

NATURAL RESOURCES TECHNICAL REPORT

I-85 Improvements Addendum
Gaston County, North Carolina

TIP: I-5719

This NRTR Addendum includes Tables and Figures with all jurisdictional features presented.



NORTH CAROLINA DEPARTMENT OF TRANSPORTATION
Environmental Coordination and Permitting

June 2022

1.0 INTRODUCTION

The North Carolina Department of Transportation (NCDOT) proposes to implement improvements to Interstate 85 (I-85) (STIP I-5719) in Gaston County (Figures 1 and 2). The following Natural Resources Technical Report addendum has been prepared to assist in the preparation of the appropriate environmental documentation.

2.0 METHODOLOGY

All work was conducted in accordance with the NCDOT Environmental Coordination and Permitting's Preparing Natural Resources Technical Reports Procedure and the latest NRTR Template (September 2021). Field work was conducted in April 2022. This NRTR is an addendum to the original I-85 Improvements NRTR completed in 2016, which was supplemented with some added study areas in 2019. The previous study areas from 2016 and 2019 were verified by the USACE via a Preliminary Jurisdictional Determination (SAW 2019-00055) on 9/3/2019. The principal personnel contributing to the field work and document is provided in Appendix B.

3.0 TERRESTRIAL COMMUNITIES

Eight terrestrial communities were identified in the study area. Figures 3a-3j shows the location and extent of these terrestrial communities. Terrestrial community data are presented in the context of total coverage of each type within the study area (Table 1).

Table 1. Coverage of terrestrial communities in the study area.

Community	Dominant Species (scientific name)	Coverage (ac.) ¹
Bottomland Hardwood Forest	black willow (<i>Salix nigra</i>) sweetgum (<i>Liquidambar styraciflua</i>) tag alder (<i>Alnus serrulata</i>)	11.4
Headwater Forest	red maple (<i>Acer rubrum</i>) sweetgum (<i>Liquidambar styraciflua</i>) common rush (<i>Juncus effusus</i>)	5.4
Maintained/Disturbed Land	Chinese privet (<i>Ligustrum sinense</i>) Autumn olive (<i>Elaeagnus umbellata</i>) kudzu (<i>Pueraria montana</i>)	1,081.0

Community	Dominant Species (scientific name)	Coverage (ac.) ¹
Mesic Mixed Hardwood Forest	White oak (<i>Quercus alba</i>) tulip poplar (<i>Liriodendron tulipifera</i>) loblolly pine (<i>Pinus taeda</i>)	453.4
Mixed Pine Hardwood Forest	loblolly pine (<i>Pinus taeda</i>) eastern red cedar (<i>Juniperus virginiana</i>) autumn olive (<i>Elaeagnus umbellata</i>)	8.3
Piedmont Low Mountain Alluvial Forest	river birch (<i>Betula nigra</i>) American sycamore (<i>Platanus occidentalis</i>) Japanese honeysuckle (<i>Lonicera japonica</i>)	47.5
Pine Forest	loblolly pine (<i>Pinus taeda</i>) Virginia pine (<i>Pinus virginiana</i>) greenbrier (<i>Smilax rotundifolia</i>)	58.4
Successional Land	dogfennel (<i>Eupatorium capillifolium</i>) eastern red cedar (<i>Juniperus virginiana</i>) Virginia creeper (<i>Parthenocissus quinquefolia</i>)	85.2
Total		1,795.3

¹ Study Area also includes impervious surfaces (881.1) and open waters (6.2).

4.0 PROTECTED SPECIES

4.1 Endangered Species Act Protected Species

The United States Fish and Wildlife Service (USFWS) and National Oceanic and Atmospheric Administration (NOAA) list the following federally protected species within the study area, under the Endangered Species Act (ESA) (Table 2). For each species, a discussion of the presence or absence of habitat is included below along with the Biological Conclusion rendered based on survey results in the study area.

Table 2. ESA federally protected species within the Study Area¹

Scientific Name	Common Name	Federal Status	Habitat Present	Biological Conclusion
<i>Myotis septentrionalis</i>	Northern long-eared bat	T	Yes	Unresolved

Scientific Name	Common Name	Federal Status	Habitat Present	Biological Conclusion
<i>Glyptemys muhlenbergii</i>	Bog turtle	T (S/A)	No	Not Required
<i>Hexastylis naniflora</i>	Dwarf-flowered heartleaf	T	Yes	No Effect
<i>Helianthus schweinitzii</i>	Schweinitz's sunflower	E	Yes	Unresolved

¹IPaC data checked on 4/18/2022

E-Endangered

T-Threatened

T (S/A)- Threatened due to similarity in appearance

Northern long-eared bat

USFWS optimal survey window: May 15th-August 15th

Biological Conclusion: Unresolved

Suitable habitat for Northern long-eared bat (NLEB) is present within the study area. This information will be provided by the NCDOT Biological Surveys Group (BSG). A review of NHP records on or April 28, 2022 indicates no known occurrences within 1.0 mile of the study area.

Bog Turtle

USFWS optimal survey window: April 1st- October 1st

Biological Conclusion: Not Required

Suitable habitat for this species is not present within the study area. Species listed due to similarity of appearance do not require Section 7 consultation with USFWS. A review of NHP records on April 28, 2022 indicates no known occurrences within 1.0 mile of the study area.

Dwarf-flowered heartleaf

USFWS optimal survey window: March-May

Biological Conclusion: No Effect

Suitable habitat for this species is present within the study area. Prior to the survey effort, Terracon biologists visited a reference population of DFHL, in flower, located in Cleveland County, NC. Immediately after visiting this reference population, Terracon biologists conducted surveys throughout areas of suitable habitat on April 12 and 13, 2022. No DFHL was identified in the I-5719 study area. Many of the areas that were believed to potentially provide habitat were found to be disturbed and/or contained extremely thick groundcover that is not conducive for this species. A review of NHP records on April 28, 2022 indicates no known occurrences within 1.0 mile of the study area.

Schweinitz's sunflower

USFWS optimal survey window: late August-October

Biological Conclusion: Unresolved

Suitable habitat for Schweinitz's sunflower is present in the study area along roadsides and forest edges. Surveys should be conducted during the recommended survey window. A review of NCNHP records on April 28, 2022, indicates no known Schweinitz's sunflower occurrences within 1.0 mile of the study area. Surveys performed as part of the 2016 NRTR did not identify this species at that time.

4.2 Bald and Golden Eagle Protection Act

The Bald and Golden Eagle Protection Act is enforced by the USFWS. Golden eagles do not nest in North Carolina. Habitat for the bald eagle primarily consists of mature forests in proximity to large bodies of open water for foraging. Large dominant trees are utilized for nesting sites, typically within 1.0 mile of open water.

A desktop-GIS assessment of the project study area, as well as the area within a 1.0-mile radius of the project limits, was performed on 4/28/2022 using color aerials. Forested areas adjacent to the Catawba River, both upstream and downstream of the study area, provide suitable nesting and foraging habitat for the bald eagle. The South Fork Catawba River may also provide suitable foraging and nesting habitat. A review of the NCNHP database, updated April 28, 2022, revealed a 2021 known occurrence of bald eagle within 1.0 mile of the study area.

5.0 WATER RESOURCES

Water resources in the study area are part of the Catawba River Basin [U.S. Geological Survey (USGS) Hydrologic Unit 03050102 and 03050101]. Fifty-nine streams were identified in the study area (Table 3). The location of each stream is shown in Figures 4a-4j.

Table 3. Streams in the study area

Stream Name	Map ID	NCDWR Index Number	Best Usage Classification	Bank Height (ft)	Bankfull Width (ft)	Depth (in)
UT to Catawba River	SG	11-117	WS-IV; CA	1.5	6	1
UT to Catawba River	SH	11-117	WS-IV; CA	1	4	2
UT at Belmont Abbey College	SI	11-123-(1)	WS-IV	2	8	8
UT at Belmont Abbey College	SJ	11-123-(1)	WS-IV	1	6	4

Stream Name	Map ID	NCDWR Index Number	Best Usage Classification	Bank Height (ft)	Bankfull Width (ft)	Depth (in)
UT at Belmont Abbey College	SK*	11-123-(1)	WS-IV	1.5	5	3
UT to South Fork Catawba River	SL*	11-129-15.5	WS-V	2	5	4
UT to South Fork Catawba River	SM	11-129-15.5	WS-V	.5	3	1
UT to South Fork Catawba River	SN	11-129-15.5	WS-V	2.5	3	2
UT to South Fork Catawba River	SO	11-129-15.5	WS-V	3	6	3
UT to South Fork Catawba River	SP	11-129-15.5	WS-V	2	2	1
South Fork Catawba River	SQ	11-129-15.5	WS-V	12	260	N/A
UT to South Fork Catawba River	SR	11-129-15.5	WS-V	2	1.5	1
UT to South Fork Catawba River	SS	11-129-15.5	WS-V	4	4	3
UT to South Fork Catawba River	ST	11-129-15.5	WS-V	2	2	1
UT to Duharts Creek	SU*	11-129-19	WS-V	3	2	3
UT to Duharts Creek	SV	11-129-19	WS-V	2	2	2
UT to South Fork Catawba River	SW*	11-129-15.5	WS-V	3	3	2
UT to Duharts Creek	SX	11-129-19	WS-V	6	20	6
UT to Duharts Creek	SY	11-129-19	WS-V	5	6	3
UT to Duharts Creek	SZ	11-129-19	WS-V	3	6	3
UT to Duharts Creek	SAA	11-129-19	WS-V	2.5	7	3
UT to Duharts Creek	SAB	11-129-19	WS-V	4	8	8
UT to Duharts Creek	SAC	11-129-19	WS-V	4.5	7	6
Duharts Creek	SAD	11-129-19	WS-V	10	10	12
UT to Duharts Creek	SAE	11-129-19	WS-V	5	3.5	3

Stream Name	Map ID	NCDWR Index Number	Best Usage Classification	Bank Height (ft)	Bankfull Width (ft)	Depth (in)
UT to Duharts Creek	SAG	11-129-19	WS-V	2.5	2	1
UT to Duharts Creek	SAI	11-129-19	WS-V	2	4	2
UT to Duharts Creek	SAJ	11-129-19	WS-V	1	1.5	1
UT to Kaglor Branch	SAK	11-129-16-5	C	4.5	12	12
UT to Kaglor Branch	SAL	11-129-16-5	C	4	5	3
Kaglor Branch	SAM	11-129-16-5	C	7	12	10
UT to Kaglor Branch	SAN	11-129-16-5	C	3	6	4
UT to Kaglor Branch	SAO	11-129-16-5	C	3	5	2
UT to Kaglor Branch	SAP	11-129-16-5	C	3	3	2
UT to Kaglor Branch	SAQ	11-129-16-5	C	.5	2	2
UT to Long Creek	SAR	11-129-16-(4)	C	8	14	8
UT to Long Creek	SAS	11-129-16-(4)	C	8	7	5
UT to Long Creek	SAT	11-129-16-(4)	C	4	7	3
UT to Long Creek	SAU	11-129-16-(4)	C	10	5	3
UT to Duharts Creek	SBA	11-129-19	WS-V	1	4	2
UT to Jule Allen Branch	SBC	11-129-16-6	C	1.5	8	2
UT to Jule Allen Branch	SBD	11-129-16-6	C	1	3	1
UT to Long Creek	SBE	11-129-16-(4)	C	1.5	8	3
UT to Long Creek	SBF	11-129-16-(4)	C	.5	3	1
UT to Long Creek	SBG	11-129-16-(4)	C	.5	3.5	1
UT to South Fork Catawba River	SBH	11-129-15.5	WS-V	1	4	2
UT to South Fork Catawba River	SBI	11-129-15.5	WS-V	1	4.5	2
UT to Duharts Creek	SBJ	11-129-19	WS-V	1	3.5	2

Stream Name	Map ID	NCDWR Index Number	Best Usage Classification	Bank Height (ft)	Bankfull Width (ft)	Depth (in)
UT to Jule Allen Branch	SBK	11-129-16-6	C	N/A	N/A	N/A
UT to Jule Allen Branch	SBM	11-129-16-6	C	N/A	N/A	N/A
UT to South Fork Catawba River	SBN	11-129-(15.5)	WS-V	2	2.5	2
UT to South Fork Catawba River	SBO*	11-129-(15.5)	WS-V	1	2	1
UT to South Fork Catawba River	SBP	11-129-(15.5)	WS-V	3	5	4
UT to South Fork Catawba River	SBQ	11-129-(15.5)	WS-V	N/A	N/A	N/A
UT to South Fork Catawba River	SBR	11-129-(15.5)	WS-V	N/A	N/A	N/A
UT to Catawba River (Lake Wylie below elevation 570)	SBS	11-(122)	WS-IV, B;CA	N/A	N/A	N/A
UT to Duharts Creek	SCA*	11-129-19	WS-V	1	2	3
UT at Belmont Abbey College	SCF*	11-123-(1)	WS-IV	3	6	6
UT at Belmont Abbey College	SCG*	11-123-(1)	WS-IV	1	1	2

* Features that were extended or added for this 2022 NRTR addendum effort.

One surface water was identified within the study area (Table 5). The location of the surface water is shown on figures 4a-4j. There are no designated High-Quality Waters (HQW), Outstanding Resource Waters (ORW) or water supply watersheds (WS-I or WS-II) within 1.0 mile downstream of the study area. The North Carolina 2020 Final 303(d) list of impaired waters identifies no streams within the study area or 1.0 miles downstream of the study area as an impaired water.

Table 5. Surface waters in the study area

Surface Water	Map ID of Connection	Area (ac) in Study Area
SWA	SS	0.04

6.0 REGULATORY CONSIDERATIONS

6.1 Clean Water Act Waters of the U.S.

Fifty-nine streams were identified in the study area (Table 4). The location of these streams is shown on Figures 4a-4j. North Carolina Stream Assessment Method (NCSAM) and NCDWR stream identification forms are included in a separate Jurisdictional Determination (JD) package. All streams in the study area have been designated as warm water streams for the purpose of stream mitigation.

Table 4. Characteristics of jurisdictional streams in the study area.

Map ID	Length	Classification	Compensatory Mitigation Required	Riparian Buffer	Figure Number
SG	1,341	Perennial	Yes	Not Subject	4j
SH	143	Perennial	Yes	Not Subject	4j
SI	49	Perennial	Yes	Not Subject	4j
SJ	84	Perennial	Yes	Not Subject	4j
SK*	379 551	Intermittent Perennial	Yes	Not Subject	4i
SL*	1,724	Perennial	Yes	Not Subject	4i
SM	192	Intermittent	Yes	Not Subject	4i
SN	2,838	Perennial	Yes	Not Subject	4i
SO	393	Perennial	Yes	Not Subject	4i
SP	780	Perennial	Yes	Not Subject	4h
South Fork Catawba SQ	1,069	Perennial	Yes	Not Subject	4h
SR	104	Intermittent	Yes	Not Subject	4h
SS	690	Perennial	Yes	Not Subject	4h
ST	638	Perennial	Yes	Not Subject	4g
SU*	1,283	Perennial	Yes	Not Subject	4g
SV	153	Intermittent	Yes	Not Subject	4g

Map ID	Length	Classification	Compensatory Mitigation Required	Riparian Buffer	Figure Number
SW*	45	Perennial	Yes	Not Subject	4g, 4h
SX	1,871	Perennial	Yes	Not Subject	4c, 4d 4e
SY	853	Perennial	Yes	Not Subject	4c, 4d
SZ	39	Perennial	Yes	Not Subject	4c
SAA	455	Perennial	Yes	Not Subject	4g
SAB	489 47	Perennial Non-mit	Yes No	Not Subject	4e
SAC	833	Perennial	Yes	Not Subject	4e
Duharts Creek SAD	1,636	Perennial	Yes	Not Subject	4e
SAE	345	Perennial	Yes	Not Subject	4e
SAG	455	Intermittent	Yes	Not Subject	4e
SAI	57	Intermittent	Yes	Not Subject	4e
SAJ	419	Intermittent	Yes	Not Subject	4e
SAK	1,308	Perennial	Yes	Not Subject	4a
SAL	323	Intermittent	Yes	Not Subject	4a
SAM	1,148	Perennial	Yes	Not Subject	4a
SAN	36	Intermittent	Yes	Not Subject	4a
SAO	234	Intermittent	Yes	Not Subject	4a
SAP	448	Intermittent	Yes	Not Subject	4a
SAQ	541	Intermittent	Yes	Not Subject	4a
SAR	2,935	Perennial	Yes	Not Subject	4a
SAS	283	Perennial	Yes	Not Subject	4a
SAT	263	Perennial	Yes	Not Subject	4a
SAU	904	Perennial	Yes	Not Subject	4b
SBA	84	Intermittent	Yes	Not Subject	4c

Map ID	Length	Classification	Compensatory Mitigation Required	Riparian Buffer	Figure Number
SBC	2,094	Perennial	Yes	Not Subject	4b, 4c
SBD	829	Intermittent	Yes	Not Subject	4b
SBE	1,067	Perennial	Yes	Not Subject	4b
SBF	43	Intermittent	Yes	Not Subject	4b
SBG	695 854	Intermittent Perennial	Yes	Not Subject	4b
SBH	240 1,126	Intermittent Perennial	Yes	Not Subject	4h
SBI	656	Perennial	Yes	Not Subject	4h
SBJ	98	Perennial	Yes	Not Subject	4g
SBK	369	Intermittent	Yes	Not Subject	4b, 4c
SBM	475	Intermittent	Yes	Not Subject	4b, 4c
SBN	28	Intermittent	Yes	Not Subject	4h
SBO*	322	Intermittent	Yes	Not Subject	4i
SBP	340	Perennial	Yes	Not Subject	4i
SBQ	277	Intermittent	Yes	Not Subject	4g, 4h
SBR	47	Intermittent	Yes	Not Subject	4g
SBS	313	Intermittent	Yes	Not Subject	4j
SCA*	245	Intermittent	Yes	Not Subject	4d
SCF*	208	Perennial	Yes	Not Subject	4i
SCG*	14	Intermittent	Yes	Not Subject	4i
Total	38,802 lf				

* Features that were extended or added for this 2022 NRTR addendum effort.

Twenty-three jurisdictional wetlands were identified within the study area (Table 6). The locations of these wetlands are shown on Figures 4a-4j. All wetlands in the study area are located within the Catawba River Basin (USGS) Hydrologic Unit 03050102 and 03050101). USACE wetland

determination forms and NCWAM forms for these features were included in a separate PJD Package previously prepared and submitted with the exception of the areas identified in the added areas. These new forms are being submitted to NCDOT with this NRTR Addendum.

Table 5. Characteristics of jurisdictional wetlands in the study area

Map ID	NCWAM Classification	Forested	NCWAM Rating	Hydrologic Classification	404/401	Area (ac.) in Study Area	Figure Number
WB	Bottomland Hardwood Forest	Yes	High	Riparian	404/401	0.02	4j
WC	Non-tidal Freshwater Marsh	No	High	Riparian	404/401	0.60	4i
WD	Bottomland Hardwood Forest	Yes	High	Riparian	404/401	0.10	4h
WF	Headwater Forest	Yes	High	Riparian	404/401	1.70	4b
WG	Headwater Forest	Yes	High	Riparian	404/401	0.60	4b
WAA	Headwater Forest	Yes	High	Riparian	404/401	0.01	4e
WAC	Headwater Forest	No	Medium	Riparian	404/401	0.03	4e
WAD	Bottomland Hardwood Forest	Yes	Medium	Riparian	404/401	0.20	4e
WAF	Bottomland Hardwood Forest	Yes	Medium	Riparian	404/401	0.50	4e
WAG	Headwater Forest	Yes	High	Riparian	404/401	0.10	4e
WAH	Headwater Forest	Yes	High	Riparian	404/401	0.06	4a
WAI	Headwater Forest	Yes	High	Riparian	404/401	0.30	4a
WAM	Headwater Forest	Yes	Medium	Riparian	404/401	1.10	4f
WAN	Headwater Forest	No	Low	Riparian	404/401	0.04	4b,4c
WAO	Headwater Forest	Yes	High	Riparian	404/401	0.08	4h

Map ID	NCWAM Classification	Forested	NCWAM Rating	Hydrologic Classification	404/401	Area (ac.) in Study Area	Figure Number
WAP	Headwater Forest	No	High	Riparian	404/401	0.10	4i
WXA	Headwater Forest	No	High	Riparian	404/401	0.03	4i
WXB	Headwater Forest	Yes	High	Riparian	404/401	0.01	4i
WXC	Headwater Forest	Yes	High	Riparian	404/401	0.04	4e
WBA*	Hardwood Flat	No	Low	Riparian	404/401	<0.01	4d
WBB*	Headwater Forest	Yes	Medium	Riparian	404/401	0.12	4d
WBE*	Headwater Forest	No	Medium	Riparian	404/401	0.03	4i
WCC*	Headwater Forest	Yes	Medium	Riparian	404/401	0.04	4d
Total						5.27	

* Features that were extended or added for this 2022 NRTR addendum effort

6.2 Construction Moratoria

There are no construction moratoria for streams identified within the study area.

6.3 N.C. River Basin Buffer Rules

The streams within the study area located in the Catawba River Basin. Only the main stem of the Catawba River is covered by the Catawba River Buffer Rules as administered by NCDWR. The study area does not include the main stem of the Catawba River. Streams within the study area are not subject to any regulated riparian buffer rules.

6.4 Rivers and Harbors Act Section 10 Navigable Waters

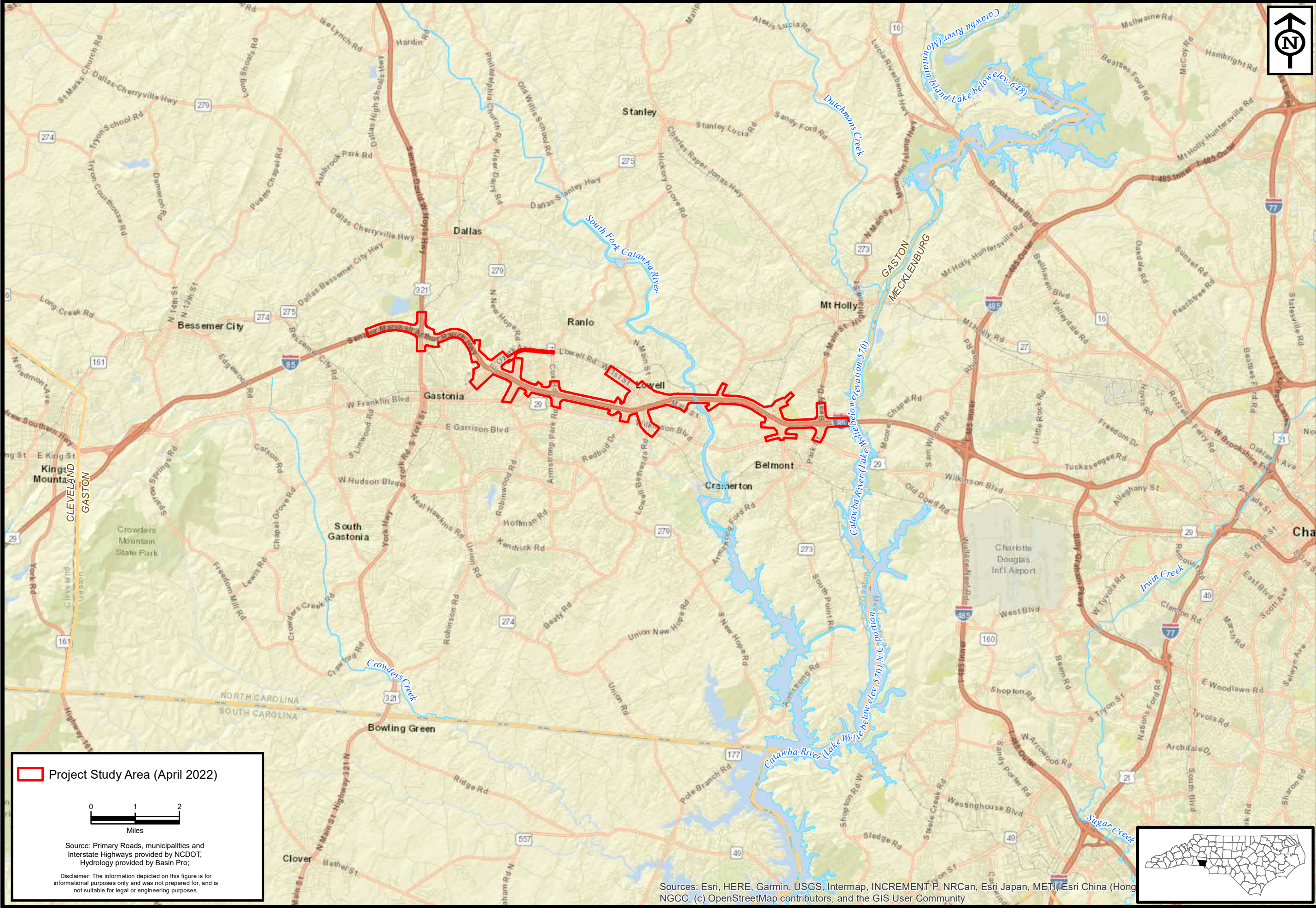
No streams within the study area have been designated as a Navigable Water by USACE under Section 10 of the Rivers and Harbors Act.

7.0 REFERENCES

- Center for Geographic Information and Analysis. 2010. High Resolution NC Statewide Imagery.
- National Marine Fisheries Services. 2018. Essential Fish Habitat Mapper.
<http://www.habitat.noaa.gov/protection/efh/efhmapper>. (Accessed May 2022).
- N.C. Department of Environment and Natural Resources, Division of Water Quality. 2010. Methodology for Identification of Intermittent and Perennial Streams and Their Origins, Version 4.11. Raleigh, NC. 41 pp.
- N.C. Department of Environmental Quality, Division of Water Resources. 2012. N.C. Water Quality Classifications, Catawba River Basin.
<http://portal.ncdenr.org/web/wq/ps/csu/classifications>. (Accessed May 2022).
- N.C. Department of Environmental Quality, Division of Water Resources. Water Quality Assessment and Impaired Waters List (2020 Final 303(d) Report).
<http://portal.ncdenr.org/web/wq/ps/csu/classifications>. (Accessed May 2021).
- N.C. Natural Heritage Program. 2001. Guide to Federally Listed Endangered and Threatened Species of North Carolina. Raleigh, NC. 134 pp.
- N. C. Natural Heritage Program. 2022. May 2022 NHP Element Occurrences. Raleigh, NC. (Accessed May 2022).
- N.C. Natural Heritage Program. 2001. Guide to Federally Listed Endangered and Threatened Species of North Carolina. Raleigh, NC. 134 pp.
- N.C. Wetland Functional Assessment Team. 2010. N.C. Wetland Assessment Method (NC WAM) User Manual Interim Draft Version 4.1. 127 pp + appendices.
- Schafale, M.P. 2012. Guide to the Natural Communities of North Carolina: Fourth Approximation. Natural Heritage Program, N.C. Department of Environment and Natural Resources. Raleigh, NC. 208 pp.
- U.S. Army Corps of Engineers. 1987. Corps of Engineers Wetlands Delineation Manual. Vicksburg, MS. 169 pp.
- U.S. Army Corps of Engineers. 2010. Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Eastern Mountains and Piedmont Region (Version 2.0). Vicksburg, MS. 180 pp.
- U.S. Department of Agriculture. 1989. Soil Survey of Gaston County, NC. 75 pp. plus maps.

- U.S. Department of Agriculture. 2012. Watershed Boundary Dataset (WBD). Natural Resources Conservation Service Cartography and Geospatial Center (NCGC).
- U.S. Fish and Wildlife Service. 2019. Dwarf-flowered heartleaf (*Hexastylis naniflora*). <https://www.fws.gov/species/dwarfflower-heartleaf-hexastylis-naniflora>. (Accessed: May 2022).
- U.S. Fish and Wildlife Service. 2019. Northern Long-Eared Bat (*Myotis septentrionalis*). <https://www.fws.gov/Midwest/endangered/mammals/nleb/index.html>. (Accessed May 2022).
- U.S. Fish and Wildlife Service. 2020. Schweinitz's sunflower (*Helianthus schweinitzii*). <https://ecos.fws.gov/ecp/species/3849>. (Accessed: May2022).
- U.S. Fish and Wildlife Service. 2022. Bog turtle (*Glyptemys muhlenbergii*). <https://www.fws.gov/species/bog-turtle-glyptemys-muhlenbergii>. (Accessed: May 2022).

Appendix A-Figures



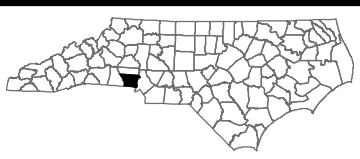
Project Study Area (April 2022)



Source: Primary Roads, municipalities and Interstate Highways provided by NCDOT, Hydrology provided by Basin Pro;

Disclaimer: The information depicted on this figure is for informational purposes only and was not prepared for, and is not suitable for legal or engineering purposes.

Sources: Esri, HERE, Garmin, USGS, Intermap, INCREMENT P, NRCan, Esri Japan, METI, Esri China (Hong Kong), Swisstopo, Mapbox, (c) OpenStreetMap contributors, and the GIS User Community



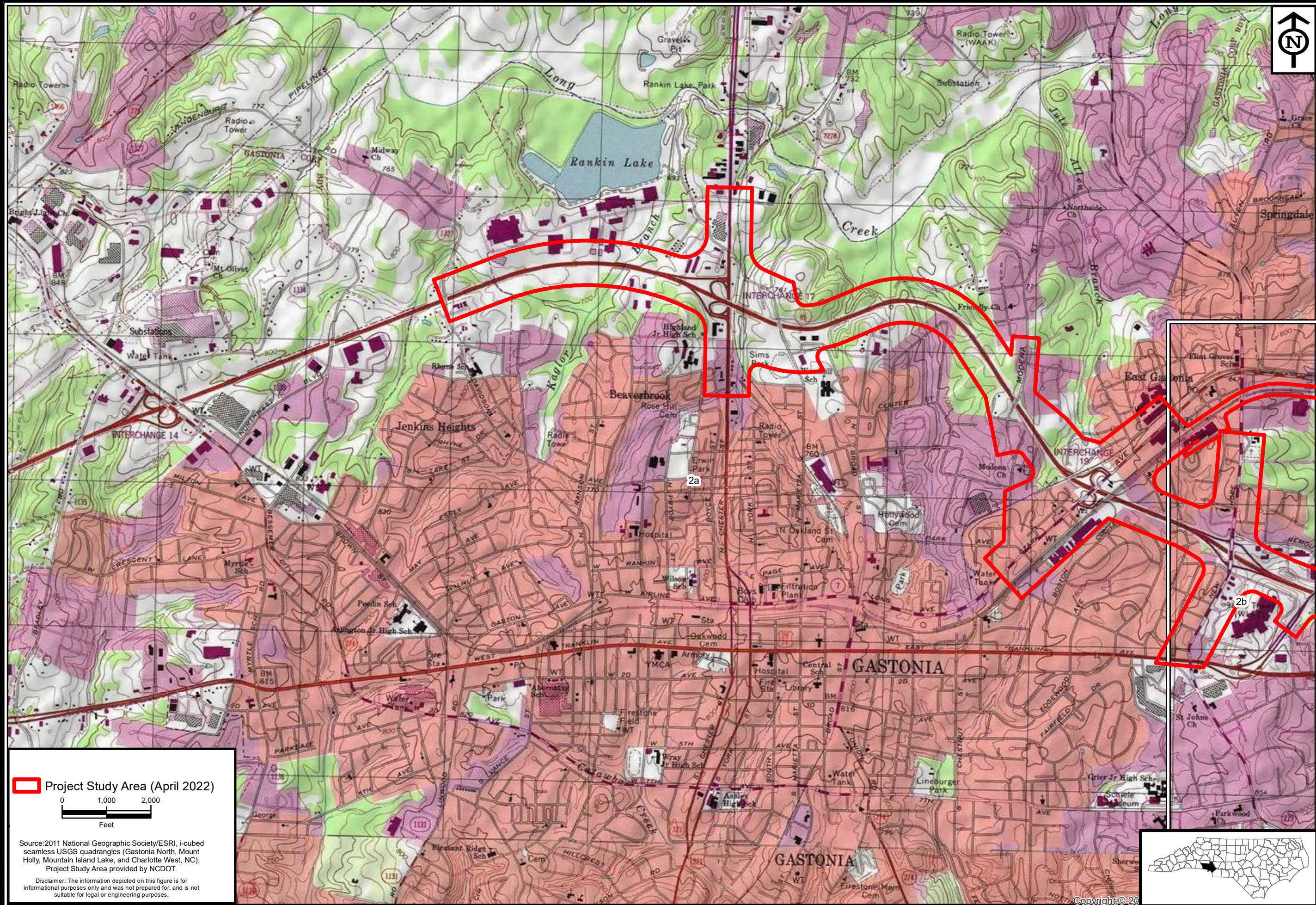
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Date:	April 2022
Drwn/Chkd:	KT/JH
Figure:	1

Vicinity Map

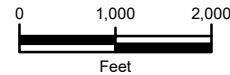
I-85 Widening

Gaston County, North Carolina

T.I.P. No. I-5719



Project Study Area (April 2022)



Source: 2011 National Geographic Society/ESRI, i-cubed seamless USGS quadrangles (Gastonia North, Mount Holly, Mountain Island Lake, and Charlotte West, NC); Project Study Area provided by NCDOT.

