



May 13, 2021

Oak Crest Commercial, LLC
Attn: Mr. Nathan Byelick
1024 Jordan Dam Road
Moncure, NC 27599

RE: Environmental and Cultural Resources Due Diligence Report
1092 Jordan Dam Road
Moncure, NC
Sage Project #2021.053

Dear Mr. Byelick,

Sage Ecological Services, Inc. is pleased to provide you with the attached Environmental and Cultural Resources Due Diligence Report for the +/- 52.13-acre 1092 Jordan Dam Road Property (Site) located in Moncure, Chatham County, NC. Please contact me via email at SClark@SageEcological.com or call me at (919) 559-1537 if you have any questions or require any additional information.

Respectfully submitted:

A handwritten signature in black ink that reads "Sean Clark".

Sean Clark, PWS

Sage Ecological Services, Inc.

A handwritten signature in blue ink that reads "K Hamlin".

Kim Hamlin, PWS

A handwritten signature in black ink that reads "David Gainey".

David Gainey

Attachment: Environmental and Cultural Resources Due Diligence Report

ENVIRONMENTAL AND CULTURAL RESOURCES DUE DILIGENCE REPORT

1092 Jordan Dam Road
Moncure, North Carolina



May 13, 2021

Sage Project Number 2021.053

Prepared for:

Oak Crest Commercial, LLC
Mr. Nathan Byelick
1024 Jordan Dam Road
Moncure, NC 27599

Submitted by:

Sage Ecological Services, Inc.
3707 Swift Drive
Raleigh, NC 27606

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EXECUTIVE SUMMARY

Sage Ecological Services, Inc. (Sage) completed a detailed delineation and evaluation of wetlands, streams, and riparian buffers as well as a records review of Threatened and Endangered (T&E) Species and cultural resources on the +/- 52.13-acre 1092 Jordan Dam Road Property (Site) located in southeastern Chatham County, North Carolina. The purpose of this evaluation was to determine if "waters of the United States" (e.g., wetlands, streams, ponds, etc.) exist on the Site, as well as to determine what potentially related federal and state environmental and cultural resources regulations could be associated with the future development of this Site. Sage completed the field evaluation on April 21, 2021. Figure 1 shows the location of the Site on the Merry Oaks, NC US Geological Survey (USGS) topographical quadrangle sheet, and Figure 2 shows the Site's location on the applicable portions of the United States Department of Agriculture's Natural Resources Conservation Service (USDA NRCS) Soil Survey for Chatham County.

Four jurisdictional streams and fifteen jurisdictional wetlands are located on the Site. Figure 3 shows the approximate locations and sizes of the wetland and surface waters on the Site. A field meeting with the US Army Corps of Engineers (USACE) will likely be required to verify the limits of the stream and wetland delineation completed by Sage prior to the USACE approving any proposed impacts. The attached Agent Authorization Form found in Appendix D will need to be completed and signed by the current property owner(s) in order for Sage to initiate correspondence with the USACE for the Site.

The Site is in the Cape Fear River Basin outside of the Jordan Lake watershed and is subject to riparian buffers regulated by Chatham County. Streams approximately depicted on the USGS topographic map are subject to a 50-foot riparian buffer. Stream A is depicted on the USGS and is present on the Site; therefore, it is subject to riparian buffers. Stream D and a portion of Stream C were previously determined to be subject to riparian buffers by Chatham County staff. A site meeting with Chatham County staff will be required to confirm the buffer determination and provide written concurrence.

Three threatened and endangered (T&E) species and the bald eagle are listed in Chatham County by the US Fish and Wildlife Service (USFWS). Additionally, three At Risk Species (ARS) are listed in Chatham County. No T&E species are documented on or within 1.0-mile the Site. The USACE and/or Chatham County may require additional information (e.g., natural community surveys, individual species surveys, etc.) on potential for suitable habitat prior to approving wetland impacts; however, T&E species are not likely to otherwise restrict the proposed development on the Site.

The Site is not within a historic district or listed as a historic property. One historic property is located within 1.0 mile of the Site based on a query of the North Carolina State Historic Preservation Office (NCSHPO) database. Figure 4 depicts the location of this property in relation to the Site. NCSHPO should not have any comments during the permitting process.

SECTION 1 SITE DESCRIPTION

1.1 Site Location

The Site is located at 1092 Jordan Dam Road in Moncure, Chatham County, NC. The coordinates of 35.6411°N, 79.0775°W generally correspond to the center of the Site. The Site is within the northern outer piedmont region of North Carolina and geologically is within the Triassic Basin which is composed of sedimentary rock. The Site is within the Cape Fear River Basin below the Jordan Lake reservoir.

1.2 General Site Description

The Site is mostly forested. The drainages on the Site contain a hardwood canopy with interspersed pines. Pines dominate the canopy along the ridges. A residential home and associated outbuildings are located in the western portion of the Site. The topography of the Site ranges from a high point of +/- 302 feet above mean sea level (msl) in the northwestern corner of the Site, to a low point of +/- 198 feet msl located along the eastern boundary where Stream C exists the Site (see attached Figure 3).

According to the US Department of Agriculture Natural Resources Conservation Service (USDA NRCS) Soil Survey for Chatham County, NC, the Site contains upland soils typical for the area (Carbonton-Brickhaven, Mayodan, and Peawick soil series).

2.1 Wetland Evaluation Methodology

The wetland delineation was completed based upon the procedures specified and described in the “Corps of Engineers Wetlands Delineation Manual” (January 1987 – Final Report) and using the current “Eastern Mountains and Piedmont Regional Guidance” (April 2012). Prior to arriving on-site, topographical maps, soil survey maps, orthophotographs, and ArcGIS generated maps of the area were reviewed to preliminarily identify areas (e.g., drainages, hydric soils areas, areas showing standing water, etc.) where wetlands would likely exist.

The Site was traversed on foot and evaluated for the presence of hydric soils indicators, evidence of wetland hydrology, and existence of hydrophytic vegetation. Data point plots were established to identify the presence or absence of wetland indicators. At each plot location, any hydrologic indicators were recorded, vegetation was identified, and a soil auger utilized to collect a soil core to stratify and classify the soil properties.

2.2 Wetland Determinations

Fifteen forested, riparian wetlands abut the drainages on the Site (see attached Figure 3). Table 1 and Figure 3 provide additional information and the location for the identified wetland areas on the Site.

Table 1. Wetland Data

Feature ID	Latitude	Longitude	Estimated amount of aquatic resource in review area
WA-1	35.6397°N	79.0786°W	+/- 0.09 ac.
WA-2	35.6400°N	79.0797°W	+/- 0.28 ac.
WA-3	35.6407°N	79.0807°W	+/- 0.06 ac.
WB-1	35.6401°N	79.0758°W	+/- 0.42 ac.
WB-2	35.6409°N	79.0780°W	+/- 0.2 ac.
WB-3	35.6413°N	79.0784°W	+/- 0.05 ac.
WB-4	35.6421°N	79.0791°W	+/- 0.03 ac.
WC-1	35.6412°N	79.0749°W	+/- 0.04 ac.
WC-2	35.6411°N	79.0758°W	+/- 0.002 ac.
WC-3	35.6411°N	79.0758°W	+/- 0.001 ac.
WC-4	35.6422°N	79.0776°W	+/- 0.012 ac.
WC-5	35.6423°N	79.0778°W	+/- 0.001 ac.
WC-6	35.6425°N	79.0780°W	+/- 0.028 ac.
WD	35.6423°N	79.0751°W	+/- 0.015 ac.
WE	35.6410°N	79.0733°W	+/- 0.001 ac.

