
Total Buildings	0
Total Units	0
Total Living Area	0
Total Gross Leasable Area	0

Property Value	
Total Appraised Land Value	\$100
Total Appraised Building Value	
Total Appraised Misc Improvements Value	
Total Cost Value	\$100
Total Appraised Value - Valued By Cost	\$100
Other Exemptions	\$100
Exemption Desc	
Use Value Deferred	
Historic Value Deferred	
Total Deferred Value	
Total Taxable Value	

Photograph
No Photo Found

Building Summary

Misc Improvements Summary

Card #	Unit Quantity	Measure	Type	Base Price	Eff Year	Phys Depr (% Bad)	Econ Depr (% Bad)	Funct Depr (% Bad)	Common Interest (% Good)	Value
No Data										
Total Misc Improvements Value Assessed:										

Land Summary

Land Class: 91.00-Vacant SF Res			Deeded Acres: 8.44		Calculated Acres: 8.45		
Zoning	Soil Class	Description	Size	Rate	Size Adj. Factor	Land Adjustment	Land Value
RSQ-S		COMMON-AREA	1.00 BY THE UNIT PRICE	\$100			\$100
Total Land Value Assessed: \$100							

Ownership History

	Owner Name	Deed Type	% Ownership	Stamps	Sale Price	Book	Page	Deed Date
Current	SMI PROPERTIES LLC	WARRANTY-DEED	100	0		003357	04414	7/17/2017

Notes Summary

Building Card	Date	Line	Notes
No Data			