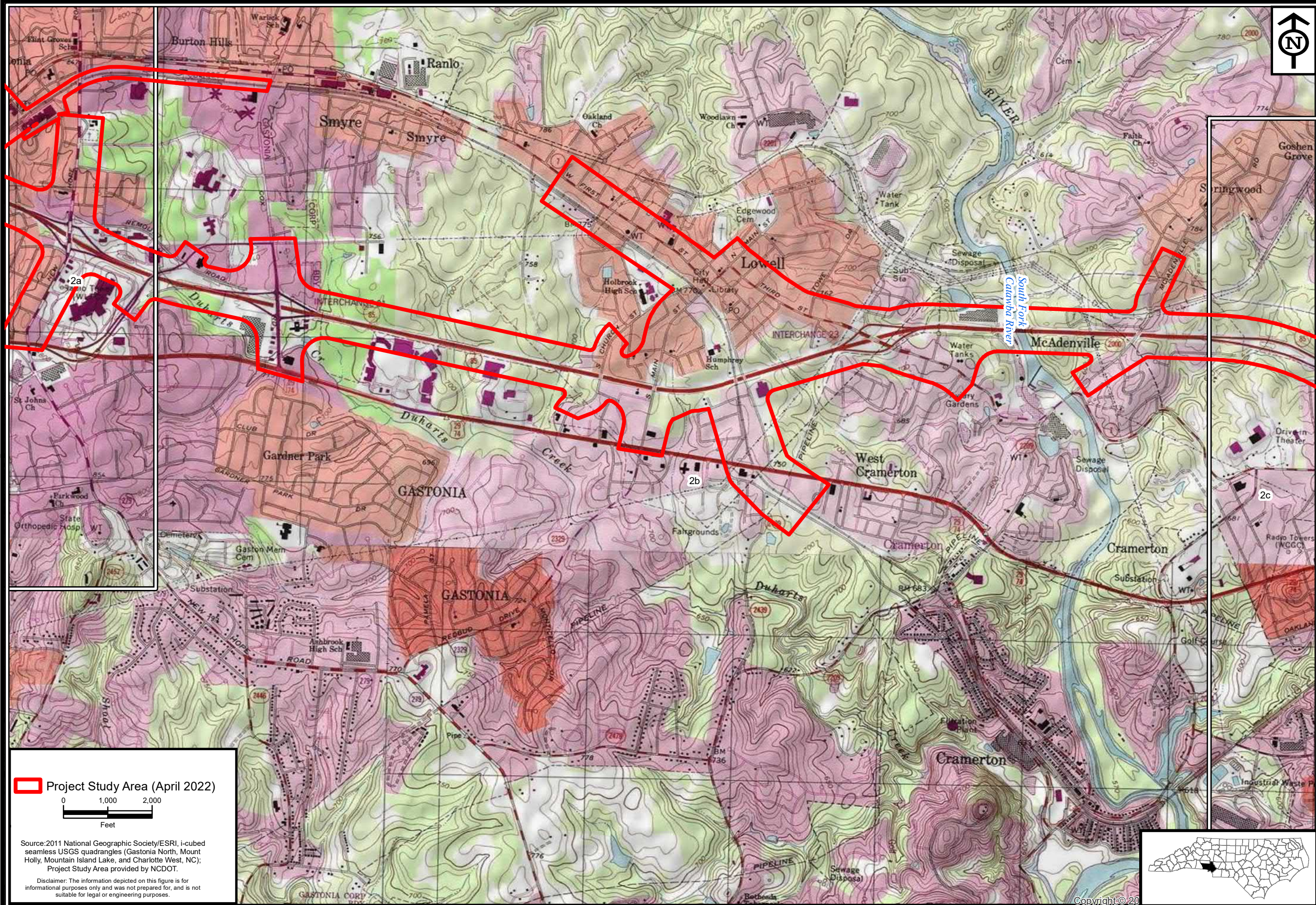
Disclaimer: The information depicted on this figure is for informational purposes only and was not prepared for, and is not suitable for legal or engineering purposes.

Project: 70227115
Date: April 2022
Drwn/Chkd: DB/KT
Figure: 2a

Project Location Map
I-85 Widening
Gaston County, North Carolina
T.I.P. No. I-57.9



Copyright © 2016



Project:	70227115
Date:	April 2022
Drwn/Chkd:	DB/KT
Figure:	2b

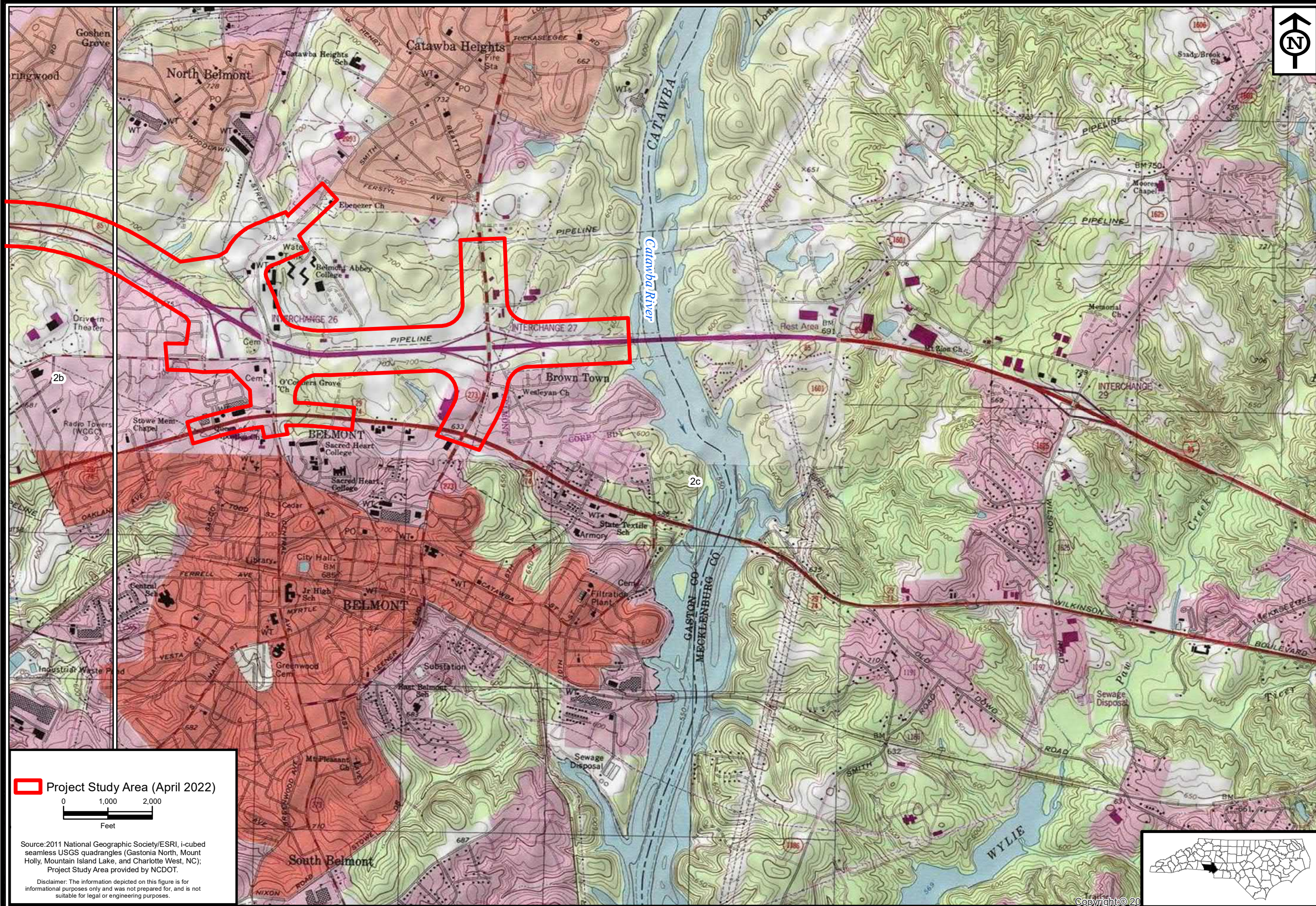
Project Location Map

I-85 Widening

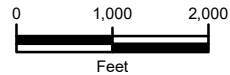
Gaston County, North Carolina

T.I.P. No. I-5719





Project Study Area (April 2022)



Source: 2011 National Geographic Society/ESRI, i-cubed seamless USGS quadrangles (Gastonia North, Mount Holly, Mountain Island Lake, and Charlotte West, NC); Project Study Area provided by NCDOT.

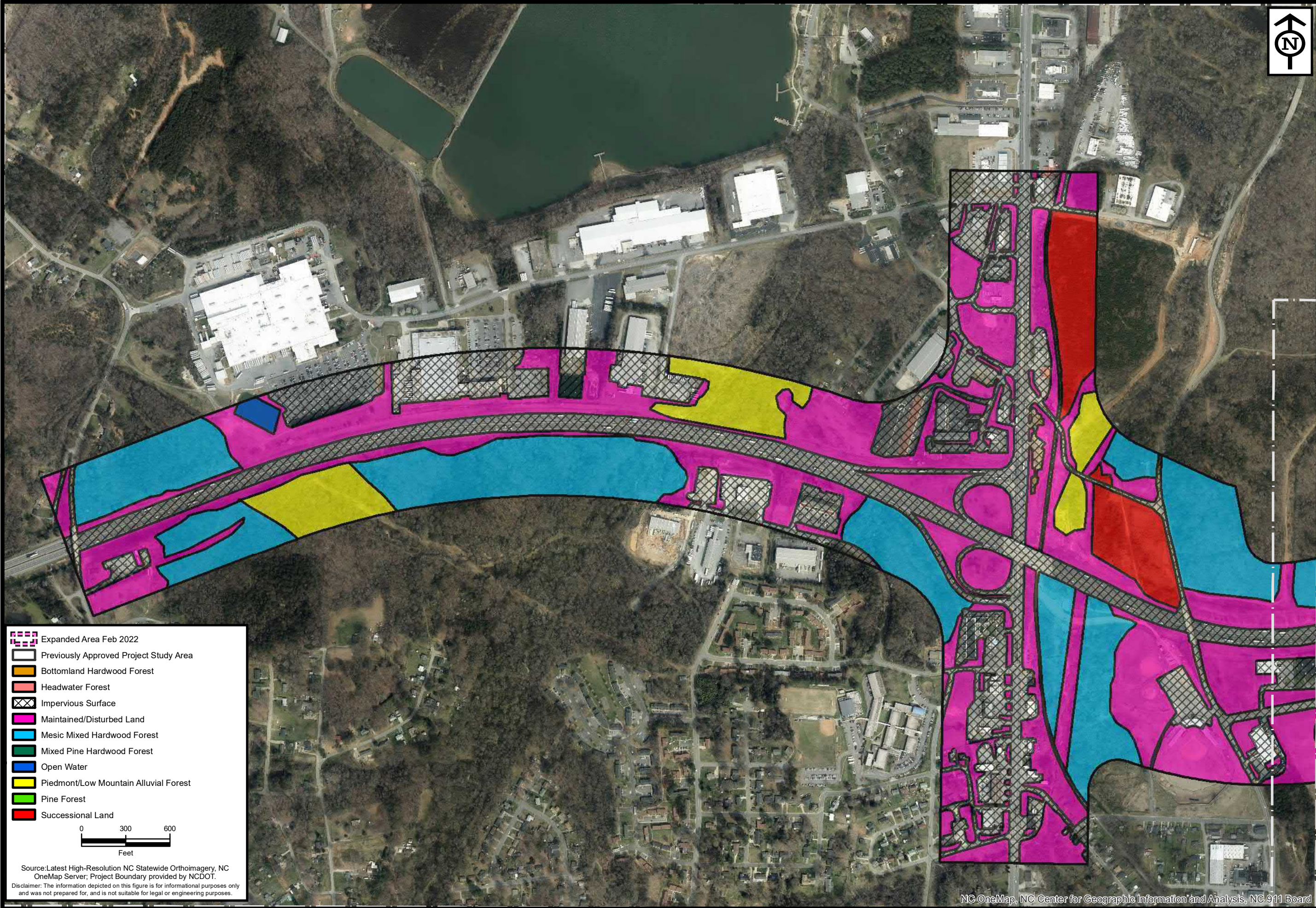
Disclaimer: The information depicted on this figure is for informational purposes only and was not prepared for, and is not suitable for legal or engineering purposes.



Project: 70227115
Date: April 2022
Drwn/Chkd: DB/KT
Figure: 2c

Project Location Map
I-85 Widening
Gaston County, North Carolina
T.I.P. No. I-5719





Expanded Area Feb 2022

Previously Approved Project Study Area

Bottomland Hardwood Forest

Headwater Forest

Impervious Surface

Maintained/Disturbed Land

Mesic Mixed Hardwood Forest

Mixed Pine Hardwood Forest

Open Water

Piedmont/Low Mountain Alluvial Forest

Pine Forest

Successional Land

0300600

Feet

Source: Latest High-Resolution NC Statewide Orthoimagery, NC OneMap Server; Project Boundary provided by NCDOT.
Disclaimer: The information depicted on this figure is for informational purposes only and was not prepared for, and is not suitable for legal or engineering purposes.

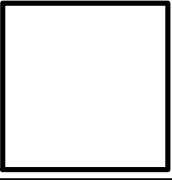
Project:	70227115
Date:	May 2022
Drwn/Chkd:	KT/RG
Figure:	3a

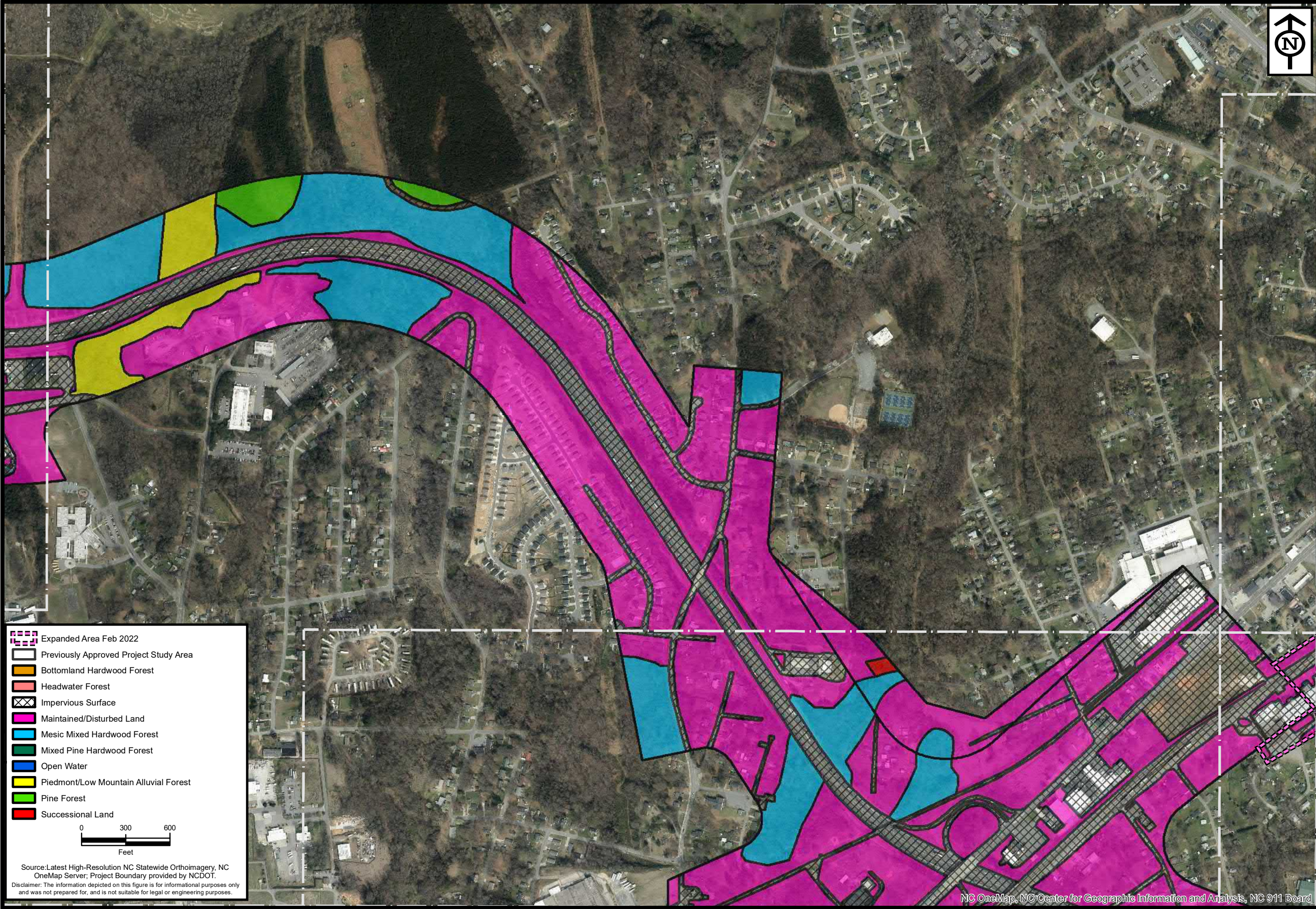
Terrestrial Communities Map

I-85 Widening

Gaston County, North Carolina

T.I.P. No. I-5719





Expanded Area Feb 2022

Previously Approved Project Study Area

Bottomland Hardwood Forest

Headwater Forest

Impervious Surface

Maintained/Disturbed Land

Mesic Mixed Hardwood Forest

Mixed Pine Hardwood Forest

Open Water

Piedmont/Low Mountain Alluvial Forest

Pine Forest

Successional Land

0

300

600

Feet

Source: Latest High-Resolution NC Statewide Orthoimagery, NC OneMap Server; Project Boundary provided by NCDOT.

Disclaimer: The information depicted on this figure is for informational purposes only and was not prepared for, and is not suitable for legal or engineering purposes.

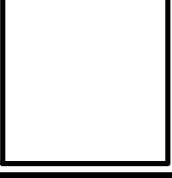
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Date:	May 2022
Drwn/Chkd:	KT/RG
Figure:	3b

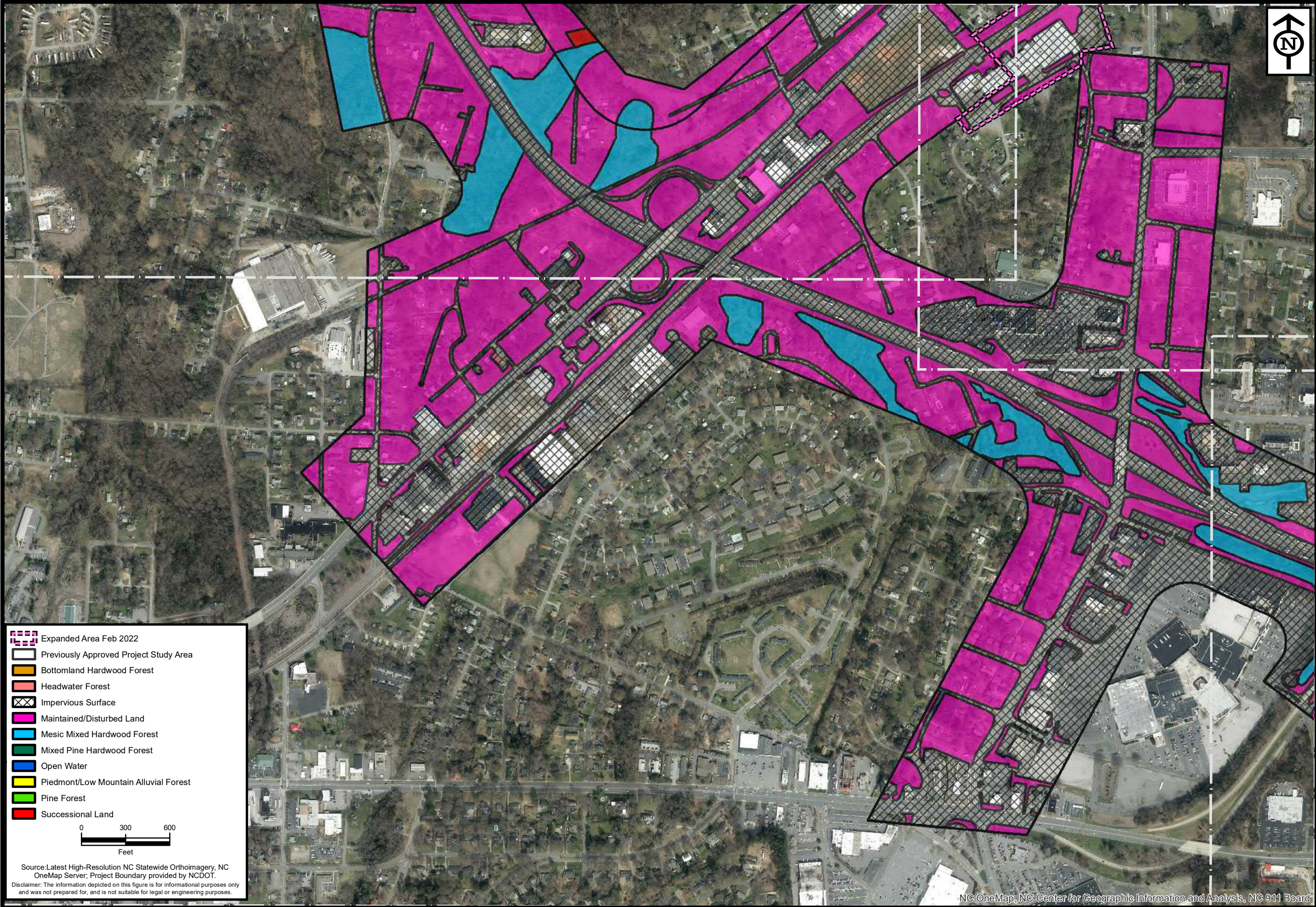
Terrestrial Communities Map

I-85 Widening

Gaston County, North Carolina

T.I.P. No. I-5719





Expanded Area Feb 2022

Previously Approved Project Study Area

Bottomland Hardwood Forest

Headwater Forest

Impervious Surface

Maintained/Disturbed Land

Mesic Mixed Hardwood Forest

Mixed Pine Hardwood Forest

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Piedmont/Low Mountain Alluvial Forest

Pine Forest

Successional Land

0300600

Feet

Source: Latest High-Resolution NC Statewide Orthoimagery, NC OneMap Server; Project Boundary provided by NCDOT.

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Project:	70227115
Date:	May 2022
Drwn/Chkd:	KT/RG
Figure:	3c

Terrestrial Communities Map

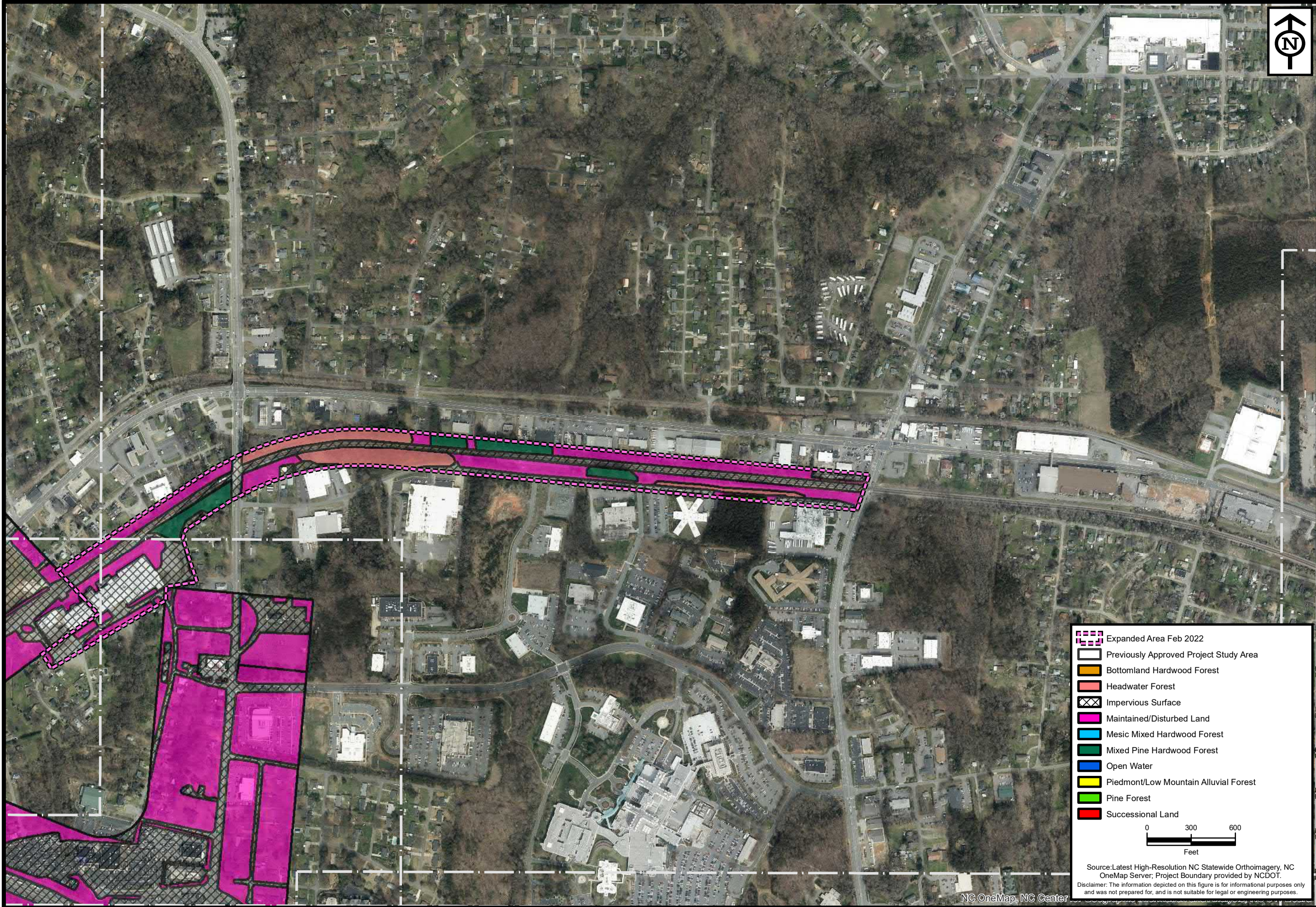
I-85 Widening

Gaston County, North Carolina

T.I.P. No. I-5719

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

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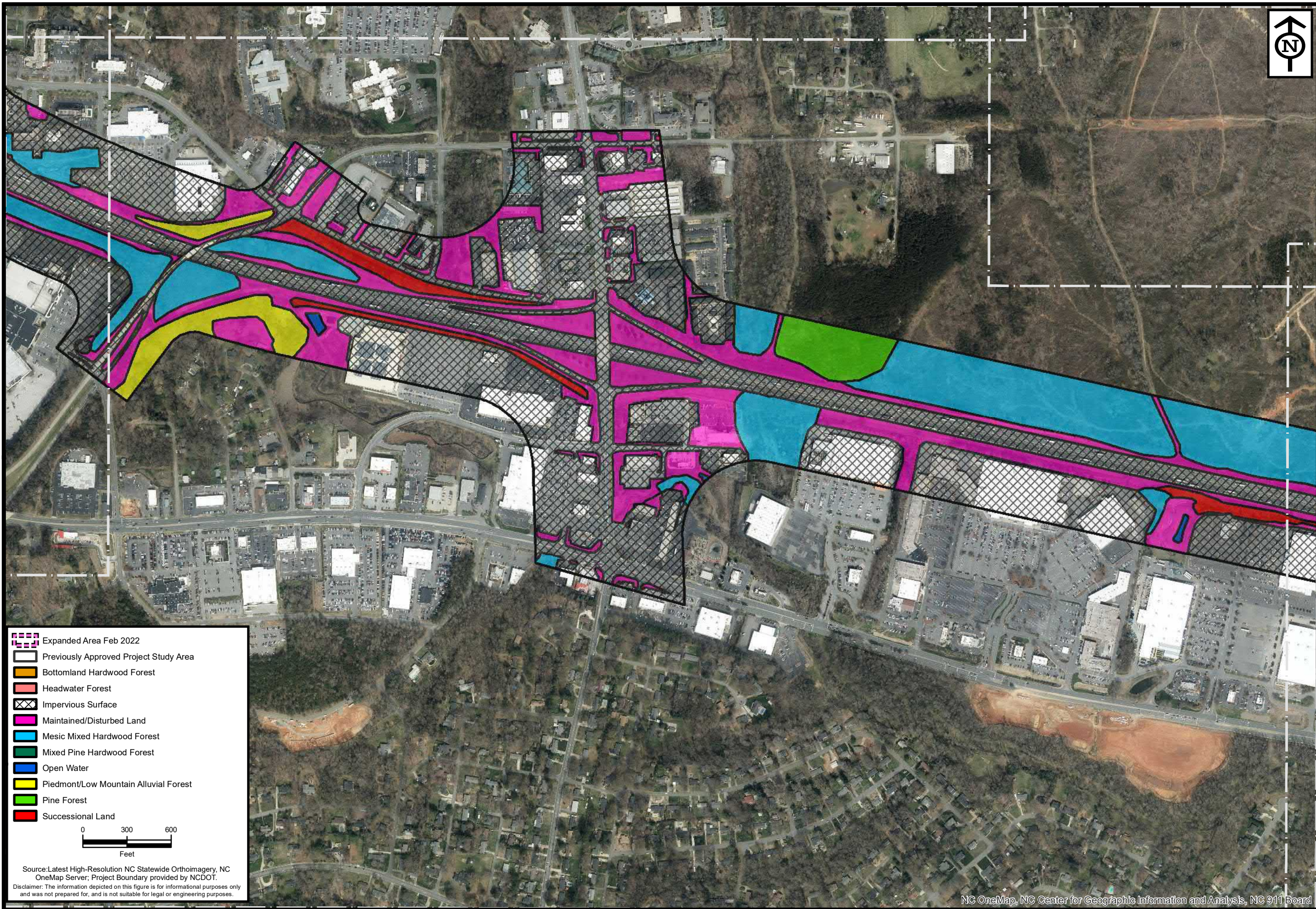
Project:	70227115
Date:	May 2022
Drwn/Chkd:	KT/RG
Figure:	3d

Terrestrial Communities Map
I-85 Widening
Gaston County, North Carolina
T.I.P. No. I-5719

Expanded Area Feb 2022
Previously Approved Project Study Area
Bottomland Hardwood Forest
Headwater Forest
Impervious Surface
Maintained/Disturbed Land
Mesic Mixed Hardwood Forest
Mixed Pine Hardwood Forest
Open Water
Piedmont/Low Mountain Alluvial Forest
Pine Forest
Successional Land

0 300 600
Feet

Source: Latest High-Resolution NC Statewide Orthoimagery, NC OneMap Server; Project Boundary provided by NCDOT.
Disclaimer: The information depicted on this figure is for informational purposes only and was not prepared for, and is not suitable for legal or engineering purposes.