SECTION 3 STREAMS AND SURFACE WATERS

3.1 Stream and Surface Water Evaluation Methodology

Topographical maps, soil survey maps, and aerial maps of the Site were reviewed in order to preliminarily identify drainages where potential streams may exist. Drainages within the Site were evaluated using the current "NC-DWQ Stream Identification Form (Version 4.11)." This form is used to identify the stream's flow regime (i.e., ephemeral, intermittent, or perennial) as well as to identify if a drainage is subject to riparian buffers (where applicable).

The USACE generally considers a drainage to contain a jurisdictional stream if there is an Ordinary High-Water Mark (OHWM) or evidence of periodic concentrated flow. The NC Division of Water Resources' (NCDWR) terms and the USACE's terms are not always synonymous and interchangeable. The stream designations from both the USACE and NCDWR hold more significance if impacts (e.g., road or utility crossings or general fill) are required. The NCDWR will require mitigation for impacts to intermittent and perennial streams. The USACE typically requires mitigation for impacts to streams that are "important to aquatic function."

3.2 Stream and Surface Water Determinations

Four jurisdictional streams are present on the Site. Stream A is an intermittent stream that begins at Flag "SA05 Start Stream" on the Site and flows southeast. Stream A loses geomorphology within Wetland WA-2 at Flag "SA-02 Stop Stream." The geomorphology improves farther down the drainage, and Stream A becomes intermittent again at Flag "SA01 Start Stream" and continues flowing southeast offsite. Stream S is an intermittent stream that begins onsite at flag SB01 and flows southeast toward the southeast corner of the Site.

Streams C and D are perennial streams with origins offsite to the north and flow southeast. Stream C joins D in the northeastern corner of the Site. Table 2 and Figure 3 provide additional information and approximate locations for the surface waters on the Site.

Table 2. Stream and Surface Water Data

Stream ID	Latitude	Longitude	Flow Regime	Estimated amount of aquatic resource in review area
A	35.6399°N	79.0790°W	Intermittent	+/- 800 LF
B	35.6418°N	79.0788°W	Intermittent	+/- 1,440 LF
C	35.6420°N	79.0773°W	Perennial	+/- 1,400 LF
D	35.6416°N	79.0746°W	Perennial	+/- 750 LF

The Site is in the Shaddox Creek – Haw River Watershed (HUC 030300020705) of the Cape Fear River Basin and drains to the Haw River. The Haw River is classified as Water Supply IV (WS-IV). These classifications are generated by the NC Division of Environmental Quality's (NCDEQ) "Classifications and Water Quality Standards Applicable to Surface Water and Wetlands of North Carolina." Please note that the jurisdictional status of site drainages needs to be confirmed by the USACE to be valid.

SECTION 4 RIPARIAN BUFFERS

4.1 Riparian Buffer Evaluation Methodology

In the area where the Site is located, Chatham County regulates riparian buffers based on either the Chatham County Watershed Ordinance (Revised October 17, 2016) or the 1994 Watershed Protection Ordinance depending on the proposed use on the parcel. If the parcel is proposed to be subdivided or was created after January 23, 2008 and is over ten acres, the Watershed Ordinance (2016) applies a 30-foot, 50-foot, or 100-foot buffer that extends landward on each side of surface waters (e.g., streams, lakes, ponds, rivers, etc.) and wetlands. Ephemeral streams are subject to a 30-foot buffer, intermittent streams, ponds within 50-feet of an intermittent or higher stream, and wetlands are subject to a 50-foot buffer, and perennial streams are subject to a 100-foot buffer unless determined otherwise by County staff. If no subdivision of the parcel is proposed and the lot existed prior to January 23, 2008, the 1994 Watershed Ordinance applies a 50-foot riparian buffer to streams depicted on the USGS topographic map and a 100-foot buffer on all rivers. A Buffer Determination Letter from Chatham County is valid for five years from the date of issuance.

4.2 Riparian Buffer Determinations

The Site is not proposed to be subdivided and it existed prior to January 23, 2008; therefore, the 1994 Watershed Protection Ordinance applies to this project. Stream A is approximately depicted on the Site on the USGS topographic map; therefore, it is subject to a 50-foot riparian buffer. Although Streams C and D are not depicted on the USGS map, these drainages were previously evaluated by County staff. As such, the riparian buffer determination on these drainages is currently valid, and 50-foot riparian buffer is applicable to each. The upper portion of Stream D was determined to be ephemeral; therefore, a 30-foot buffer is applied to that section. Figure 5 depicts the approximate riparian buffer determination extent from the Chatham County Conservation Viewer. A site meeting with Chatham County Staff will be required to confirm the buffer determinations, specifically the origin of Stream A on the Site.

SECTION 5

THREATENED AND ENDANGERED SPECIES

Two online datasets were queried in order to assess known federally listed species in North Carolina. These included the NC Natural Heritage Program (NCNHP) Data Explorer and the online US Fish & Wildlife Service (USFWS) Threatened and Endangered (T&E) Species for Chatham County, NC (Table 3). These were reviewed prior to conducting the fieldwork. The review also included Federal At-Risk Species (ARS) which are petitioned, candidates, or proposed for listing under the Endangered Species Act (ESA).

According to the NCNHP Report dated May 12, 2021, no federally listed T&E species were documented on or within 1.0-mile of the Site. USACE may require additional information on the potential for suitable habitat prior to approving permits.

Table 3. USFWS Threatened & Endangered Species List for Chatham County, NC, as of July 17, 2020

Common Name	Scientific name	Federal Status	Habitat Type
Bald eagle	<i>Haliaeetus leucocephalus</i>	BGPA ¹	Terrestrial
Cape Fear shiner ²	<i>Notropis mekistocholas</i>	Endangered	Aquatic
Red-cockaded woodpecker	<i>Picoides borealis</i>	Endangered	Terrestrial
Harperella	<i>Ptilimnium nodosum</i>	Endangered	Terrestrial
Atlantic pigtoe ³	<i>Fusconaia masoni</i>	At Risk Species	Aquatic
Brook floater	<i>Alasmidonta varicosa</i>	At Risk Species	Aquatic
Septima's clubtail	<i>Gomphus septima</i>	At Risk Species	Aquatic

1 – Bald and Golden Eagle Protection Act

2 – USFWS Current Range for Cape Fear shiner does extend into the Site.

3 – USFWS Current Range for Atlantic pigtoe does not extend into the Site.

SECTION 6 CULTURAL RESOURCES

6.1 State Historic Preservation Office Properties

A review of the NC State Historic Preservation Office (NCSHPO) HPOWEB GIS Service website was completed prior to initiating the fieldwork to query for the presence or absence of records indicating historically significant sites (e.g., structures, sites, properties, etc.) on or in close proximity to the Site. A GIS database version of the HPOWEB records was also reviewed.