Expanded Area Feb 2022

Previously Approved Project Study Area

Bottomland Hardwood Forest

Headwater Forest

Impervious Surface

Maintained/Disturbed Land

Mesic Mixed Hardwood Forest

Mixed Pine Hardwood Forest

Open Water

Piedmont/Low Mountain Alluvial Forest

Pine Forest

Successional Land

0 300 600
Feet

Source: Latest High-Resolution NC Statewide Orthoimagery, NC OneMap Server; Project Boundary provided by NCDOT.

Disclaimer: The information depicted on this figure is for informational purposes only and was not prepared for, and is not suitable for legal or engineering purposes.

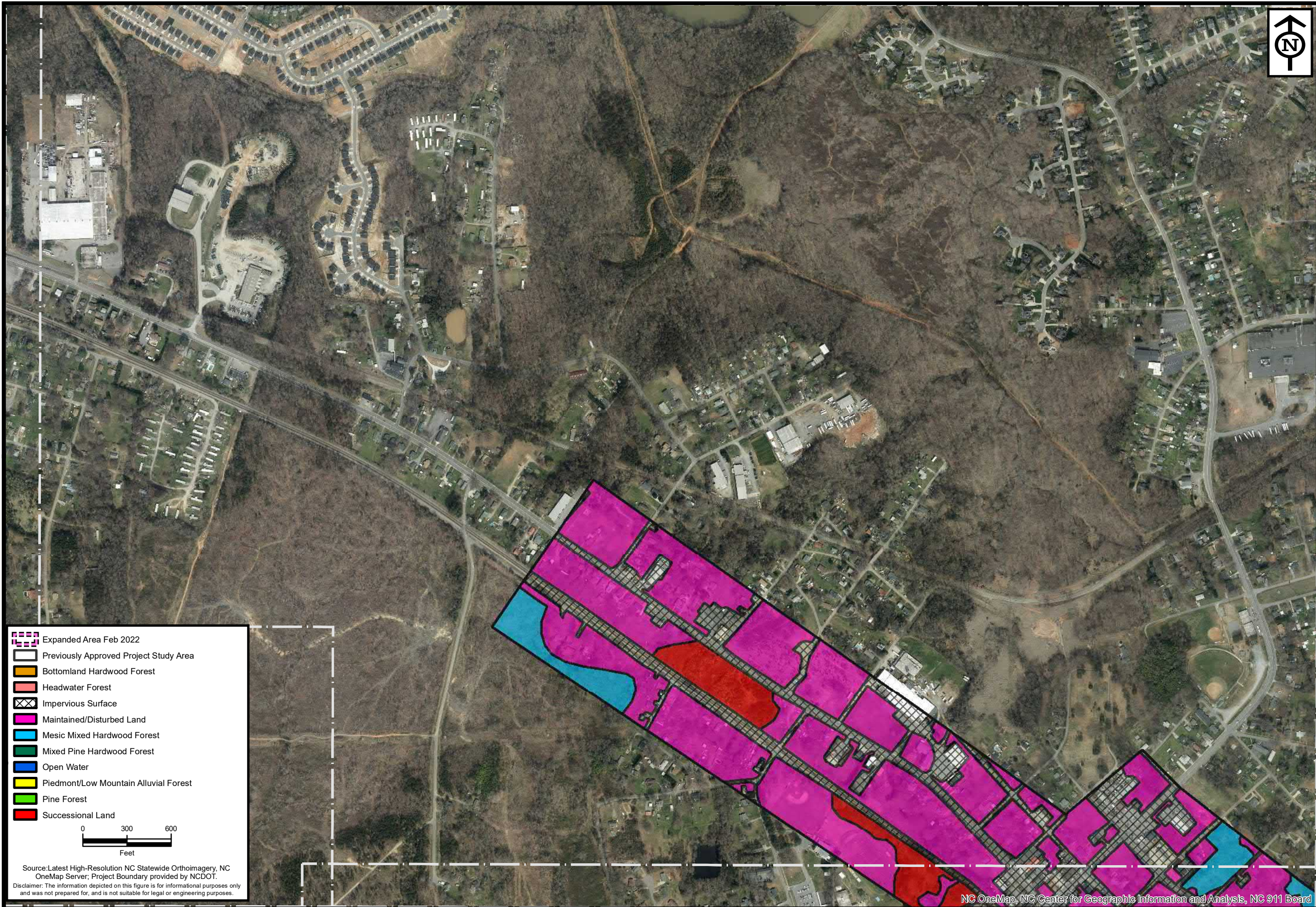
Project:	70227115
Date:	May 2022
Drwn/Chkd:	KT/RG
Figure:	3e

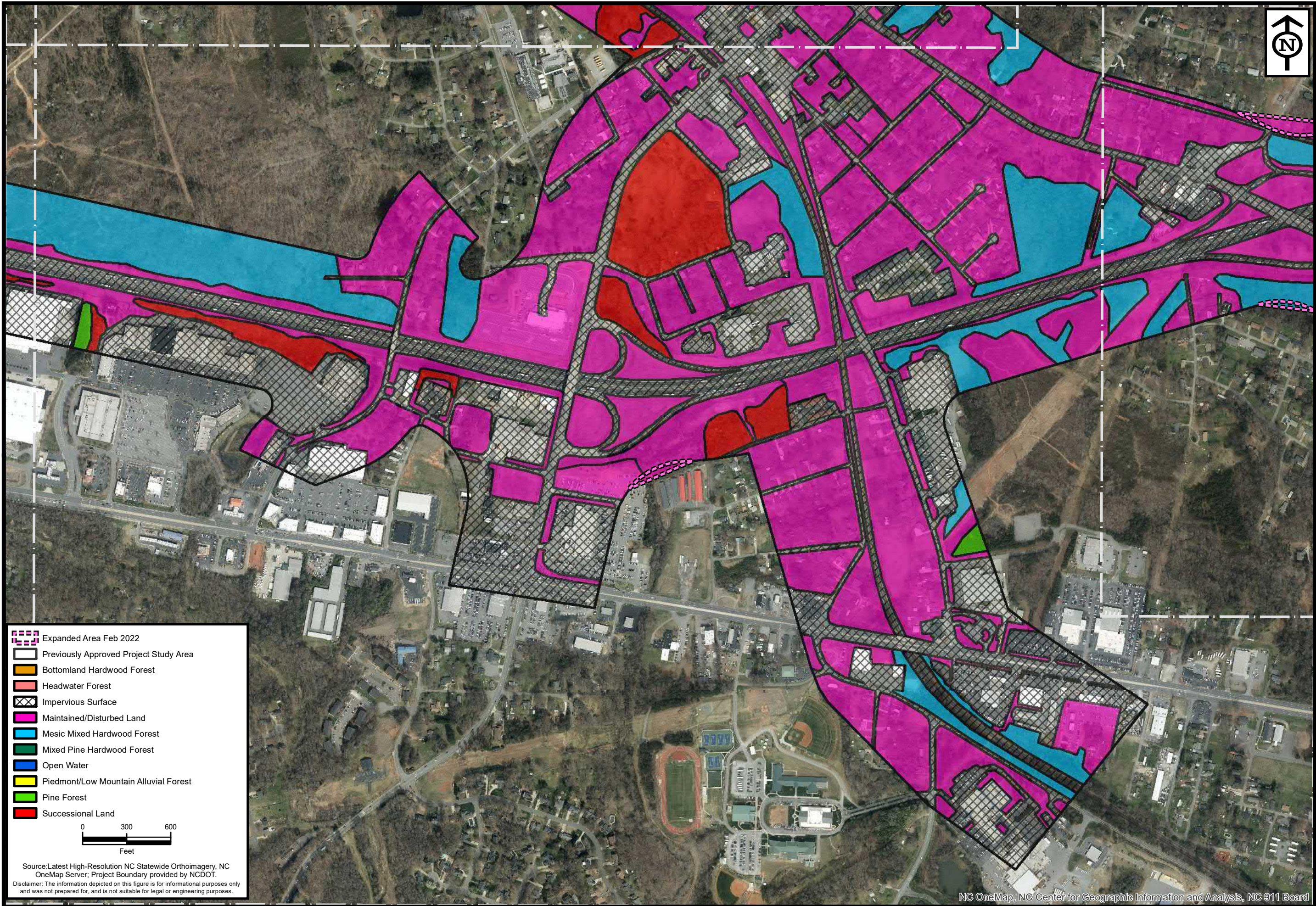
Terrestrial Communities Map

I-85 Widening

Gaston County, North Carolina

T.I.P. No. I-5719





Expanded Area Feb 2022

Previously Approved Project Study Area

Bottomland Hardwood Forest

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Maintained/Disturbed Land

Mesic Mixed Hardwood Forest

Mixed Pine Hardwood Forest

Open Water

Piedmont/Low Mountain Alluvial Forest

Pine Forest

Successional Land

0

300

600

Feet

Source: Latest High-Resolution NC Statewide Orthoimagery, NC OneMap Server; Project Boundary provided by NCDOT.

Disclaimer: The information depicted on this figure is for informational purposes only and was not prepared for, and is not suitable for legal or engineering purposes.

Project: 70227115

Date: May 2022

Drwn/Chkd: KT/RG

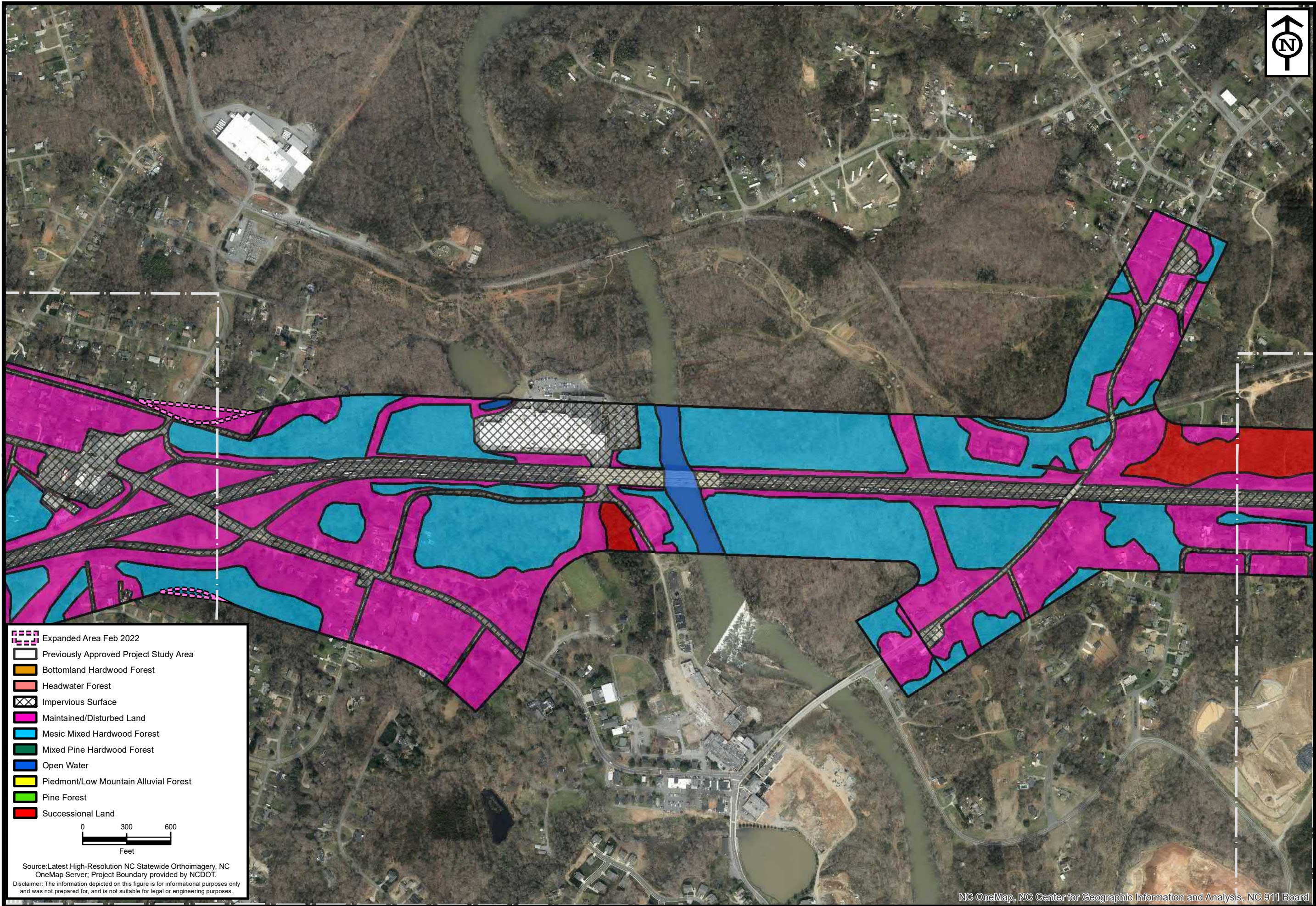
Figure: 3g

Terrestrial Communities Map

I-85 Widening

Gaston County, North Carolina

T.I.P. No. I-5719



Expanded Area Feb 2022

Previously Approved Project Study Area

Bottomland Hardwood Forest

Headwater Forest

Impervious Surface

Maintained/Disturbed Land

Mesic Mixed Hardwood Forest

Mixed Pine Hardwood Forest

Open Water

Piedmont/Low Mountain Alluvial Forest

Pine Forest

Successional Land

0

300

600

Feet

Source: Latest High-Resolution NC Statewide Orthoimagery, NC OneMap Server; Project Boundary provided by NCDOT.

Disclaimer: The information depicted on this figure is for informational purposes only and was not prepared for, and is not suitable for legal or engineering purposes.

Project: 70227115

Date: May 2022

Drwn/Chkd: KT/RG

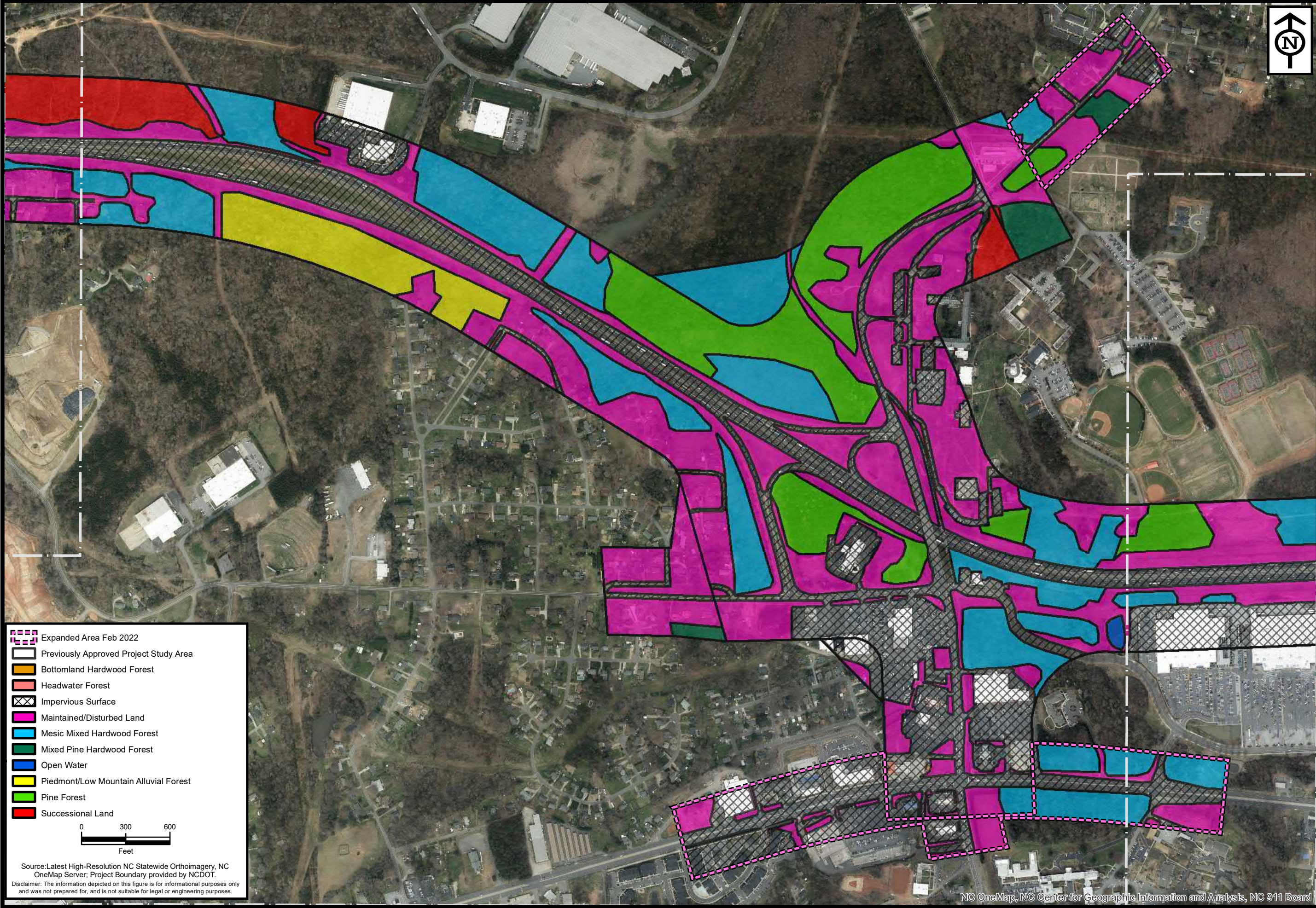
Figure: 3h

Terrestrial Communities Map

I-85 Widening

Gaston County, North Carolina

T.I.P. No. I-5719



Expanded Area Feb 2022

Previously Approved Project Study Area

Bottomland Hardwood Forest

Headwater Forest

Impervious Surface

Maintained/Disturbed Land

Mesic Mixed Hardwood Forest

Mixed Pine Hardwood Forest

Open Water

Piedmont/Low Mountain Alluvial Forest

Pine Forest

Successional Land

0

300

600

Feet

Source: Latest High-Resolution NC Statewide Orthoimagery, NC OneMap Server; Project Boundary provided by NCDOT.

Disclaimer: The information depicted on this figure is for informational purposes only and was not prepared for, and is not suitable for legal or engineering purposes.

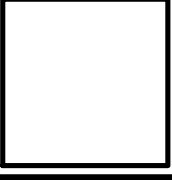
Project:	70227115
Date:	May 2022
Drwn/Chkd:	KT/RG
Figure:	3i

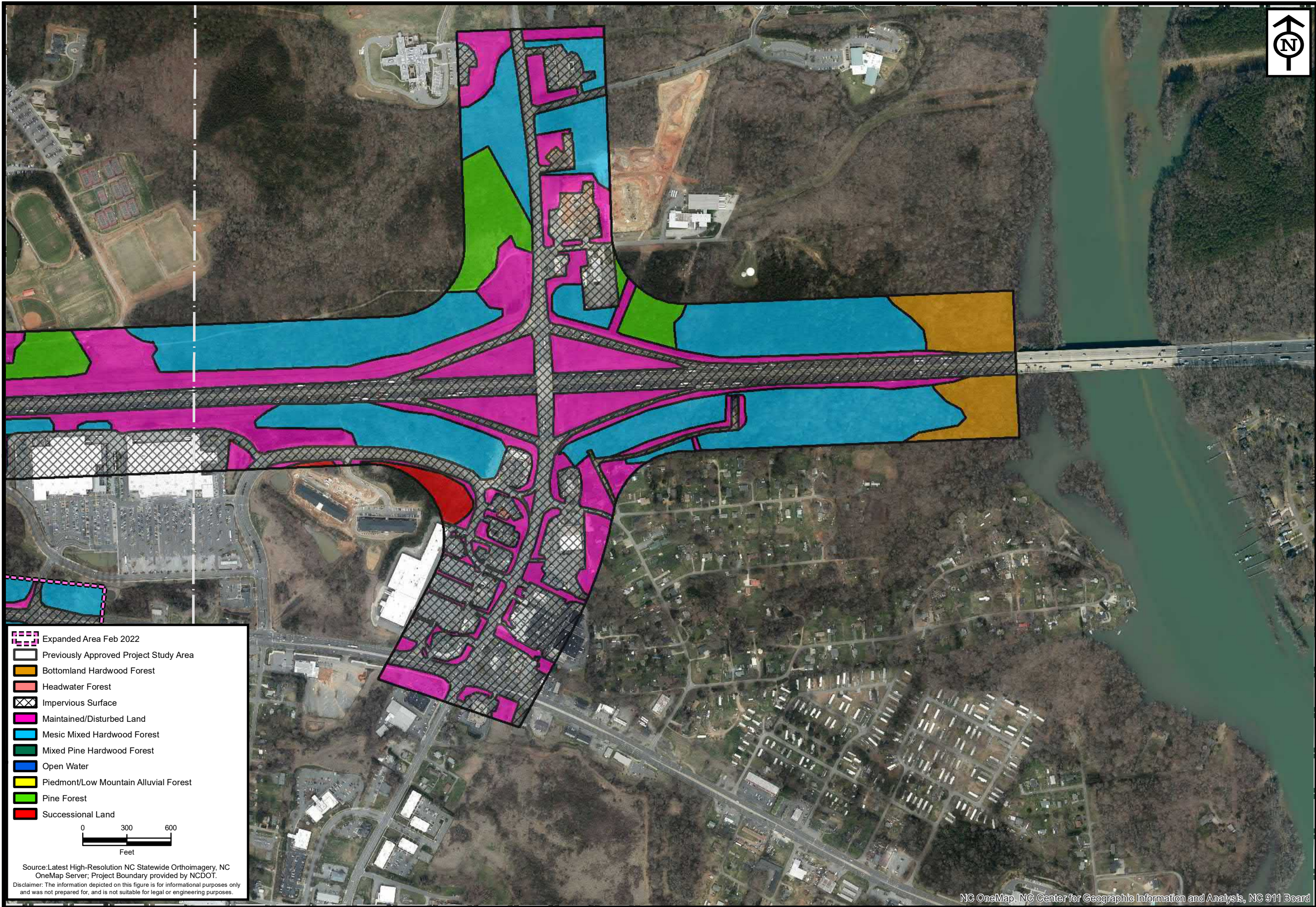
Terrestrial Communities Map

I-85 Widening

Gaston County, North Carolina

T.I.P. No. I-5719

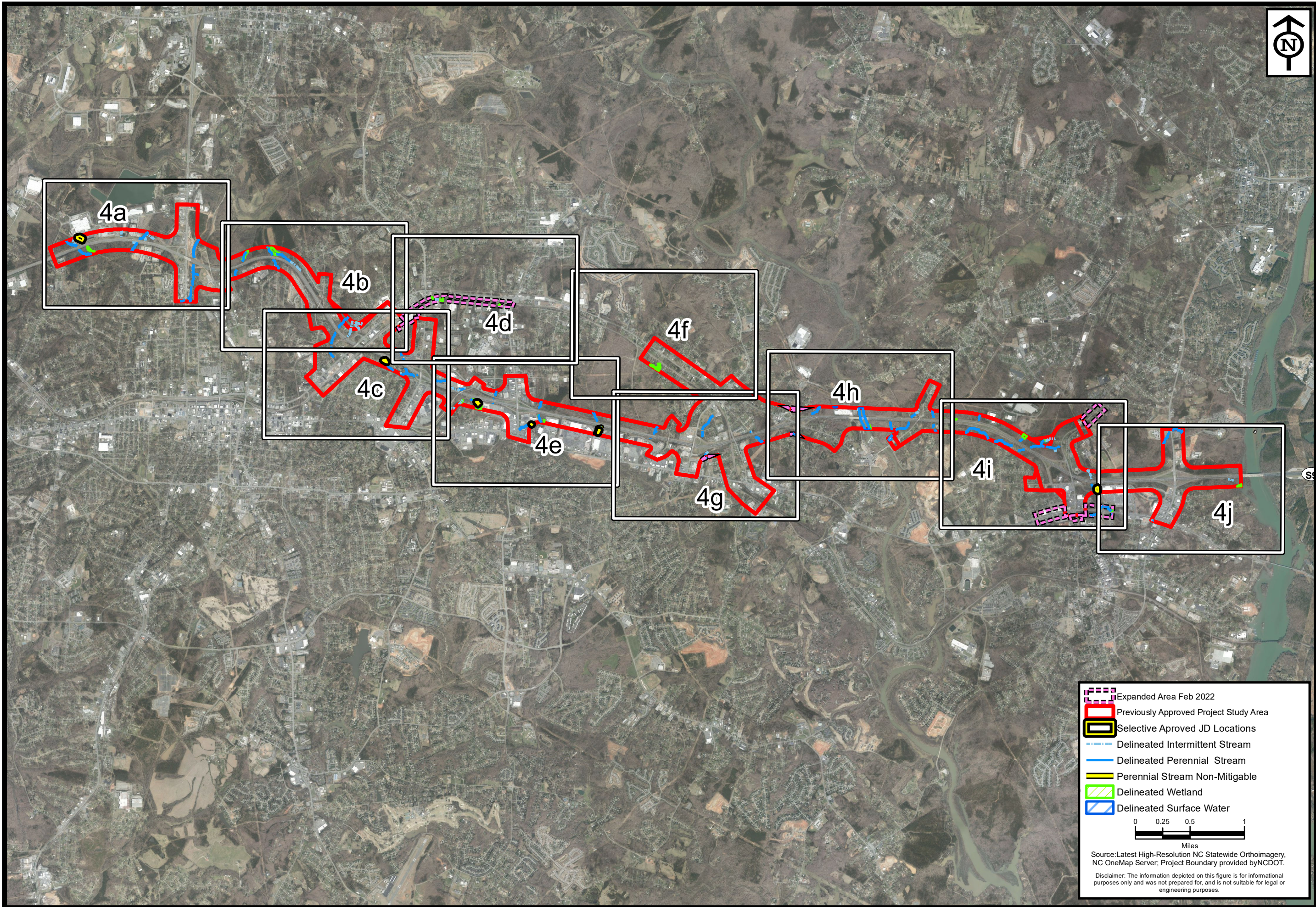




Source: Latest High-Resolution NC Statewide Orthoimagery, NC OneMap Server; Project Boundary provided by NCDOT.
Disclaimer: The information depicted on this figure is for informational purposes only and was not prepared for, and is not suitable for legal or engineering purposes.

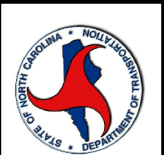
Project:	70227115
Date:	May 2022
Drwn/Chkd:	KT/RG
Figure:	3j

Terrestrial Communities Map
I-85 Widening
Gaston County, North Carolina
T.I.P. No. I-5719



Project:	70227115
Date:	June 2022
Drwn/Chkd:	MM/RT
Figure:	4

Project Overview
I-85 Widening
Gaston County, North Carolina
T.I.P. No. I-5719

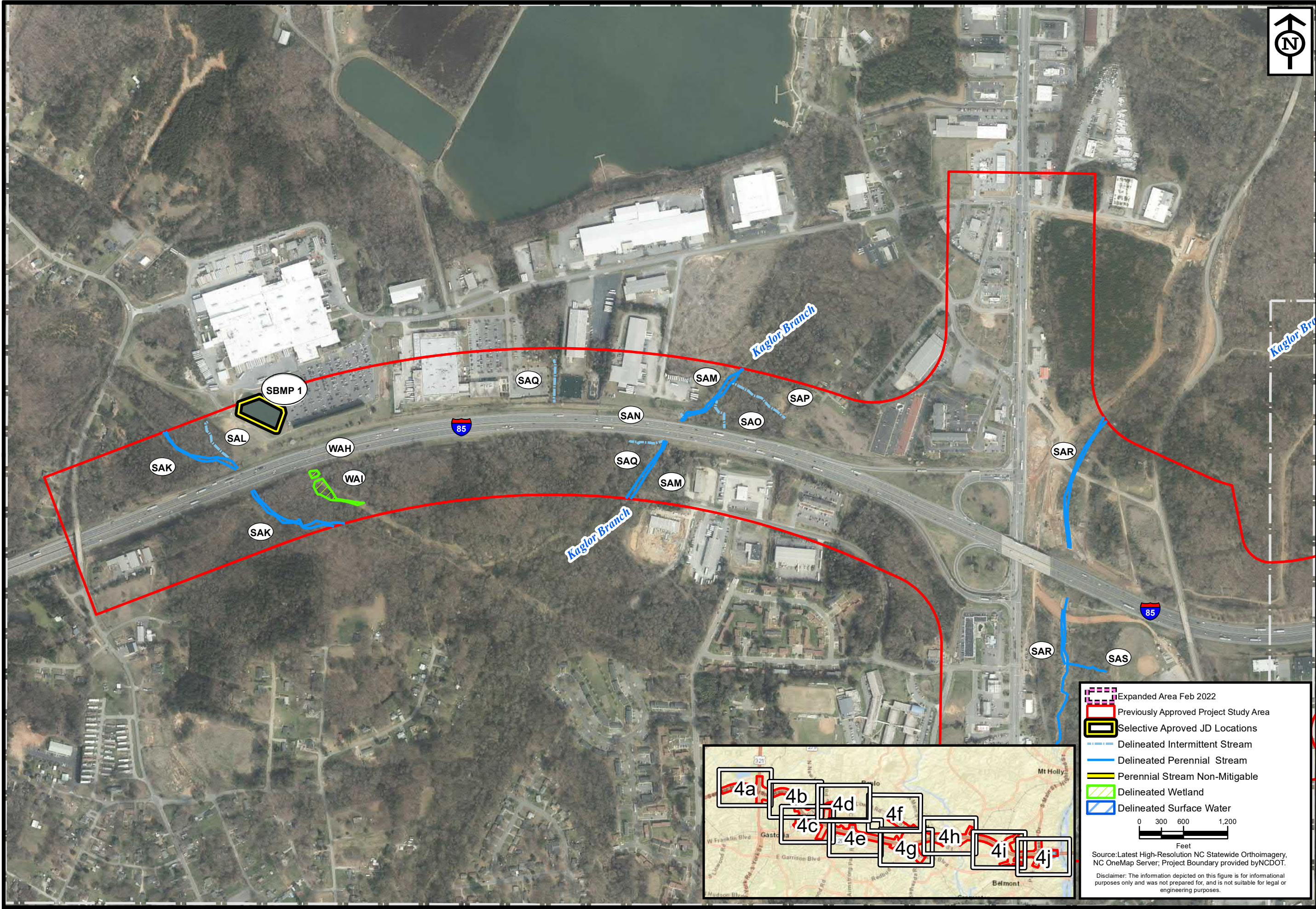


Expanded Area Feb 2022
 Previously Approved Project Study Area
 Selective Approved JD Locations
 Delineated Intermittent Stream
 Delineated Perennial Stream
 Perennial Stream Non-Mitigable
 Delineated Wetland
 Delineated Surface Water

0 0.25 0.5 1
Miles

Source: Latest High-Resolution NC Statewide Orthoimagery, NC OneMap Server; Project Boundary provided by NCDOT.