The Site is not listed as a historic property or within a historic district. One historic property is located within 1.0 mile of the Site. The Mozell Johnson Place (CH0707) is designated as "Surveyed – Gone." Figure 4 located in Appendix B provides a graphical representation of this property.

6.2 State Archaeological Sites

Archeological records are not typically included in the NCSHPO database and to date there is no publicly available comprehensive listing of archeological sites in North Carolina available from the Office of State Archeology (OSA). This agency compiles data on the state's legacy of artifacts through application of state and federal archaeology laws and regulations, and by maintaining inventories of site data and collections. Currently, two regulations may apply to the project if remains or artifacts are encountered during construction. These include the Unmarked Human Burial and Human Skeletal Remains Protection Act of NC (UHBHSR), and Section 106 of the National Historic Preservation Act (NHPA). The UHBHSR applies even in the absence of a required stream and wetland permit. The latter regulation is a requirement of a general condition to Nationwide Permit 39 (NWP 39) which state that any previously unknown historic, cultural, or archeological remains or artifacts which are encountered during permitted activities require immediate notification and coordination with the applicable agency.

CONCLUSIONS AND RECOMMENDATIONS

Sage Ecological Services, Inc. (Sage) completed a detailed delineation and evaluation of wetlands, streams, and riparian buffers as well as a records review of T&E species and listed state historical properties on the +/- 52.13-acre Site.

Four jurisdictional streams and fifteen jurisdictional wetlands are located on the Site. A field verification meeting with the USACE will likely be necessary to obtain approval of the stream and wetland delineation. The attached Agent Authorization Form found in Appendix E will need to be completed and signed by the current property owner(s) in order for Sage to initiate correspondence with the USACE for the Site. Features determined to be jurisdictional should be located by a licensed surveyor in order to produce a survey for the approval as well as for final planning purposes.

The Site is in the Cape Fear River Basin outside of the Jordan Lake watershed; therefore, surface waters approximately depicted on the USGS map within the project area are subject to riparian buffers. Streams A, C, and D are subject to riparian buffers. A field verification with Chatham County staff will be required to verify Sage's buffer determinations, specifically, the origin of Stream A.

No T&E species are documented to occur on or within 1.0-mile of the Site. The USACE may require additional information (e.g., natural community surveys, individual species surveys, etc.) on potential for suitable habitat prior to approving wetland impacts; however, T&E species are not likely to otherwise restrict the proposed development on the Site.

The Site is not within a historic district or listed as a historic property. The proposed activities for the Site should not be affected by historic properties.

Depending on the final site plan, a federal wetlands permit, state water quality certification, and concurrence from NCSHPO may be required to develop this Site. Sage is available to assist with preparing the aforementioned documents for submittal and/or to conduct or coordinate any required additional surveys. Impacts to wetlands and/or streams that result from the construction of commercial developments typically utilize the NWP 29 with the USACE and the corresponding NCDWR Certification. NWP 29 limits discharge (i.e., fill) to 0.5 acre of non-tidal waters of the United States for a single and complete project. Impacts that exceed these limits typically require mitigation (i.e., payment for the replacement of a wetland somewhere else). The concurrent nationwide permitting process with the USACE and the corresponding general certification

process with the NCDWR takes 45 days and 60 days, respectively. Please note that federal permits have recently been revised and the corresponding state permits have not which is currently creating a regulatory delay in issuing approvals.

SECTION 8 REFERENCES

- Munsell Color. 2000. *Munsell Soil Color Charts*. Gretagmacbeth, New Windsor, NY.
- N.C. Department of Natural and Cultural Resources. North Carolina State Historic Preservation Office GIS Maps and Data. <https://www.ncdcr.gov/about/history/division-historical-resources/gis-maps-and-data>
- N.C. Division of Water Quality. 2010. Methodology for Identification of Intermittent and Perennial Streams and Their Origins, Version 4.11. North Carolina Department of Environment and Natural Resources, Division of Water Quality. Raleigh, NC.
- N.C. Division of Water Resources (NCDWR). 2017. *401 & Buffer Permitting Unit Riparian Buffers Protection Program*. <http://deq.nc.gov/about/divisions/water-resources>
- Radford, Albert E., Ahles, Harry E., and C. Ritchie Bell. 1968. *Manual of the Vascular Flora of the Carolinas*. The University of North Carolina Press, Chapel Hill, NC.
- U.S. Army Corps of Engineers Environmental Laboratory (USCOE). 1987. *Corps of Engineers Wetlands Delineation Manual*. Wetlands Research Technical Report Y-87-1, US Army Engineers Waterways Experiment Station, Vicksburg, MS.
- U.S. Army Corps of Engineers. 2012. *Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Eastern Mountains and Piedmont Region Version 2.0*, ed. J. F. Berkowitz, J.S. Wakeley, R.W. Lichvar, C.V. Noble, ERDC/EL TR-12-9. Vicksburg, MS: U.S. Army Engineer Research and Development Center.
- U.S. Army Corps of Engineers. 2018. *National Wetland Plant List, version 3.4*. <http://wetland-plants.usace.army.mil/>
- U.S. Department of Agriculture. 2006. *Soil Survey of Chatham County, North Carolina*. Natural Resources Conservation Service, US Department of Agriculture, Washington, D.C.
- U.S. Geological Survey. 2021. – *Merry Oaks, NC Quadrangle, North Carolina* [map]. 1:24,000. 7.5 Minute Series. United States Department of the Interior, USGS.

APPENDIX A
SITE PHOTOS



Photo 1: Wetland WA.



Photo 2: Stream A.



Photo 3: Stream B.