Disclaimer: The information depicted on this figure is for informational purposes only and was not prepared for, and is not suitable for legal or engineering purposes.



Expanded Area Feb 2022

Previously Approved Project Study Area

Selective Approved JD Locations

Delineated Intermittent Stream

Delineated Perennial Stream

Perennial Stream Non-Mitigable

Delineated Wetland

Delineated Surface Water

03006001200

Feet

Source: Latest High-Resolution NC Statewide Orthoimagery, NC OneMap Server; Project Boundary provided by NCDOT.

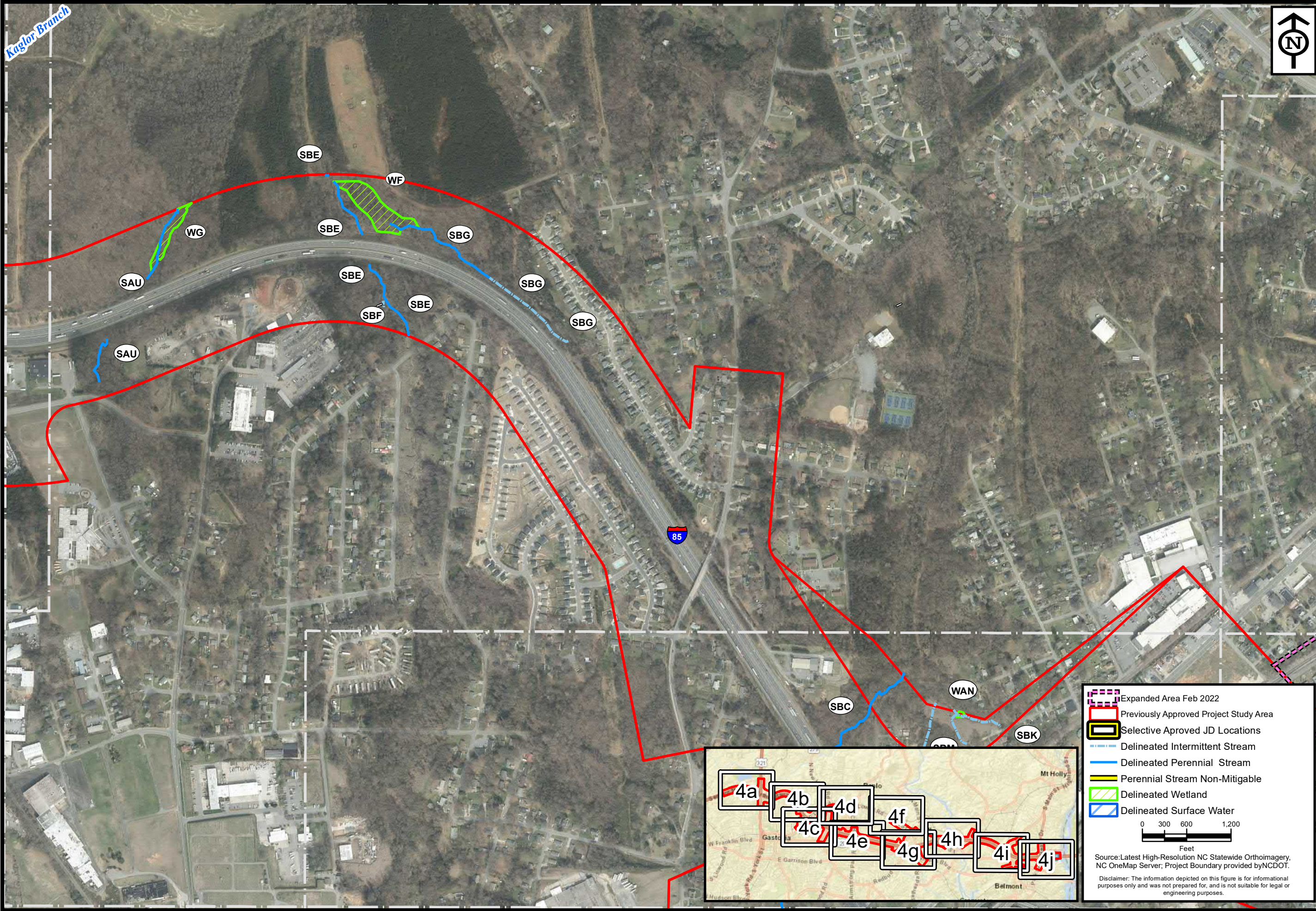
Disclaimer: The information depicted on this figure is for informational purposes only and was not prepared for, and is not suitable for legal or engineering purposes.

Project:	70227115
Date:	May 2022
Drwn/Chkd:	KT/RT
Figure:	4a

Jurisdictional Features Map
I-85 Widening
Gaston County, North Carolina
T.I.P. No. I-5719

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Kaglor Branch



Project:	70227115
Date:	May 2022
Drwn/Chkd:	KT/RT
Figure:	4b

Jurisdictional Features Map
I-85 Widening
Gaston County, North Carolina
T.I.P. No. I-5719

Expanded Area Feb 2022

Previously Approved Project Study Area

Selective Approved JD Locations

Delineated Intermittent Stream

Delineated Perennial Stream

Perennial Stream Non-Mitigable

Delineated Wetland

Delineated Surface Water

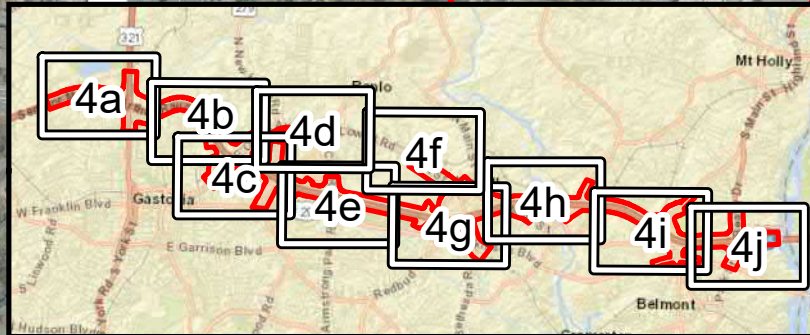
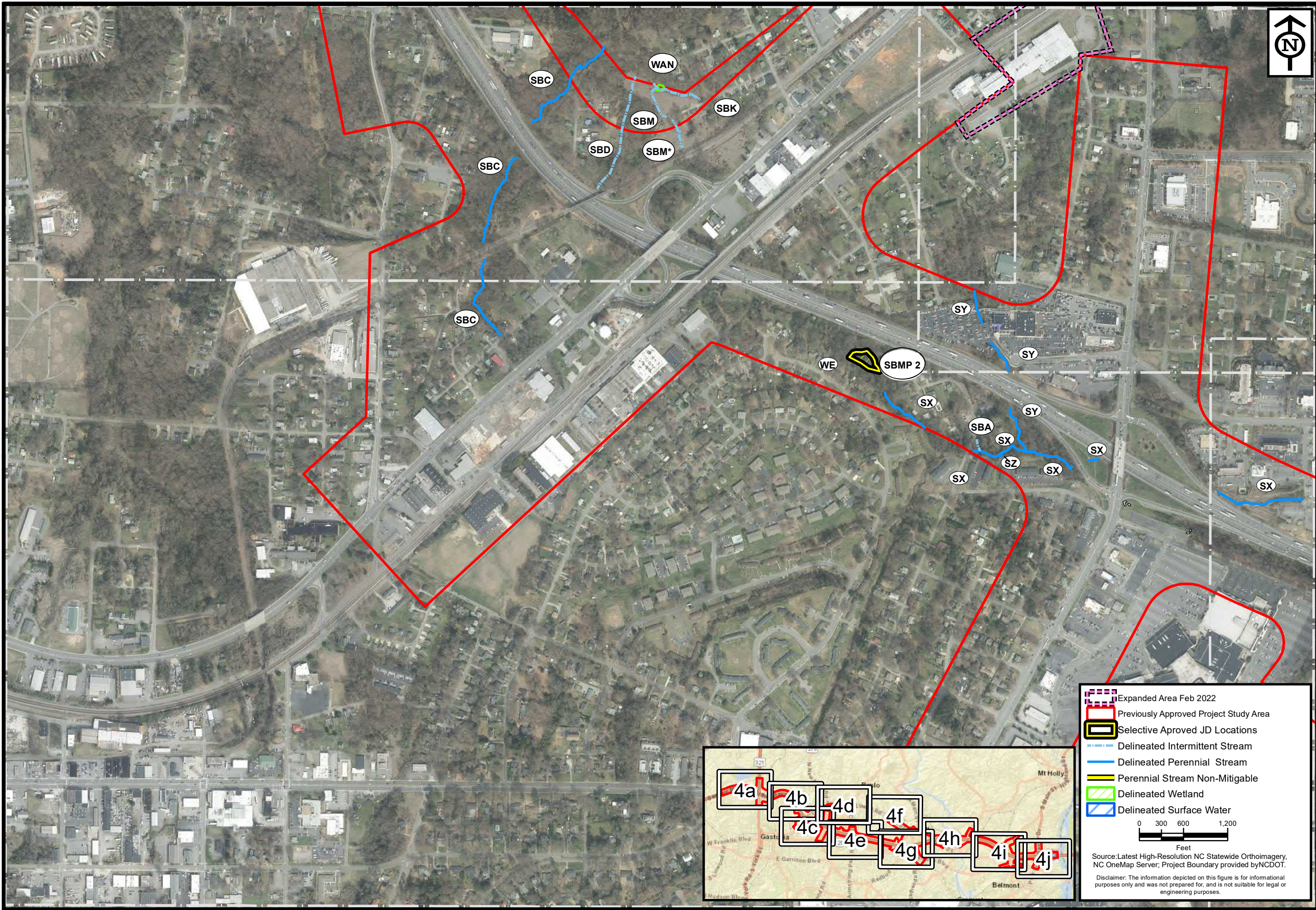
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Feet

Source: Latest High-Resolution NC Statewide Orthoimagery, NC OneMap Server; Project Boundary provided by NCDOT.

Disclaimer: The information depicted on this figure is for informational purposes only and was not prepared for, and is not suitable for legal or engineering purposes.





Expanded Area Feb 2022

Previously Approved Project Study Area

Selective Approved JD Locations

Delineated Intermittent Stream

Delineated Perennial Stream

Perennial Stream Non-Mitigable

Delineated Wetland

Delineated Surface Water

03006001200

Feet

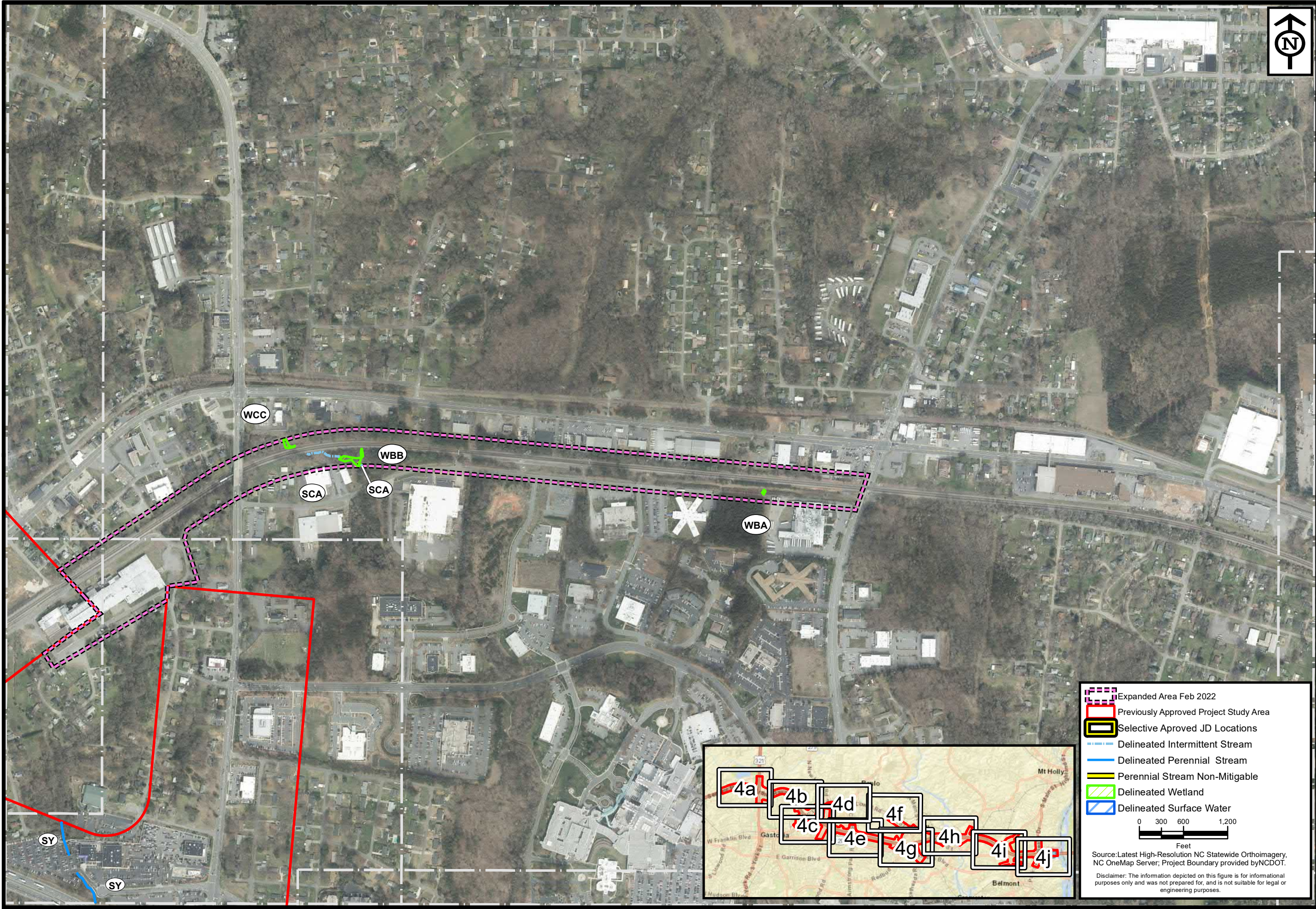
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Disclaimer: The information depicted on this figure is for informational purposes only and was not prepared for, and is not suitable for legal or engineering purposes.

Project:	70227115
Date:	May 2022
Drwn/Chkd:	KT/RT
Figure:	4c

Jurisdictional Features Map
I-85 Widening
Gaston County, North Carolina
T.I.P. No. I-5719

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Expanded Area Feb 2022

Previously Approved Project Study Area

Selective Approved JD Locations

Delineated Intermittent Stream

Delineated Perennial Stream

Perennial Stream Non-Mitigable

Delineated Wetland

Delineated Surface Water

03006001200

Feet

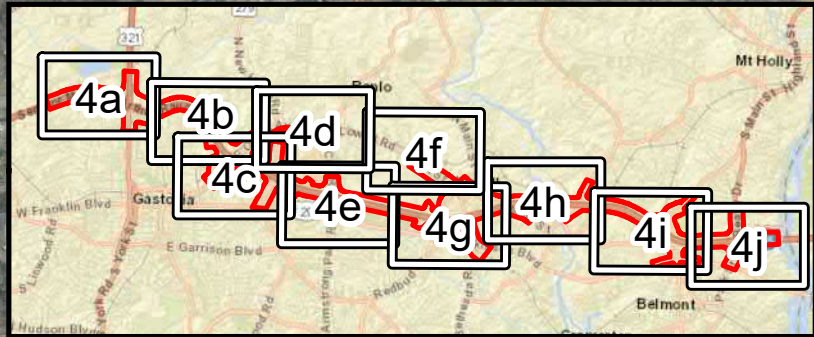
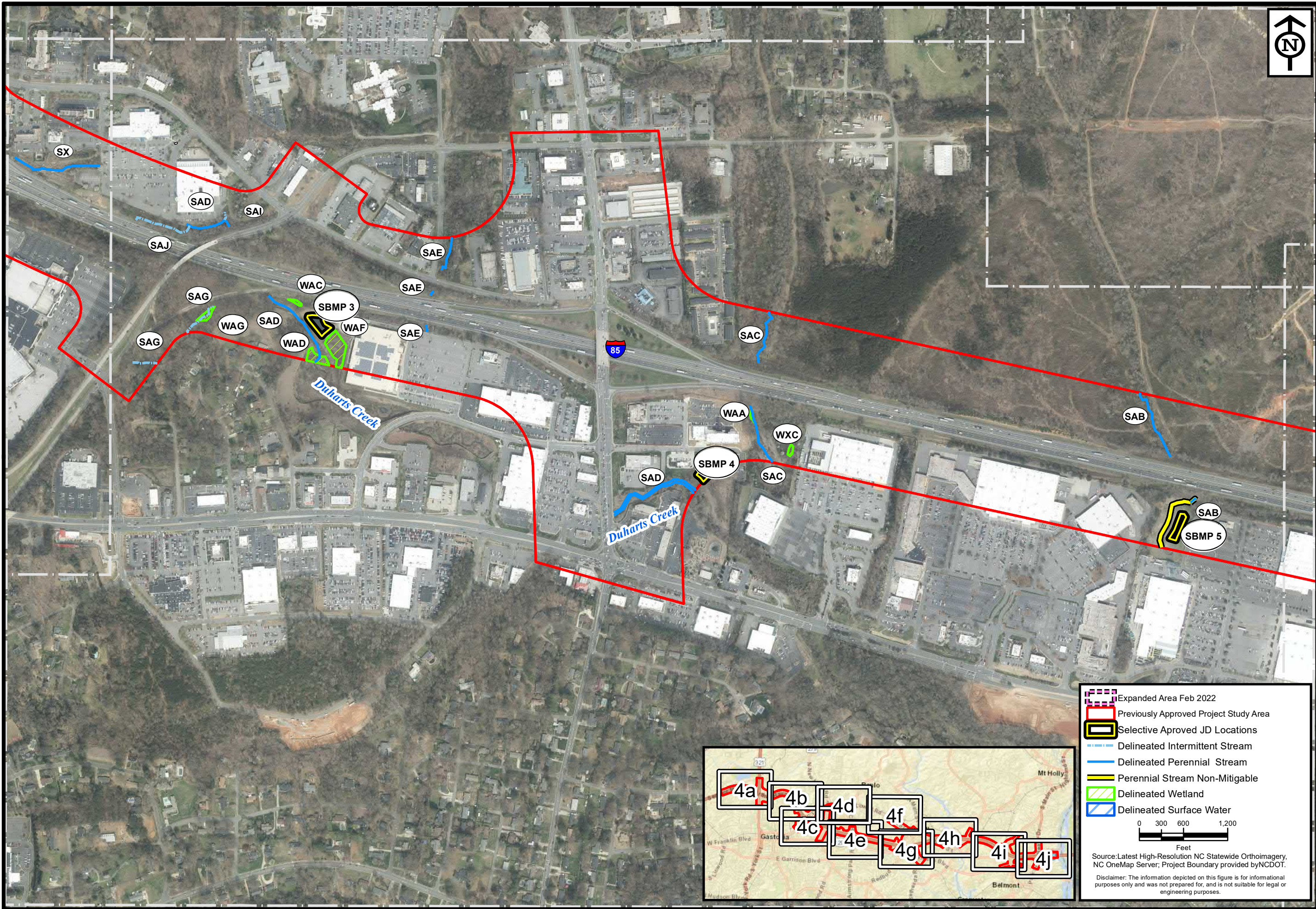
Source: Latest High-Resolution NC Statewide Orthoimagery, NC OneMap Server; Project Boundary provided by NCDOT.

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Project:	70227115
Date:	May 2022
Drwn/Chkd:	KT/RT
Figure:	4d

Jurisdictional Features Map
I-85 Widening
Gaston County, North Carolina
T.I.P. No. I-5719

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Expanded Area Feb 2022

Previously Approved Project Study Area

Selective Approved JD Locations

Delineated Intermittent Stream

Delineated Perennial Stream

Perennial Stream Non-Mitigable

Delineated Wetland

Delineated Surface Water

0

300

600

1,200

Feet

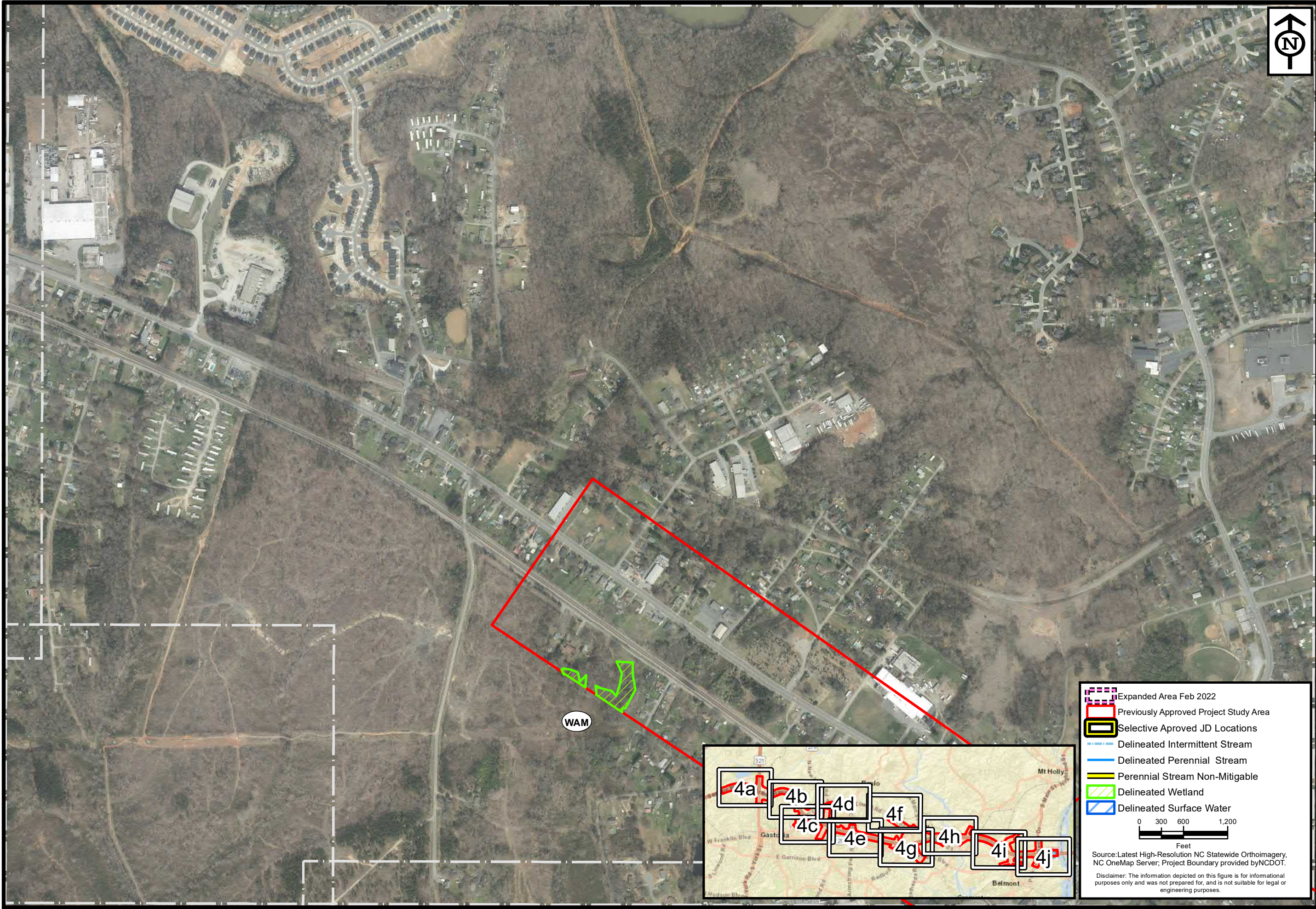
Source: Latest High-Resolution NC Statewide Orthoimagery, NC OneMap Server; Project Boundary provided by NCDOT.

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Project:	70227115
Date:	May 2022
Drwn/Chkd:	KT/RT
Figure:	4e

Jurisdictional Features Map
I-85 Widening
Gaston County, North Carolina
T.I.P. No. I-5719





Project:	70227115
Date:	May 2022
Drwn/Chkd:	KT/RT
Figure:	4f

Jurisdictional Features Map
I-85 Widening
Gaston County, North Carolina
T.I.P. No. I-5719

Expanded Area Feb 2022

Previously Approved Project Study Area

Selective Approved JD Locations

Delineated Intermittent Stream

Delineated Perennial Stream

Perennial Stream Non-Mitigable

Delineated Wetland

Delineated Surface Water

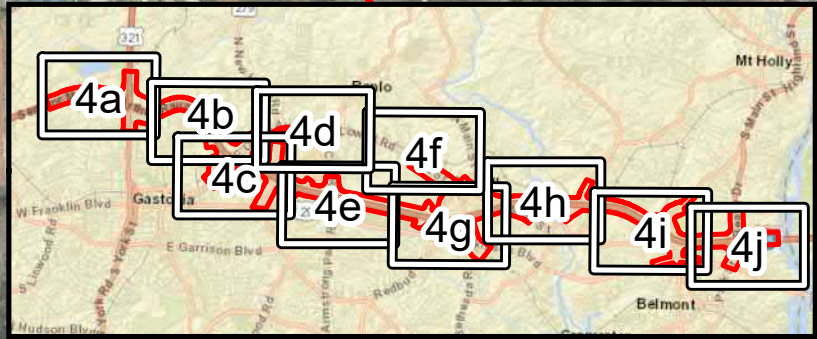
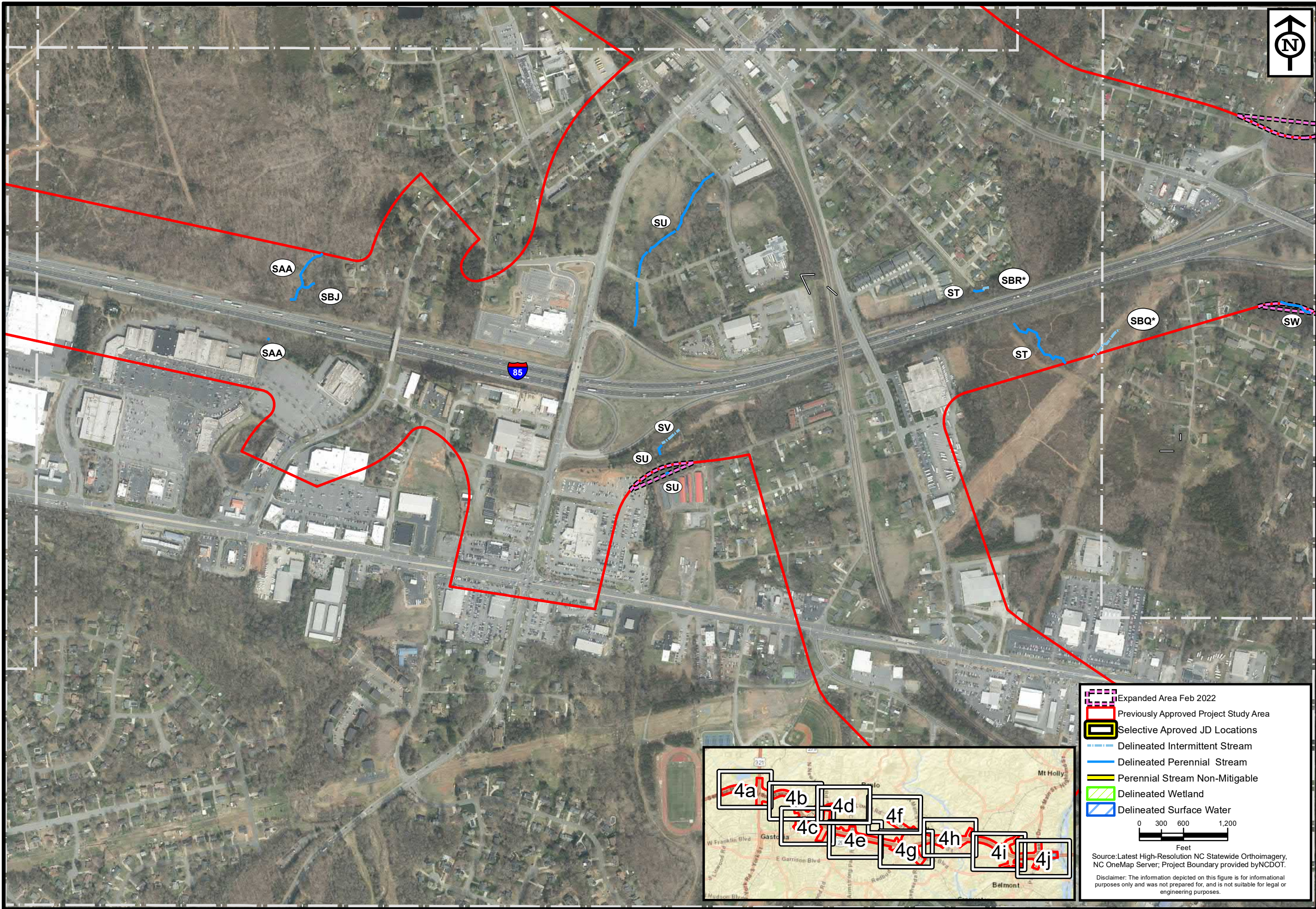
03006001200

Feet

Source: Latest High-Resolution NC Statewide Orthoimagery, NC OneMap Server; Project Boundary provided by NCDOT.