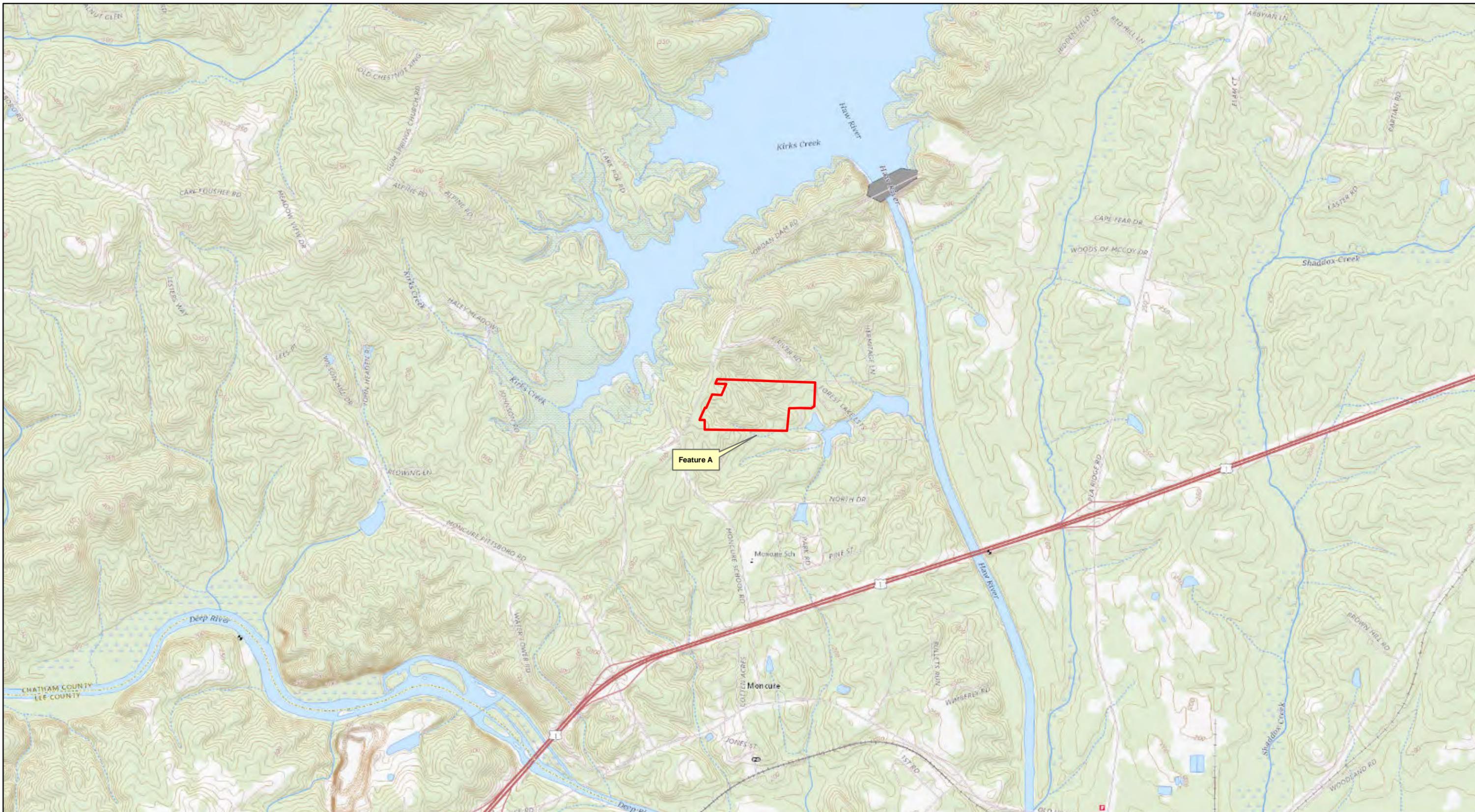


Photo 4: Wetland WC and Stream C.



Photo 5: Stream C at origin looking downstream (Flag SC-01).

APPENDIX B
FIGURES



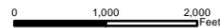
Feature A

Map Location



Map Legend

 Project Study Area



USGS Topo Map

1092 Jordan Dam Road
Sage Project # 2021.053

Merry Oaks, NC Quadrangle
USGS Topo Mapserver 2021
April 29, 2021

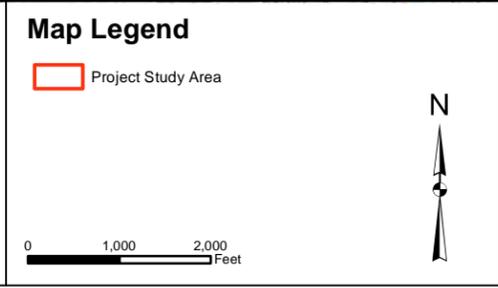
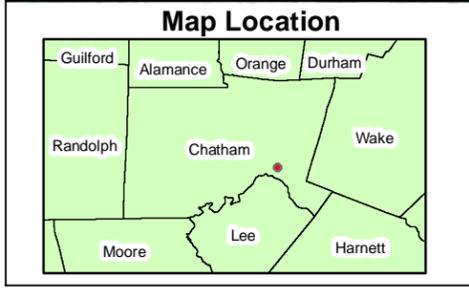
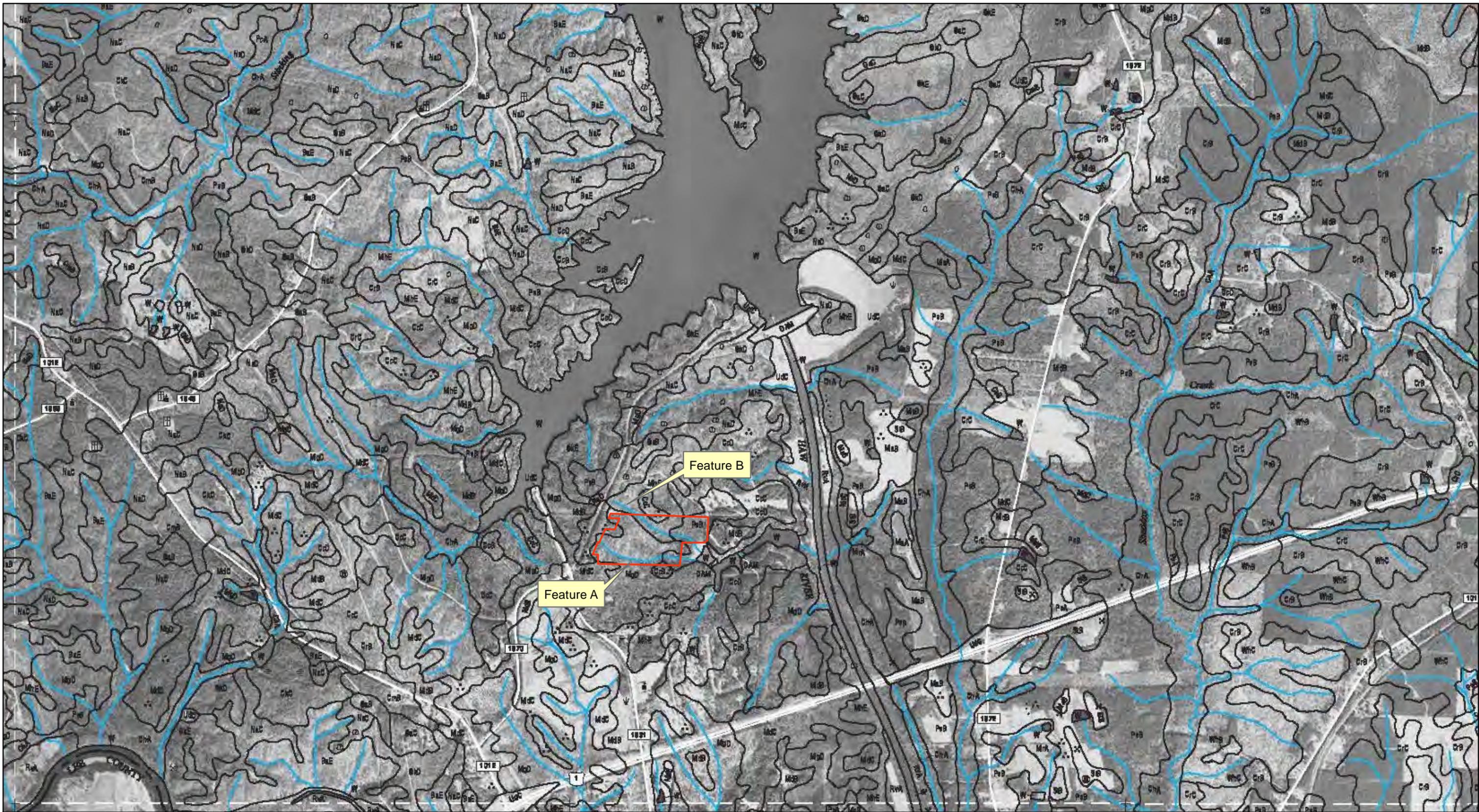
Map Information:

Service Layer Credits:
USGS The National Map National Boundaries Dataset
3DEP Elevation Program
Geographic Names Information System
National Hydrography Dataset
National Land Cover Database
National Structures Dataset
National Transportation Dataset
USGS Global Ecosystems
U.S. Census Bureau TIGER/Line data
USFS Road Data
Natural Earth Data
U.S. Department of State Humanitarian Information Unit
NOAA National Centers for Environmental Information
U.S. Coastal Relief Model

Figure 1



Sage Ecological Services, Inc.
Office: 919-335-6757
Cell: 919-559-1537



NRCS Soils Map
 1092 Jordan Dam Road
 Sage Project # 2021.053
 April 29, 2021

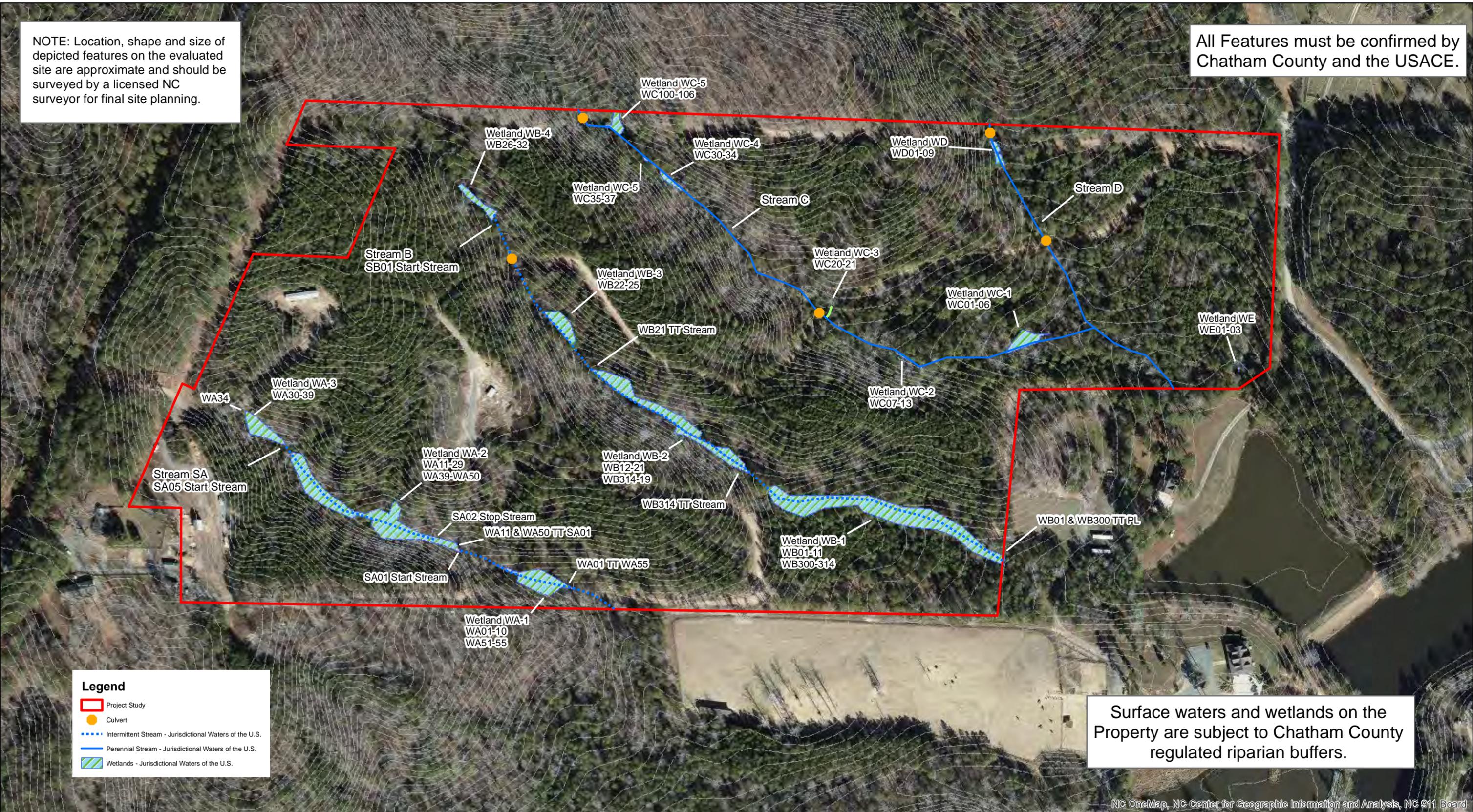
Map Information:
 Chatham County, NC Soil Survey 2006
 Soil Sheet # 11, Merry Oaks

Figure 2

Sage Ecological Services, Inc.
 Office: 919-335-6757
 Cell: 919-559-1537

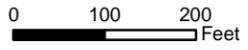
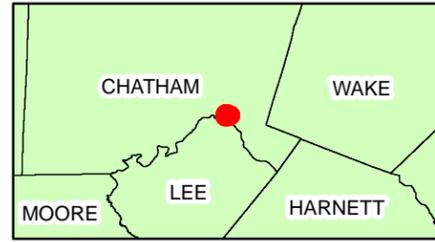
NOTE: Location, shape and size of depicted features on the evaluated site are approximate and should be surveyed by a licensed NC surveyor for final site planning.

All Features must be confirmed by Chatham County and the USACE.



NC OneMap, NC Center for Geographic Information and Analysis, NC 911 Board

Map Location

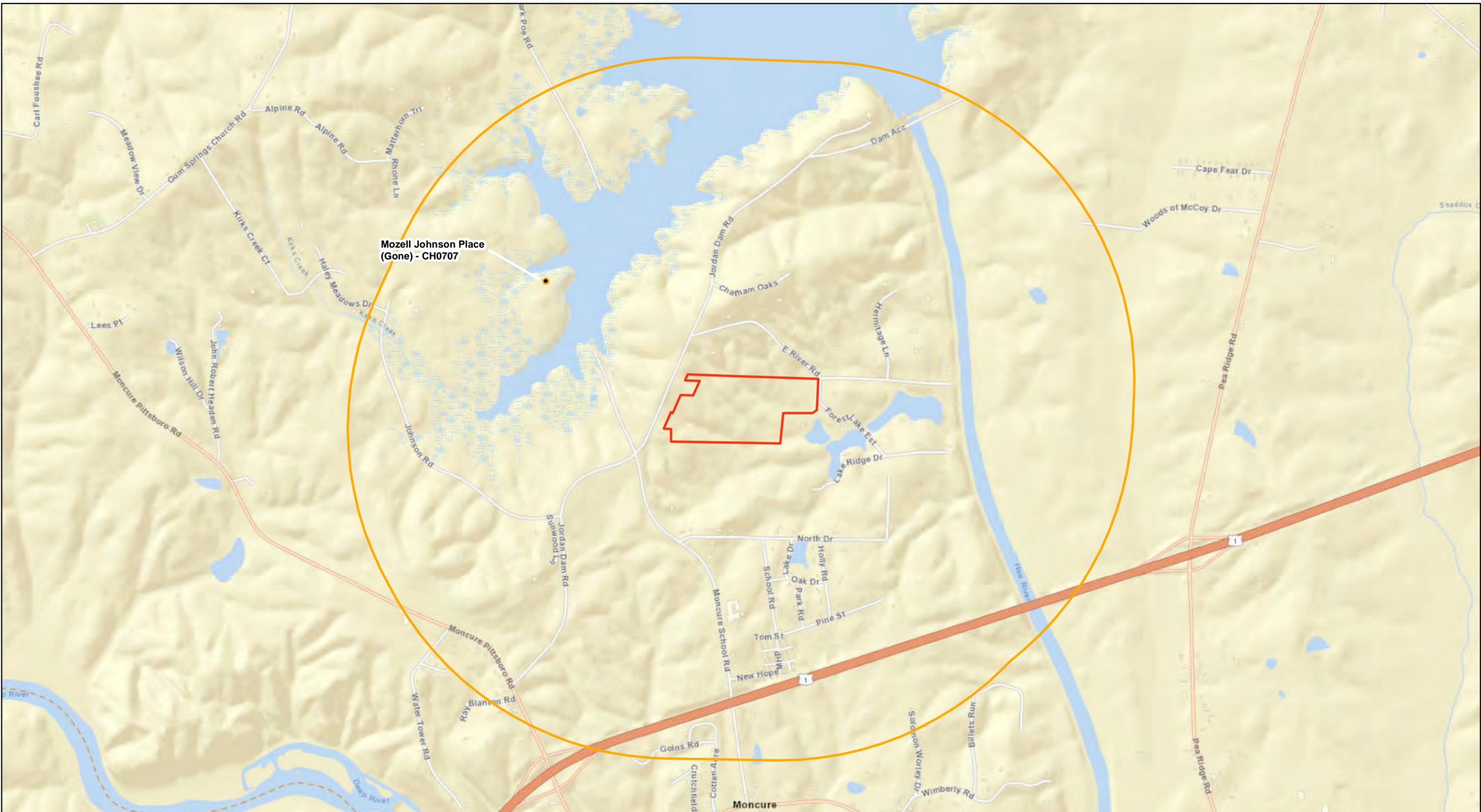


Wetland Sketch Map
1092 Jordan Dam Road Project
Sage Project # 2021.053
May 12, 2021

Figure 3

Drawn By:
David Gainey
 Sage Ecological Services, Inc.
 Office: 919-335-6757
 Cell: 919-559-1537





Mozell Johnson Place
(Gone) - CH0707

Map Location



Map Legend

- Project Study Area
- 1-Mile Project Buffer
- NCSHPO Status**
- Surveyed, Gone



NC SHPO Map

1092 Jordan Dam Road
Sage Project # 2021.053

April 29, 2021

Map Information:

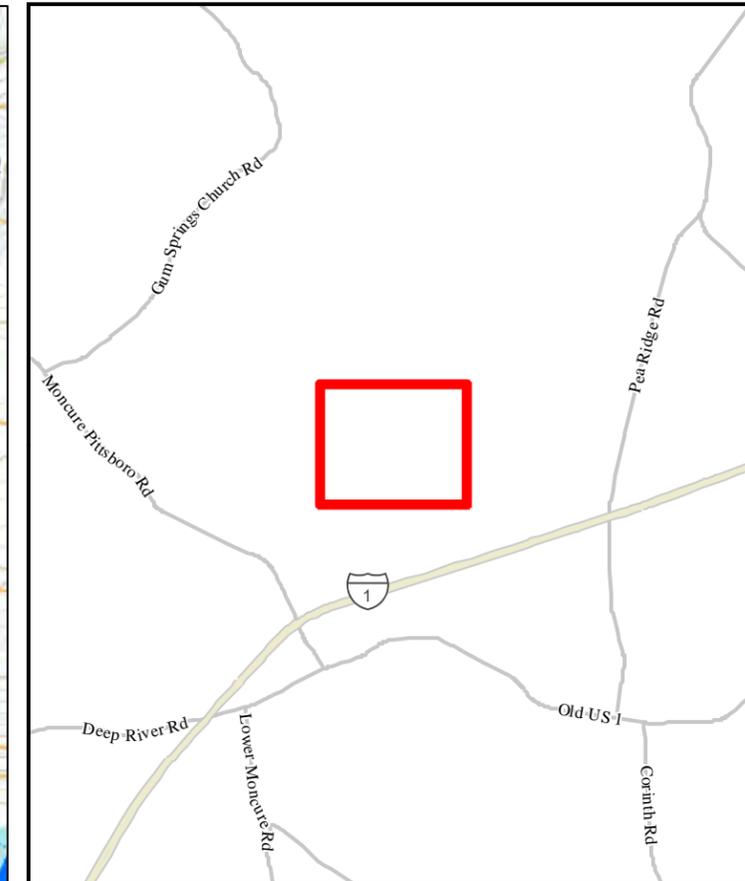
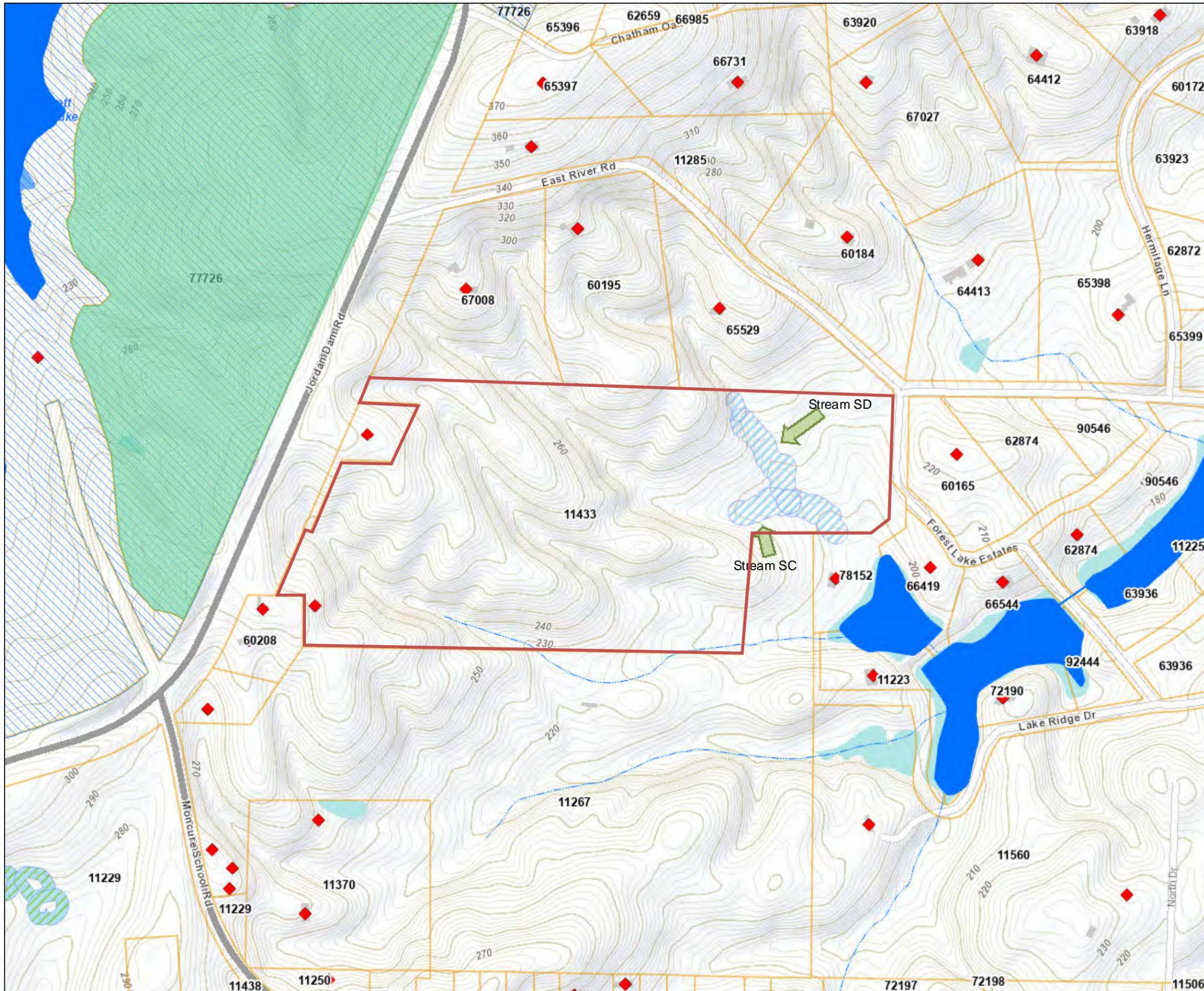
Data Source: NCSHPO GIS Shapefiles
Downloaded: April 5, 2021
<https://www.ncdcr.gov>