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Expanded Area Feb 2022

Previously Approved Project Study Area

Selective Approved JD Locations

Delineated Intermittent Stream

Delineated Perennial Stream

Perennial Stream Non-Mitigable

Delineated Wetland

Delineated Surface Water

0 300 600 1,200

Feet

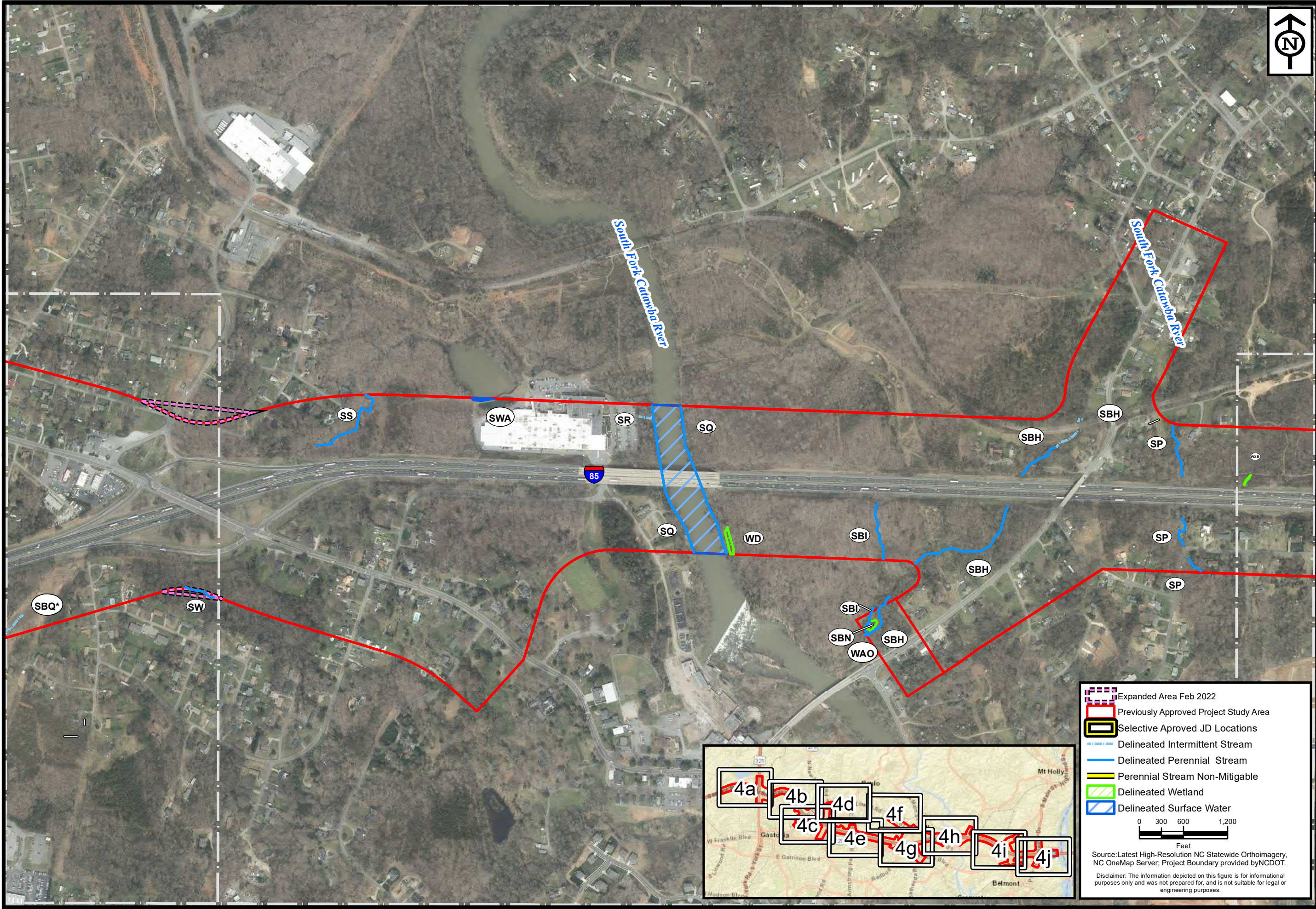
Source: Latest High-Resolution NC Statewide Orthoimagery, NC OneMap Server; Project Boundary provided by NCDOT.

Disclaimer: The information depicted on this figure is for informational purposes only and was not prepared for, and is not suitable for legal or engineering purposes.

Project:	70227115
Date:	May 2022
Drwn/Chkd:	KT/RT
Figure:	4g

Jurisdictional Features Map
I-85 Widening
Gaston County, North Carolina
T.I.P. No. I-5719





Project:	70227115
Date:	May 2022
Drwn/Chkd:	KT/RT
Figure:	4h

Jurisdictional Features Map
I-85 Widening
Gaston County, North Carolina
T.I.P. No. I-5719

Expanded Area Feb 2022

Previously Approved Project Study Area

Selective Approved JD Locations

Delineated Intermittent Stream

Delineated Perennial Stream

Perennial Stream Non-Mitigable

Delineated Wetland

Delineated Surface Water

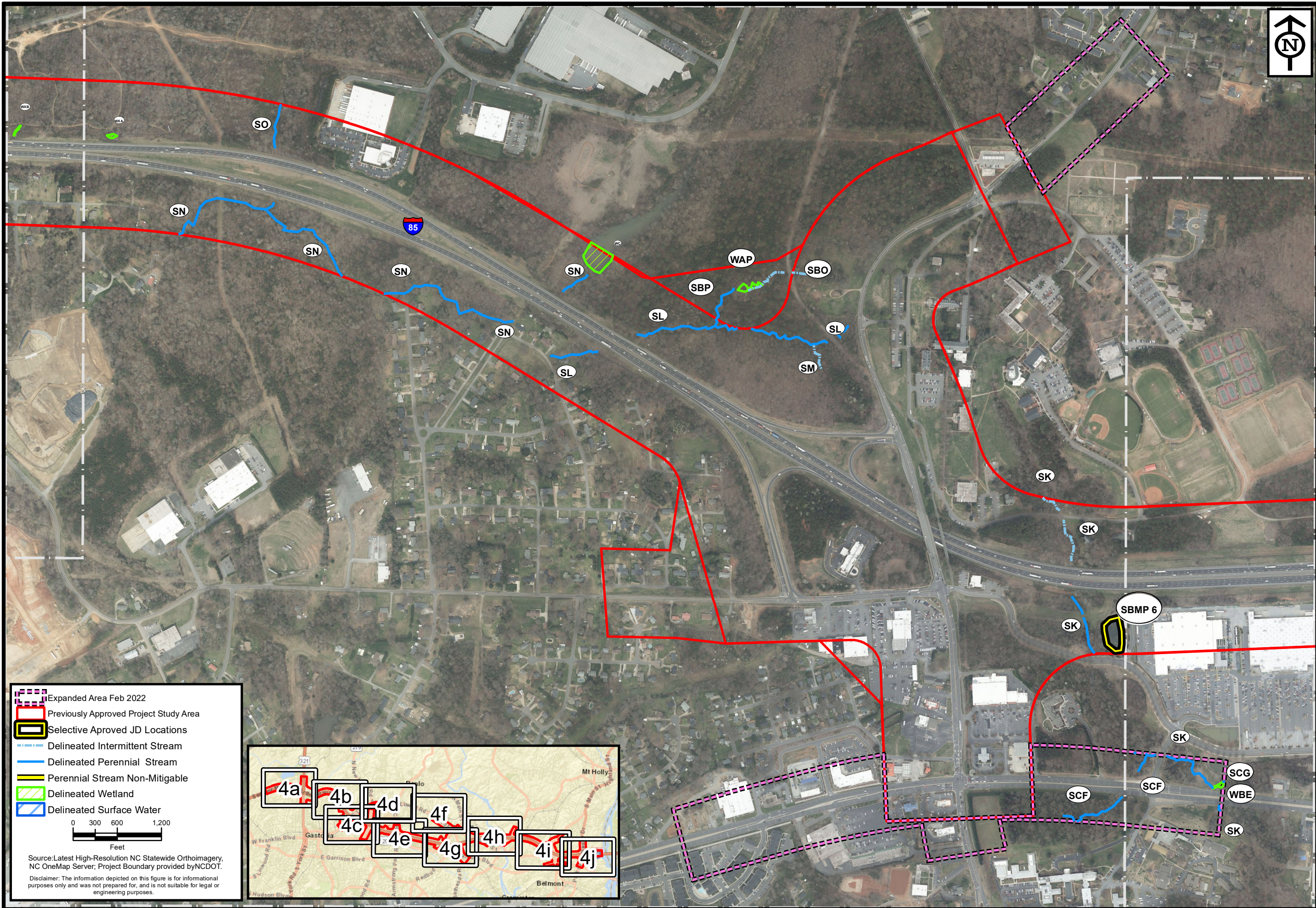
03006001200

Feet

Source: Latest High-Resolution NC Statewide Orthoimagery, NC OneMap Server; Project Boundary provided by NCDOT.

Disclaimer: The information depicted on this figure is for informational purposes only and was not prepared for, and is not suitable for legal or engineering purposes.





Expanded Area Feb 2022

Previously Approved Project Study Area

Selective Aproved JD Locations

Delineated Intermittent Stream

Delineated Perennial Stream

Perennial Stream Non-Mitigable

Delineated Wetland

Delineated Surface Water

0

300

600

1,200

Feet

Source: Latest High-Resolution NC Statewide Orthoimagery, NC OneMap Server; Project Boundary provided by NCDOT.

Disclaimer: The information depicted on this figure is for informational purposes only and was not prepared for, and is not suitable for legal or engineering purposes.

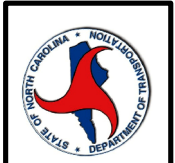
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Date:	May 2022
Drwn/Chkd:	KT/RT
Figure:	4i

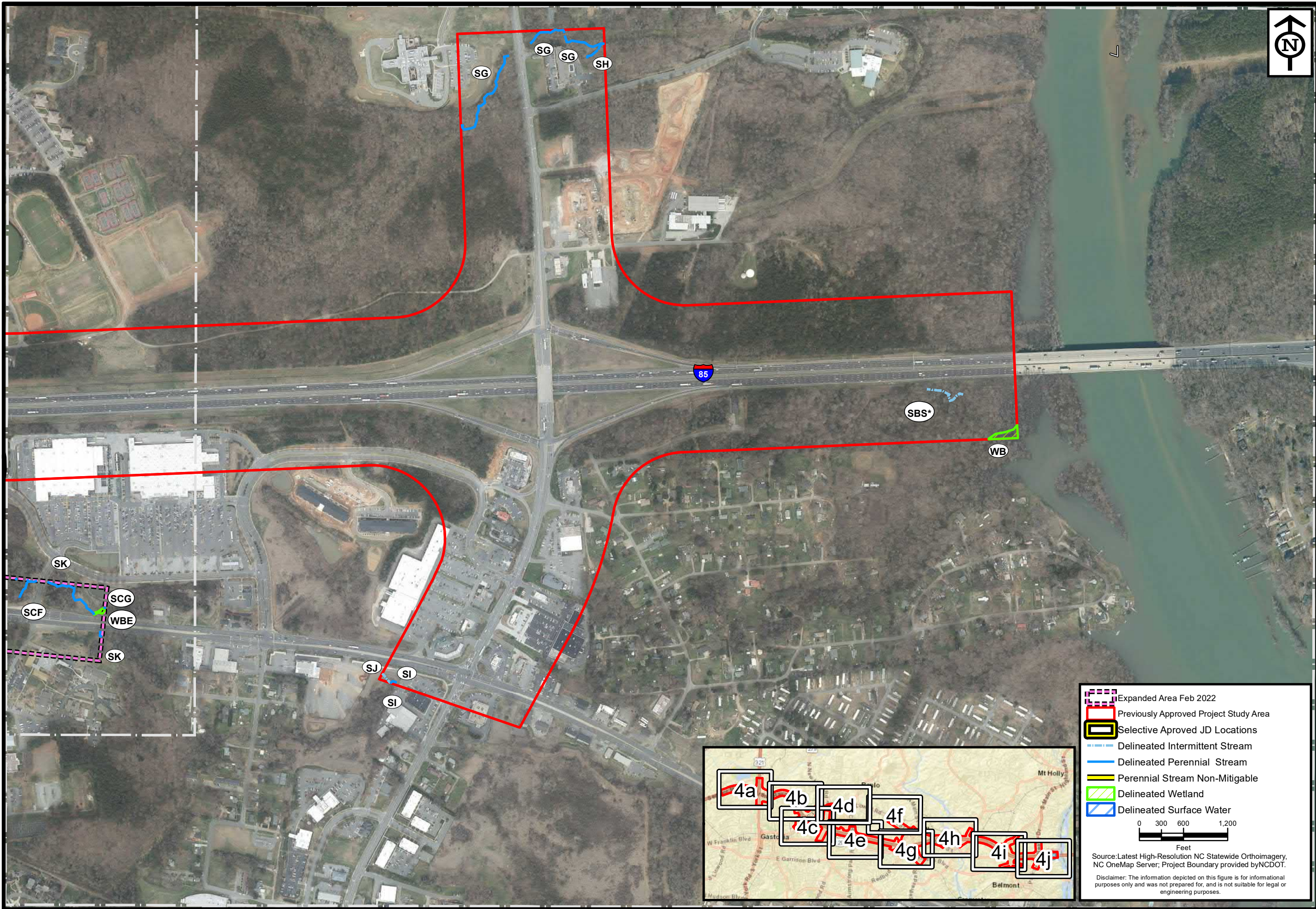
Jurisdictional Features Map

I-85 Widening

Gaston County, North Carolina

T.I.P. No. I-5719





Expanded Area Feb 2022
Previously Approved Project Study Area
Selective Approved JD Locations
Delineated Intermittent Stream
Delineated Perennial Stream
Perennial Stream Non-Mitigable
Delineated Wetland
Delineated Surface Water

0 300 600 1,200
Feet

Source: Latest High-Resolution NC Statewide Orthoimagery, NC OneMap Server; Project Boundary provided by NCDOT.
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Project:	70227115
Date:	May 2022
Drwn/Chkd:	KT/RT
Figure:	4j

Jurisdictional Features Map
I-85 Widening
Gaston County, North Carolina
T.I.P. No. I-5719



Appendix B-Qualifications of Contributors

Principal

Investigator: Jeff Harbour, PWS
Education: B.S. in Marine Biology, 1993
Experience: Senior Scientist, Terracon Consultants, Inc., 1993-Present
Responsibilities: Document review

Investigator: Rhiannon Graham
Education: B.S. in Environmental Science, 2017
Experience: Staff Scientist, Terracon Consultants, Inc., 2018-Present
Responsibilities: Natural resource investigations, protected species habitat evaluations, wetland delineation, document preparation

Investigator: Katie Talavera
Education: B.S. in Geographic Information Systems, 2016
Experience: GIS/CAD Services Analyst, Terracon Consultants, Inc., 2003-2022
Responsibilities: Graphics preparation

Appendix C- Jurisdictional Determination Document

U.S. ARMY CORPS OF ENGINEERS
WILMINGTON DISTRICT

Action Id. SAW No. 2019-00055 County: Gaston U.S.G.S. Quad: NC- Gastonia North

NOTIFICATION OF JURISDICTIONAL DETERMINATION

Requestor: North Carolina Department of Transportation
William A. Barrett
Address: 1598 Mail Service Center
Raleigh, North Carolina 27699-1598
Telephone Number: 919-707-6103
E-mail: wabarrett@ncdot.gov

Size (acres) 2544.7 acres Nearest Town Gastonia
Nearest Waterway Kaglor Branch, and Jule Allen Branch flow to Long Creek. Long Creek and Duharts Creek flow to the South Fork of the Catawba River. The South Fork of the Catawba River flows to the Catawba River, an interstate water of the U.S. Corps of Engineers regulations at 33 CFR Part 328.3(a)(5) assert Clean Water Act (CWA) jurisdiction over tributaries to other waters of the U.S. Therefore, the delineated tributaries may be considered waters of the U.S. River
Basin Santee
USGS HUC 03050102 Coordinates Latitude: 35.26526
Longitude: -81.14018

Location description: I 85 from Fairview Drive to the Catawba River in Gaston County, North Carolina. The project is over 10 miles long, with the eastern terminus just east of NC 273 near the Catawba River and the western terminus just west of US 321 in Gastonia.

Indicate Which of the Following Apply:

A. Preliminary Determination

- ☒ There appear to be **waters, including wetlands** on the above described project area/property, that may be subject to Section 404 of the Clean Water Act (CWA)(33 USC § 1344) and/or Section 10 of the Rivers and Harbors Act (RHA) (33 USC § 403). The **waters, including wetlands** have been delineated, and the delineation has been verified by the Corps to be sufficiently accurate and reliable. The approximate boundaries of these waters are shown **on the enclosed delineation maps Figures 1 – 2a-2c dated May 2019 and Figures 3a – 3i, dated August 2019**. Therefore this preliminary jurisdiction determination may be used in the permit evaluation process, including determining compensatory mitigation. For purposes of computation of impacts, compensatory mitigation requirements, and other resource protection measures, a permit decision made on the basis of a preliminary JD will treat all waters and wetlands that would be affected in any way by the permitted activity on the site as if they are jurisdictional waters of the U.S. This preliminary determination is not an appealable action under the Regulatory Program Administrative Appeal Process (Reference 33 CFR Part 331). However, you may request an approved JD, which is an appealable action, by contacting the Corps district for further instruction.
- ☐ There appear to be **waters, including wetlands** on the above described project area/property, that may be subject to Section 404 of the Clean Water Act (CWA)(33 USC § 1344) and/or Section 10 of the Rivers and Harbors Act (RHA) (33 USC § 403). However, since the **waters, including wetlands** have not been properly delineated, this preliminary jurisdiction determination may not be used in the permit evaluation process. Without a verified wetland delineation, this preliminary determination is merely an effective presumption of CWA/RHA jurisdiction over all of the **waters, including wetlands** at the project area, which is not sufficiently accurate and reliable to support an enforceable permit decision. We recommend that you have the **waters, including wetlands** on your project area/property delineated. As the Corps may not be able to accomplish this wetland delineation in a timely manner, you may wish to obtain a consultant to conduct a delineation that can be verified by the Corps.

B. Approved Determination

- ☐ There are Navigable Waters of the United States within the above described project area/property subject to the permit requirements of Section 10 of the Rivers and Harbors Act (RHA) (33 USC § 403) and Section 404 of the Clean Water Act (CWA)(33 USC § 1344). Unless there is a change in law or our published regulations, this determination may be relied upon for a period not to exceed five years from the date of this notification.
- ☐ There are **waters, including wetlands**, on the above described project area/property subject to the permit requirements of Section 404 of the Clean Water Act (CWA) (33 USC § 1344). Unless there is a change in the law or our published regulations, this determination may be relied upon for a period not to exceed five years from the date of this notification.

- ☐ We recommend you have the **waters, including wetlands** on your project area/property delineated. As the Corps may not be able to accomplish this wetland delineation in a timely manner, you may wish to obtain a consultant to conduct a delineation that can be verified by the Corps.
- ☐ The **waters, including wetlands** on your project area/property have been delineated and the delineation has been verified by the Corps. The approximate boundaries of these waters are shown on the enclosed delineation map dated **DATE**. We strongly suggest you have this delineation surveyed. Upon completion, this survey should be reviewed and verified by the Corps. Once verified, this survey will provide an accurate depiction of all areas subject to CWA jurisdiction on your property which, provided there is no change in the law or our published regulations, may be relied upon for a period not to exceed five years.
- ☐ The **waters, including wetlands** have been delineated and surveyed and are accurately depicted on the plat signed by the Corps Regulatory Official identified below on **DATE**. Unless there is a change in the law or our published regulations, this determination may be relied upon for a period not to exceed five years from the date of this notification.
- ☐ There are no waters of the U.S., to include wetlands, present on the above described project area/property which are subject to the permit requirements of Section 404 of the Clean Water Act (33 USC 1344). Unless there is a change in the law or our published regulations, this determination may be relied upon for a period not to exceed five years from the date of this notification.
- ☐ The property is located in one of the 20 Coastal Counties subject to regulation under the Coastal Area Management Act (CAMA). You should contact the Division of Coastal Management in **Morehead City, NC, at (252) 808-2808** to determine their requirements.

Placement of dredged or fill material within waters of the US, including wetlands, without a Department of the Army permit may constitute a violation of Section 301 of the Clean Water Act (33 USC § 1311). Placement of dredged or fill material, construction or placement of structures, or work within navigable waters of the United States without a Department of the Army permit may constitute a violation of Sections 9 and/or 10 of the Rivers and Harbors Act (33 USC § 401 and/or 403). If you have any questions regarding this determination and/or the Corps regulatory program, please contact **Nicholle Braspennickx at 704-510-0162 or Nicholle.M.Braspennickx.usace.army.mil.**

C. Basis For Determination: Basis For Determination: See the preliminary jurisdictional determination form dated 9/4/2019.

D. Remarks: None.

E. Attention USDA Program Participants

This delineation/determination has been conducted to identify the limits of Corps' Clean Water Act jurisdiction for the particular site identified in this request. The delineation/determination may not be valid for the wetland conservation provisions of the Food Security Act of 1985. If you or your tenant are USDA Program participants, or anticipate participation in USDA programs, you should request a certified wetland determination from the local office of the Natural Resources Conservation Service, prior to starting work.

F. Appeals Information (This information applies only to approved jurisdictional determinations as indicated in B. above)

This correspondence constitutes an approved jurisdictional determination for the above described site. If you object to this determination, you may request an administrative appeal under Corps regulations at 33 CFR Part 331. Enclosed you will find a Notification of Appeal Process (NAP) fact sheet and request for appeal (RFA) form. If you request to appeal this determination you must submit a completed RFA form to the following address:

US Army Corps of Engineers
South Atlantic Division
Attn: Jason Steele, Review Officer
60 Forsyth Street SW, Room 10M15
Atlanta, Georgia 30303-8801

In order for an RFA to be accepted by the Corps, the Corps must determine that it is complete, that it meets the criteria for appeal under 33 CFR part 331.5, and that it has been received by the Division Office within 60 days of the date of the NAP. Should you decide to submit an RFA form, it must be received at the above address by **10/12/2019.**

****It is not necessary to submit an RFA form to the Division Office if you do not object to the determination in this correspondence.****

SAW No. 2019-00055

Corps Regulatory Official: _____

Date of JD: **9/4/2019**

SAW No. 2019-00055

The Wilmington District is committed to providing the highest level of support to the public. To help us ensure we continue to do so, please complete the Customer Satisfaction Survey located at http://corpsmapu.usace.army.mil/cm_apex/f?p=136:4:0

Copy furnished:

Agent: **Environmental Services, Inc. A Terracon Company**
Mr. Kevin Murphrey
Address: **4901 Trademark Drive**
Raleigh, North Carolina 27615
Telephone Number: **904-457-1112**
E-mail: **Kmurphrey@ESINC.CC**

NOTIFICATION OF ADMINISTRATIVE APPEAL OPTIONS AND PROCESS AND REQUEST FOR APPEAL

Applicant: **North Carolina Department of Transportation, William A. Barrett**

File Number: **SAW No. 2019-00055**

Date: **9/4/2019**

Attached is:

See Section below

<input type="checkbox"/> INITIAL PROFFERED PERMIT (Standard Permit or Letter of permission)	A
<input type="checkbox"/> PROFFERED PERMIT (Standard Permit or Letter of permission)	B
<input type="checkbox"/> PERMIT DENIAL	C
<input type="checkbox"/> APPROVED JURISDICTIONAL DETERMINATION	D
<input type="checkbox"/> ELIMINARY JURISDICTIONAL DETERMINATION	E

SECTION I - The following identifies your rights and options regarding an administrative appeal of the above decision. Additional information may be found at or <http://www.usace.army.mil/Missions/CivilWorks/RegulatoryProgramandPermits.aspx> or the Corps regulations at 33 CFR Part 331.

A: INITIAL PROFFERED PERMIT: You may accept or object to the permit.

- **ACCEPT:** If you received a Standard Permit, you may sign the permit document and return it to the district engineer for final authorization. If you received a Letter of Permission (LOP), you may accept the LOP and your work is authorized. Your signature on the Standard Permit or acceptance of the LOP means that you accept the permit in its entirety, and waive all rights to appeal the permit, including its terms and conditions, and approved jurisdictional determinations associated with the permit.
- **OBJECT:** If you object to the permit (Standard or LOP) because of certain terms and conditions therein, you may request that the permit be modified accordingly. You must complete Section II of this form and return the form to the district engineer. Your objections must be received by the district engineer within 60 days of the date of this notice, or you will forfeit your right to appeal the permit in the future. Upon receipt of your letter, the district engineer will evaluate your objections and may: (a) modify the permit to address all of your concerns, (b) modify the permit to address some of your objections, or (c) not modify the permit having determined that the permit should be issued as previously written. After evaluating your objections, the district engineer will send you a proffered permit for your reconsideration, as indicated in Section B below.

B: PROFFERED PERMIT: You may accept or appeal the permit

- **ACCEPT:** If you received a Standard Permit, you may sign the permit document and return it to the district engineer for final authorization. If you received a Letter of Permission (LOP), you may accept the LOP and your work is authorized. Your signature on the Standard Permit or acceptance of the LOP means that you accept the permit in its entirety, and waive all rights to appeal the permit, including its terms and conditions, and approved jurisdictional determinations associated with the permit.
- **APPEAL:** If you choose to decline the proffered permit (Standard or LOP) because of certain terms and conditions therein, you may appeal the declined permit under the Corps of Engineers Administrative Appeal Process by completing Section II of this form and sending the form to the division engineer. This form must be received by the division engineer within 60 days of the date of this notice.

C: PERMIT DENIAL: You may appeal the denial of a permit under the Corps of Engineers Administrative Appeal Process by completing Section II of this form and sending the form to the division engineer. This form must be received by the division engineer within 60 days of the date of this notice.

D: APPROVED JURISDICTIONAL DETERMINATION: You may accept or appeal the approved JD or provide new information.

- **ACCEPT:** You do not need to notify the Corps to accept an approved JD. Failure to notify the Corps within 60 days of the date of this notice, means that you accept the approved JD in its entirety, and waive all rights to appeal the approved JD.
- **APPEAL:** If you disagree with the approved JD, you may appeal the approved JD under the Corps of Engineers Administrative Appeal Process by completing Section II of this form and sending the form to the district engineer. This form must be received by the division engineer within 60 days of the date of this notice.

E: PRELIMINARY JURISDICTIONAL DETERMINATION: You do not need to respond to the Corps regarding the preliminary JD. The Preliminary JD is not appealable. If you wish, you may request an approved JD (which may be appealed), by contacting the Corps district for further instruction. Also you may provide new information for further consideration by the Corps to reevaluate the JD.

SECTION II - REQUEST FOR APPEAL or OBJECTIONS TO AN INITIAL PROFFERED PERMIT

REASONS FOR APPEAL OR OBJECTIONS: (Describe your reasons for appealing the decision or your objections to an initial proffered permit in clear concise statements. You may attach additional information to this form to clarify where your reasons or objections are addressed in the administrative record.)

ADDITIONAL INFORMATION: The appeal is limited to a review of the administrative record, the Corps memorandum for the record of the appeal conference or meeting, and any supplemental information that the review officer has determined is needed to clarify the administrative record. Neither the appellant nor the Corps may add new information or analyses to the record. However, you may provide additional information to clarify the location of information that is already in the administrative record.

POINT OF CONTACT FOR QUESTIONS OR INFORMATION:

If you have questions regarding this decision and/or the appeal process you may contact:

**District Engineer, Wilmington Regulatory Division
Attn: Nicholle Braspenickx
Charlotte Regulatory Office
U.S Army Corps of Engineers
8430 University Executive Park Drive, Suite 615
Charlotte, North Carolina 28262**

If you only have questions regarding the appeal process you may also contact:

**Mr. Jason Steele, Administrative Appeal Review Officer
CESAD-PDO
U.S. Army Corps of Engineers, South Atlantic Division
60 Forsyth Street, Room 10M15
Atlanta, Georgia 30303-8801
Phone: (404) 562-5137**

RIGHT OF ENTRY: Your signature below grants the right of entry to Corps of Engineers personnel, and any government consultants, to conduct investigations of the project site during the course of the appeal process. You will be provided a 15 day notice of any site investigation, and will have the opportunity to participate in all site investigations.

Signature of appellant or agent.	Date:	Telephone number:
----------------------------------	-------	-------------------

For appeals on Initial Proffered Permits send this form to:

District Engineer, Wilmington Regulatory Division, Attn: Nicholle Braspenickx, 69 Darlington Avenue, Wilmington, North Carolina 28403

For Permit denials, Proffered Permits and Approved Jurisdictional Determinations send this form to:

**Division Engineer, Commander, U.S. Army Engineer Division, South Atlantic, Attn: Mr. Jason Steele, Administrative Appeal Officer, CESAD-PDO, 60 Forsyth Street, Room 10M15, Atlanta, Georgia 30303-8801
Phone: (404) 562-5137**

PRELIMINARY JURISDICTIONAL DETERMINATION (PJD) FORM

BACKGROUND INFORMATION

A. REPORT COMPLETION DATE FOR PJD: 9/4/2019

B. NAME AND ADDRESS OF PERSON REQUESTING PJD: North Carolina Department of Transportation,
William A. Barrett, 1598 Mail Service Center, Raleigh, North Carolina 27699-1598

C. DISTRICT OFFICE, FILE NAME, AND NUMBER: Wilmington District, NC DOT/I 5719, I 85 Widening, SAW
No. 2019-00055

D. PROJECT LOCATION(S) AND BACKGROUND INFORMATION: I 85 from Fairview Drive to the Catawba
River in Gaston County, North Carolina. The project is over 10 miles long, with the eastern terminus just east of NC 273
near the Catawba River and the western terminus just west of US 321 in Gastonia.

**(USE THE TABLE BELOW TO DOCUMENT MULTIPLE AQUATIC RESOURCES AND/OR
AQUATIC RESOURCES AT DIFFERENT SITES)**

State: NC County: Gaston City: Gastonia
Center coordinates of site (lat/long in degree decimal format): Latitude: 35.26526 Longitude: -81.14018

Universal Transverse Mercator: 17S 490770 3901897

Name of nearest waterbody: Kaglor Branch, and Jule Allen Branch flow to Long Creek. Long Creek and Duharts Creek flow to
the South Fork of the Catawba River. The South Fork of the Catawba River flows to the Catawba River, an interstate water of the
U.S. Corps of Engineers regulations at 33 CFR Part 328.3(a)(5) assert Clean Water Act (CWA) jurisdiction over tributaries to other
waters of the U.S. Therefore, the delineated tributaries may be considered waters of the U.S.