Figure 4



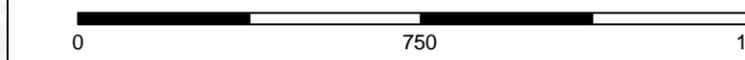
Sage Ecological Services, Inc.
Office: 919-335-6757
Cell: 919-559-1537

Figure 5: AKPAR 11433 - Riparian Buffer Map



Legend

Lines	Perennial Streams (100' Buffer)
— Override 1	Ponds (50' Buffer)
Areas	Wetlands (50' Buffer)
— Override 1	USGS Rivers & Streams
Natural Areas	Streams / Rivers
— General	Intermittent Streams
Managed Areas	USGS Lakes & Ponds
Registered Heritage Area	Address Points
Federal Ownership	Parcels
Ephemeral Streams (30' Buffer)	
Intermittent Streams (50' Buffer)	



Service Layer Credits: Chatham County, Chatham County GIS

Date: 5/12/2021
Time: 6:07:07 PM

APPENDIX C
NATURAL HERITAGE PROGRAM DATABASE REPORT



Roy Cooper, Governor

D. Reid Wilson, Secretary

Walter Clark

Director, Division of Land and Water Stewardship

NCNHDE-14667

May 12, 2021

Sean Clark
Sage Ecological Services
3707 Swift Drive
Raleigh, NC 27606-2543
RE: 1092 Jordan Dam Road; 2021.053

Dear Sean Clark:

The North Carolina Natural Heritage Program (NCNHP) appreciates the opportunity to provide information about natural heritage resources for the project referenced above.

Based on the project area mapped with your request, a query of the NCNHP database indicates that there are no records for rare species, important natural communities, natural areas, and/or conservation/managed areas within the proposed project boundary. Please note that although there may be no documentation of natural heritage elements within the project boundary, it does not imply or confirm their absence; the area may not have been surveyed. The results of this query should not be substituted for field surveys where suitable habitat exists. In the event that rare species are found within the project area, please contact the NCNHP so that we may update our records.

The attached 'Potential Occurrences' table summarizes rare species and natural communities that have been documented within a one-mile radius of the property boundary. The proximity of these records suggests that these natural heritage elements may potentially be present in the project area if suitable habitat exists. Tables of natural areas and conservation/managed areas within a one-mile radius of the project area, if any, are also included in this report.

If a Federally-listed species is found within the project area or is indicated within a one-mile radius of the project area, the NCNHP recommends contacting the US Fish and Wildlife Service (USFWS) for guidance. Contact information for USFWS offices in North Carolina is found here: <https://www.fws.gov/offices/Directories/ListOffices.cfm?statecode=37>.

Please note that natural heritage element data are maintained for the purposes of conservation planning, project review, and scientific research, and are not intended for use as the primary criteria for regulatory decisions. Information provided by the NCNHP database may not be published without prior written notification to the NCNHP, and the NCNHP must be credited as an information source in these publications. Maps of NCNHP data may not be redistributed without permission.

The NC Natural Heritage Program may follow this letter with additional correspondence if a Dedicated Nature Preserve, Registered Heritage Area, Land and Water Fund easement, or Federally-listed species are documented near the project area.

If you have questions regarding the information provided in this letter or need additional assistance, please contact Rodney A. Butler at rodney.butler@ncdcr.gov or 919-707-8603.

Sincerely,
NC Natural Heritage Program

Natural Heritage Element Occurrences, Natural Areas, and Managed Areas Within a One-mile Radius of the Project Area
 1092 Jordan Dam Road
 Project No. 2021.053
 May 12, 2021
 NCNHDE-14667

Element Occurrences Documented Within a One-mile Radius of the Project Area

Taxonomic Group	EO ID	Scientific Name	Common Name	Last Observation Date	Element Occurrence Rank	Accuracy	Federal Status	State Status	Global Rank	State Rank
Butterfly	28789	Pontia protodice	Checkered White	2010-09-20	E	3-Medium	---	Significantly Rare	G5	S1S2
Natural Community	9320	Dry-Mesic Oak--Hickory Forest (Piedmont Subtype)	---	2013	C	2-High	---	---	G4G5	S4
Natural Community	34545	Dry-Mesic Oak--Hickory Forest (Piedmont Subtype)	---	2014-05-07	B	2-High	---	---	G4G5	S4
Natural Community	40311	Dry Oak--Hickory Forest (Piedmont Subtype)	---	2020-10-09	B	2-High	---	---	G4G5	S4
Natural Community	2783	Mesic Mixed Hardwood Forest (Piedmont Subtype)	---	2013	BC	3-Medium	---	---	G3G4	S4
Natural Community	27319	Piedmont Boggy Streamhead	---	2020-10-09	B	2-High	---	---	G2G3	S2
Natural Community	34544	Piedmont Bottomland Forest (High Subtype)	---	2014-05-07	C	3-Medium	---	---	G3G4	S2
Vascular Plant	27318	Lindera subcoriacea	Bog Spicebush	2009-04-09	BC	2-High	---	Significantly Rare Throughout	G3	S2
Vascular Plant	16756	Phacelia covillei	Buttercup Phacelia	2014-05-07	A	3-Medium	---	Significantly Rare Throughout	G3	S3
Vascular Plant	29362	Phacelia covillei	Buttercup Phacelia	1998-04-07	H?	3-Medium	---	Significantly Rare Throughout	G3	S3

Natural Areas Documented Within a One-mile Radius of the Project Area

Site Name	Representational Rating	Collective Rating
Poes Ridge/Dam Road Upland Forests	R5 (General)	C5 (General)

Natural Areas Documented Within a One-mile Radius of the Project Area

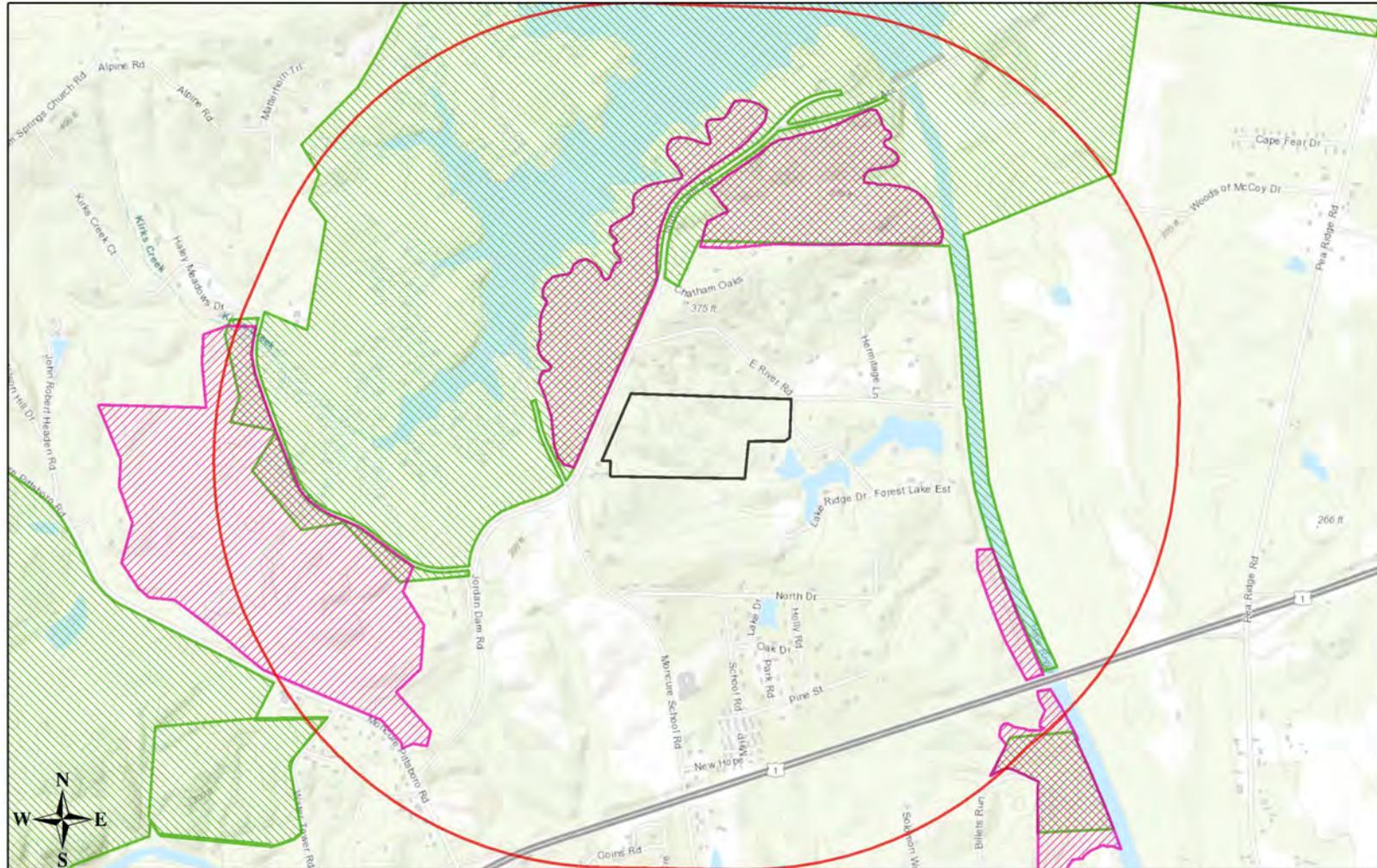
Site Name	Representational Rating	Collective Rating
Haw River Dicentra Slopes	R4 (Moderate)	C4 (Moderate)
Moncure Boggy Streamheads	R3 (High)	C4 (Moderate)

Managed Areas Documented Within a One-mile Radius of the Project Area

Managed Area Name	Owner	Owner Type
Poes Ridge/Dam Road Upland Forests Registered Heritage Area	US Army Corps of Engineers	Federal
Deep River State Trail	NC DNCR, Division of Parks and Recreation	State
Haw River Dicentra Slopes Registered Heritage Area	130 of Chatham, LLC	Private
B. Everett Jordan Dam and Lake	US Army Corps of Engineers	Federal
NC Land and Water Fund Project	NC DNCR, NC Land and Water Fund	State

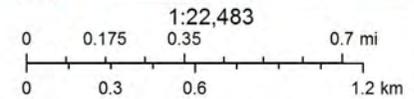
Definitions and an explanation of status designations and codes can be found at <https://ncnhde.natureserve.org/help>. Data query generated on May 12, 2021; source: NCNHP, Q1 April 2021. Please resubmit your information request if more than one year elapses before project initiation as new information is continually added to the NCNHP database.

NCNHDE-14667: 1092 Jordan Dam Road



May 12, 2021

- Project Boundary
- Buffered Project Boundary
- NHP Natural Area (NHNA)
- Managed Area (MAREA)



Sources: Esri, HERE, Garmin, Intermap, increment P Corp., GEBCO, USGS, FAO, NPS, NRCAN, GeoBase, IGN, Kadaster NL, Ordnance Survey, Esri Japan, METI, Esri China (Hong Kong), (c) OpenStreetMap contributors, and the GIS User Community

APPENDIX D
AGENT AUTHORIZATION FORM



AGENT AUTHORIZATION FORM
All Blanks to Be Filled in By the Current Landowner or Legal Representative

Name: _____

Address: _____

Phone: _____

Email: _____

Project Name/Description: 1092 Jordan Dam Road

Sage Project # 2021.053

Date: _____

The Department of the Army
U.S. Army Corps of Engineers, Wilmington District
P.O. Box 1890
Wilmington, NC 28402

Attn: _____

Field Office: _____

Re: Wetlands and Streams Related Consulting and Permitting

To Whom It May Concern:

I, the undersigned, the owner or a duly authorized representative of record of the property/properties identified herein, do authorize representatives of the U.S. Army Corps of Engineers (Corps) to enter upon the property herein described for the purpose of conducting on-site investigations and issuing a determination associated with Waters of the U.S. subject to Federal jurisdiction under Section 404 of the Clean Water Act and/or Section 10 of the Rivers and Harbors Act of 1899. I also hereby designate and authorize Sage Ecological Services to act on my behalf as my agent in the processing of permit applications, to furnish upon request supplemental information in support of applications, etc. from this day forward.

This notification supersedes any previous correspondence concerning the agent for this project.

Notice: This authorization, for liability and professional courtesy reasons, is valid only for government officials to enter the property when accompanied by Sage staff. Please contact Sage to arrange a meeting prior to visiting the site.

BY: _____

Print Name of Landowner or
Legal Representative

BY: _____

Signature of Landowner or
Legal Representative