E. REVIEW PERFORMED FOR SITE EVALUATION (CHECK ALL THAT APPLY):

☒ Office (Desk) Determination. Date: August 6, 2019

☐ Field Determination. Date(s):

**TABLE OF AQUATIC RESOURCES INREV WHICH "MAY BE" SUBJECT TO REGULATORY
JURISDICTION.**

Site Number	Latitude (decimal degrees)	Longitude (decimal degrees)	Estimated amount of aquatic resources in review area (acreage and linear feet, if applicable)	Type of aquatic resources (i.e., wetland vs. non- wetland waters)	Geographic authority to which the aquatic resource "may be" subject (i.e., Section 404 or Section 10/404)
SAA	35.26238	-81.1111	455 LF	non-wetland waters	Section 404
SAB	35.26416	-81.1213	518 LF	non-wetland waters (perennial stream)	Section 404
SAB	35.26192	81.12064	545 LF	non-wetland waters (intermittent stream)	Section 404
SAC	35.2654	-81.1299	833 LF	non-wetland waters	Section 404
SAD	35.26192	-81.1331	682 LF	non-wetland waters	Section 404

SAE	35.26643	-81.1373	345 LF	non-wetland waters	Section 404
SAF	35.26552	-81.1409	954 LF	non-wetland waters	Section 404
SAG	35.26447	-81.1436	171 LF	non-wetland waters	Section 404
SAH	35.26549	-81.1427	284 LF	non-wetland waters	Section 404
SAI	35.26725	-81.1424	57 LF	non-wetland waters	Section 404
SAJ	35.26709	-81.144	419 LF	non-wetland waters	Section 404
SAK	35.28507	-81.2059	1,308 LF	non-wetland waters	Section 404
SAL	35.28568	-81.2065	323 LF	non-wetland waters	Section 404
SAM	35.2860	-81.1956	1,048 LF	non-wetland waters	Section 404
SAN	35.2861	-81.1956	36 LF	non-wetland waters	Section 404
SAO	35.28618	-81.1948	234 LF	non-wetland waters	Section 404
SAP	35.2863	-81.1936	448 LF	non-wetland waters	Section 404
SAQ	35.28558	-81.1964	294 LF	non-wetland waters	Section 404
SAR	35.28458	-81.1867	1,490 LF	non-wetland waters	Section 404
SAS	35.28154	-81.1859	283 LF	non-wetland waters	Section 404
SAT	35.27812	-81.1871	263 LF	non-wetland waters	Section 404
SAU	35.2821	-81.1799	904 LF	non-wetland waters	Section 404
SBA	35.26913	-81.1527	84 LF	non-wetland waters	Section 404
SBB	35.26998	-81.1548	389 LF	non-wetland waters	Section 404

SBC	35.27531	-81.16287	2,094 LF	non-wetland waters	Section 404
SBD	35.27367	-81.1615	829 LF	non-wetland waters	Section 404
SBE	35.28296	-81.1733	1,067 LF	non-wetland waters	Section 404
SBF	35.28295	-81.1735	43 LF	non-wetland waters	Section 404
SBG	35.2830	-81.1702	854 LF	non-wetland waters (perennial stream)	Section 404
SBG	35.2827	-81.16948	696 LF	non-wetland waters (intermittent stream)	Section 404
SBH	35.26326	-81.07045	1,126 LF	non-wetland waters (perennial stream)	Section 404
SBH	35.26499	-81.06896	240 LF	non-wetland waters (intermittent stream)	Section 404
SBI	35.26329	-81.07321	656 LF	non-wetland waters	Section 404
SBJ	35.26203	-81.11105	98 LF	non-wetland waters	Section 404
SBK	35.27559	-81.15994	369 LF	non-wetland waters	Section 404
SBM	35.27509	-81.16027	475 LF	non-wetland waters	Section 404
SBN	35.26145	-81.07353	28 LF	non-wetland waters	Section 404
SBO	35.26216	-81.04718	322 LF	non-wetland waters	Section 404
SBP	35.26164	-81.04788	340 LF	non-wetland waters	Section 404
SBQ	35.26079	-81.09283	277 LF	non-wetland waters	Section 404
SBR	35.26211	-81.09567	47 LF	non-wetland waters	Section 404
SBS	35.25712	-81.01728	313 LF	non-wetland waters	Section 404
SG	35.26317	-81.02793	1,341 LF	non-wetland waters	Section 404

SH	35.26338	-81.02604	143 LF	non-wetland waters	Section 404
SI	35.25137	-81.03022	49 LF	non-wetland waters	Section 404
SK	35.25548	-81.04012	551 LF	non-wetland waters (perennial stream)	Section 404
SK	35.25740	81.04069	379 LF	non-wetland waters (intermittent stream)	Section 404
SL	35.26070	-81.04609	1,721 LF	non-wetland waters	Section 404
SM	35.26046	-81.04644	192 LF	non-wetland waters	Section 404
SN	35.26186	-81.05559	2,838 LF	non-wetland waters	Section 404
SO	35.26434	-81.0588	393 LF	non-wetland waters	Section 404
SP	35.26369	-81.06669	780 LF	non-wetland waters	Section 404
SQ	35.25916	-81.0767	1,069 LF	non-wetland waters	Section 404
SR	35.26543	-81.0784	104 LF	non-wetland waters	Section 404
SS	35.26513	-81.0851	690 LF	non-wetland waters	Section 404
ST	35.26132	-81.09453	638 LF	non-wetland waters	Section 404
SU	35.25916	-81.103	1,283 LF	non-wetland waters	Section 404
SV	35.25916	-81.103	153 LF	non-wetland waters	Section 404
SW	35.26916	-81.0884	45 LF	non-wetland waters	Section 404
SX	35.26826	-81.1472	1,482 LF	non-wetland waters	Section 404
SY	35.27816	-81.1528	853 LF	non-wetland waters	Section 404
SZ	35.2688	-81.1522	39 LF	non-wetland waters	Section 404
SWA	35.26577	-81.08225	.04 AC	non-wetland waters (pond)	Section 404

WAA	35.26352	-81.12987	.02 AC	wetland	Section 404
WAC	35.26573	-81.14082	.03 AC	wetland	Section 404
WAD	35.26482	-81.14040	.2 AC	wetland	Section 404
WAF	35.26493	-81.13985	.5 AC	wetland	Section 404
WAG	35.26517	-81.14303	.1 AC	wetland	Section 404
WAH	35.28490	-81.20401	.06 AC	wetland	Section 404
WAI	35.28447	-81.20363	.32 AC	wetland	Section 404
WAM	35.27067	-81.11075	1.13 AC	wetland	Section 404
WAN	35.27569	-81.16020	.04 AC	wetland	Section 404
WAO	35.26157	-81.07347	.08 AC	wetland	Section 404
WAP	35.26175	-81.04808	.10 AC	wetland	Section 404
WE	35.27072	-81.15535	.31 AC	wetland	Section 404
WF	35.28500	-81.17403	1.7 AC	wetland	Section 404
WG	35.28384	-81.17918	0.6 AC	wetland	Section 404
WXA	35.26449	-81.06310	.03 AC	wetland	Section 404
WXB	35.26451	-81.06441	.01 AC	wetland	Section 404
WXC	35.26294	-81.12933	.04 AC	Wetland	Section 404

- 1) The Corps of Engineers believes that there may be jurisdictional aquatic resources in the review area, and the requestor of this PJD is hereby advised of his or her option to request and obtain an approved JD (AJD) for that review area based on an informed decision after having discussed the various types of JDs and their characteristics and circumstances when they may be appropriate.
- 2) In any circumstance where a permit applicant obtains an individual permit, or a Nationwide General Permit (NWP) or other general permit verification requiring "pre- construction notification" (PCN), or requests verification for a non-reporting NWP or other general permit, and the permit applicant has not requested an AJD for the activity, the permit applicant is hereby made aware that: (1) the permit applicant has elected to seek a permit authorization based on a PJD,

which does not make an official determination of jurisdictional aquatic resources; (2) the applicant has the option to request an AJD before accepting the terms and conditions of the permit authorization, and that basing a permit authorization on an AJD could possibly result in less compensatory mitigation being required or different special conditions; (3) the applicant has the right to request an individual permit rather than accepting the terms and conditions of the NWP or other general permit authorization; (4) the applicant can accept a permit authorization and thereby agree to comply with all the terms and conditions of that permit, including whatever mitigation requirements the Corps has determined to be necessary; (5) undertaking any activity in reliance upon the subject permit authorization without requesting an AJD constitutes the applicant's acceptance of the use of the PJD; (6) accepting a permit authorization (e.g., signing a proffered individual permit) or undertaking any activity in reliance on any form of Corps permit authorization based on a PJD constitutes agreement that all aquatic resources in the review area affected in any way by that activity will be treated as jurisdictional, and waives any challenge to such jurisdiction in any administrative or judicial compliance or enforcement action, or in any administrative appeal or in any Federal court; and (7) whether the applicant elects to use either an AJD or a PJD, the JD will be processed as soon as practicable. Further, an AJD, a proffered individual permit (and all terms and conditions contained therein), or individual permit denial can be administratively appealed pursuant to 33 C.F.R. Part 331. If, during an administrative appeal, it becomes appropriate to make an official determination whether geographic jurisdiction exists over aquatic resources in the review area, or to provide an official delineation of jurisdictional aquatic resources in the review area, the Corps will provide an AJD to accomplish that result, as soon as is practicable. This PJD finds that there *"may be"* waters of the U.S. and/or that there *"may be"* navigable waters of the U.S. on the subject review area, and identifies all aquatic features in the review area that could be affected by the proposed activity, based on the following information:

SUPPORTING DATA. Data reviewed for PJD (check all that apply)

Checked items should be included in subject file. Appropriately reference sources below where indicated for all checked items:

☒ Maps, plans, plots or plat submitted by or on behalf of the PJD requestor: Figures 1 – 2a-2c dated May 2019 and Figures 3a – 3i, dated August 2019, Prepared by Environmental Services, Inc. A Terracon Company

☒ Data sheets prepared/submitted by or on behalf of the PJD requestor.

☒ Office concurs with data sheets/delineation report.

☐ Office does not concur with data sheets/delineation report. Rationale: _____

☐ Data sheets prepared by the Corps: _____

☐ Corps navigable waters' study: _____

☐ U.S. Geological Survey Hydrologic Atlas: _____

☐ USGS NHD data.

☐ USGS 8 and 12 digit HUC maps.

☐ U.S. Geological Survey map(s). Cite scale & quad name: _____

☐ Natural Resources Conservation Service Soil Survey. Citation: _____

☐ National wetlands inventory map(s). Cite name: _____

☐ State/local wetland inventory map(s): _____

☐ FEMA/FIRM maps: _____

☐ 100-year Floodplain Elevation is: _____ (National Geodetic Vertical Datum of 1929)

☐ Photographs: ☐ Aerial (Name & Date): _____

or ☐ Other (Name & Date): _____

☐ Previous determination(s). File no. and date of response letter: _____

☒ Other information (please specify): _____

Kaglor Branch, and Jule Allen Branch flow to Long Creek. Long Creek and Duharts Creek flow to the South Fork of the Catawba River. The South Fork of the Catawba River flows to the Catawba River, an interstate water of the U.S. Corps of Engineers regulations at 33 CFR Part 328.3(a)(5) assert Clean Water Act (CWA) jurisdiction over tributaries to other waters of the U.S. Therefore, the delineated tributaries may be considered waters of the U.S.

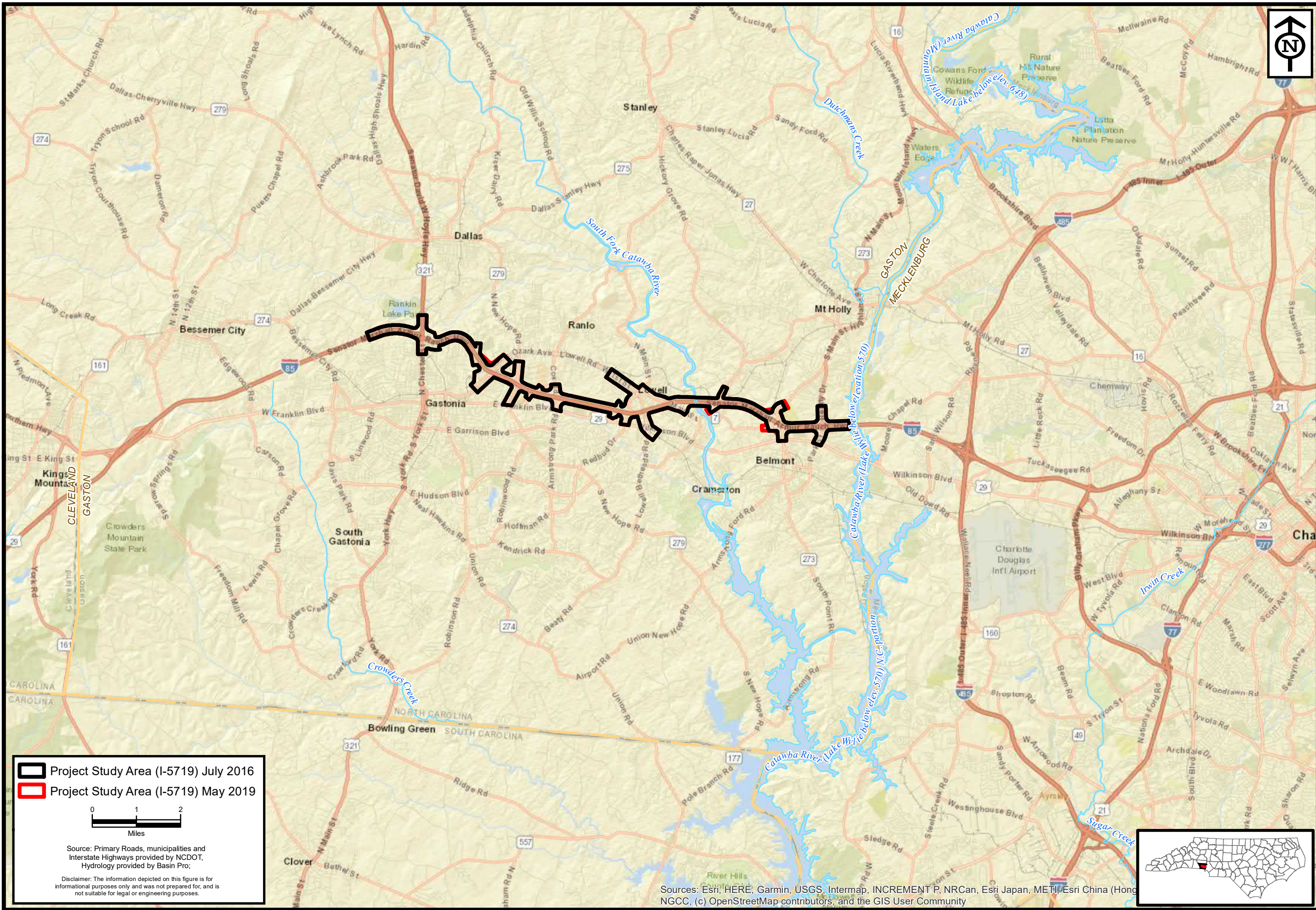
The delineated wetlands are adjacent to waters of the U.S. stream channels. Corps of Engineers regulations at 33 CFR Part 328.3(a)(7) assert CWA jurisdiction over wetlands adjacent to waters of the U.S. Therefore, the delineated wetlands may be waters of the U.S.



IMPORTANT NOTE: The information recorded on this form has not necessarily been verified by the Corps and should not be relied upon for later jurisdictional determinations.

Signature and date of Regulatory
staff member completing PJD
9/4/2019

Signature and date of person requesting PJD
(REQUIRED, unless obtaining the signature is
impracticable)¹

¹ Districts may establish timeframes for requester to return signed PJD forms. If the requester does not respond within the established time frame, the district may presume concurrence and no additional follow up is necessary prior to finalizing an action.



 Project Study Area (I-5719) July 2016
 Project Study Area (I-5719) May 2019



Source: Primary Roads, municipalities and Interstate Highways provided by NCDOT, Hydrology provided by Basin Pro;

Disclaimer: The information depicted on this figure is for informational purposes only and was not prepared for, and is not suitable for legal or engineering purposes.

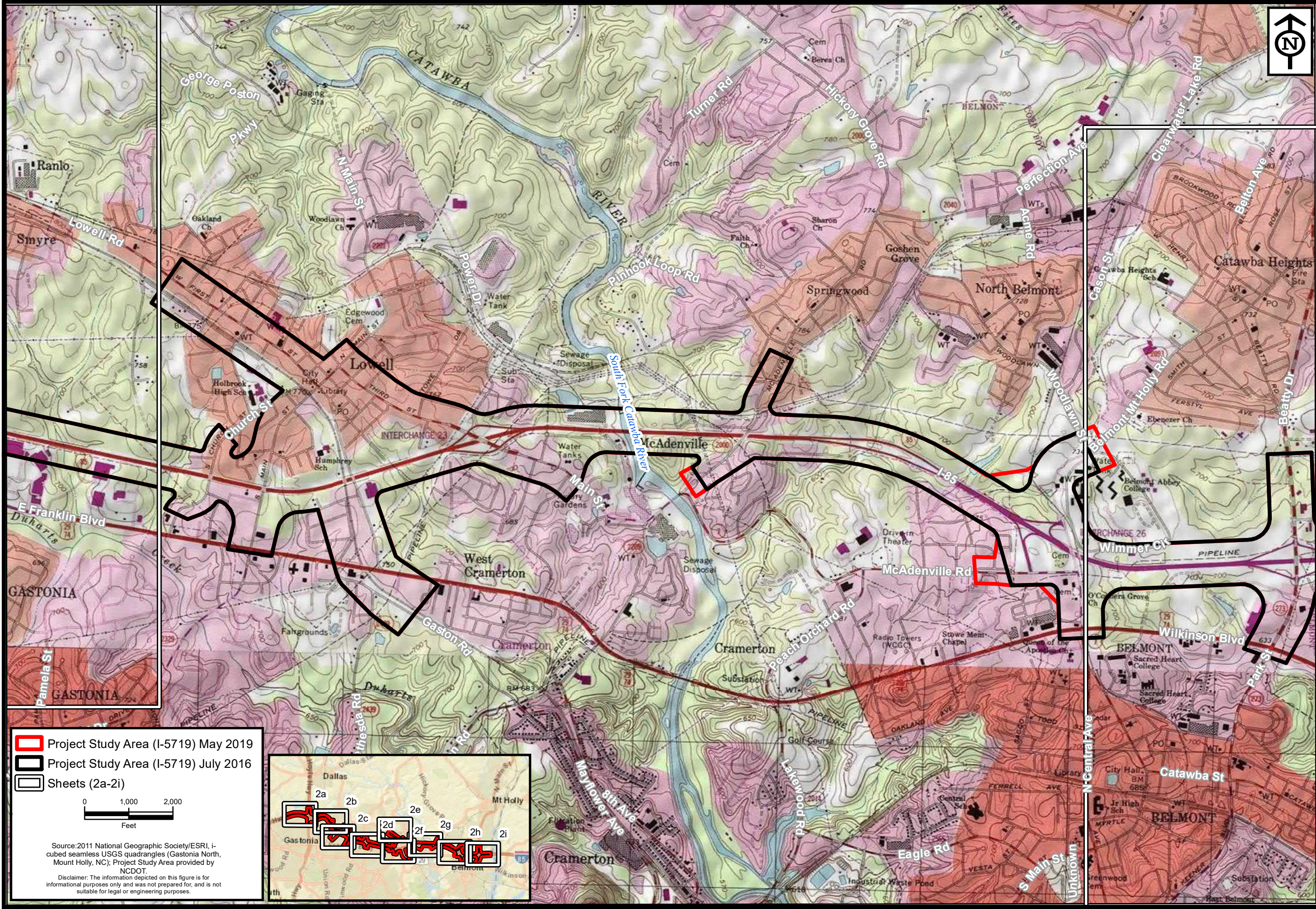
Sources: Esri, HERE, Garmin, USGS, Intermap, INCREMENT P, NRCan, Esri Japan, METI, Esri China (Hong Kong), Swisstopo, Mapbox, and the GIS User Community



Project:	ER1801.01
Date:	May 2019
Drwn/Chkd:	CW/JH
Figure:	1

Vicinity Map
I-85 Widening
Gaston County, North Carolina
T.I.P. No. I-5719

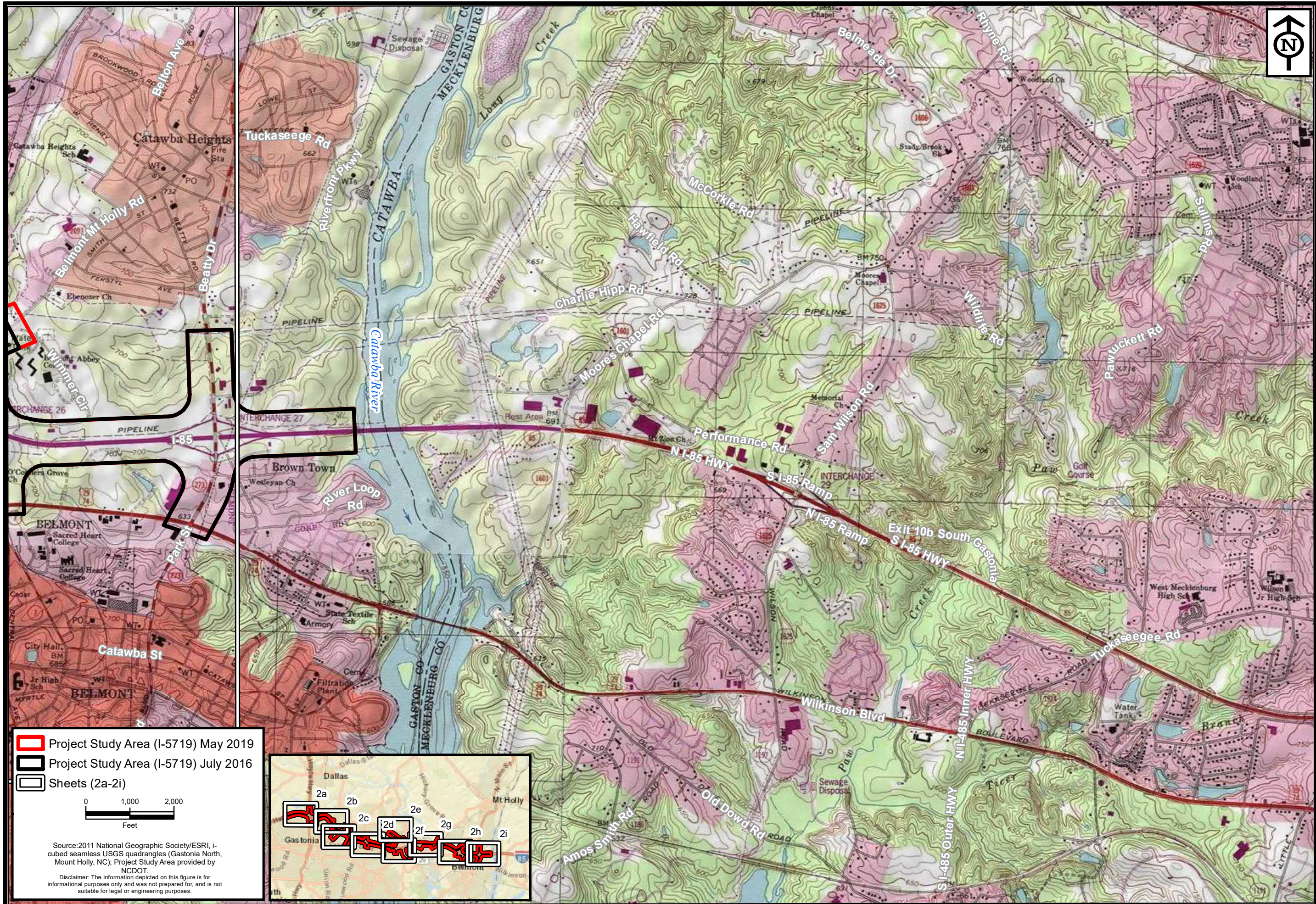




Project:	ER18010.01
Date:	May 2019
Drwn/Chkd:	CW/JH
Figure:	2b

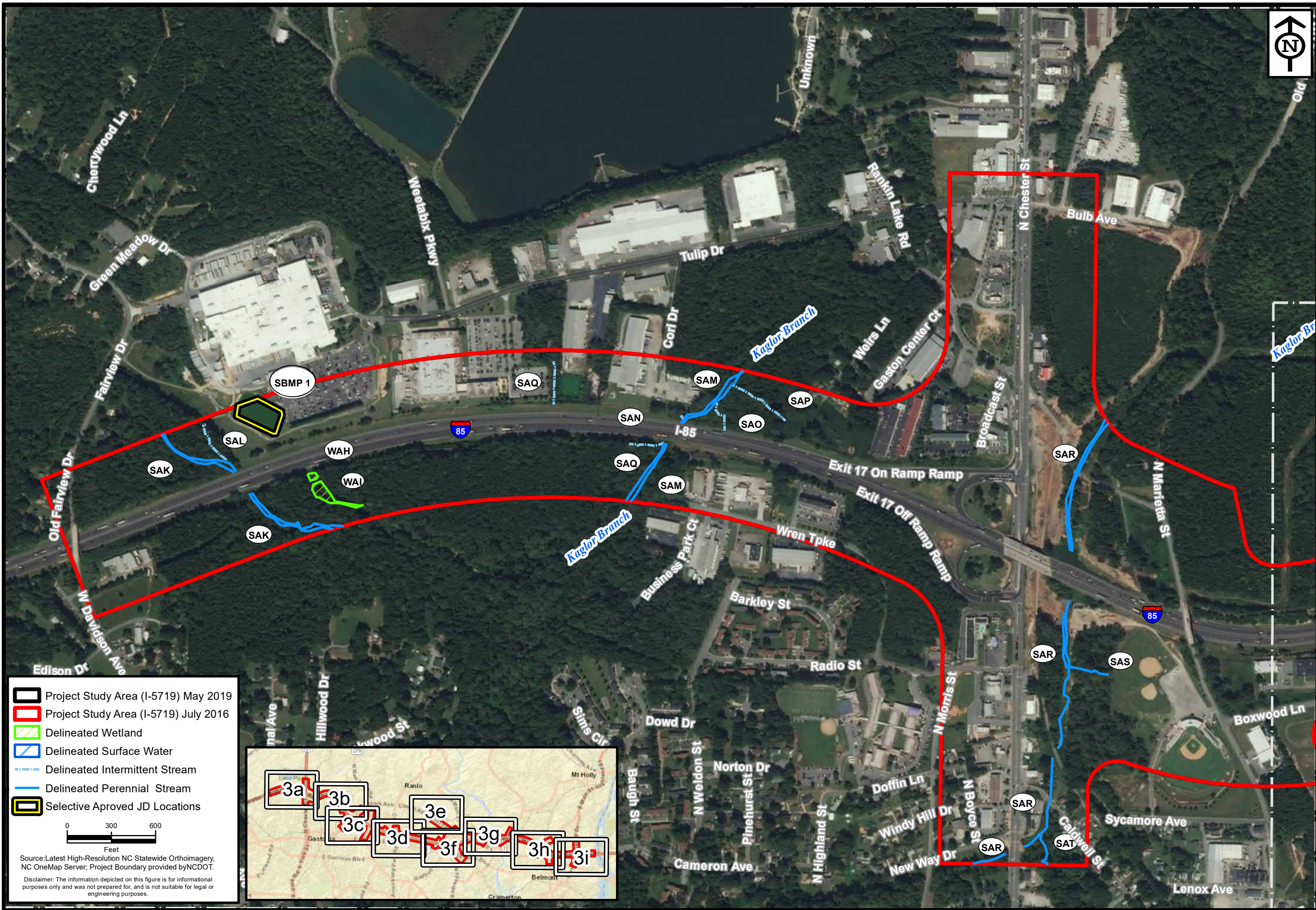
Project Study Area Map
I-85 Improvements
Gaston County, North Carolina
T.I.P. No. I-5719





Project:	ER18010.01
Date:	May 2019
Drwn/Chkd:	CW/JH
Figure:	2c

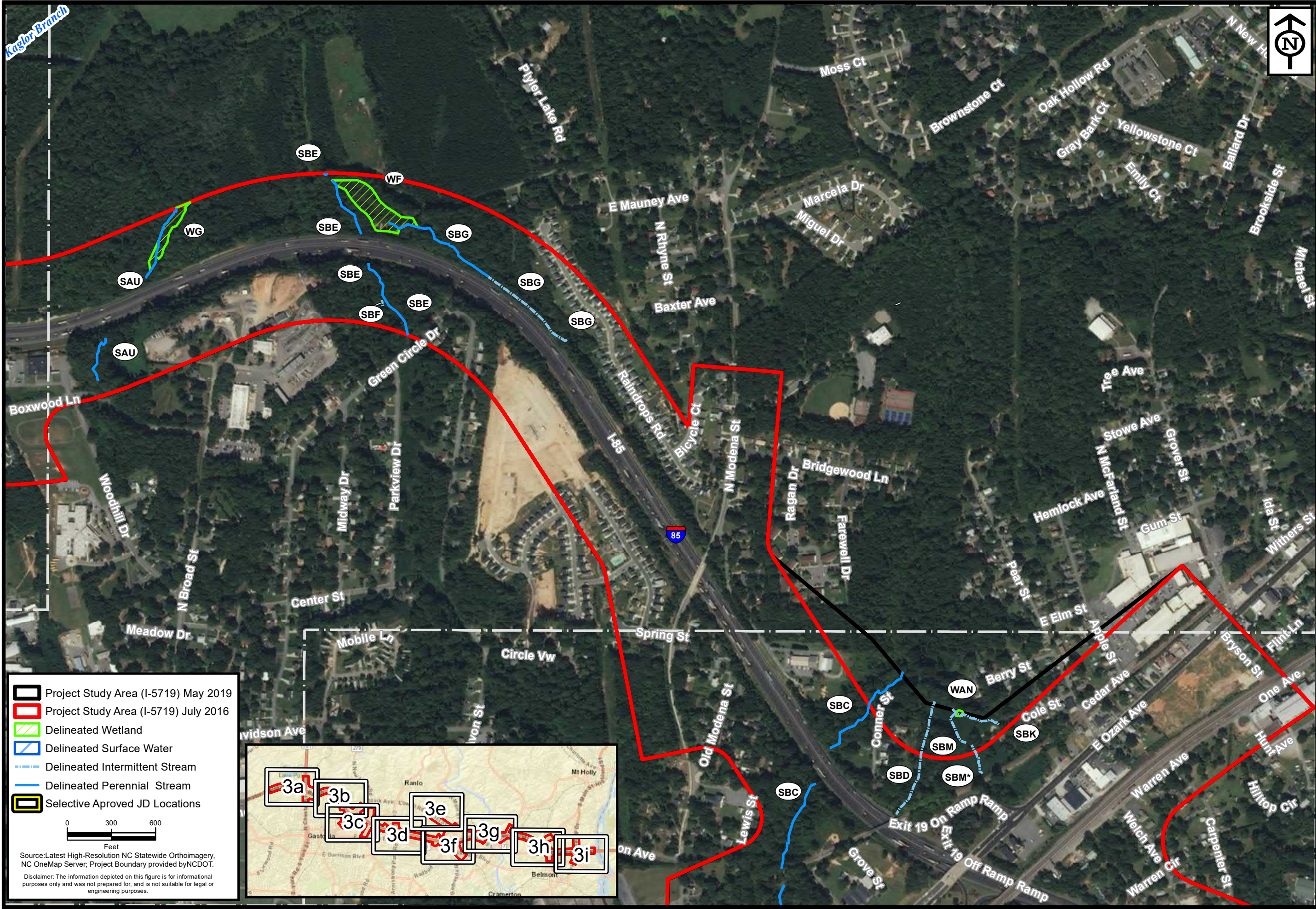
Project Study Area Map
I-85 Improvements
Gaston County, North Carolina
T.I.P. No. I-5719



Project:	ER18010.01
Date:	Aug 2019
Drwn/Chkd:	KT/JH
Figure:	3a

Jurisdictional Features Map
I-85 Widening
Gaston County, North Carolina
T.I.P. No. I-5719

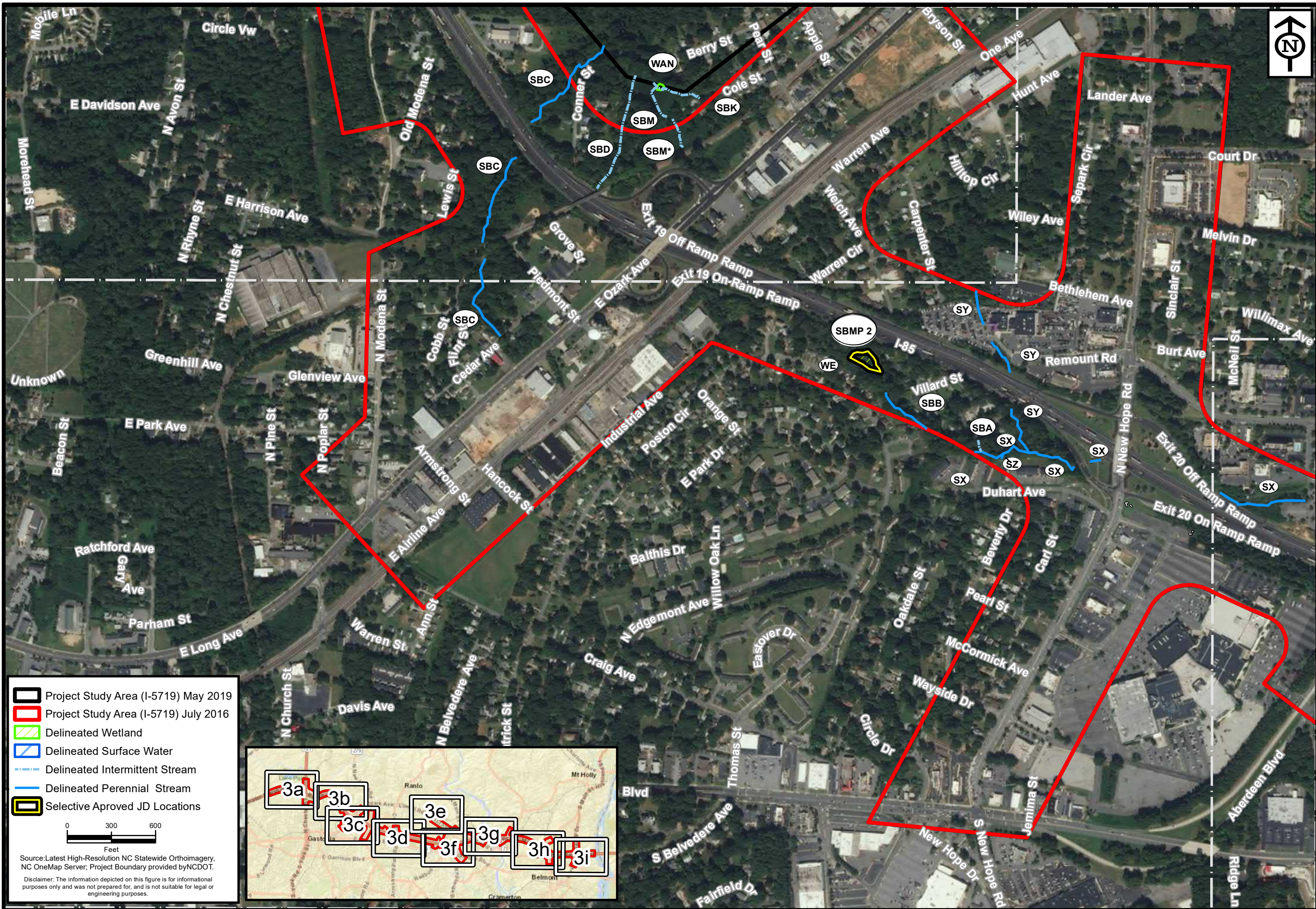




Project:	ER18010.01
Date:	Aug 2019
Drwn/Chkd:	KT/JH
Figure:	3b

Jurisdictional Features Map
I-85 Widening
Gaston County, North Carolina
T.I.P. No. I-5719

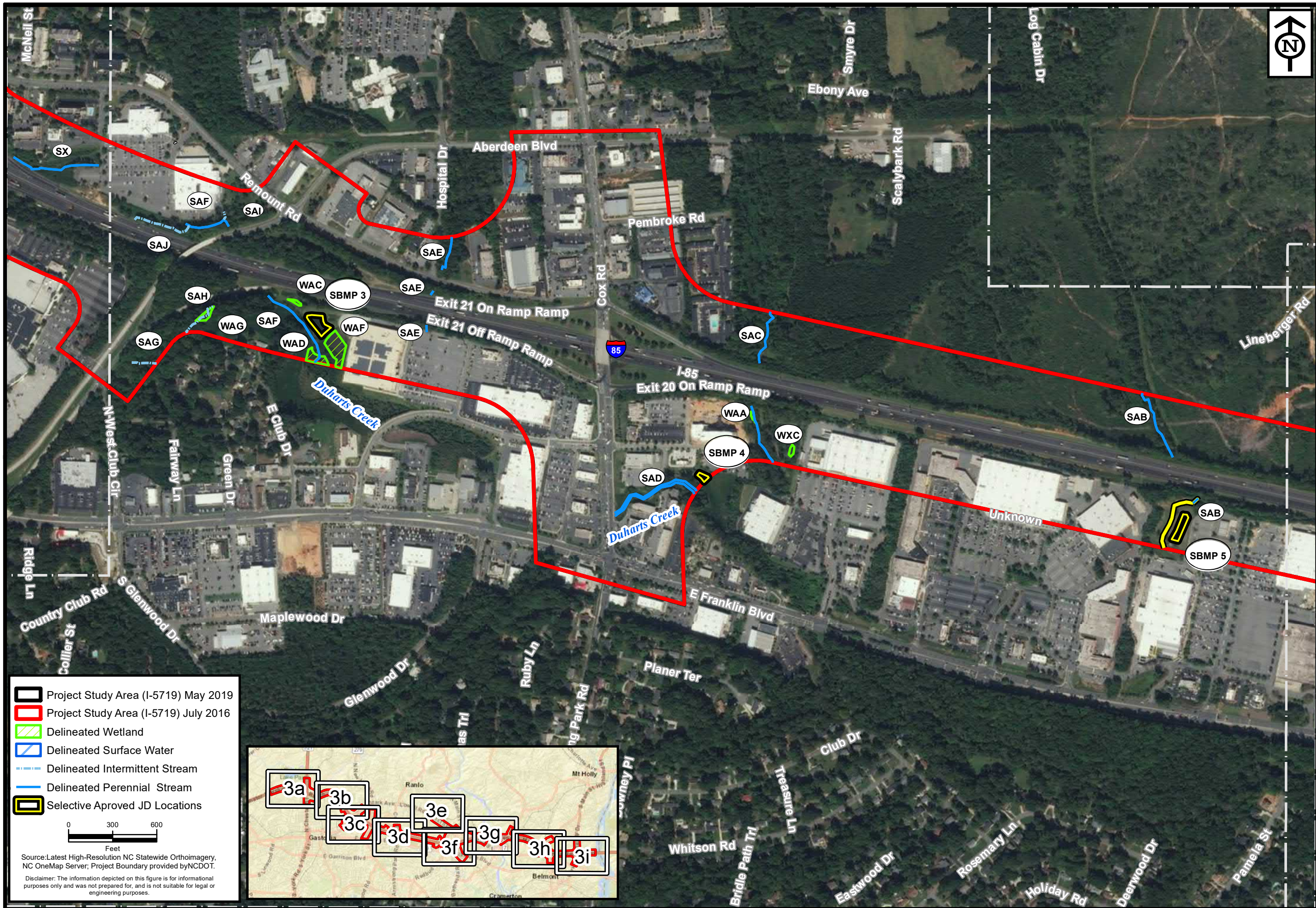




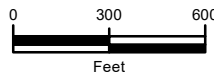
Project:	ER18010.01
Date:	Aug 2019
Drwn/Chkd:	KT/JH
Figure:	3c

Jurisdictional Features Map
I-85 Widening
Gaston County, North Carolina
T.I.P. No. I-5719

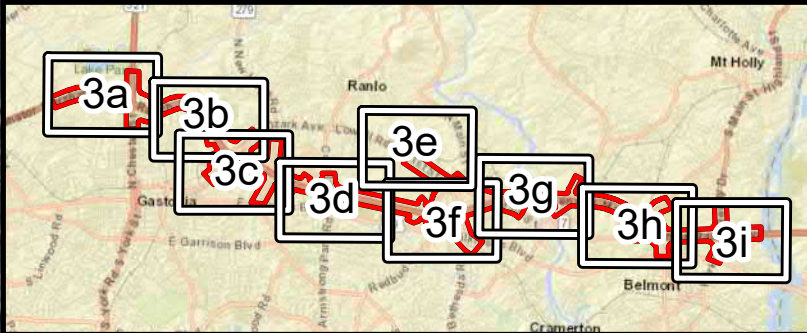




- Project Study Area (I-5719) May 2019
- Project Study Area (I-5719) July 2016
- Delineated Wetland
- Delineated Surface Water
- Delineated Intermittent Stream
- Delineated Perennial Stream
- Selective Approved JD Locations



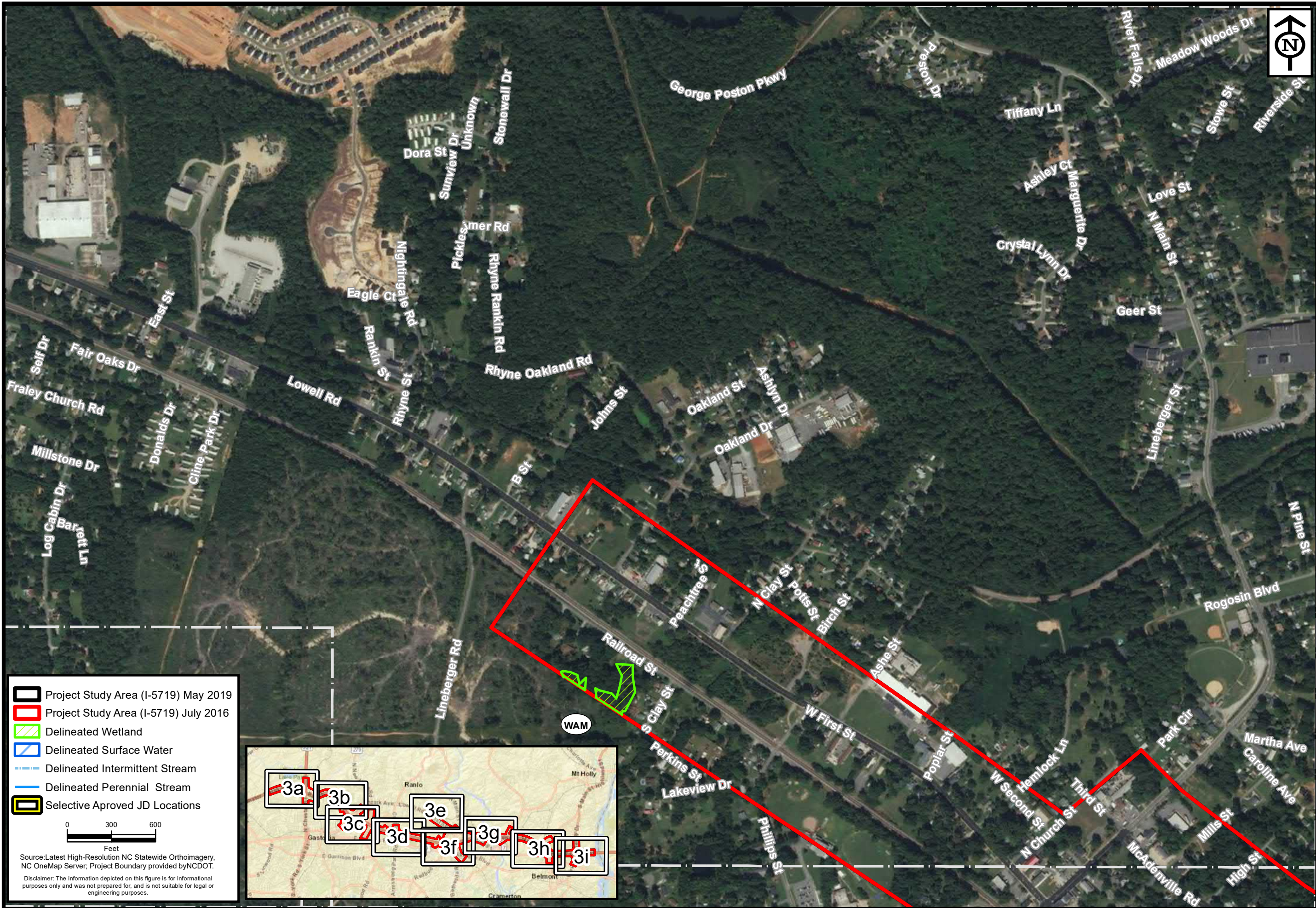
Source: Latest High-Resolution NC Statewide Orthoimagery, NC OneMap Server; Project Boundary provided by NCDOT.
Disclaimer: The information depicted on this figure is for informational purposes only and was not prepared for, and is not suitable for legal or engineering purposes.



Project:	ER18010.01
Date:	Aug 2019
Drwn/Chkd:	KT/JH
Figure:	3d

Jurisdictional Features Map
I-85 Widening
Gaston County, North Carolina
T.I.P. No. I-5719

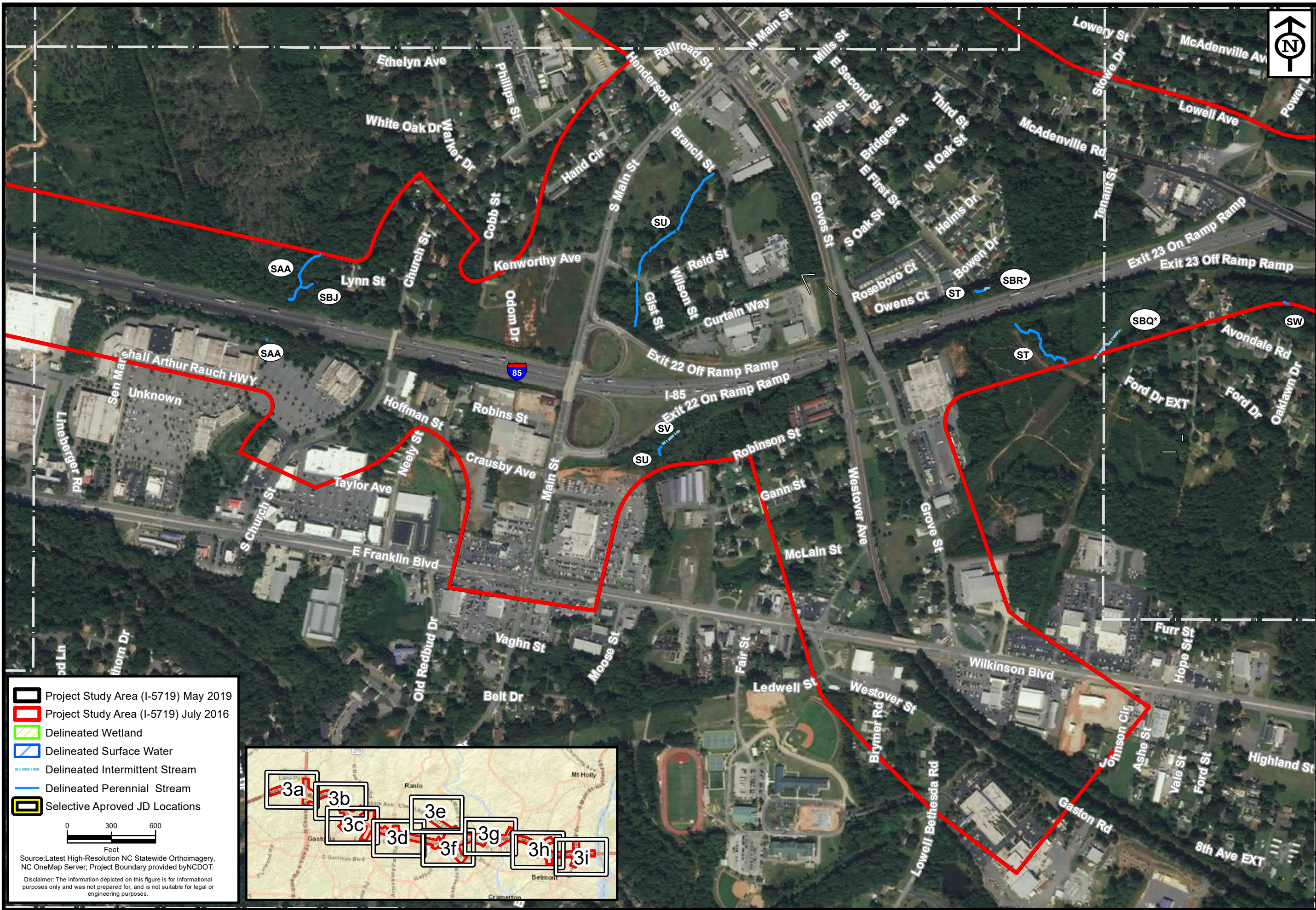




Project:	ER18010.01
Date:	Aug 2019
Drwn/Chkd:	KT/JH
Figure:	3e

Jurisdictional Features Map
I-85 Widening
Gaston County, North Carolina
T.I.P. No. I-5719

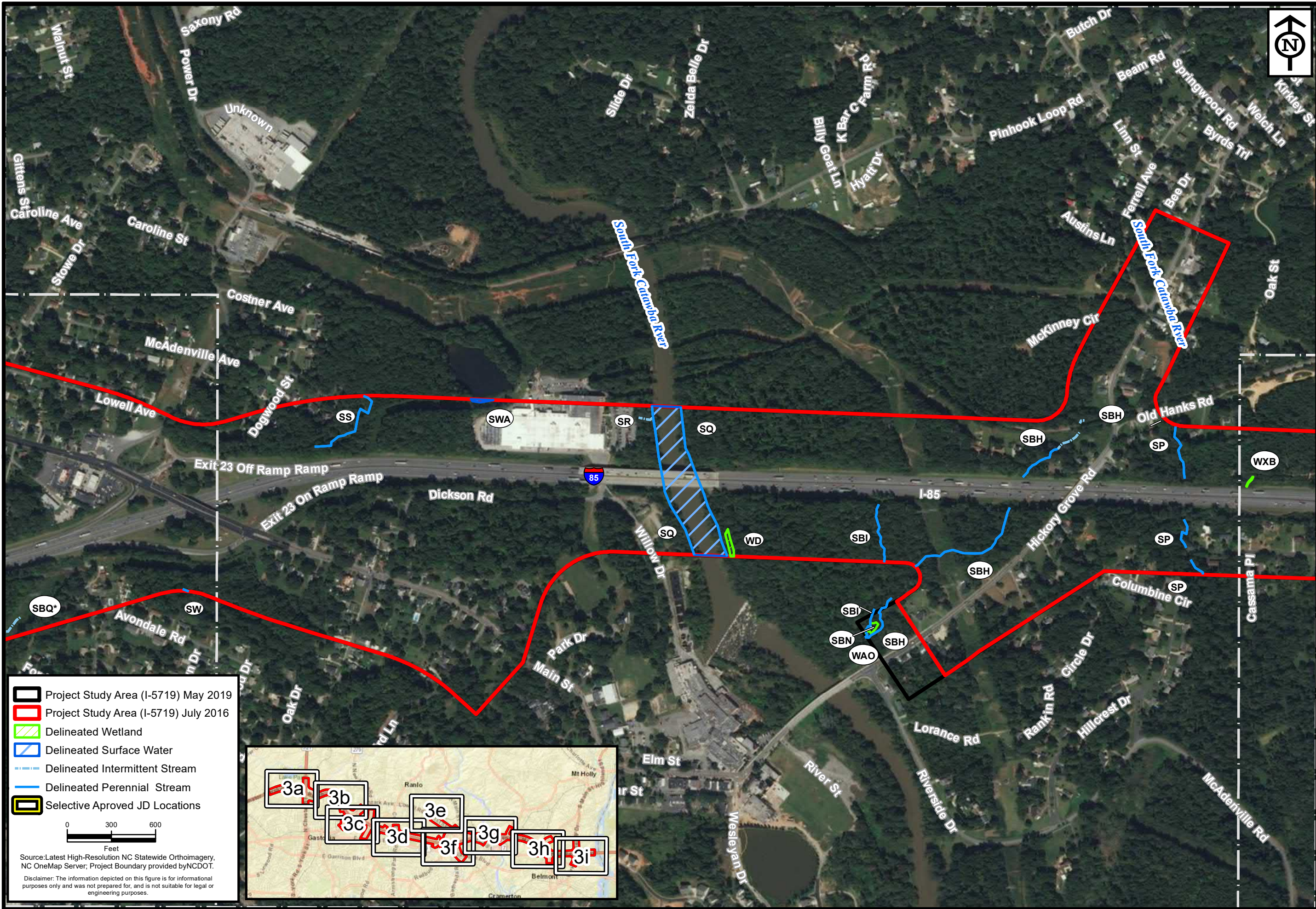




Project:	ER18010.01
Date:	Aug 2019
Drwn/Chkd:	KT/JH
Figure:	3f

Jurisdictional Features Map
I-85 Widening
Gaston County, North Carolina
T.I.P. No. I-5719





Project Study Area (I-5719) May 2019

Project Study Area (I-5719) July 2016

Delineated Wetland

Delineated Surface Water

Delineated Intermittent Stream

Delineated Perennial Stream

Selective Approved JD Locations

0

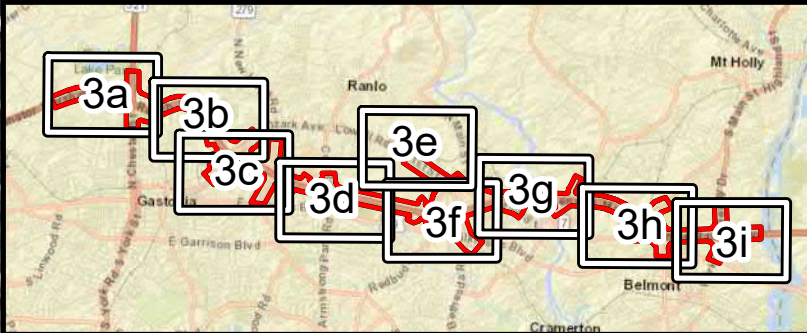
300

600

Feet

Source: Latest High-Resolution NC Statewide Orthoimagery, NC OneMap Server; Project Boundary provided by NCDOT.

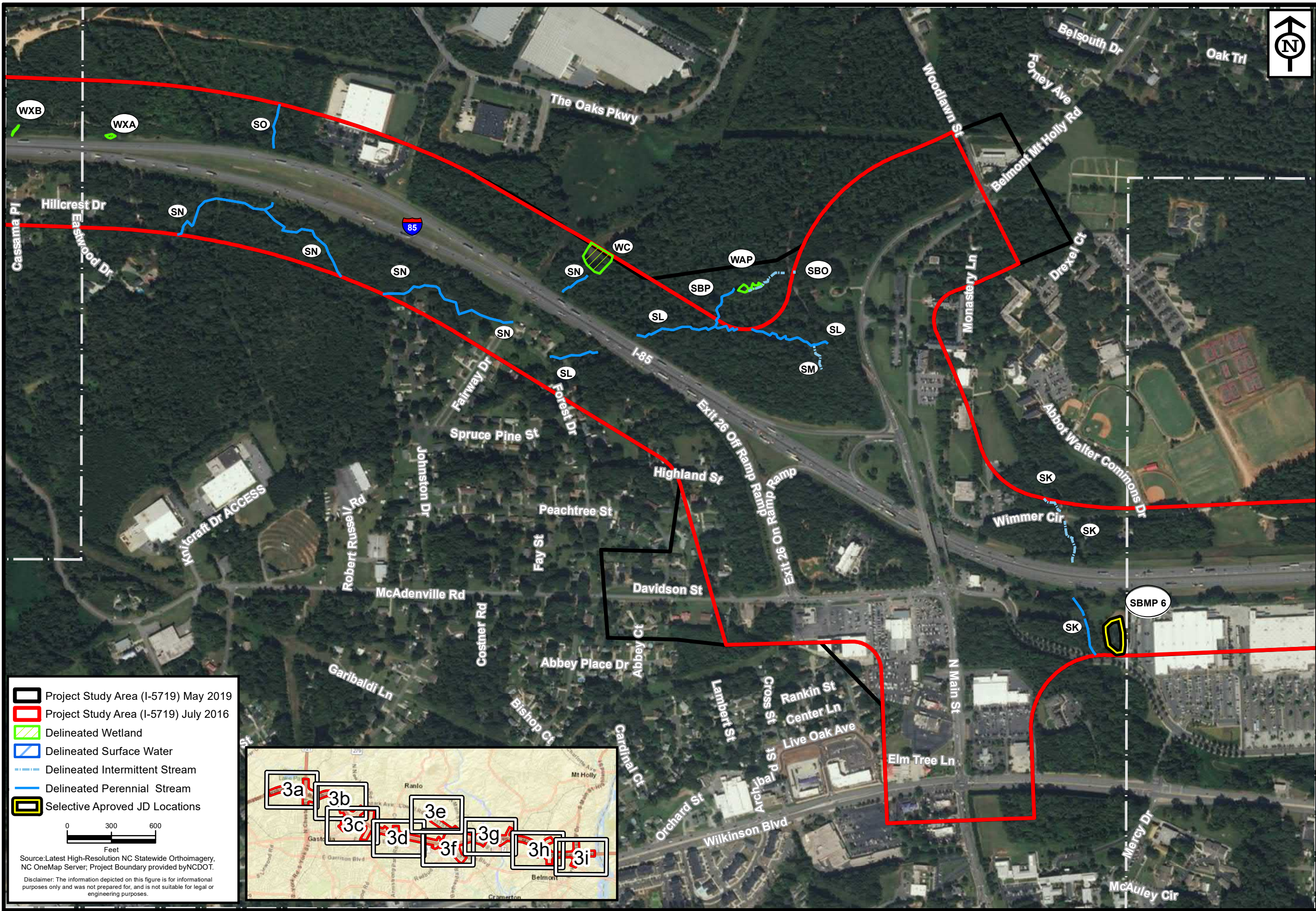
Disclaimer: The information depicted on this figure is for informational purposes only and was not prepared for, and is not suitable for legal or engineering purposes.



Project:	ER18010.01
Date:	Aug 2019
Drwn/Chkd:	KT/JH
Figure:	3g

Jurisdictional Features Map
I-85 Widening
Gaston County, North Carolina
T.I.P. No. I-5719





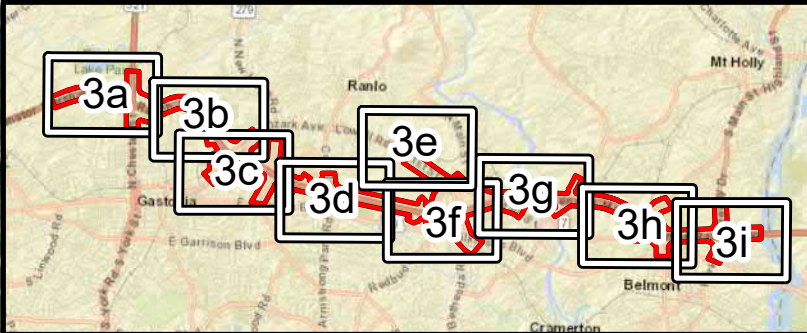
Legend

- Project Study Area (I-5719) May 2019
- Project Study Area (I-5719) July 2016
- Delineated Wetland
- Delineated Surface Water
- Delineated Intermittent Stream
- Delineated Perennial Stream
- Selective Approved JD Locations

0 300 600 Feet


Source: Latest High-Resolution NC Statewide Orthoimagery, NC OneMap Server; Project Boundary provided by NCDOT.

Disclaimer: The information depicted on this figure is for informational purposes only and was not prepared for, and is not suitable for legal or engineering purposes.



Project: ER18010.01
Date: Aug 2019
Drwn/Chkd: KT/JH
Figure: 3h

Jurisdictional Features Map
I-85 Widening
Gaston County, North Carolina
T.I.P. No. I-5719





Project:	ER18010.01
Date:	Aug 2019
Drwn/Chkd:	KT/JH
Figure:	3i

Jurisdictional Features Map
I-85 Widening
Gaston County, North Carolina
T.I.P. No. I-5719



U.S. ARMY CORPS OF ENGINEERS
WILMINGTON DISTRICT

Action Id. SAW No. 2019-00055 County: Gaston U.S.G.S. Quad: NC- Gastonia North

NOTIFICATION OF JURISDICTIONAL DETERMINATION

Requestor: North Carolina Department of Transportation
William A. Barrett
Address: 1598 Mail Service Center
Raleigh, North Carolina 27699-1598
Telephone Number: 919-707-6103
E-mail: wabarrett@ncdot.gov

Size (acres) 2544.7 acres
Nearest Waterway Duharts Creek
USGS HUC 03050102

Nearest Town Gastonia
River Basin Santee
Coordinates Latitude: 35.26526
Longitude: -81.14018

Location description: I 85 from Fairview Drive to the Catawba River in Gaston County, North Carolina. The project is over 10 miles long, with the eastern terminus just east of NC 273 near the Catawba River and the western terminus just west of US 321 in Gastonia.

Indicate Which of the Following Apply:

A. Preliminary Determination

- ☐ There appear to be **waters, including wetlands** on the above described project area/property, that may be subject to Section 404 of the Clean Water Act (CWA)(33 USC § 1344) and/or Section 10 of the Rivers and Harbors Act (RHA) (33 USC § 403). The **waters, including wetlands** have been delineated, and the delineation has been verified by the Corps to be sufficiently accurate and reliable. The approximate boundaries of these waters are shown on the enclosed delineation maps dated. Therefore this preliminary jurisdiction determination may be used in the permit evaluation process, including determining compensatory mitigation. For purposes of computation of impacts, compensatory mitigation requirements, and other resource protection measures, a permit decision made on the basis of a preliminary JD will treat all waters and wetlands that would be affected in any way by the permitted activity on the site as if they are jurisdictional waters of the U.S. This preliminary determination is not an appealable action under the Regulatory Program Administrative Appeal Process (Reference 33 CFR Part 331). However, you may request an approved JD, which is an appealable action, by contacting the Corps district for further instruction.
- ☐ There appear to be **waters, including wetlands** on the above described project area/property, that may be subject to Section 404 of the Clean Water Act (CWA)(33 USC § 1344) and/or Section 10 of the Rivers and Harbors Act (RHA) (33 USC § 403). However, since the **waters, including wetlands** have not been properly delineated, this preliminary jurisdiction determination may not be used in the permit evaluation process. Without a verified wetland delineation, this preliminary determination is merely an effective presumption of CWA/RHA jurisdiction over all of the **waters, including wetlands** at the project area, which is not sufficiently accurate and reliable to support an enforceable permit decision. We recommend that you have the **waters, including wetlands** on your project area/property delineated. As the Corps may not be able to accomplish this wetland delineation in a timely manner, you may wish to obtain a consultant to conduct a delineation that can be verified by the Corps.

B. Approved Determination

- ☐ There are Navigable Waters of the United States within the above described project area/property subject to the permit requirements of Section 10 of the Rivers and Harbors Act (RHA) (33 USC § 403) and Section 404 of the Clean Water Act (CWA)(33 USC § 1344). Unless there is a change in law or our published regulations, this determination may be relied upon for a period not to exceed five years from the date of this notification.
- ☐ There are **waters, including wetlands**, on the above described project area/property subject to the permit requirements of Section 404 of the Clean Water Act (CWA) (33 USC § 1344). Unless there is a change in the law or our published regulations, this determination may be relied upon for a period not to exceed five years from the date of this notification.
- ☐ We recommend you have the **waters, including wetlands** on your project area/property delineated. As the Corps may not be able to accomplish this wetland delineation in a timely manner, you may wish to obtain a consultant to conduct a delineation that can be verified by the Corps.

SAW No. 2019-00055

- ☐ The **waters, including wetlands** on your project area/property have been delineated and the delineation has been verified by the Corps. The approximate boundaries of these waters are shown on the enclosed delineation map dated **DATE**. We strongly suggest you have this delineation surveyed. Upon completion, this survey should be reviewed and verified by the Corps. Once verified, this survey will provide an accurate depiction of all areas subject to CWA jurisdiction on your property which, provided there is no change in the law or our published regulations, may be relied upon for a period not to exceed five years.
- ☐ The **waters, including wetlands** have been delineated and surveyed and are accurately depicted on the plat signed by the Corps Regulatory Official identified below on **DATE**. Unless there is a change in the law or our published regulations, this determination may be relied upon for a period not to exceed five years from the date of this notification.
- ☒ There are no waters of the U.S., to include wetlands, present on the above described project area/property which are subject to the permit requirements of Section 404 of the Clean Water Act (33 USC 1344). Unless there is a change in the law or our published regulations, this determination may be relied upon for a period not to exceed five years from the date of this notification.
- ☐ The property is located in one of the 20 Coastal Counties subject to regulation under the Coastal Area Management Act (CAMA). You should contact the Division of Coastal Management in **Morehead City, NC, at (252) 808-2808** to determine their requirements.

Placement of dredged or fill material within waters of the US, including wetlands, without a Department of the Army permit may constitute a violation of Section 301 of the Clean Water Act (33 USC § 1311). Placement of dredged or fill material, construction or placement of structures, or work within navigable waters of the United States without a Department of the Army permit may constitute a violation of Sections 9 and/or 10 of the Rivers and Harbors Act (33 USC § 401 and/or 403). If you have any questions regarding this determination and/or the Corps regulatory program, please contact **Nicholle Braspennickx at 704-510-0162 or Nicholle.M.Braspennickx.usace.army.mil**.

C. Basis For Determination: Basis For Determination: See the approved jurisdictional determination form dated 9/19/2019.

D. Remarks: None.

E. Attention USDA Program Participants

This delineation/determination has been conducted to identify the limits of Corps' Clean Water Act jurisdiction for the particular site identified in this request. The delineation/determination may not be valid for the wetland conservation provisions of the Food Security Act of 1985. If you or your tenant are USDA Program participants, or anticipate participation in USDA programs, you should request a certified wetland determination from the local office of the Natural Resources Conservation Service, prior to starting work.

F. Appeals Information (This information applies only to approved jurisdictional determinations as indicated in B. above)

This correspondence constitutes an approved jurisdictional determination for the above described site. If you object to this determination, you may request an administrative appeal under Corps regulations at 33 CFR Part 331. Enclosed you will find a Notification of Appeal Process (NAP) fact sheet and request for appeal (RFA) form. If you request to appeal this determination you must submit a completed RFA form to the following address:

US Army Corps of Engineers
South Atlantic Division
Attn: Phillip Shannon, Review Officer
60 Forsyth Street SW, Room 10M15
Atlanta, Georgia 30303-8801

In order for an RFA to be accepted by the Corps, the Corps must determine that it is complete, that it meets the criteria for appeal under 33 CFR part 331.5, and that it has been received by the Division Office within 60 days of the date of the NAP. Should you decide to submit an RFA form, it must be received at the above address by **11/19/2019**.

****It is not necessary to submit an RFA form to the Division Office if you do not object to the determination in this correspondence.****

Corps Regulatory Official: _____

Date of JD: **9/19/2019** Expiration Date of JD: **9/19/2024**

SAW No. 2019-00055

The Wilmington District is committed to providing the highest level of support to the public. To help us ensure we continue to do so, please complete the Customer Satisfaction Survey located at http://corpsmapu.usace.army.mil/cm_apex/f?p=136:4:0

Copy furnished:

Agent:	<u>Environmental Services, Inc. A Terracon Company</u>
	<u>Mr. Kevin Murphrey</u>
Address:	<u>4901 Trademark Drive</u>
	<u>Raleigh, North Carolina 27615</u>
Telephone Number:	<u>904-457-1112</u>
E-mail:	<u>Kmurphrey@ESINC.CC</u>

NOTIFICATION OF ADMINISTRATIVE APPEAL OPTIONS AND PROCESS AND REQUEST FOR APPEAL

Applicant: **North Carolina Department of Transportation, William A. Barrett**

File Number: **SAW No. 2019-00055**

Date: **9/19/2019**

Attached is:

See Section below

<input type="checkbox"/> INITIAL PROFFERED PERMIT (Standard Permit or Letter of permission)	A
<input type="checkbox"/> PROFFERED PERMIT (Standard Permit or Letter of permission)	B
<input type="checkbox"/> PERMIT DENIAL	C
<input checked="" type="checkbox"/> APPROVED JURISDICTIONAL DETERMINATION	D
<input type="checkbox"/> PRELIMINARY JURISDICTIONAL DETERMINATION	E

SECTION I - The following identifies your rights and options regarding an administrative appeal of the above decision. Additional information may be found at or <http://www.usace.army.mil/Missions/CivilWorks/RegulatoryProgramandPermits.aspx> or the Corps regulations at 33 CFR Part 331.

A: INITIAL PROFFERED PERMIT: You may accept or object to the permit.

- **ACCEPT:** If you received a Standard Permit, you may sign the permit document and return it to the district engineer for final authorization. If you received a Letter of Permission (LOP), you may accept the LOP and your work is authorized. Your signature on the Standard Permit or acceptance of the LOP means that you accept the permit in its entirety, and waive all rights to appeal the permit, including its terms and conditions, and approved jurisdictional determinations associated with the permit.
- **OBJECT:** If you object to the permit (Standard or LOP) because of certain terms and conditions therein, you may request that the permit be modified accordingly. You must complete Section II of this form and return the form to the district engineer. Your objections must be received by the district engineer within 60 days of the date of this notice, or you will forfeit your right to appeal the permit in the future. Upon receipt of your letter, the district engineer will evaluate your objections and may: (a) modify the permit to address all of your concerns, (b) modify the permit to address some of your objections, or (c) not modify the permit having determined that the permit should be issued as previously written. After evaluating your objections, the district engineer will send you a proffered permit for your reconsideration, as indicated in Section B below.

B: PROFFERED PERMIT: You may accept or appeal the permit

- **ACCEPT:** If you received a Standard Permit, you may sign the permit document and return it to the district engineer for final authorization. If you received a Letter of Permission (LOP), you may accept the LOP and your work is authorized. Your signature on the Standard Permit or acceptance of the LOP means that you accept the permit in its entirety, and waive all rights to appeal the permit, including its terms and conditions, and approved jurisdictional determinations associated with the permit.
- **APPEAL:** If you choose to decline the proffered permit (Standard or LOP) because of certain terms and conditions therein, you may appeal the declined permit under the Corps of Engineers Administrative Appeal Process by completing Section II of this form and sending the form to the division engineer. This form must be received by the division engineer within 60 days of the date of this notice.

C: PERMIT DENIAL: You may appeal the denial of a permit under the Corps of Engineers Administrative Appeal Process by completing Section II of this form and sending the form to the division engineer. This form must be received by the division engineer within 60 days of the date of this notice.

D: APPROVED JURISDICTIONAL DETERMINATION: You may accept or appeal the approved JD or provide new information.

- **ACCEPT:** You do not need to notify the Corps to accept an approved JD. Failure to notify the Corps within 60 days of the date of this notice, means that you accept the approved JD in its entirety, and waive all rights to appeal the approved JD.
- **APPEAL:** If you disagree with the approved JD, you may appeal the approved JD under the Corps of Engineers Administrative Appeal Process by completing Section II of this form and sending the form to the district engineer. This form must be received by the division engineer within 60 days of the date of this notice.

E: PRELIMINARY JURISDICTIONAL DETERMINATION: You do not need to respond to the Corps regarding the preliminary JD. The Preliminary JD is not appealable. If you wish, you may request an approved JD (which may be appealed), by contacting the Corps district for further instruction. Also you may provide new information for further consideration by the Corps to reevaluate the JD.

SECTION II - REQUEST FOR APPEAL or OBJECTIONS TO AN INITIAL PROFFERED PERMIT

REASONS FOR APPEAL OR OBJECTIONS: (Describe your reasons for appealing the decision or your objections to an initial proffered permit in clear concise statements. You may attach additional information to this form to clarify where your reasons or objections are addressed in the administrative record.)

ADDITIONAL INFORMATION: The appeal is limited to a review of the administrative record, the Corps memorandum for the record of the appeal conference or meeting, and any supplemental information that the review officer has determined is needed to clarify the administrative record. Neither the appellant nor the Corps may add new information or analyses to the record. However, you may provide additional information to clarify the location of information that is already in the administrative record.

POINT OF CONTACT FOR QUESTIONS OR INFORMATION:

If you have questions regarding this decision and/or the appeal process you may contact:

**District Engineer, Wilmington Regulatory Division
Attn: Nicholle Braspenickx
Charlotte Regulatory Office
U.S Army Corps of Engineers
8430 University Executive Park Drive, Suite 615
Charlotte, North Carolina 28262**

If you only have questions regarding the appeal process you may also contact:

**Mr. Phillip Shannon, Administrative Appeal Review Officer
CESAD-PDO
U.S. Army Corps of Engineers, South Atlantic Division
60 Forsyth Street, Room 10M15
Atlanta, Georgia 30303-8801
Phone: (404) 562-5137**

RIGHT OF ENTRY: Your signature below grants the right of entry to Corps of Engineers personnel, and any government consultants, to conduct investigations of the project site during the course of the appeal process. You will be provided a 15 day notice of any site investigation, and will have the opportunity to participate in all site investigations.

Signature of appellant or agent.	Date:	Telephone number:
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For appeals on Initial Proffered Permits send this form to:

District Engineer, Wilmington Regulatory Division, Attn: Nicholle Braspenickx, 69 Darlington Avenue, Wilmington, North Carolina 28403

For Permit denials, Proffered Permits and Approved Jurisdictional Determinations send this form to:

**Division Engineer, Commander, U.S. Army Engineer Division, South Atlantic, Attn: Mr. Jason Steele, Administrative Appeal Officer, CESAD-PDO, 60 Forsyth Street, Room 10M15, Atlanta, Georgia 30303-8801
Phone: (404) 562-5137**

APPROVED JURISDICTIONAL DETERMINATION FORM
U.S. Army Corps of Engineers

This form should be completed by following the instructions provided in Section IV of the JD Form Instructional Guidebook.

SECTION I: BACKGROUND INFORMATION

A. REPORT COMPLETION DATE FOR APPROVED JURISDICTIONAL DETERMINATION (JD): 9/19/2019

B. DISTRICT OFFICE, FILE NAME, AND NUMBER: Wilmington District, NC DOT/I 5719, U 3608, I 85 widening from Fairview Drive to the Catawba River in Gaston County, North Carolina. SAW No. 2019-00055

C. PROJECT LOCATION AND BACKGROUND INFORMATION: I 85 from Fairview Drive to the Catawba River in Gaston County, North Carolina. The project is over 10 miles long, with the eastern terminus just east of NC 273 near the Catawba River and the western terminus just west of US 321 in Gastonia.

State: NC

County/parish/borough: Gaston

City: Gastonia

Center coordinates of site (lat/long in degree decimal format): Lat. 35.26526 , Long. -81.14018

Universal Transverse Mercator:

Name of nearest waterbody: Duharts Creek

Name of nearest Traditional Navigable Water (TNW) into which the aquatic resource flows:

Name of watershed or Hydrologic Unit Code (HUC): 03050102

☒ Check if map/diagram of review area and/or potential jurisdictional areas is/are available upon request.

☐ Check if other sites (e.g., offsite mitigation sites, disposal sites, etc...) are associated with this action and are recorded on a different JD form:

D. REVIEW PERFORMED FOR SITE EVALUATION (CHECK ALL THAT APPLY):

☒ Office (Desk) Determination. Date: August 6, 2019

☐ Field Determination. Date(s):

SECTION II: SUMMARY OF FINDINGS

A. RHA SECTION 10 DETERMINATION OF JURISDICTION.

There are **no** "navigable waters of the U.S." within Rivers and Harbors Act (RHA) jurisdiction (as defined by 33 CFR part 329) in the review area. [Required]

☐ Waters subject to the ebb and flow of the tide.

☐ Waters are presently used, or have been used in the past, or may be susceptible for use to transport interstate or foreign commerce.

Explain:

B. CWA SECTION 404 DETERMINATION OF JURISDICTION.

There are not "waters of the U.S." within Clean Water Act (CWA) jurisdiction (as defined by 33 CFR part 328) in the review area. [Required]

1. Waters of the U.S.

a. Indicate presence of waters of U.S. in review area (check all that apply):¹

☐ TNWs, including territorial seas

☐ Wetlands adjacent to TNWs

☐ Relatively permanent waters² (RPWs) that flow directly or indirectly into TNWs

☐ Non-RPWs that flow directly or indirectly into TNWs

☐ Wetlands directly abutting RPWs that flow directly or indirectly into TNWs

☐ Wetlands adjacent to but not directly abutting RPWs that flow directly or indirectly into TNWs

☐ Wetlands adjacent to non-RPWs that flow directly or indirectly into TNWs

☐ Impoundments of jurisdictional waters

☐ Isolated (interstate or intrastate) waters, including isolated wetlands

b. Identify (estimate) size of waters of the U.S. in the review area:

Non-wetland waters: linear feet, wide, and/or acres.

Wetlands: acres.

c. Limits (boundaries) of jurisdiction based on: Pick List

Elevation of established OHWM (if known):

2. Non-regulated waters/wetlands (check if applicable):³

☒ Potentially jurisdictional waters and/or wetlands were assessed within the review area and determined to be not jurisdictional. Explain: Six (6) Stormwater Management Ponds (SBMP 1 – SBMP 6) on the site have been delineated and determined to be not jurisdictional. They were built in uplands and treat stormwater from surrounding development.

SECTION III: CWA ANALYSIS

¹ Boxes checked below shall be supported by completing the appropriate sections in Section III below.

² For purposes of this form, an RPW is defined as a tributary that is not a TNW and that typically flows year-round or has continuous flow at least "seasonally" (e.g., typically 3 months).

³ Supporting documentation is presented in Section III.F.

A. TNWs AND WETLANDS ADJACENT TO TNWs

The agencies will assert jurisdiction over TNWs and wetlands adjacent to TNWs. If the aquatic resource is a TNW, complete Section III.A.1 and Section III.D.1. only; if the aquatic resource is a wetland adjacent to a TNW, complete Sections III.A.1 and 2 and Section III.D.1.; otherwise, see Section III.B below.

1. TNW

Identify TNW:

Summarize rationale supporting determination:

2. Wetland adjacent to TNW

Summarize rationale supporting conclusion that wetland is “adjacent”:

B. CHARACTERISTICS OF TRIBUTARY (THAT IS NOT A TNW) AND ITS ADJACENT WETLANDS (IF ANY):

This section summarizes information regarding characteristics of the tributary and its adjacent wetlands, if any, and it helps determine whether or not the standards for jurisdiction established under *Rapanos* have been met.

The agencies will assert jurisdiction over non-navigable tributaries of TNWs where the tributaries are “relatively permanent waters” (RPWs), i.e. tributaries that typically flow year-round or have continuous flow at least seasonally (e.g., typically 3 months). A wetland that directly abuts an RPW is also jurisdictional. If the aquatic resource is not a TNW, but has year-round (perennial) flow, skip to Section III.D.2. If the aquatic resource is a wetland directly abutting a tributary with perennial flow, skip to Section III.D.4.

A wetland that is adjacent to but that does not directly abut an RPW requires a significant nexus evaluation. Corps districts and EPA regions will include in the record any available information that documents the existence of a significant nexus between a relatively permanent tributary that is not perennial (and its adjacent wetlands if any) and a traditional navigable water, even though a significant nexus finding is not required as a matter of law.

If the waterbody⁴ is not an RPW, or a wetland directly abutting an RPW, a JD will require additional data to determine if the waterbody has a significant nexus with a TNW. If the tributary has adjacent wetlands, the significant nexus evaluation must consider the tributary in combination with all of its adjacent wetlands. This significant nexus evaluation that combines, for analytical purposes, the tributary and all of its adjacent wetlands is used whether the review area identified in the JD request is the tributary, or its adjacent wetlands, or both. If the JD covers a tributary with adjacent wetlands, complete Section III.B.1 for the tributary, Section III.B.2 for any onsite wetlands, and Section III.B.3 for all wetlands adjacent to that tributary, both onsite and offsite. The determination whether a significant nexus exists is determined in Section III.C below.

1. Characteristics of non-TNWs that flow directly or indirectly into TNW

(i) General Area Conditions:

Watershed size: **Pick List**

Drainage area: **Pick List**

Average annual rainfall: inches

Average annual snowfall: inches

(ii) Physical Characteristics:

(a) Relationship with TNW:

☐ Tributary flows directly into TNW.

☐ Tributary flows through **Pick List** tributaries before entering TNW.

Project waters are **Pick List** river miles from TNW.

Project waters are **Pick List** river miles from RPW.

Project waters are **Pick List** aerial (straight) miles from TNW.

Project waters are **Pick List** aerial (straight) miles from RPW.

Project waters cross or serve as state boundaries. Explain:

Identify flow route to TNW⁵:

Tributary stream order, if known:

(b) General Tributary Characteristics (check all that apply):

Tributary is: ☐ Natural

☐ Artificial (man-made). Explain:

⁴Note that the Instructional Guidebook contains additional information regarding swales, ditches, washes, and erosional features generally and in the arid West.

⁵Flow route can be described by identifying, e.g., tributary a, which flows through the review area, to flow into tributary b, which then flows into TNW.

☐ Manipulated (man-altered). Explain:

Tributary properties with respect to top of bank (estimate):

Average width: feet

Average depth: feet

Average side slopes: **Pick List**.

Primary tributary substrate composition (check all that apply):

☐ Silts

☐ Sands

☐ Concrete

☐ Cobbles

☐ Gravel

☐ Muck

☐ Bedrock

☐ Vegetation. Type/% cover:

☐ Other. Explain:

Tributary condition/stability [e.g., highly eroding, sloughing banks]. Explain:

Presence of run/riffle/pool complexes. Explain:

Tributary geometry: **Pick List**

Tributary gradient (approximate average slope): %

(c) **Flow:**

Tributary provides for: **Pick List**

Estimate average number of flow events in review area/year: **Pick List**

Describe flow regime:

Other information on duration and volume:

Surface flow is: **Pick List**. Characteristics:

Subsurface flow: **Pick List**. Explain findings:

☐ Dye (or other) test performed:

Tributary has (check all that apply):

☐ Bed and banks

☐ OHWM⁶ (check all indicators that apply):

☐ clear, natural line impressed on the bank

☐ changes in the character of soil

☐ shelving

☐ vegetation matted down, bent, or absent

☐ leaf litter disturbed or washed away

☐ sediment deposition

☐ water staining

☐ other (list):

☐ Discontinuous OHWM.⁷ Explain:

☐ the presence of litter and debris

☐ destruction of terrestrial vegetation

☐ the presence of wrack line

☐ sediment sorting

☐ scour

☐ multiple observed or predicted flow events

☐ abrupt change in plant community

If factors other than the OHWM were used to determine lateral extent of CWA jurisdiction (check all that apply):

☐ High Tide Line indicated by:

☐ oil or scum line along shore objects

☐ fine shell or debris deposits (foreshore)

☐ physical markings/characteristics

☐ tidal gauges

☐ other (list):

☐ Mean High Water Mark indicated by:

☐ survey to available datum;

☐ physical markings;

☐ vegetation lines/changes in vegetation types.

(iii) **Chemical Characteristics:**

Characterize tributary (e.g., water color is clear, discolored, oily film; water quality; general watershed characteristics, etc.).

Explain:

Identify specific pollutants, if known:

(iv) **Biological Characteristics. Channel supports (check all that apply):**

☐ Riparian corridor. Characteristics (type, average width):

☐ Wetland fringe. Characteristics:

☐ Habitat for:

☐ Federally Listed species. Explain findings:

☐ Fish/spawn areas. Explain findings:

☐ Other environmentally-sensitive species. Explain findings:

⁶A natural or man-made discontinuity in the OHWM does not necessarily sever jurisdiction (e.g., where the stream temporarily flows underground, or where the OHWM has been removed by development or agricultural practices). Where there is a break in the OHWM that is unrelated to the waterbody's flow regime (e.g., flow over a rock outcrop or through a culvert), the agencies will look for indicators of flow above and below the break.

⁷Ibid.

☐ Aquatic/wildlife diversity. Explain findings:

2. Characteristics of wetlands adjacent to non-TNW that flow directly or indirectly into TNW

(i) Physical Characteristics:

(a) General Wetland Characteristics:

Properties:

Wetland size: acres

Wetland type. Explain:

Wetland quality. Explain:

Project wetlands cross or serve as state boundaries. Explain:

(b) General Flow Relationship with Non-TNW:

Flow is: **Pick List**. Explain:

Surface flow is: **Pick List**

Characteristics:

Subsurface flow: **Pick List**. Explain findings:

☐ Dye (or other) test performed:

(c) Wetland Adjacency Determination with Non-TNW:

☐ Directly abutting

☐ Not directly abutting

☐ Discrete wetland hydrologic connection. Explain:

☐ Ecological connection. Explain:

☐ Separated by berm/barrier. Explain:

(d) Proximity (Relationship) to TNW

Project wetlands are **Pick List** river miles from TNW.

Project waters are **Pick List** aerial (straight) miles from TNW.

Flow is from: **Pick List**.

Estimate approximate location of wetland as within the **Pick List** floodplain.

(ii) Chemical Characteristics:

Characterize wetland system (e.g., water color is clear, brown, oil film on surface; water quality; general watershed characteristics; etc.). Explain:

Identify specific pollutants, if known:

(iii) Biological Characteristics. Wetland supports (check all that apply):

☐ Riparian buffer. Characteristics (type, average width):

☐ Vegetation type/percent cover. Explain:

☐ Habitat for:

☐ Federally Listed species. Explain findings:

☐ Fish/spawn areas. Explain findings:

☐ Other environmentally-sensitive species. Explain findings:

☐ Aquatic/wildlife diversity. Explain findings:

3. Characteristics of all wetlands adjacent to the tributary (if any)

All wetland(s) being considered in the cumulative analysis: **Pick List**

Approximately acres in total are being considered in the cumulative analysis.

For each wetland, specify the following:

Directly abuts? (Y/N)

Size (in acres)

Directly abuts? (Y/N)

Size (in acres)

Summarize overall biological, chemical and physical functions being performed:

C. SIGNIFICANT NEXUS DETERMINATION

A significant nexus analysis will assess the flow characteristics and functions of the tributary itself and the functions performed by any wetlands adjacent to the tributary to determine if they significantly affect the chemical, physical, and biological integrity

of a TNW. For each of the following situations, a significant nexus exists if the tributary, in combination with all of its adjacent wetlands, has more than a speculative or insubstantial effect on the chemical, physical and/or biological integrity of a TNW. Considerations when evaluating significant nexus include, but are not limited to the volume, duration, and frequency of the flow of water in the tributary and its proximity to a TNW, and the functions performed by the tributary and all its adjacent wetlands. It is not appropriate to determine significant nexus based solely on any specific threshold of distance (e.g. between a tributary and its adjacent wetland or between a tributary and the TNW). Similarly, the fact an adjacent wetland lies within or outside of a floodplain is not solely determinative of significant nexus.

Draw connections between the features documented and the effects on the TNW, as identified in the *Rapanos* Guidance and discussed in the Instructional Guidebook. Factors to consider include, for example:

- Does the tributary, in combination with its adjacent wetlands (if any), have the capacity to carry pollutants or flood waters to TNWs, or to reduce the amount of pollutants or flood waters reaching a TNW?
- Does the tributary, in combination with its adjacent wetlands (if any), provide habitat and lifecycle support functions for fish and other species, such as feeding, nesting, spawning, or rearing young for species that are present in the TNW?
- Does the tributary, in combination with its adjacent wetlands (if any), have the capacity to transfer nutrients and organic carbon that support downstream food webs?
- Does the tributary, in combination with its adjacent wetlands (if any), have other relationships to the physical, chemical, or biological integrity of the TNW?

Note: the above list of considerations is not inclusive and other functions observed or known to occur should be documented below:

- 1. Significant nexus findings for non-RPW that has no adjacent wetlands and flows directly or indirectly into TNWs.** Explain findings of presence or absence of significant nexus below, based on the tributary itself, then go to Section III.D:
- 2. Significant nexus findings for non-RPW and its adjacent wetlands, where the non-RPW flows directly or indirectly into TNWs.** Explain findings of presence or absence of significant nexus below, based on the tributary in combination with all of its adjacent wetlands, then go to Section III.D:
- 3. Significant nexus findings for wetlands adjacent to an RPW but that do not directly abut the RPW.** Explain findings of presence or absence of significant nexus below, based on the tributary in combination with all of its adjacent wetlands, then go to Section III.D:

D. DETERMINATIONS OF JURISDICTIONAL FINDINGS. THE SUBJECT WATERS/WETLANDS ARE (CHECK ALL THAT APPLY):

- 1. TNWs and Adjacent Wetlands.** Check all that apply and provide size estimates in review area:

- ☐ TNWs: linear feet, wide, Or acres.
☐ Wetlands adjacent to TNWs: acres.

- 2. RPWs that flow directly or indirectly into TNWs.**

- ☐ Tributaries of TNWs where tributaries typically flow year-round are jurisdictional. Provide data and rationale indicating that tributary is perennial:
☐ Tributaries of TNW where tributaries have continuous flow “seasonally” (e.g., typically three months each year) are jurisdictional. Data supporting this conclusion is provided at Section III.B. Provide rationale indicating that tributary flows seasonally:

Provide estimates for jurisdictional waters in the review area (check all that apply):

- ☐ Tributary waters: linear feet wide.
☐ Other non-wetland waters: acres.

Identify type(s) of waters:

- 3. Non-RPWs⁸ that flow directly or indirectly into TNWs.**

- ☐ Waterbody that is not a TNW or an RPW, but flows directly or indirectly into a TNW, and it has a significant nexus with a TNW is jurisdictional. Data supporting this conclusion is provided at Section III.C.

Provide estimates for jurisdictional waters within the review area (check all that apply):

- ☐ Tributary waters: linear feet, wide.
☐ Other non-wetland waters: acres.

Identify type(s) of waters:

- 4. Wetlands directly abutting an RPW that flow directly or indirectly into TNWs.**

- ☐ Wetlands directly abut RPW and thus are jurisdictional as adjacent wetlands.

⁸See Footnote # 3.

- ☐ Wetlands directly abutting an RPW where tributaries typically flow year-round. Provide data and rationale indicating that tributary is perennial in Section III.D.2, above. Provide rationale indicating that wetland is directly abutting an RPW:
- ☐ Wetlands directly abutting an RPW where tributaries typically flow “seasonally.” Provide data indicating that tributary is seasonal in Section III.B and rationale in Section III.D.2, above. Provide rationale indicating that wetland is directly abutting an RPW:

Provide acreage estimates for jurisdictional wetlands in the review area: acres.

5. Wetlands adjacent to but not directly abutting an RPW that flow directly or indirectly into TNWs.

- ☐ Wetlands that do not directly abut an RPW, but when considered in combination with the tributary to which they are adjacent and with similarly situated adjacent wetlands, have a significant nexus with a TNW are jurisdictional. Data supporting this conclusion is provided at Section III.C.

Provide acreage estimates for jurisdictional wetlands in the review area: acres.

6. Wetlands adjacent to non-RPWs that flow directly or indirectly into TNWs.

- ☐ Wetlands adjacent to such waters, and have when considered in combination with the tributary to which they are adjacent and with similarly situated adjacent wetlands, have a significant nexus with a TNW are jurisdictional. Data supporting this conclusion is provided at Section III.C.

Provide estimates for jurisdictional wetlands in the review area: acres.

7. Impoundments of jurisdictional waters.⁹

As a general rule, the impoundment of a jurisdictional tributary remains jurisdictional.

- ☐ Demonstrate that impoundment was created from “waters of the U.S.,” or
- ☐ Demonstrate that water meets the criteria for one of the categories presented above (1-6), or
- ☐ Demonstrate that water is isolated with a nexus to commerce (see E below).

E. ISOLATED [INTERSTATE OR INTRA-STATE] WATERS, INCLUDING ISOLATED WETLANDS, THE USE, DEGRADATION OR DESTRUCTION OF WHICH COULD AFFECT INTERSTATE COMMERCE, INCLUDING ANY SUCH WATERS (CHECK ALL THAT APPLY):¹⁰

- ☐ which are or could be used by interstate or foreign travelers for recreational or other purposes.
- ☐ from which fish or shellfish are or could be taken and sold in interstate or foreign commerce.
- ☐ which are or could be used for industrial purposes by industries in interstate commerce.
- ☐ Interstate isolated waters. Explain:
- ☐ Other factors. Explain:

Identify water body and summarize rationale supporting determination:

Provide estimates for jurisdictional waters in the review area (check all that apply):

- ☐ Tributary waters: linear feet, wide.
- ☐ Other non-wetland waters: acres.

Identify type(s) of waters:

- ☐ Wetlands: acres.

F. NON-JURISDICTIONAL WATERS, INCLUDING WETLANDS (CHECK ALL THAT APPLY):

- ☐ If potential wetlands were assessed within the review area, these areas did not meet the criteria in the 1987 Corps of Engineers Wetland Delineation Manual and/or appropriate Regional Supplements.
- ☐ Review area included isolated waters with no substantial nexus to interstate (or foreign) commerce.
- ☐ Prior to the Jan 2001 Supreme Court decision in “*SWANCC*,” the review area would have been regulated based solely on the “Migratory Bird Rule” (MBR).
- ☐ Waters do not meet the “Significant Nexus” standard, where such a finding is required for jurisdiction. Explain:
- ☒ Other: (explain, if not covered above): Ponds SBMP 1 – SBMP 6 are stormwater management facilities created in uplands for the treatment of stormwater.

Provide acreage estimates for non-jurisdictional waters in the review area, where the sole potential basis of jurisdiction is the MBR factors (i.e., presence of migratory birds, presence of endangered species, use of water for irrigated agriculture), using best professional judgment (check all that apply):

⁹To complete the analysis refer to the key in Section III.D.6 of the Instructional Guidebook.

¹⁰Prior to asserting or declining CWA jurisdiction based solely on this category, Corps Districts will elevate the action to Corps and EPA HQ for review consistent with the process described in the Corps/EPA Memorandum Regarding CWA Act Jurisdiction Following *Rapanos*.

- ☐ Non-wetland waters (i.e., rivers, streams):linear feet, wide.
- ☐ Lakes/ponds:
- ☐ Other non-wetland waters: acres. List type of aquatic resource:
- ☐ Wetlands: acres.

Provide acreage estimates for non-jurisdictional waters in the review area that do not meet the “Significant Nexus” standard, where such a finding is required for jurisdiction (check all that apply):

- ☐ Non-wetland waters (i.e., rivers, streams):linear feet, wide.
- ☐ Lakes/ponds: acres.
- ☐ Other non-wetland waters: acres. List type of aquatic resource:
- ☐ Wetlands: acres.

SECTION IV: DATA SOURCES.

A. SUPPORTING DATA. Data reviewed for JD (check all that apply - checked items shall be included in case file and, where checked and requested, appropriately reference sources below):

- ☒ Maps, plans, plots or plat submitted by or on behalf of the applicant/consultant:
- ☐ Data sheets prepared/submitted by or on behalf of the applicant/consultant.
 - ☐ Office concurs with data sheets/delineation report.
 - ☐ Office does not concur with data sheets/delineation report.
- ☐ Data sheets prepared by the Corps:
- ☐ Corps navigable waters’ study:
- ☐ U.S. Geological Survey Hydrologic Atlas:
 - ☐ USGS NHD data.
 - ☐ USGS 8 and 12 digit HUC maps.
- ☐ U.S. Geological Survey map(s). Cite scale & quad name:
- ☐ USDA Natural Resources Conservation Service Soil Survey. Citation:
- ☐ National wetlands inventory map(s). Cite name:
- ☐ State/Local wetland inventory map(s):
- ☐ FEMA/FIRM maps:
- ☐ 100-year Floodplain Elevation is: (National Geodectic Vertical Datum of 1929)
- ☐ Photographs: ☐ Aerial (Name & Date):
 - Or ☐ Other (Name & Date):
- ☐ Previous determination(s). File no. and date of response letter:
- ☐ Applicable/supporting case law:
- ☐ Applicable/supporting scientific literature:
- ☐ Other information (please specify):

B. ADDITIONAL COMMENTS TO SUPPORT JD: