

Natural Heritage Advisory Committee

North Carolina Natural Heritage Program

May 20, 2026



North Carolina Natural Heritage Program

Recommendations for Dedication and Registry

Submitted to the Natural Heritage Advisory Committee

May 20, 2026



Dedicated Nature Preserve

- Agreement is attached to the land
- Agreement cannot be rescinded by the owner
- Requires approval of Council of State and Governor
- Specific management rules

Dedication zones

Primary Area: contains rare species populations, rare communities, and/or high-quality examples of common communities.

Primary (Restoration) Area: contains elements as above, but requires some form of active management to restore. If timber management is allowed within these areas, it is with a specific time-limited objective (e.g., removal of off-site canopy species). Part of the Primary Area.

Special Management Area: a zone which retains some natural features (e.g., rare species population(s)), but is maintained for other purposes (e.g., transmission line right-of-way).

Buffer Area: areas within a tract which contribute to the ecological function of the Primary Area, but which do not qualify as Primary.

State land dedications

- Dedication of qualifying portions required when lands were acquired with NC Land and Water Fund grants.
 - Preserve design scaled to parcel level
- Dedication is done by Letter of Allocation

Aquatic Standards for State Land Dedication

- 100 ft riparian zone on all perennial streams
 - Minimum standard
- 300 ft riparian zones along perennial streams with NHP Aquatic Habitat
 - If Aquatic Habitat has federally listed species, add 200 ft riparian zone on all perennial tributary streams to the Aquatic Habitat
 - If Aquatic Habitat does not have federally listed species, add 100 ft riparian zones on all perennial tributary streams
- NHP maintains a dataset with these parameters
 - Updated annually
 - Based on National Hydrography Dataset (NHD) maintained by USGS and NC Stream Mapping Project

Gull Rock Game Land Dedicated Nature Preserve



The Natural Heritage Advisory Committee reviewed this Gull Rock Game Land item at Feb 2026 meeting, but tabled adding new property until Committee could review language for non-emergency pumping of water as part of Burrus Canal project

Marsh at Gull Rock Game Land, Spencer Bay Photo Courtesy of Katherine Culatta

Gull Rock Game Land Dedicated Nature Preserve



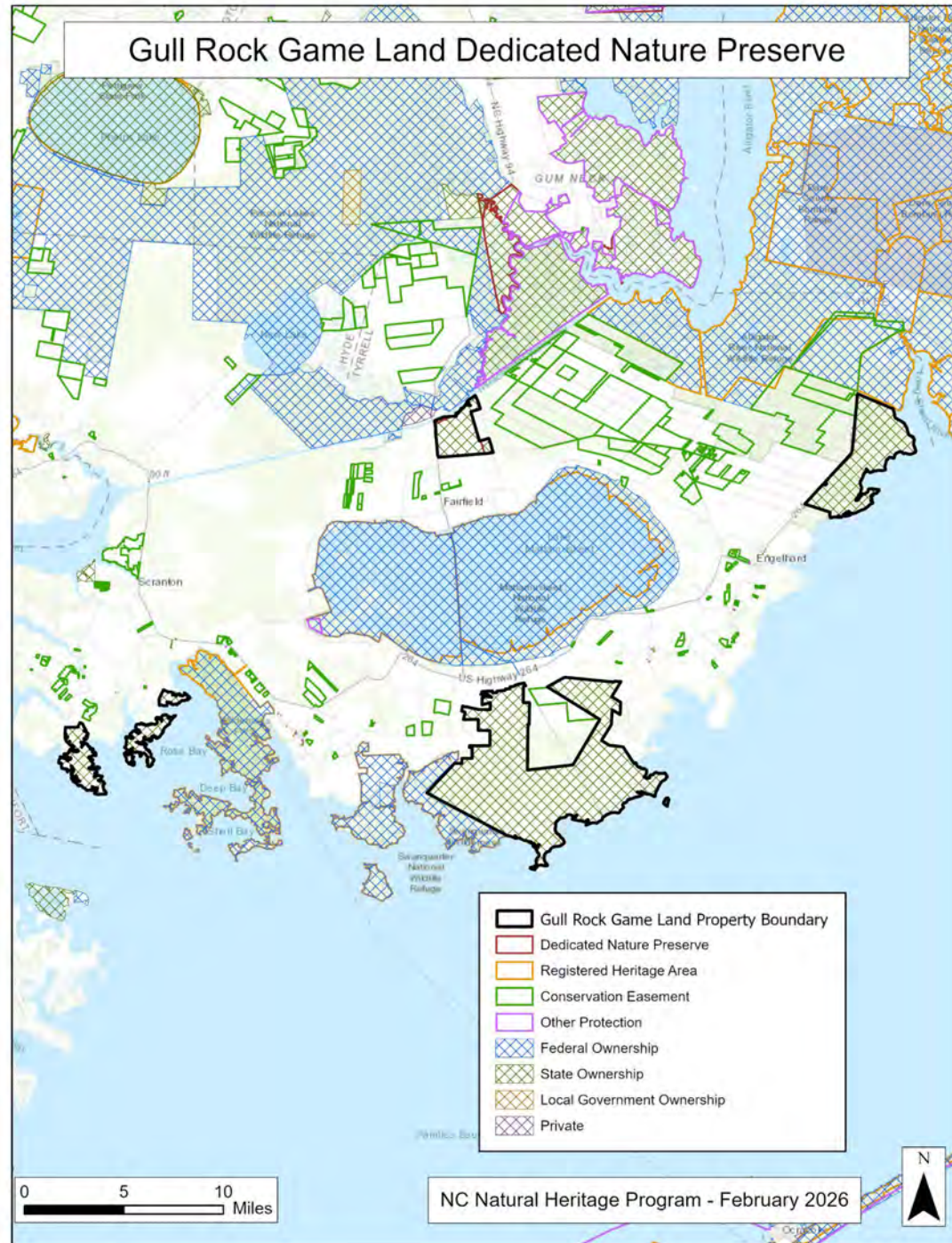
Gull Rock
Game Land

Hyde County

Mattamuskeet, Lumbee, Hatteras



Gull Rock Game Land Dedicated Nature Preserve



Gull Rock Game Land DNP



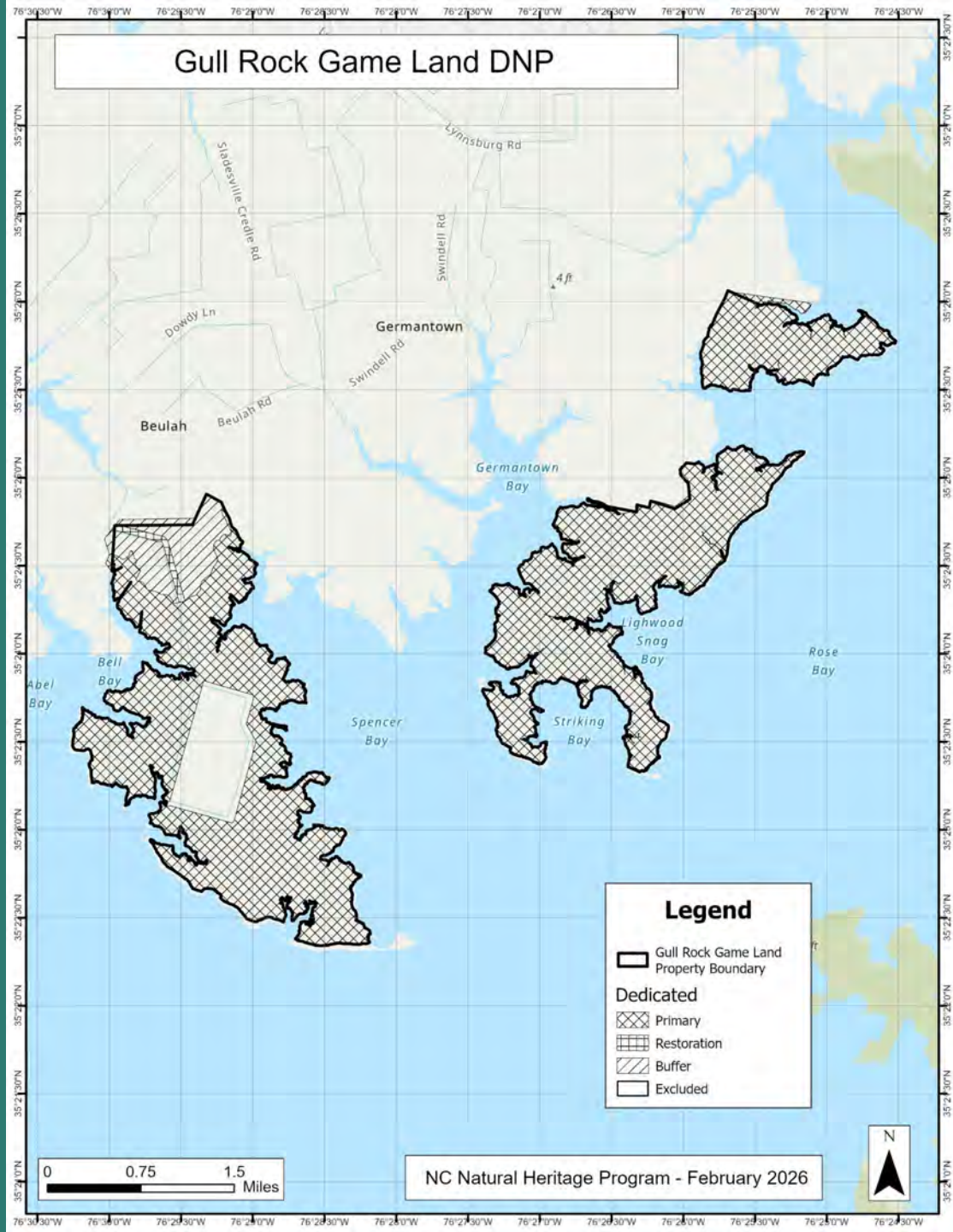
2022-060

0 0.75 1.5 Miles

NC Natural Heritage Program - February 2026

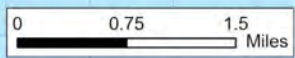


Gull Rock Game Land DNP



Legend

- Gull Rock Game Land Property Boundary
- Dedicated
 - Primary
 - Restoration
 - Buffer
 - Excluded



NC Natural Heritage Program - February 2026



Gull Rock Game Land DNP

Amendment to add tract and fulfill terms of NCLWF grant agreement 2022-060 (Spencer Bay)

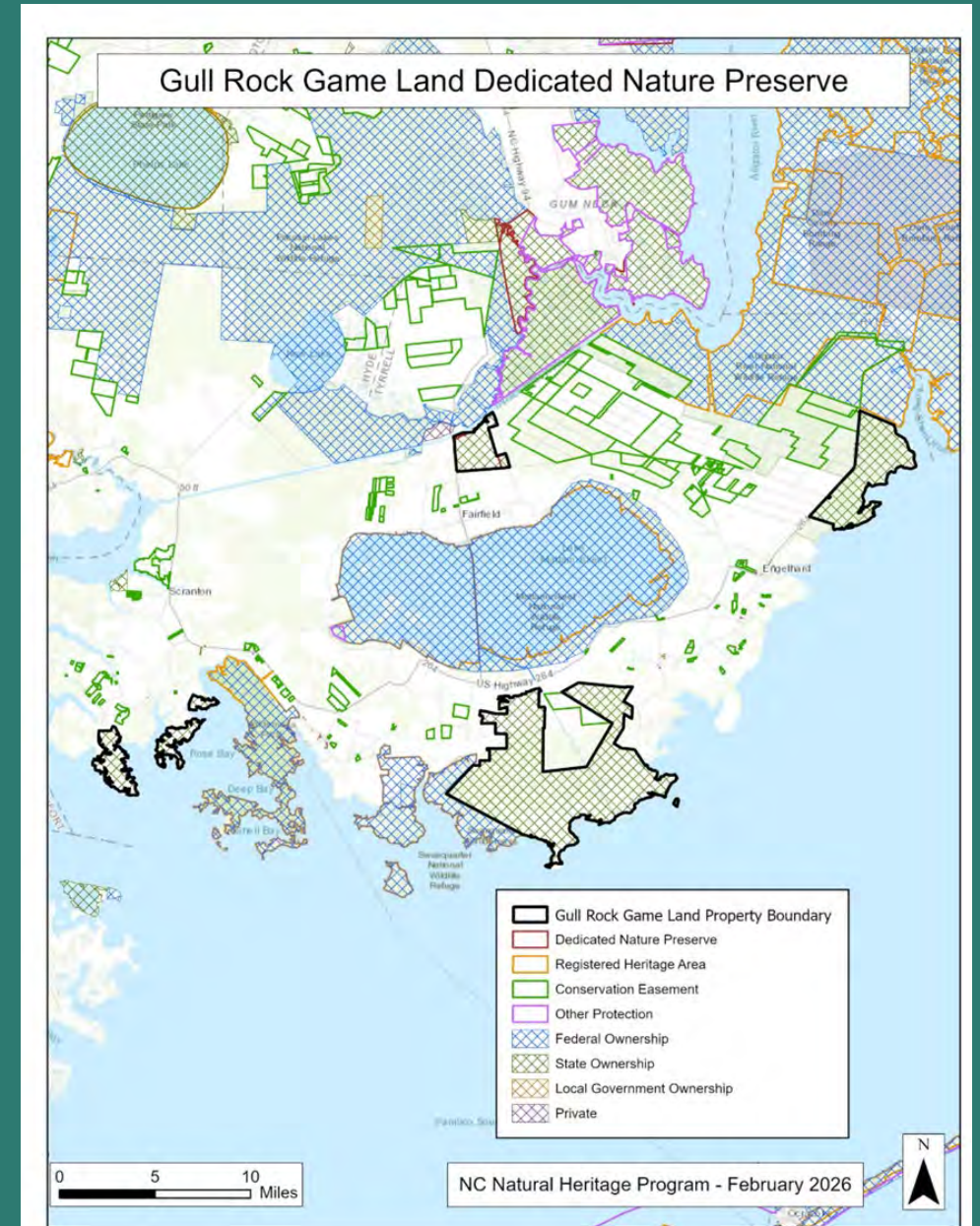
- Adds 2,736 acres to DNP
 - 2,554 acres Primary, including 18 acres Restoration
 - 182 acres Buffer
- Total DNP 10,420 acres:
 - Primary Area 7,308 acres, including 18 acres Restoration
 - Buffer Area 3,112 acres

Element Occurrences include:

- Brackish Marsh (Needlerush Subtype) – S5/G5
 - Brackish Marsh (Salt Meadow Cordgrass Subtype) – S4/GNR
 - Little-spike Spikerush (*Eleocharis parvula*) – S1/G5
 - Bald Eagle (*Haliaeetus leucocephalus*) – S3/G5
 - Marsh Hammock – S2/G3
-
- Protects portions of Swanquarter/Gull Rock Wetlands natural area – R2/C1
 - Separate potential amendment to the dedication allowing non-emergency pumping of water onto the Alligator River segment of the preserve

Gull Rock Game Land DNP

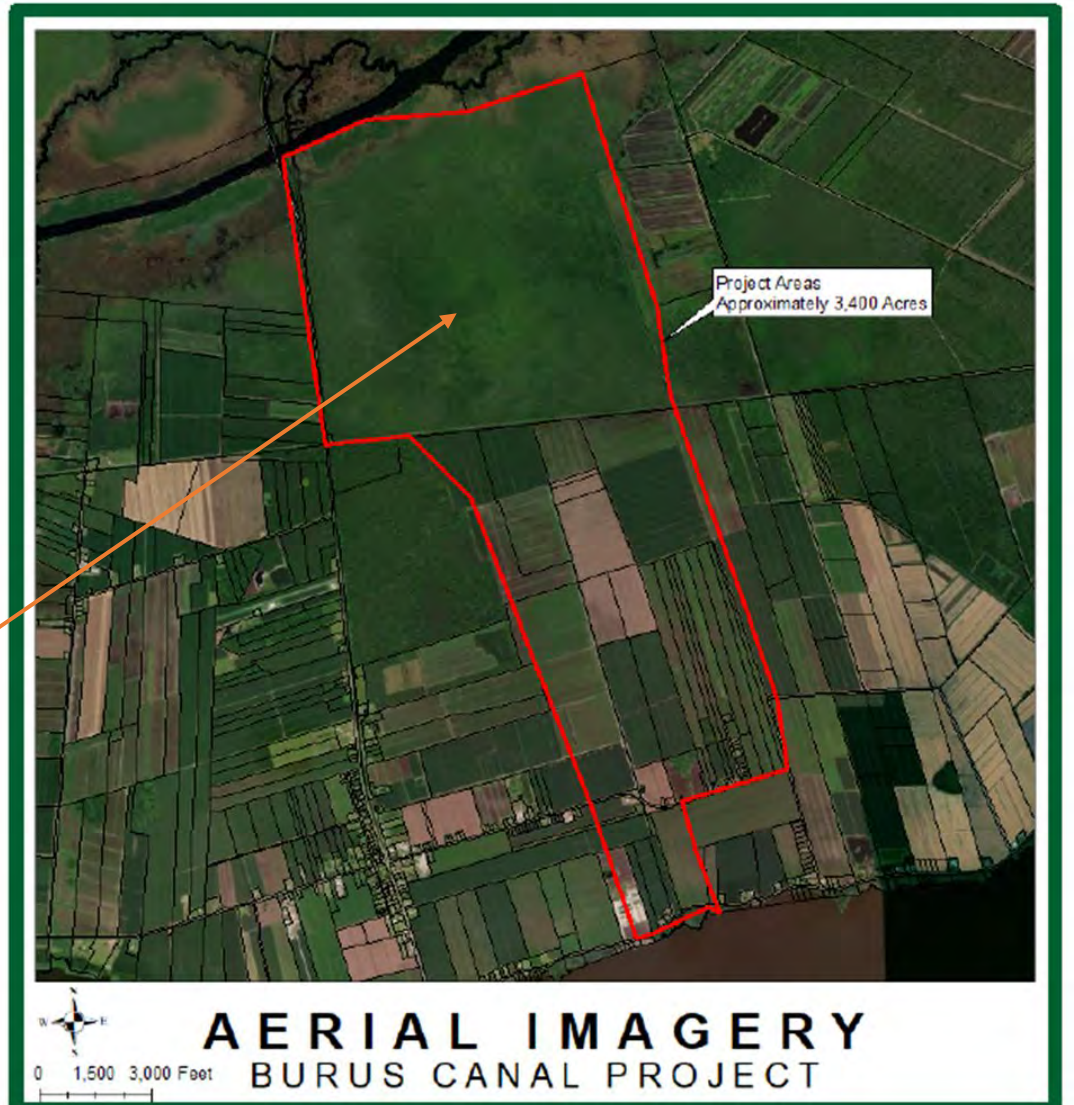
- Initial dedication of the property allowed emergency pumping of water onto the game land, to “be used only in the event of extreme rainfall, such as a named storm.”
- Burrus Canal Project, associated with Lake Mattamuskeet Watershed Restoration Plan
 - Requests to implement the project include non-emergency pumping of water



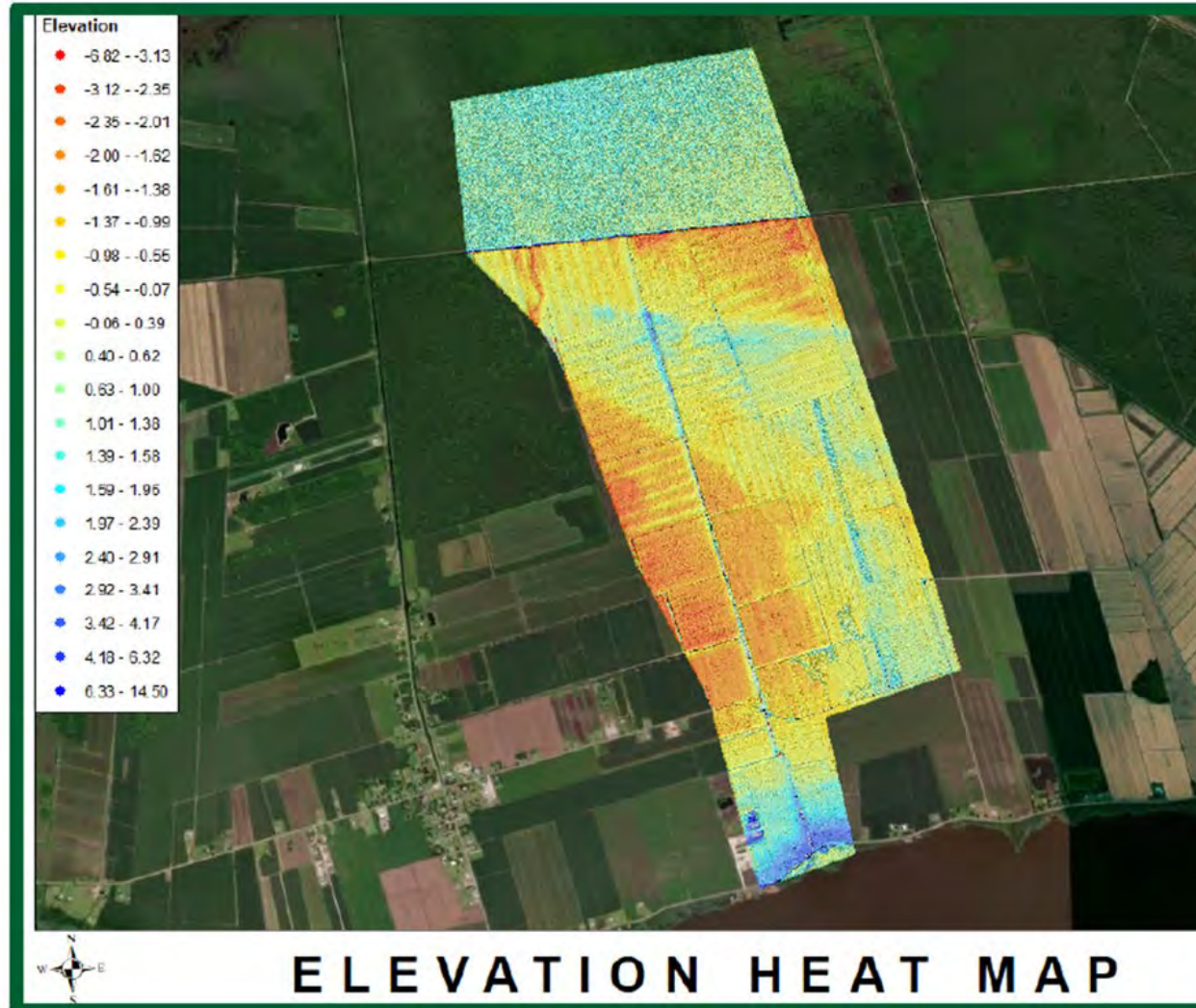
Burrus Canal Project

- Proposes to redirect drainage water from Lake Mattamuskeet
 - Pumping water into Burrus Canal to flow northward, then pumping it over the dike into the portion of Burrus Canal on Gull Rock Game Land Dedicated Nature Preserve
 - The water would then move north to the Intracoastal Waterway through swamps and marshes on the game land

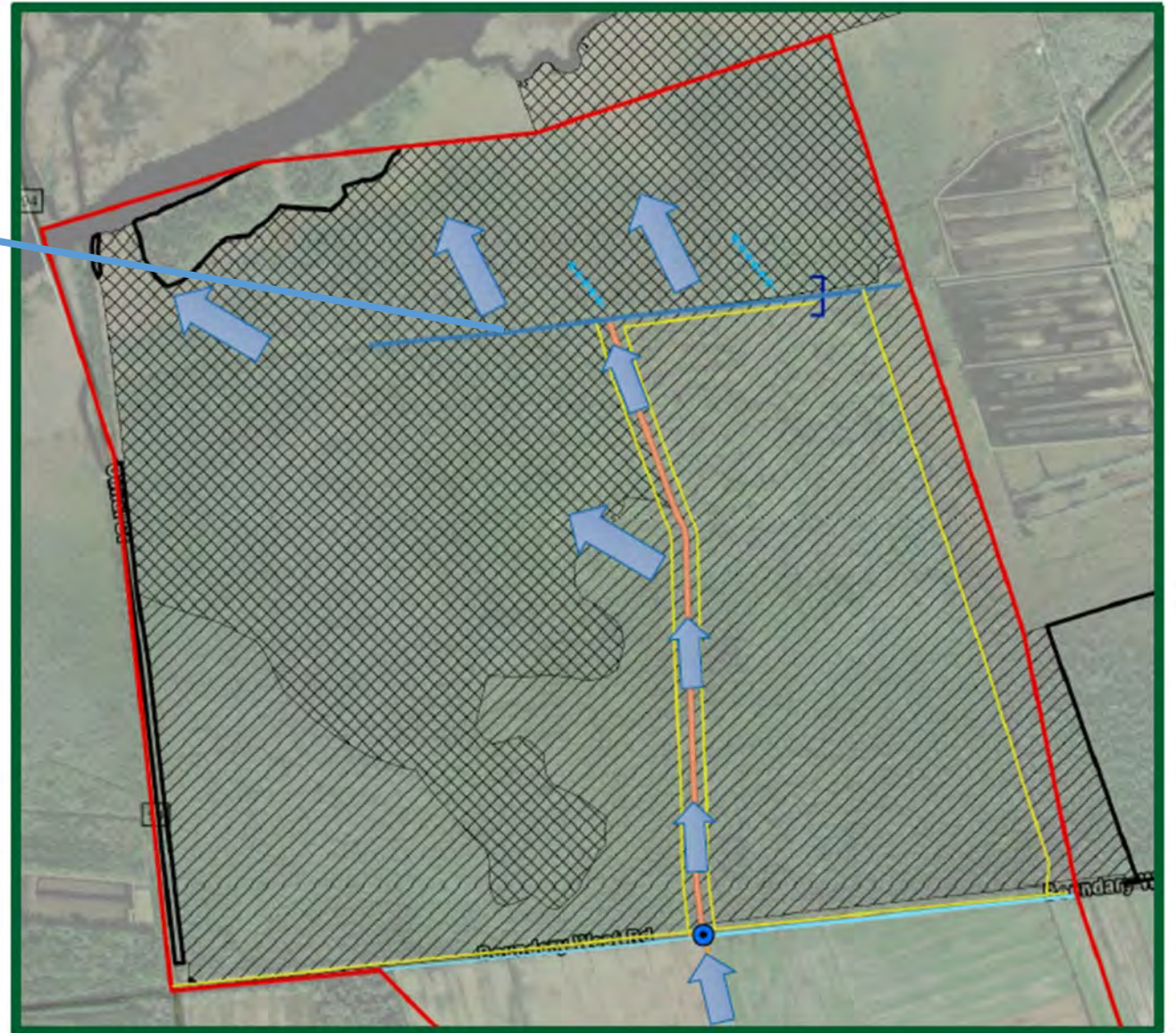
Gull Rock Game Land



Burrus Canal Project



Revised proposal would add structures within the northern road to allow more drainage through it northward, while having less water flow westward.



Cross-hatching is Dedicated Primary Area, single hatching is Buffer Area

- Initial dedication of the property allowed emergency pumping of water onto the game land, to “be used only in the event of extreme rainfall, such as a named storm.”
- WRC received requests to implement the Burrus Canal project, including for non-emergency pumping of water
- NHP agrees that more natural water regime/sheet flow of fresh water northward to the marshes would help mitigate the impact of salt coming in via Intracoastal Waterway canal
 - Carries risk of damage by excess water or excess nutrients

- Predicated on the maintenance of the structures installed along northern road that make it beneficial and more natural, new language allowing non-emergency pumping would be consistent with dedication, with language that the NC Natural Heritage Program or the NC Wildlife Resources Commission may require that pumping cease if it is determined by either party that such action is necessary to safeguard environmental resource values in the preserve or if pumping additional water becomes inconsistent with the purposes of the dedication.
 - Recommendations for inclusion of “triggers” to indicate if the pumping is causing damage to forest in the Primary Area
 - Monitoring is being set up by ECU (Randall Etheridge)
- Any additional easements for construction or drainage as part of Burrus Canal project would be subordinate to Articles of Dedication

Language reviewed at February 2026 NHAC Meeting

Revised Dedication language to allow non-emergency pumping

A location for an emergency pumping station for the Hyde Drainage District, discharging onto the Game Land within the preserve Buffer Area, has been requested. The location has previously had significant hydrological alteration, and is shown in Exhibit B Alligator River Segment map. If constructed, the pumping station will be operated according to a written plan (“Plan”) ~~and will be used only in the event of extreme rainfall, such as a named storm.~~ To the extent practicable, efforts will be made to locate the intake for the pumping station so as to avoid known sources of contamination. Wildlife Resources Commission, or their assigns, shall install and maintain sufficient modifications to the roads to allow water added by pumping a more natural and diffuse flow northward and westward where appropriate. The Wildlife Resources Commission, or their assigns, shall be responsible for drafting the Plan and the Plan shall be subject to final approval of the NC Natural Heritage Program before finalizing or modification The NC Natural Heritage Program or the NC Wildlife Resources Commission may require that pumping schedules be modified or pumping cease if it is determined by either party that such action is necessary because of undue stress to the preserve or to safeguard environmental resource values in the preserve, or based on other criteria as may be deemed appropriate to NHP.

Revised Dedication language to allow non-emergency pumping – May 2026

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Revised Dedication language to allow non-emergency pumping – May 2026

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Bertie County Game Land DNP



Bertie County Game Land, photo courtesy of Katherine Culatta

Bertie County Game Land DNP

Bertie County Game Land DNP

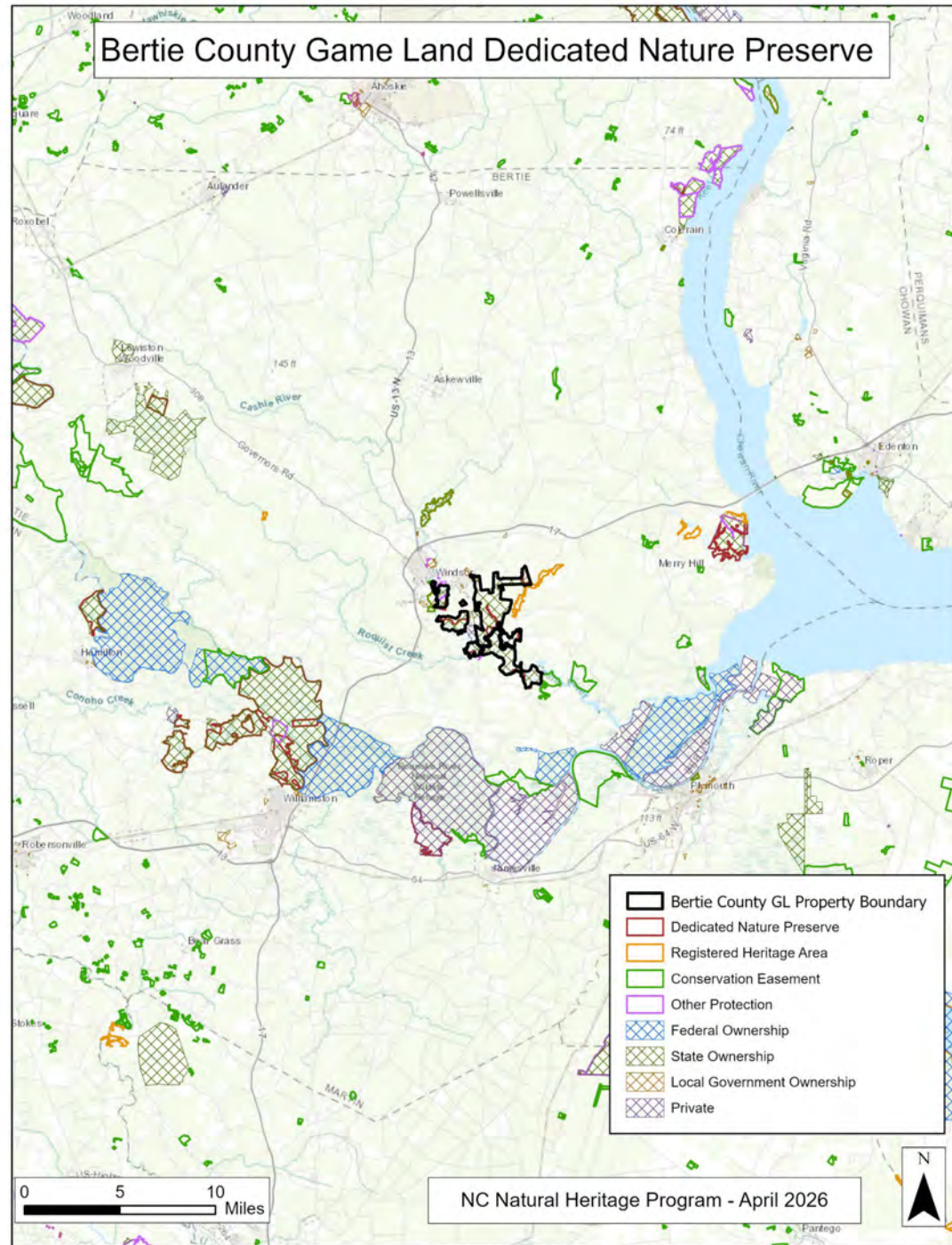


Bertie County

Lumbee, Chowanoke, Moratok

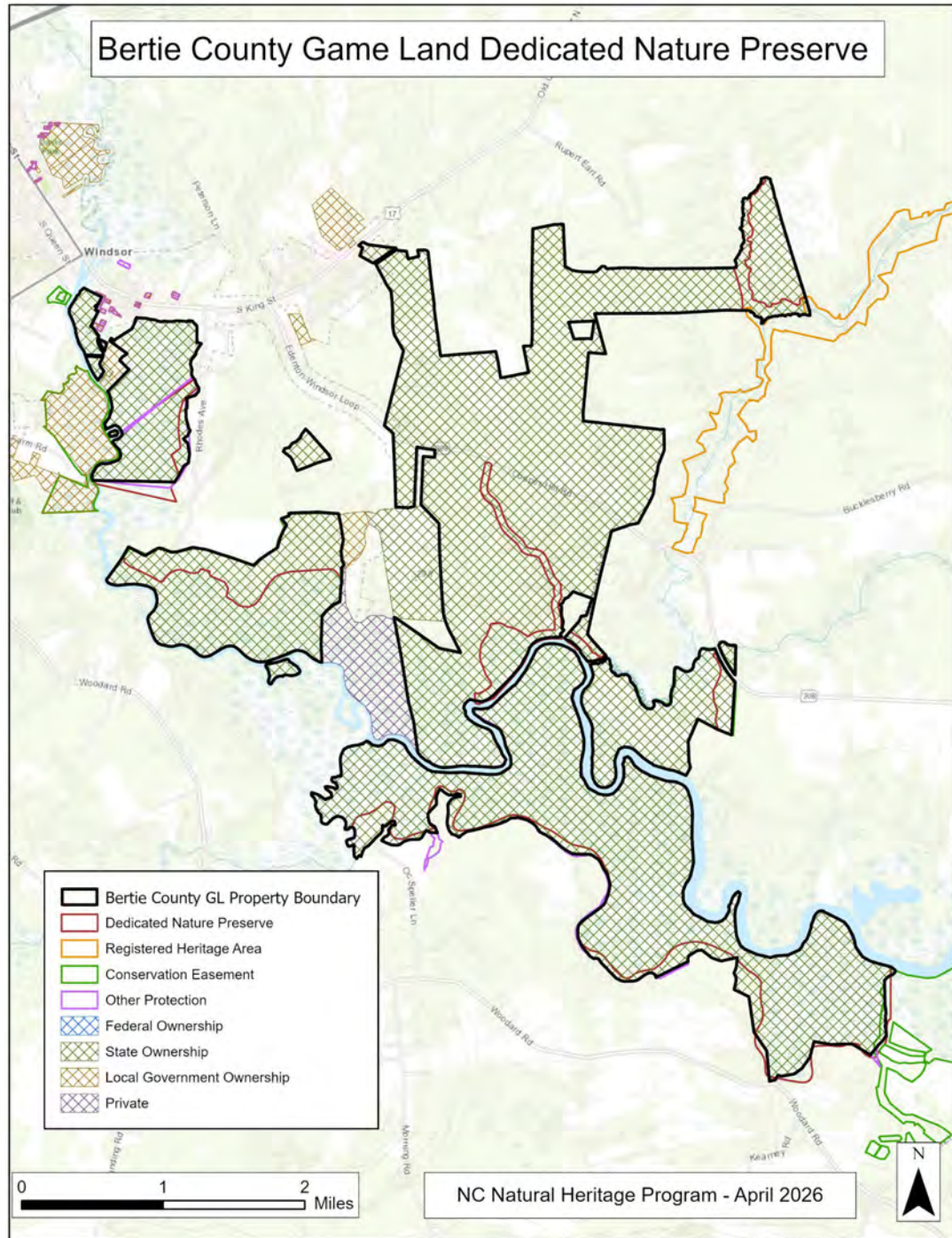


Bertie County Game Land Dedicated Nature Preserve



NC Natural Heritage Program - April 2026

Bertie County Game Land Dedicated Nature Preserve



NC Natural Heritage Program - April 2026

Bertie County Game Land DNP



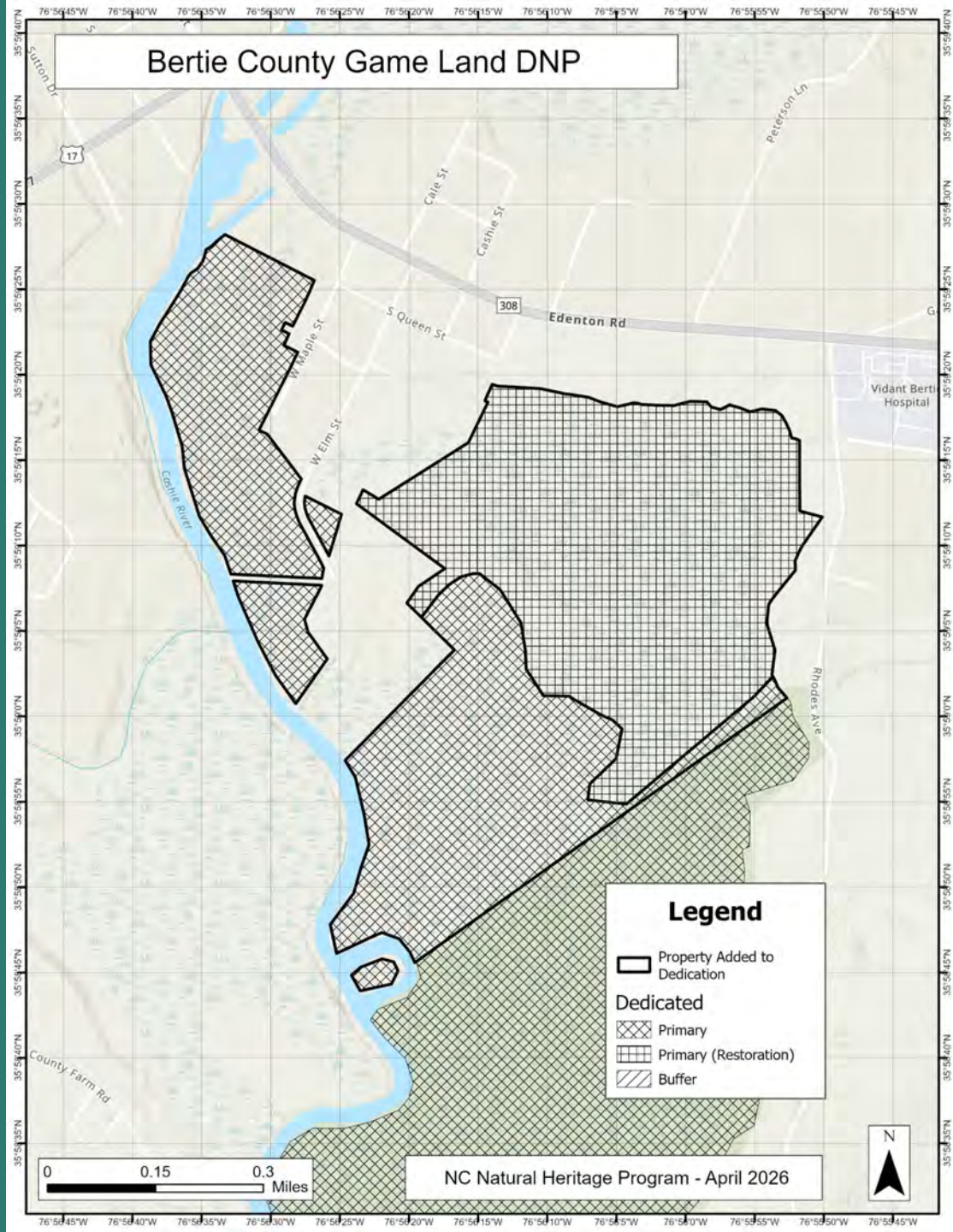
Property Added to Dedication

0 0.15 0.3 Miles

NC Natural Heritage Program - April 2026



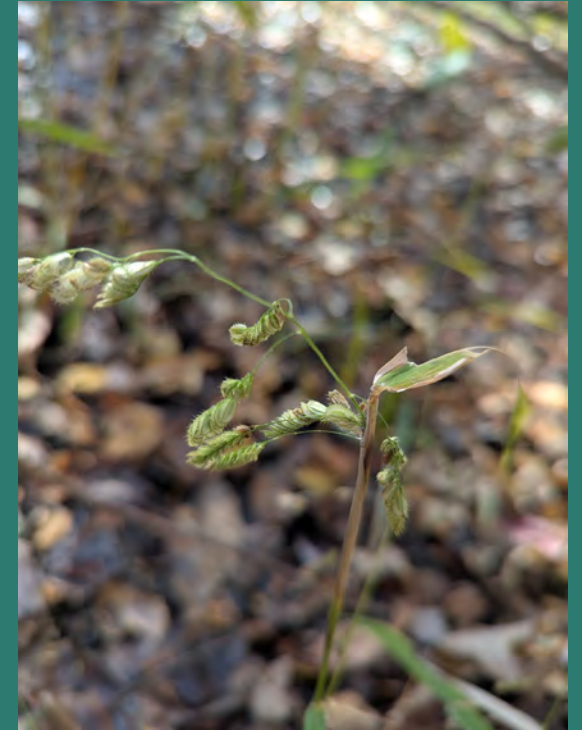
Bertie County Game Land DNP



Bertie County Game Land Dedicated Nature Preserve

Amendment to add tract and fulfill terms of NCLWF grant agreement (#2022-068)

- Adds 173 acres
 - All Primary, including 85 acres Restoration
- Total DNP 2,180 acres
 - 2,083 acres Primary
 - 97 acres Buffer
- Element Occurrences include:
 - Catchfly cutgrass (*Leersia lenticularis*) – S2/G5
 - Tidal Swamp (Cypress—Gum Subtype) – S4/G3
- Riparian zones along tributary streams draining to Cashie River Aquatic Habitat -- R3/C5
- Portions of Cashie River Swamp natural area -- R2/C5



Catchfly cutgrass (*Leersia lenticularis*)

Photo courtesy Katherine Culatta

Holly Shelter Game Land DNP – *Pending Review*



Holly Shelter Game Land Dedicated Nature Preserve



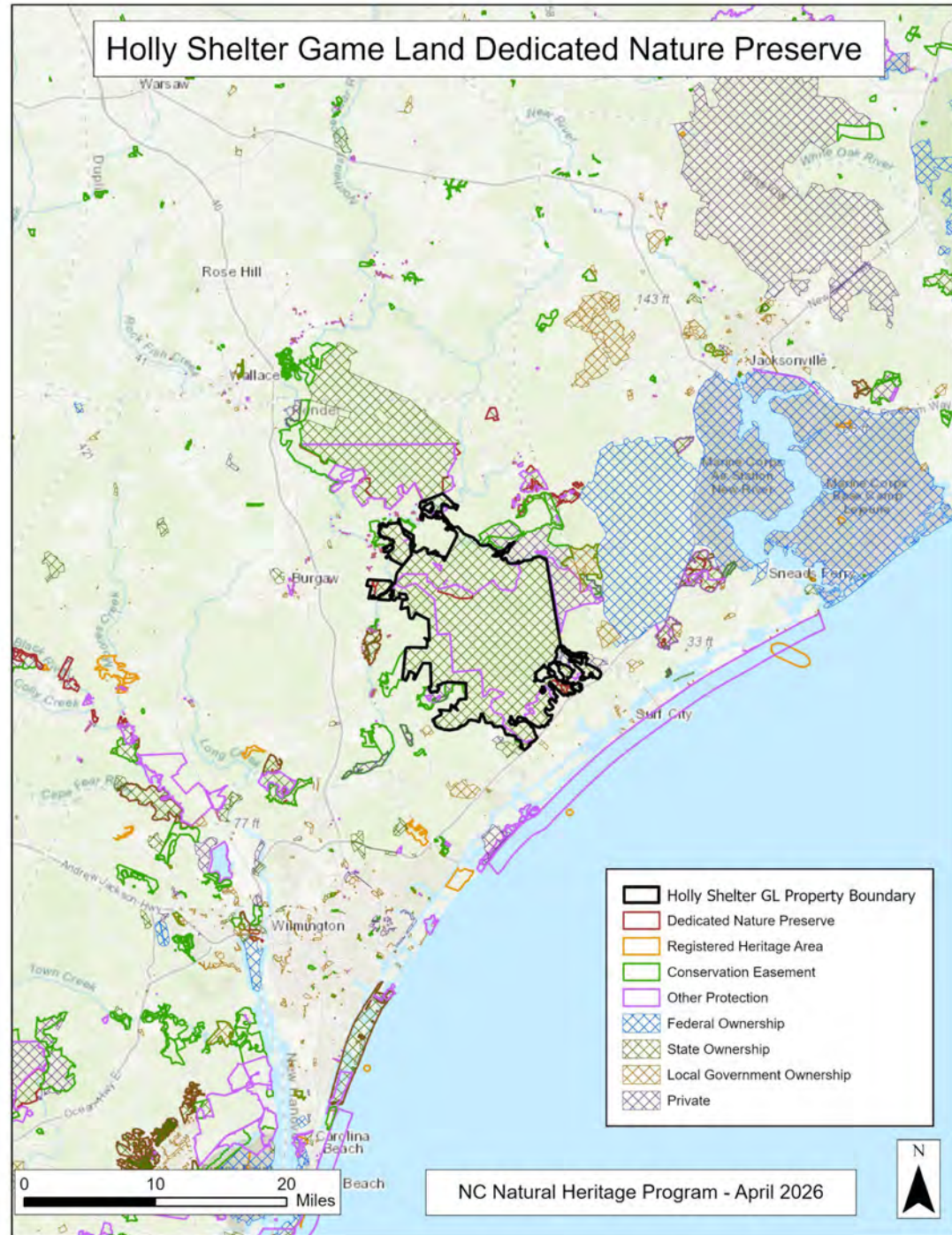
Holly Shelter Game Land

Pender County

Lumbee, Manu (Catawba), Waccamaw, Coree



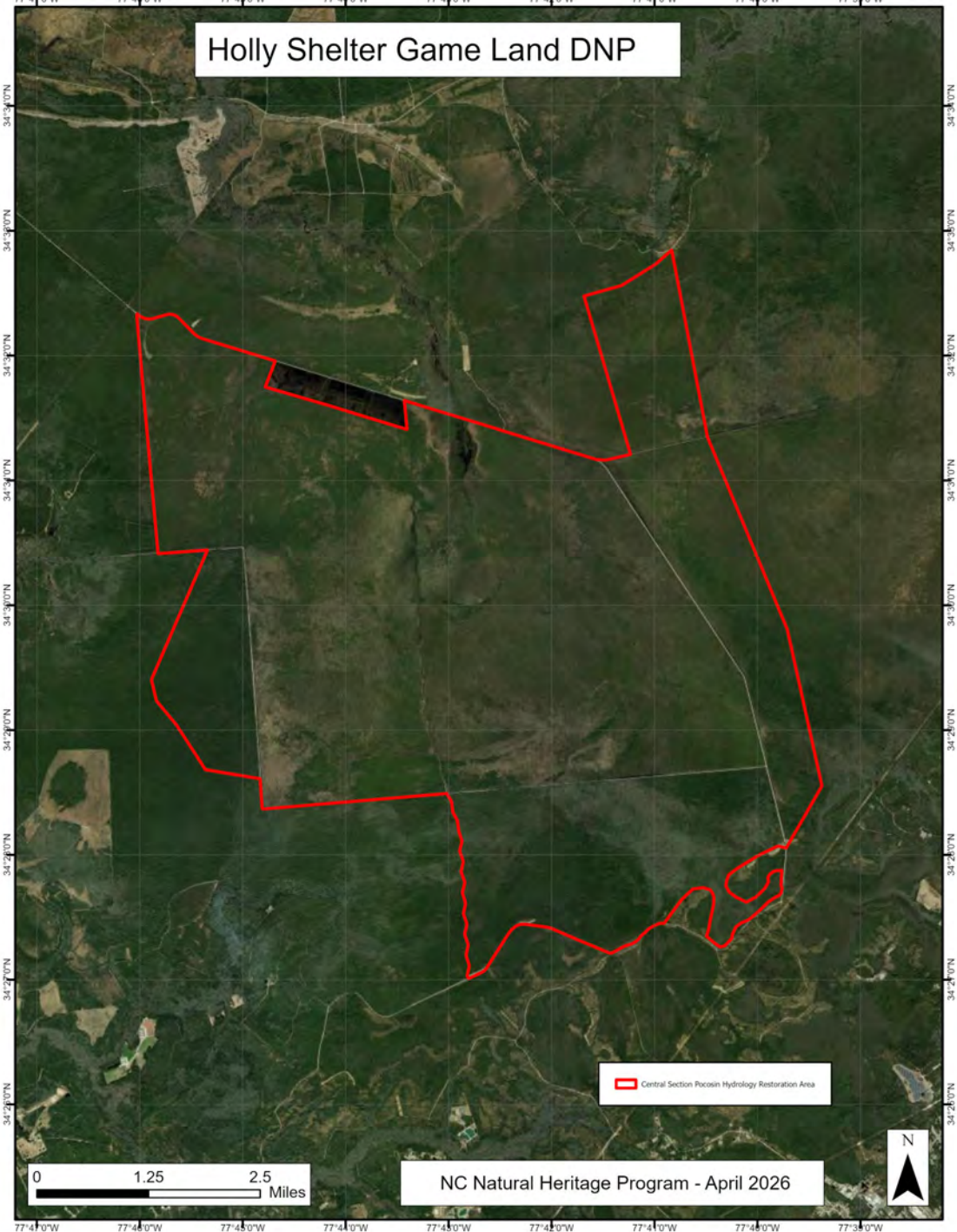
Holly Shelter Game Land Dedicated Nature Preserve



- Holly Shelter GL Property Boundary
- Dedicated Nature Preserve
- Registered Heritage Area
- Conservation Easement
- Other Protection
- Federal Ownership
- State Ownership
- Local Government Ownership
- Private

NC Natural Heritage Program - April 2026

Holly Shelter Game Land DNP



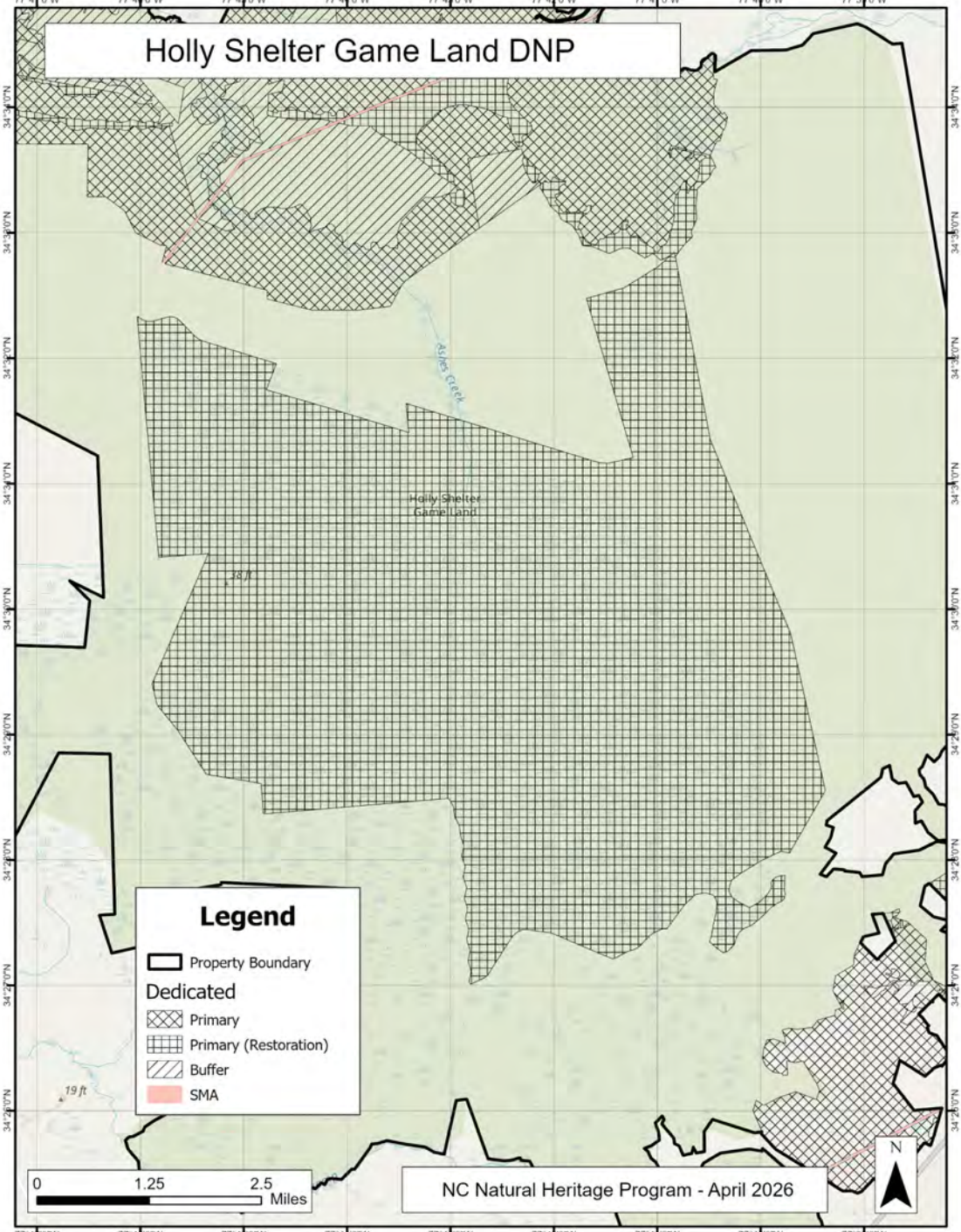
0 1.25 2.5 Miles

NC Natural Heritage Program - April 2026



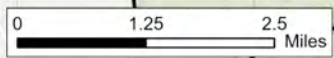
Central Section Pocosin Hydrology Restoration Area

Holly Shelter Game Land DNP



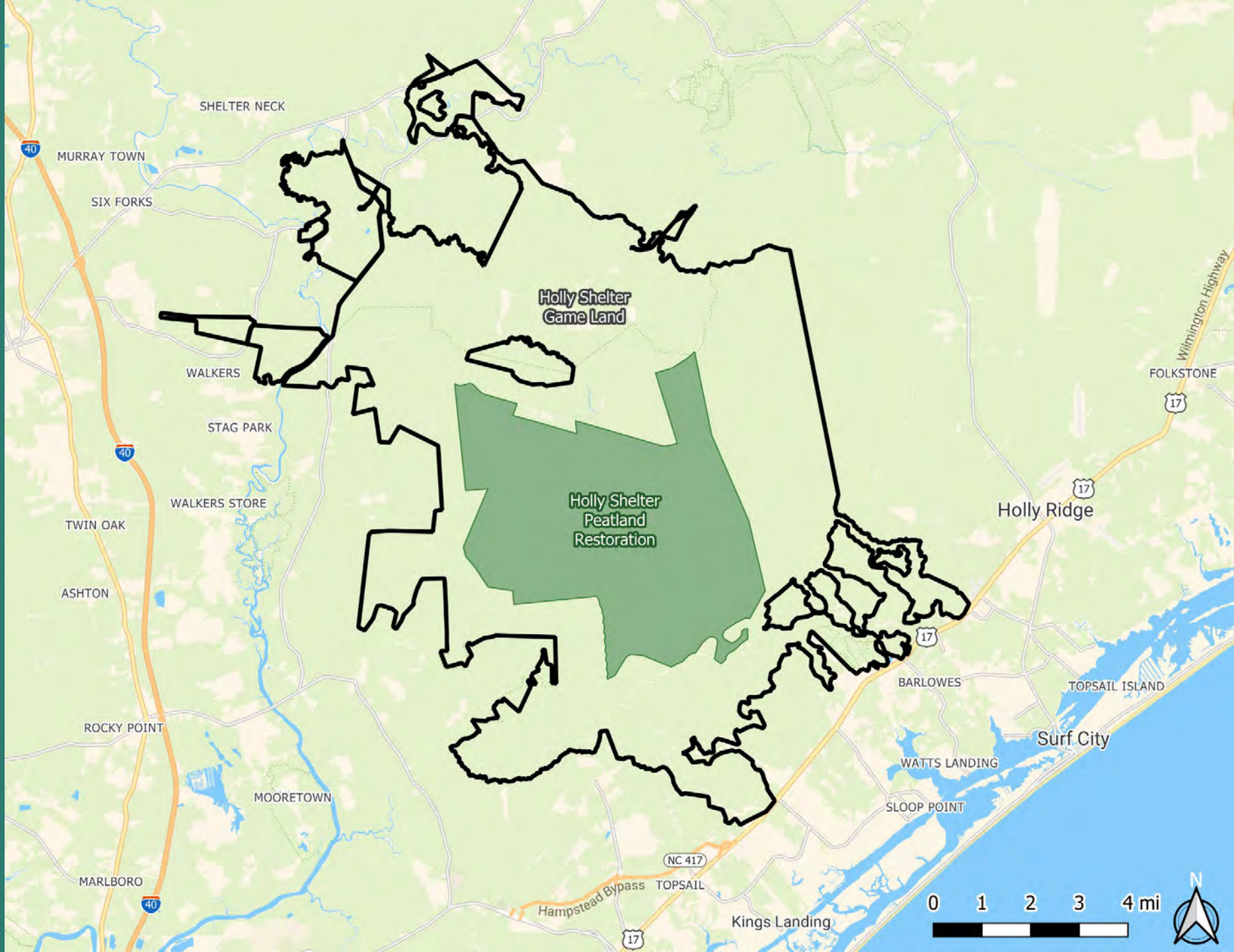
Legend

- Property Boundary
- Dedicated
 - Primary
 - Primary (Restoration)
 - Buffer
 - SMA



NC Natural Heritage Program - April 2026







Landsat 5
June 19, 2011

0 4 8 Miles



Landsat 5
July 21, 2011

0 4 8 Miles

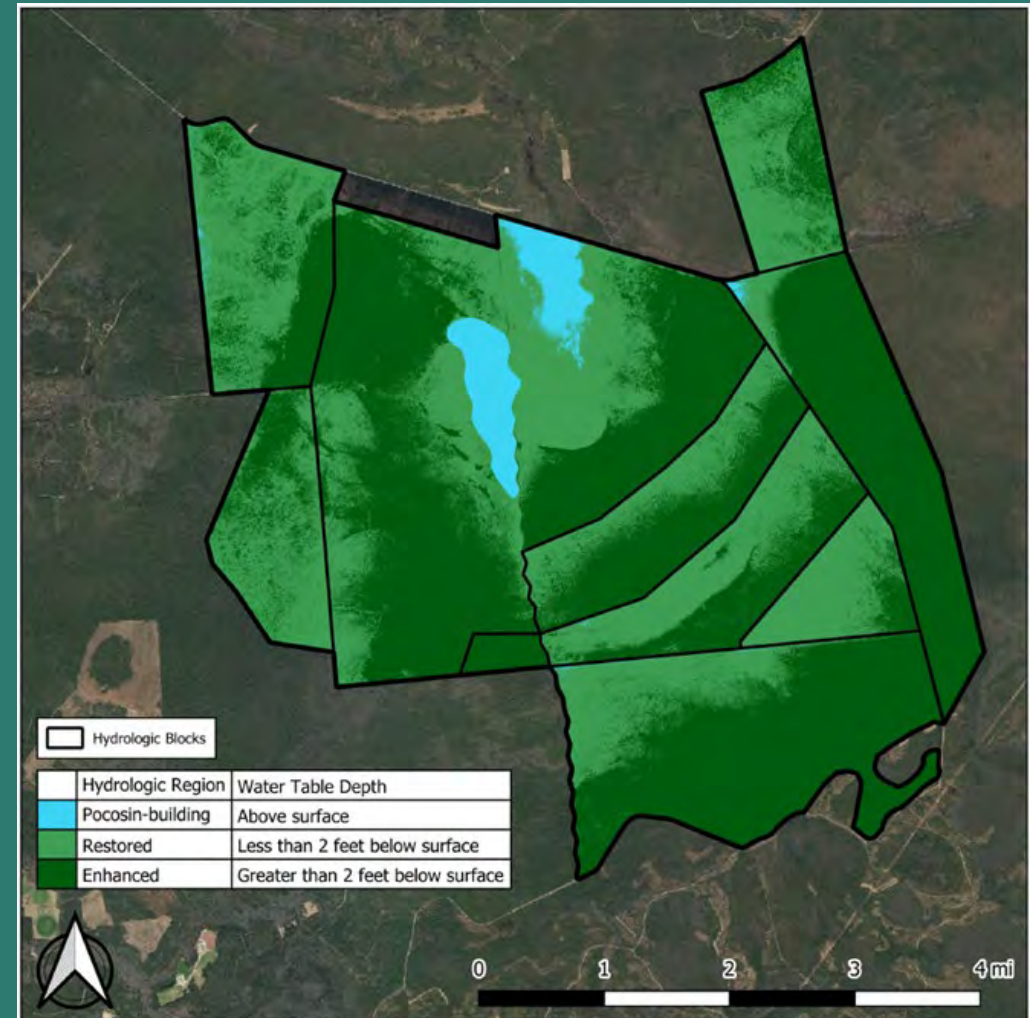


Map 2: Landsat 5 imagery just before and after ignition of the 2011 Juniper Rd Fire at Holly Shelter.

Holly Shelter Game Land Dedicated Nature Preserve

Amendment to add tract associated with Climate Pollution Reduction Grant

- Adds 15,800 acres to DNP, all Primary (Restoration)
- Total DNP 32,761 acres:
 - Primary Area 26,371 acres
 - Including 16,795 acres Primary (Restoration)
 - Buffer Area 6,390 acres
- Associated with funding for Holly Shelter Peatland Restoration Project
 - Corresponding 25-year Memorandum of Understanding for following the Hydrologic Restoration Plan
- Portions of Holly Shelter Game Land and Vicinity natural area – R1/C1
- Element occurrences include:
 - Pond Pine Woodland (Typic Subtype) S3/G3

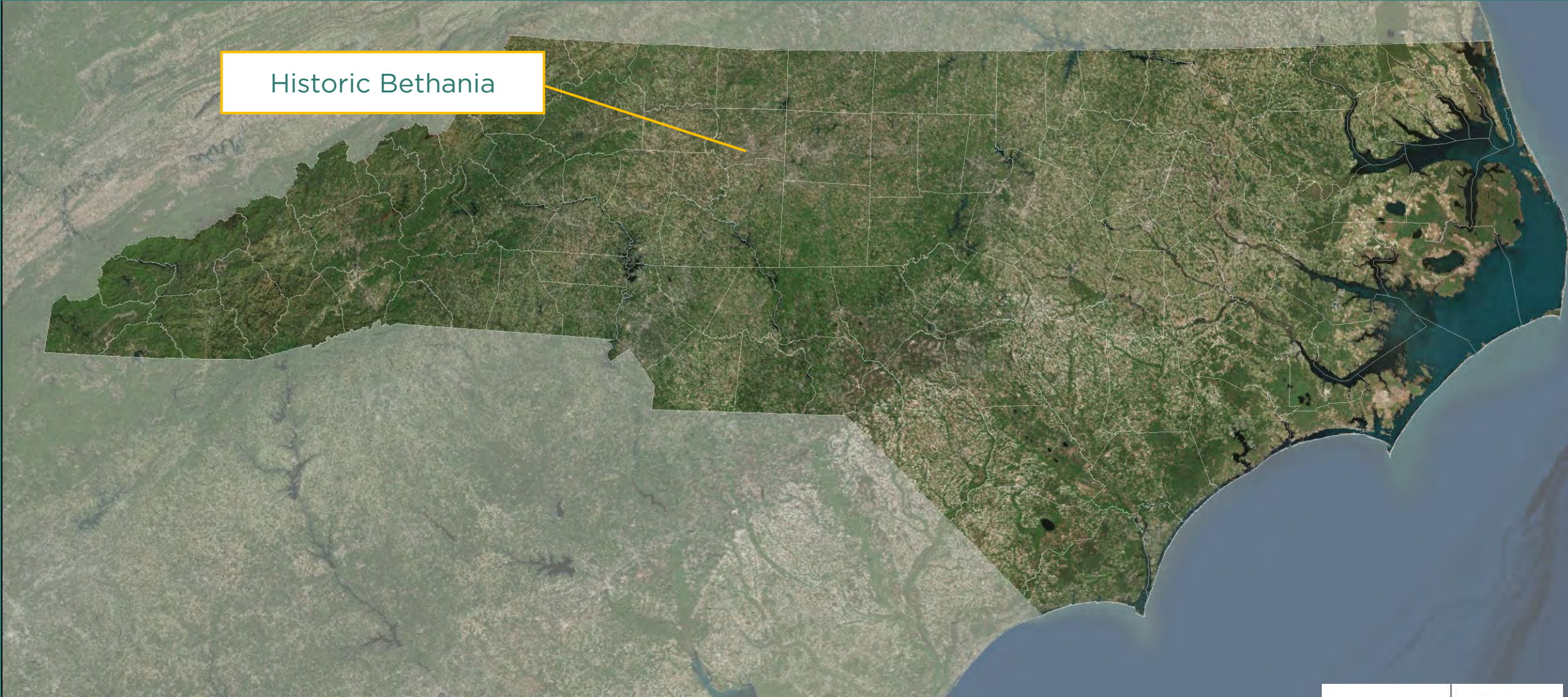


Historic Bethania Dedicated Nature Preserve



Muddy Creek, Historic Bethania (North Property)
Photo courtesy NCLWF -- Application presentation to Board

Historic Bethania Dedicated Nature Preserve

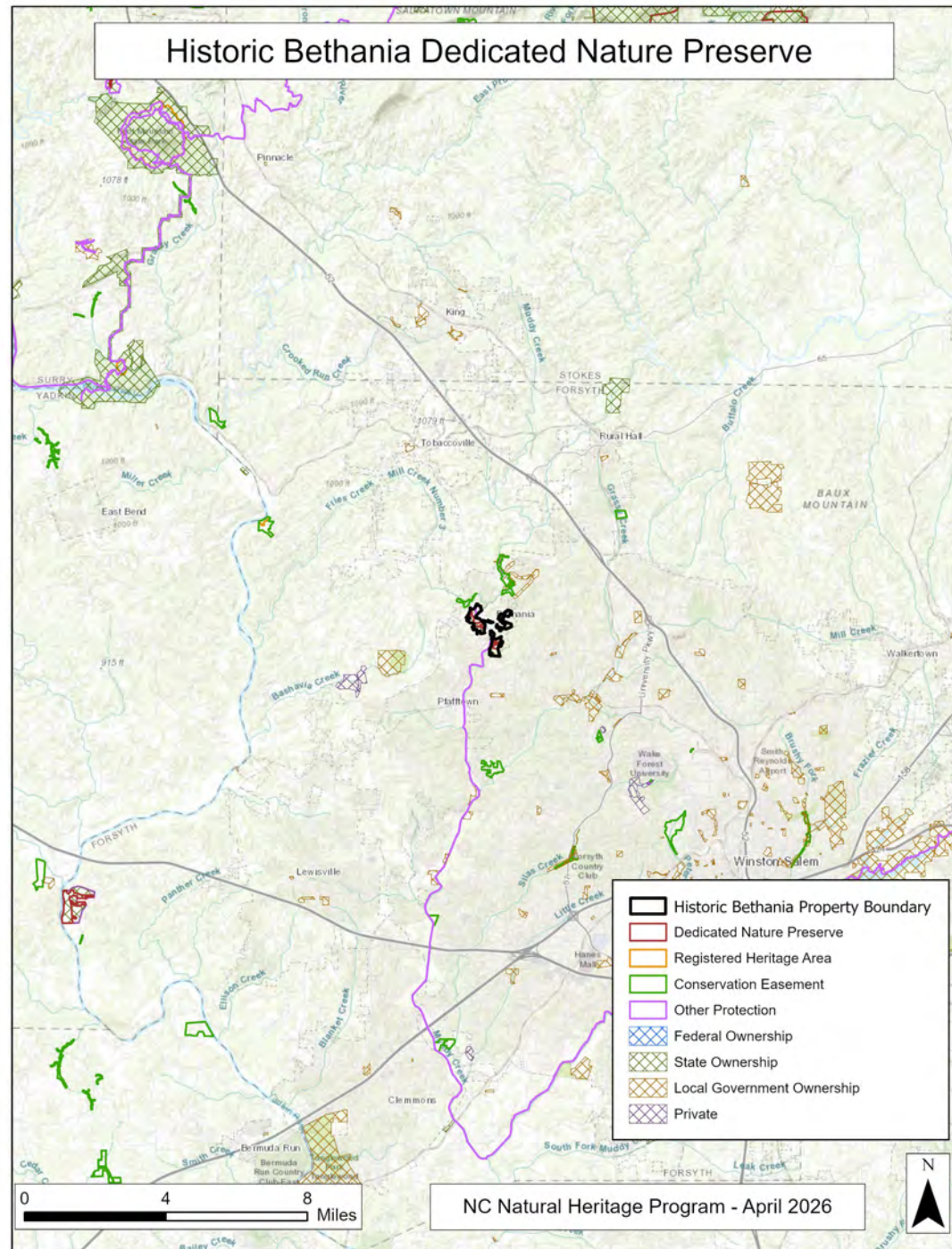


Forsyth County

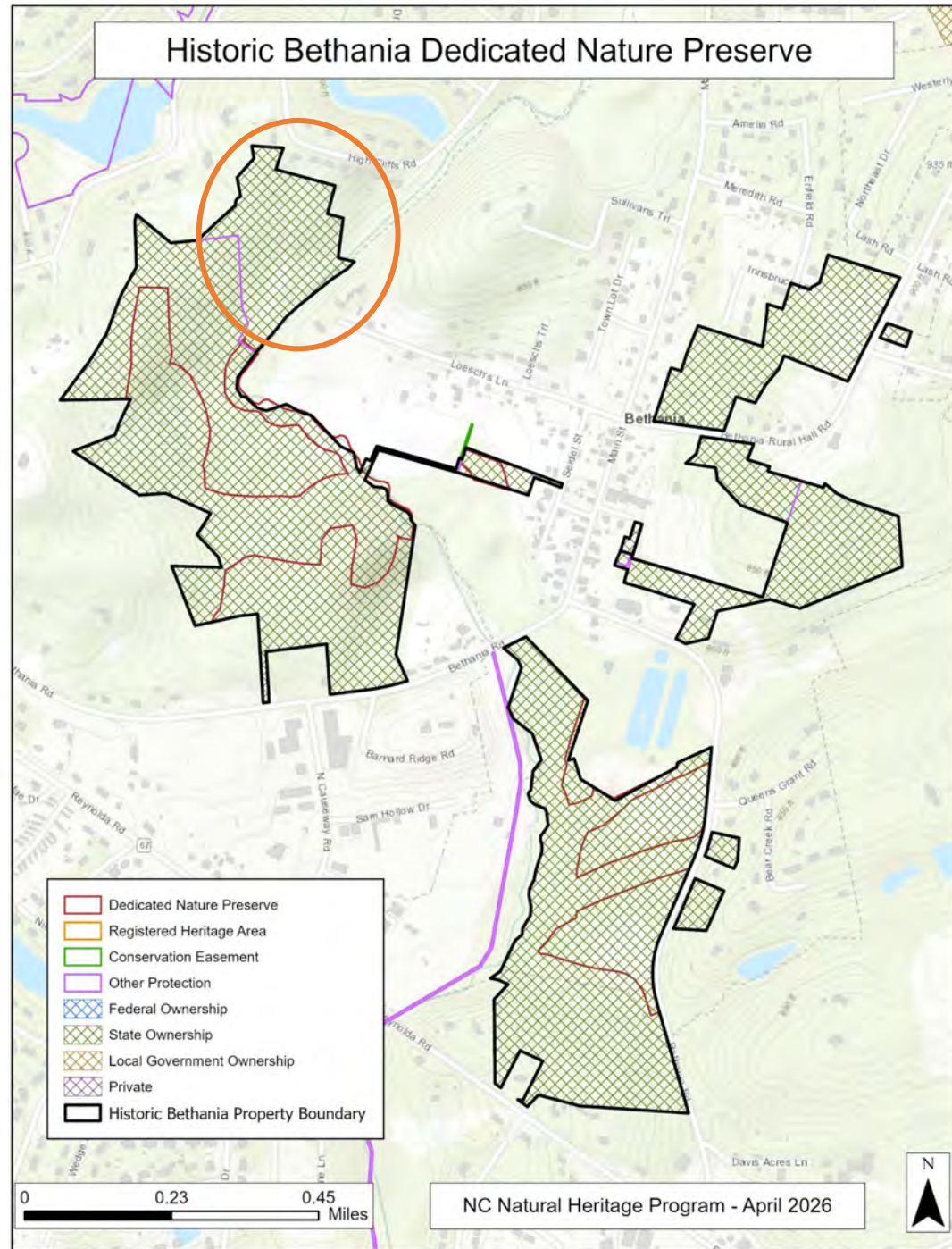
Cheraw, Catawba, Occaneechi, Yesan, Keyauwee



Historic Bethania Dedicated Nature Preserve



Historic Bethania Dedicated Nature Preserve



Historic Bethania DNP



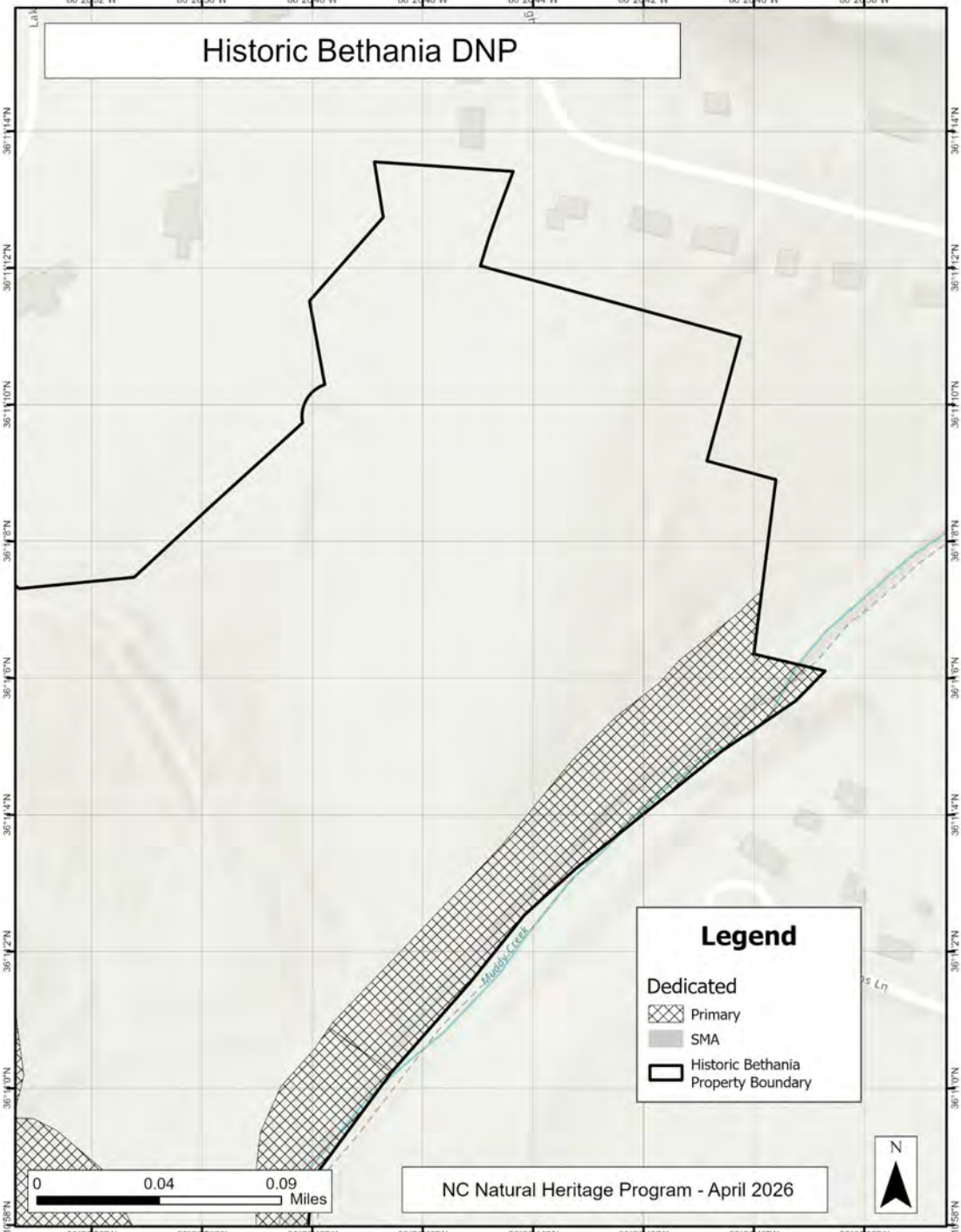
2017-073

0 0.04 0.09 Miles

NC Natural Heritage Program - April 2026

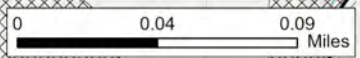


Historic Bethania DNP



Legend

- Dedicated
 - Primary
 - SMA
- Historic Bethania Property Boundary



NC Natural Heritage Program - April 2026



Historic Bethania Dedicated Nature Preserve

Amendment to add tract and fulfill terms of NCLWF grant agreement (NCLWF #2017-073)

- Adds 3 acres, all Primary
 - Standard 100-foot riparian zone on Muddy Creek (303d)
- Total DNP 77 acres, all Primary
 - One acre special management area
- Acquisition funding for 2017-073 tied to historic attributes



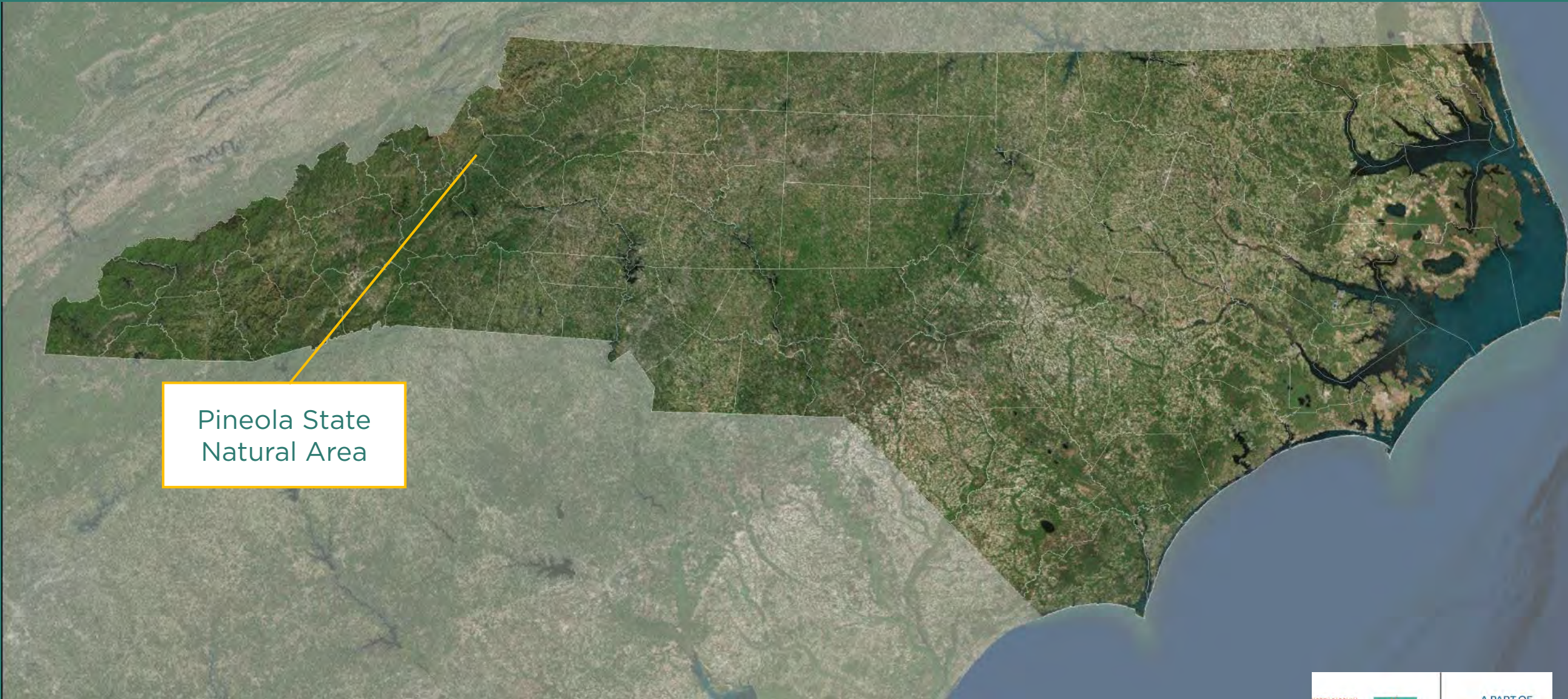
PLC crew treating invasive species
along Muddy Creek, Historic
Bethania, July 2024

Pineola State Natural Area Dedicated Nature Preserve - *Pending Review*



Mike Schafale at Pineola State Natural Area – Photo courtesy Jess Schaner

Pineola State Natural Area DNP



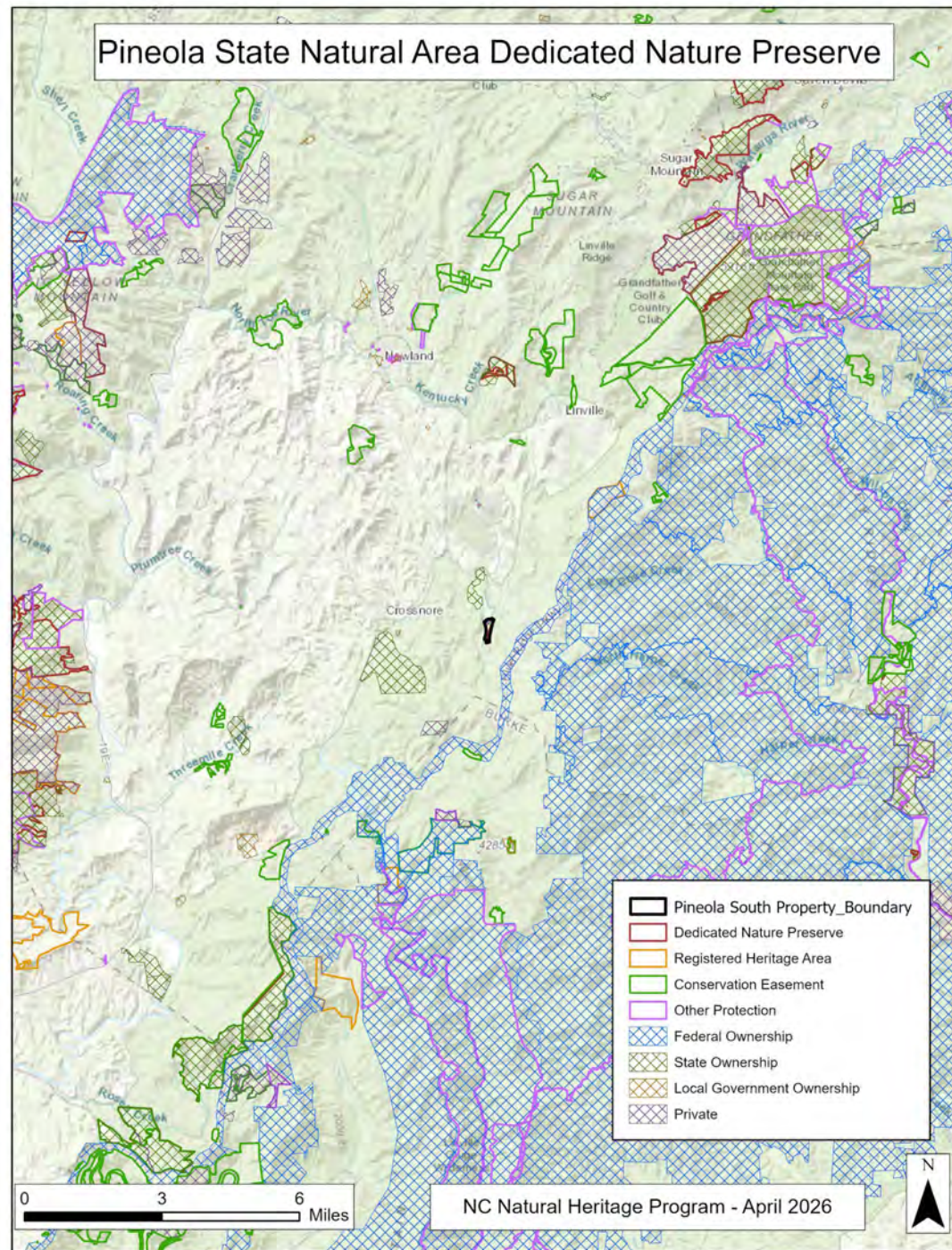
Pineola State
Natural Area

Avery County

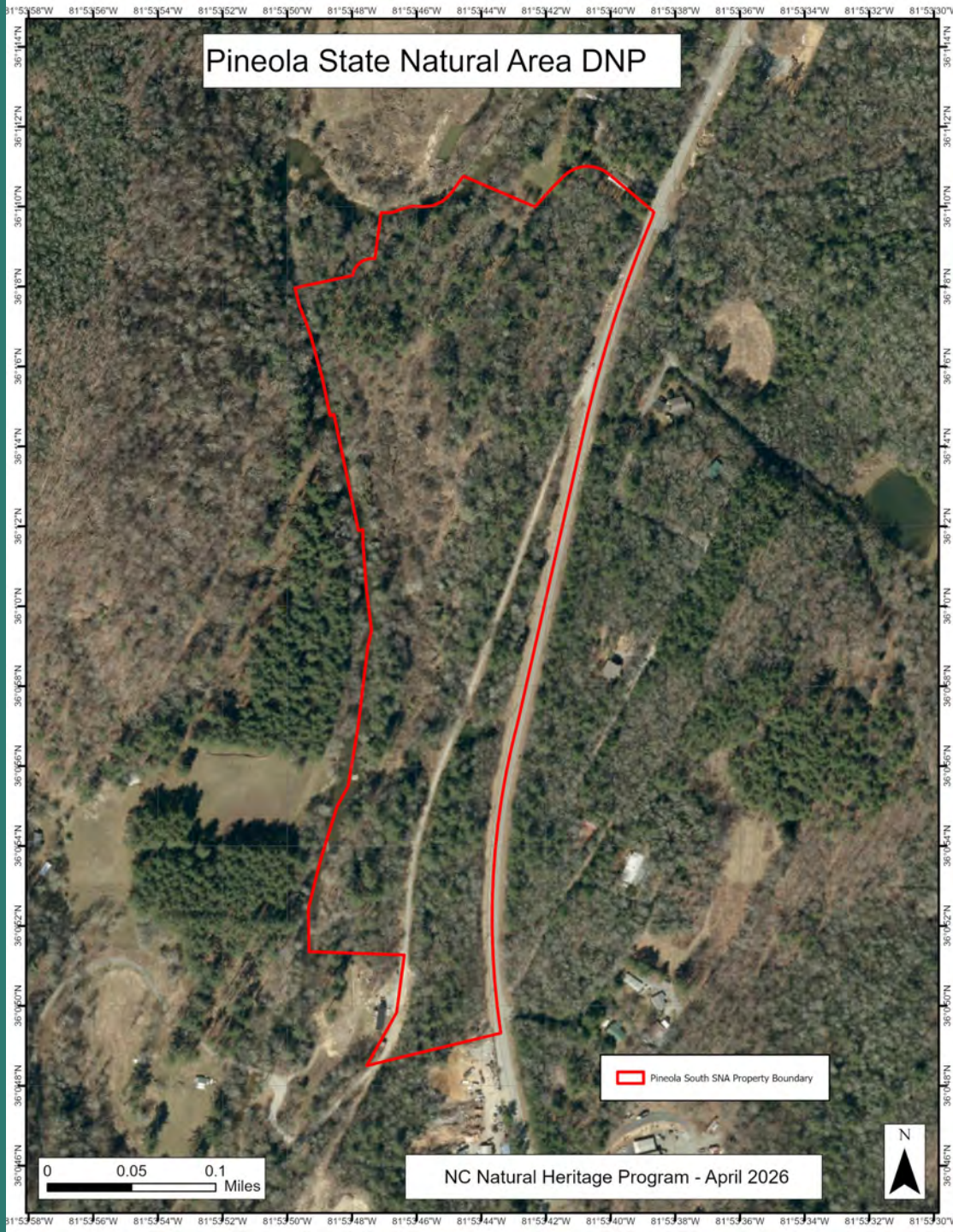
Cherokee, Yuchi




Pineola State Natural Area Dedicated Nature Preserve



Pineola State Natural Area DNP



 Pineola South SNA Property Boundary

0 0.05 0.1
Miles

NC Natural Heritage Program - April 2026





3 ft

Pineola Baptist Church Rd

Linville River Farm Ln

3693 ft

3681 ft

Right on Time

Pineola State Natural Area Dedicated Nature Preserve

New dedication to fulfill terms of NCLWF grant agreement 2021-023

- Total DNP 15.5 acres (all Primary)
- Element occurrences include:
 - Southern Appalachian Bog (Typic Subtype) S1/G1
 - Gray's lily (*Lilium grayi*) S1/G1
 - American Willow-herb (*Epilobium ciliatum* ssp. *Ciliatum*) S4/G4
 - Hoary bat (*Lasiurus cinereus*) S3/G3
 - Tricolored bat (*Perimyotis subflavus*) S3/G3
 - Little brown bat (*Myotis lucifugus*) S2/G3
 - Lax mannagrass (*Glyceria laxa*) S2/G4
 - Thicket creeper (*Parthenocissus inserta*) S1/G5
 - Northern smooth goldentop (*Euthamia graminifolia*) S1/T5...and more
- Protects most of Pineola South natural area (R2/C3)
- Riparian zones along Linville River Aquatic Habitat (R1/C4)
 - Element occurrences include:
 - Grandfather Mountain Crayfish (*Cambarus eeseehensis*) S2/G3
 - White-faced Meadowhawk (*Sympetrum obtrusum*) S1/G5

Carvers Creek State Park Dedicated Nature Preserve - *Pending Review*



Pine Barrens Treefrog at Carvers Creek State Park, photo by Nathan Shepard

Carvers Creek State Park DNP

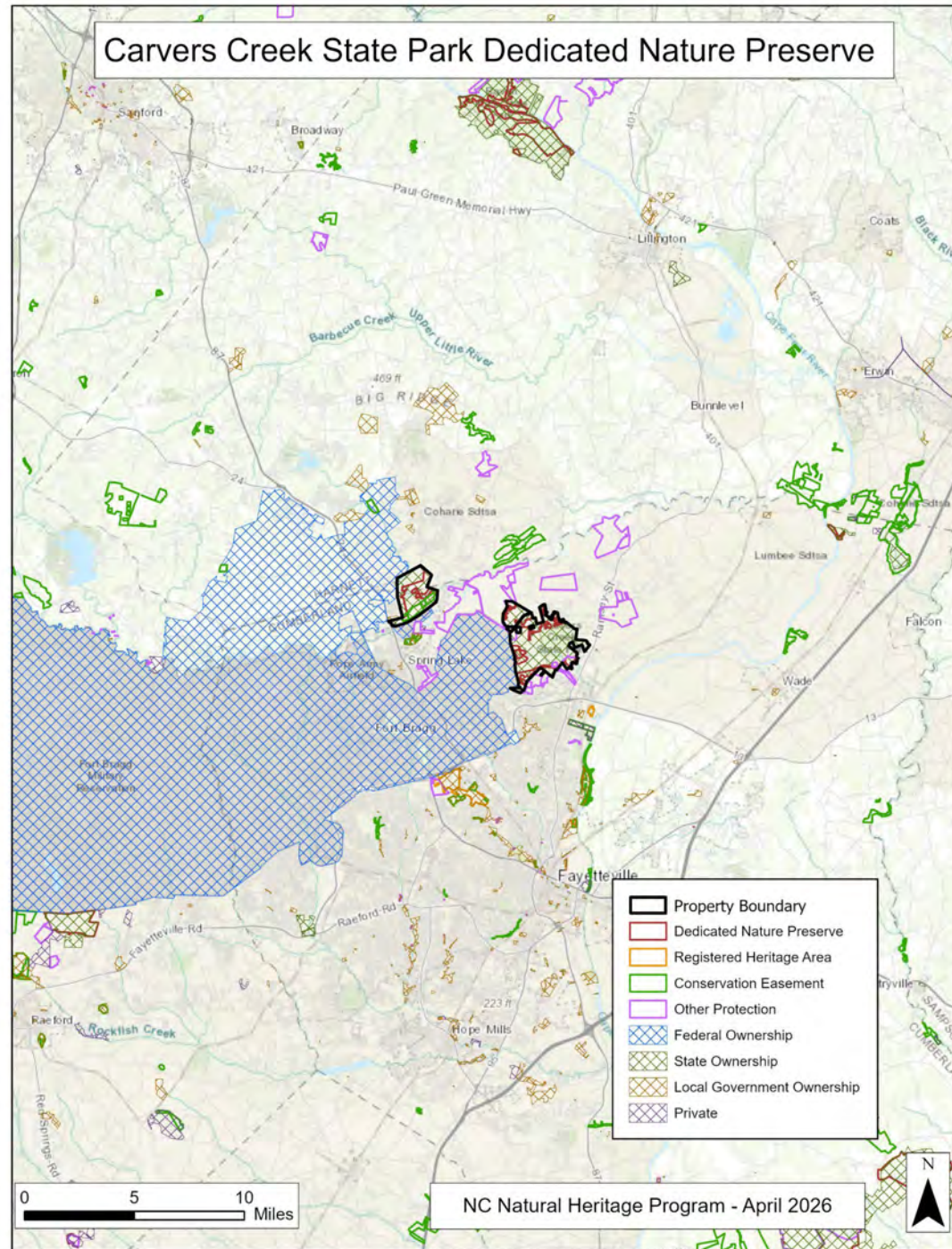


Carvers Creek State
Park DNP

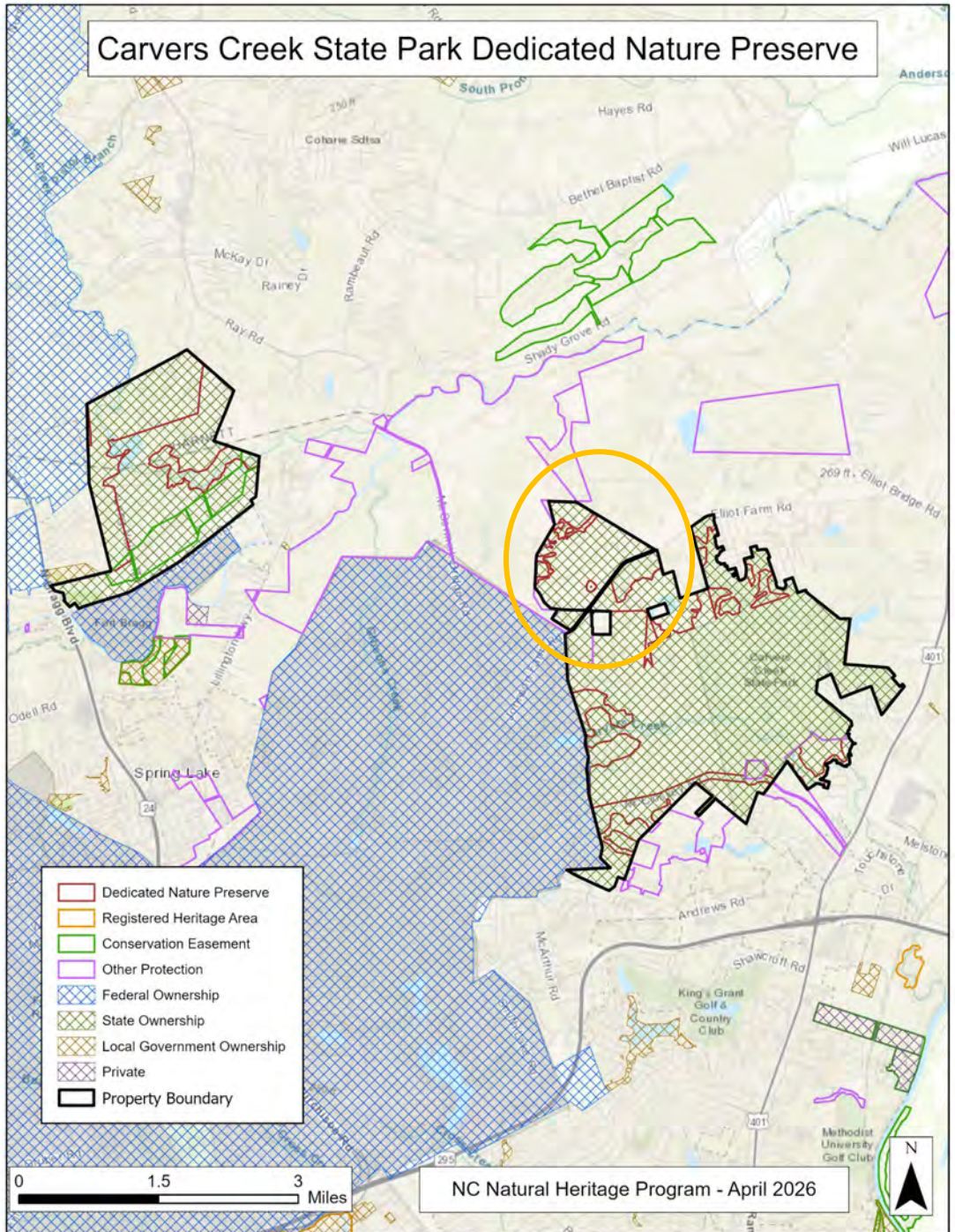
Cumberland County

Lumbee, Tuscarora, Manu

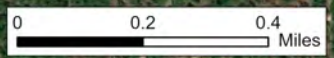
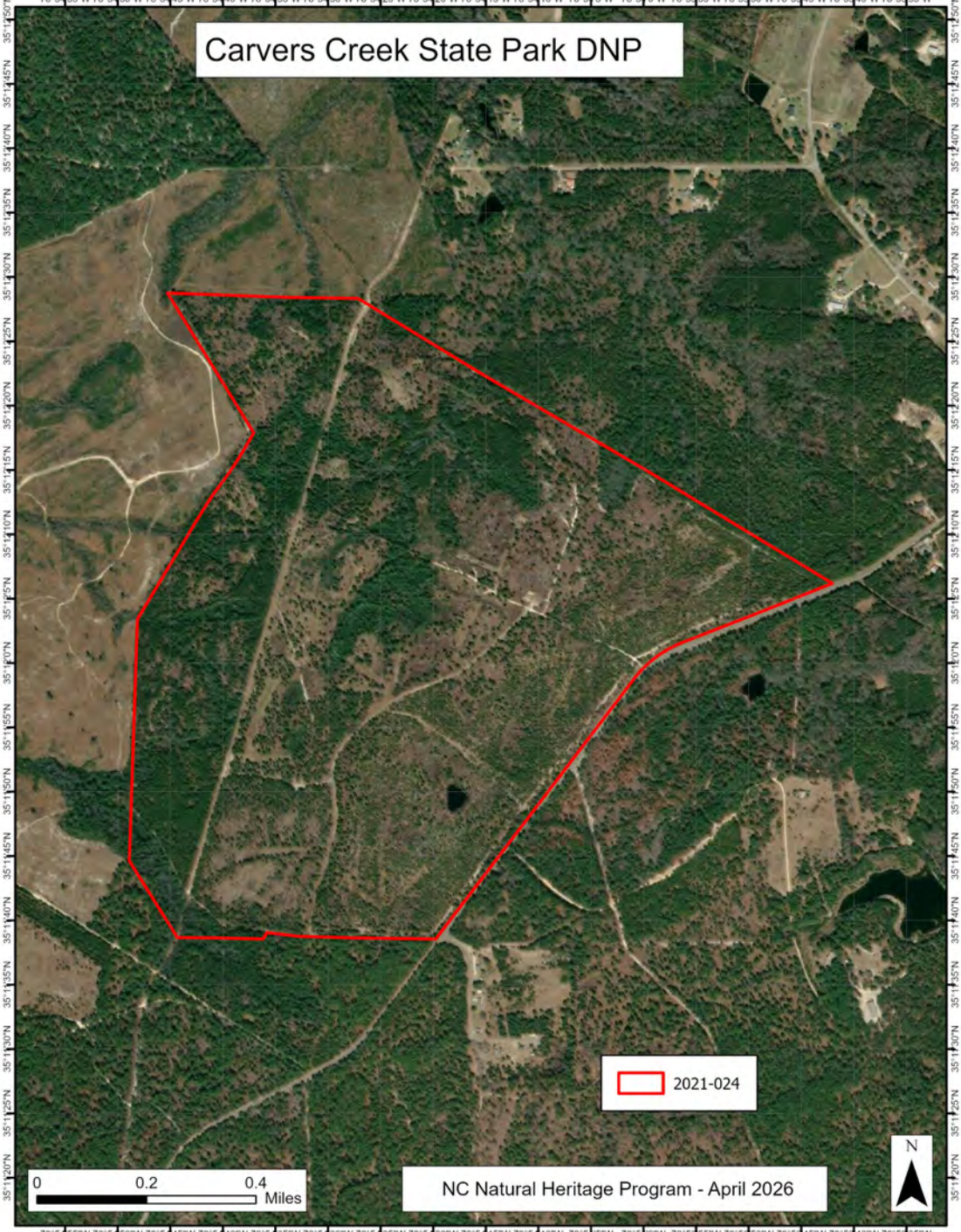
Carvers Creek State Park Dedicated Nature Preserve



Carvers Creek State Park Dedicated Nature Preserve



Carvers Creek State Park DNP

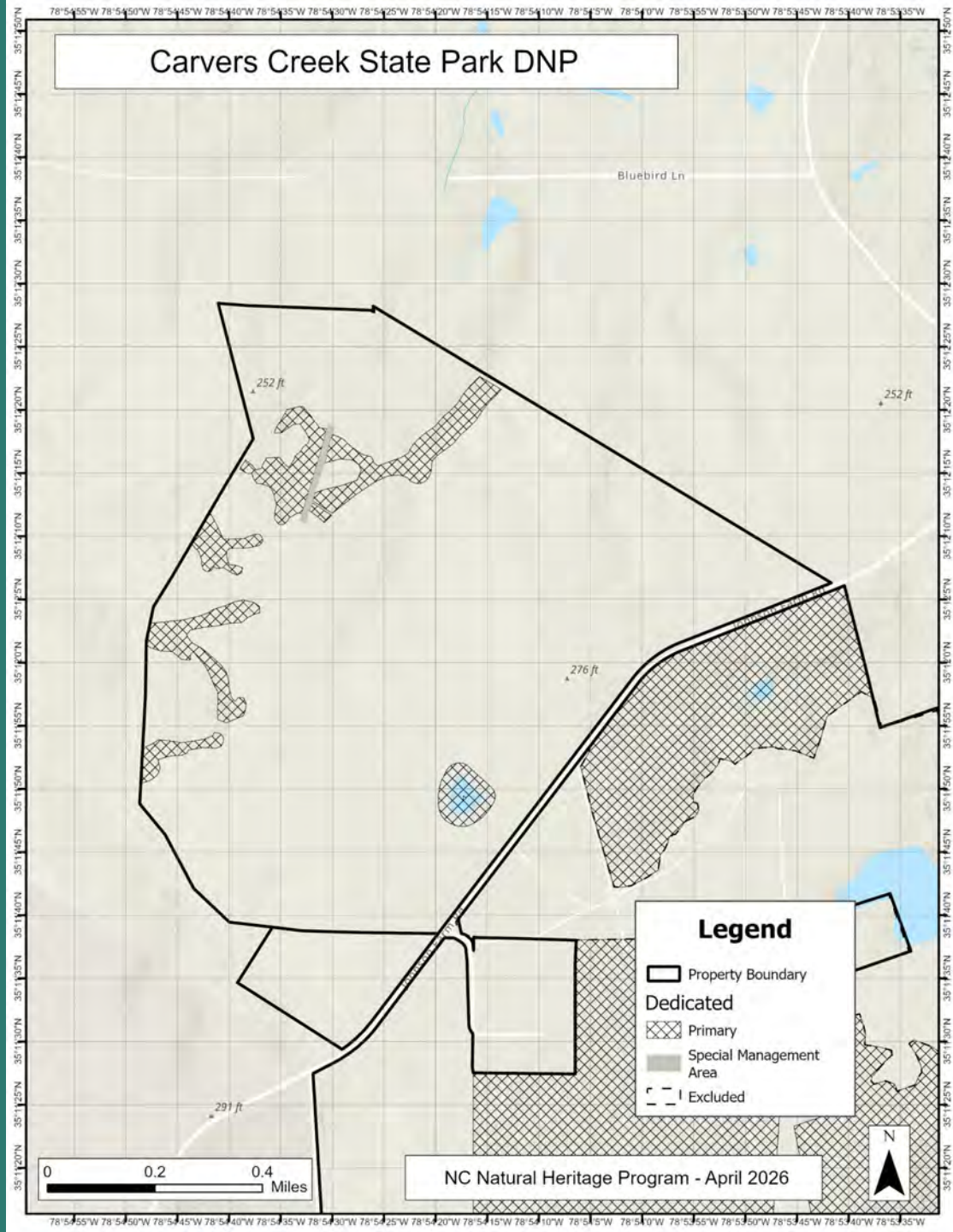


2021-024

NC Natural Heritage Program - April 2026

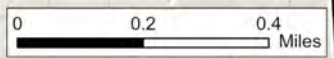


Carvers Creek State Park DNP



Legend

- Property Boundary
- Dedicated
 - Primary
 - Special Management Area
- Excluded



NC Natural Heritage Program - April 2026



Carvers Creek State Park DNP

Amendment to add tract and fulfill terms of NCLWF grant agreement (#2021-024)

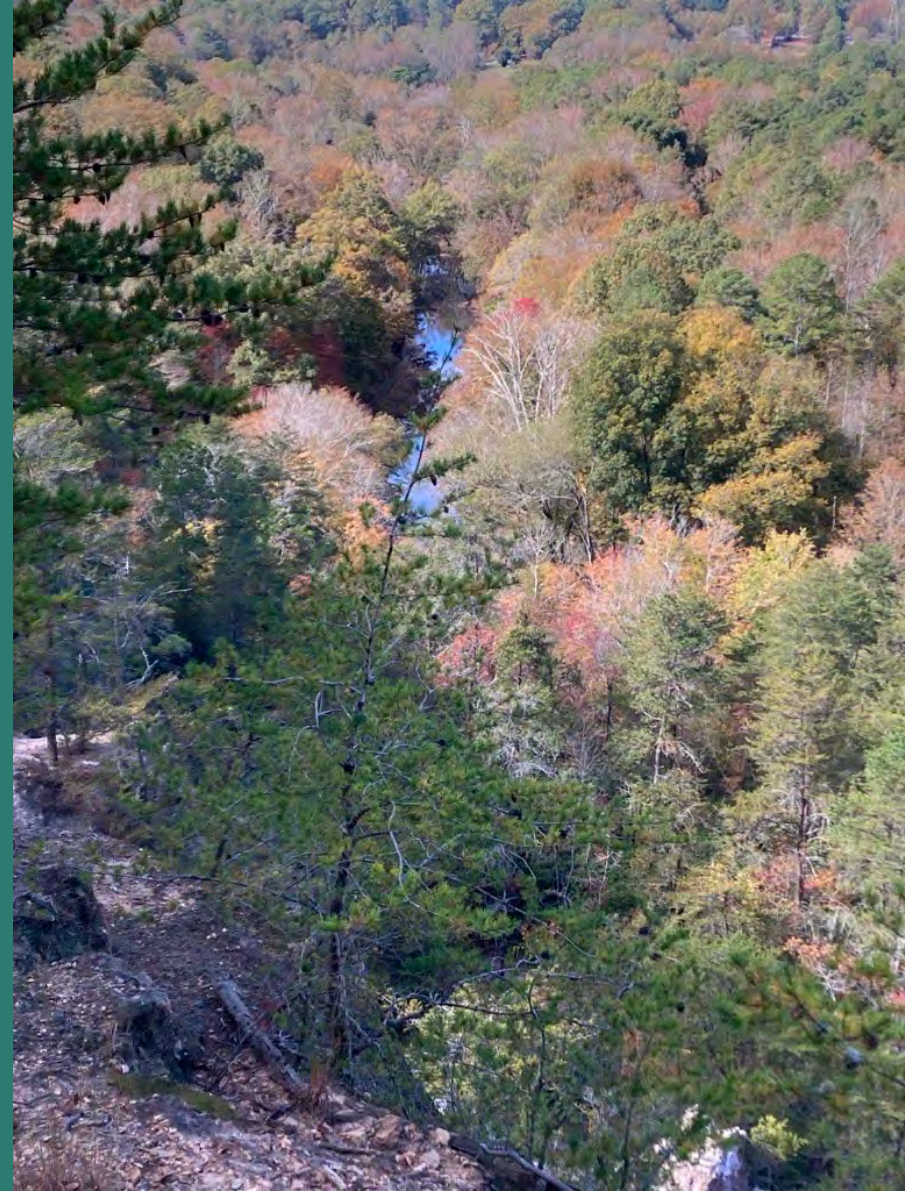
- Adds 29 acres to DNP acres, all Primary
 - One acre special management area
 - Rare animal breeding habitat along a pipeline right of way.
- Total DNP 2,974 acres, all Primary

Element Occurrences include:

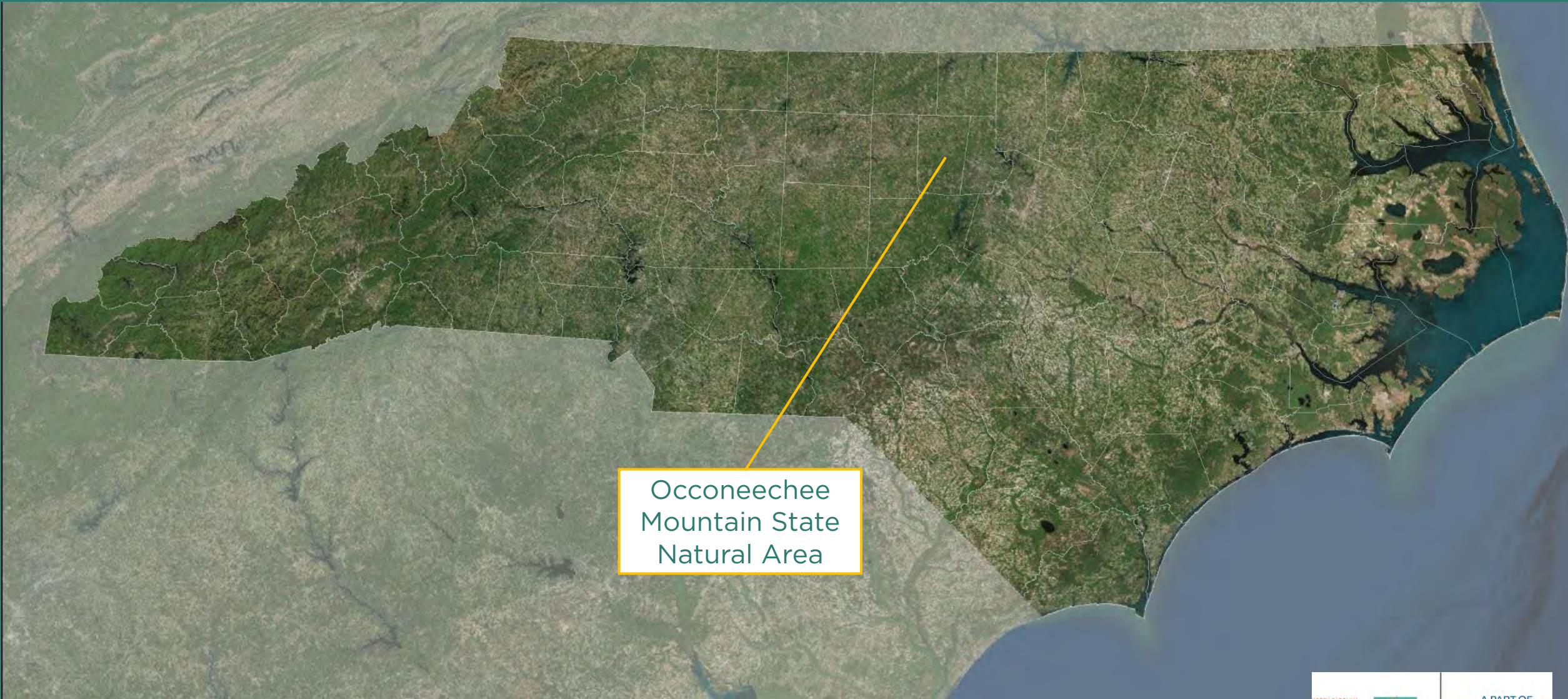
- Pine Barrens Treefrog (*Hyla andersonii*) – S2/G3
- Bog oatgrass (*Danthonia epilis*) – S3/G4
 - Last seen 1993
- Standard 100-foot riparian zones

Occoneechee Mountain State Natural Area Dedicated Nature Preserve

- *Pending Review*



Occoneechee Mountain State Natural Area DNP



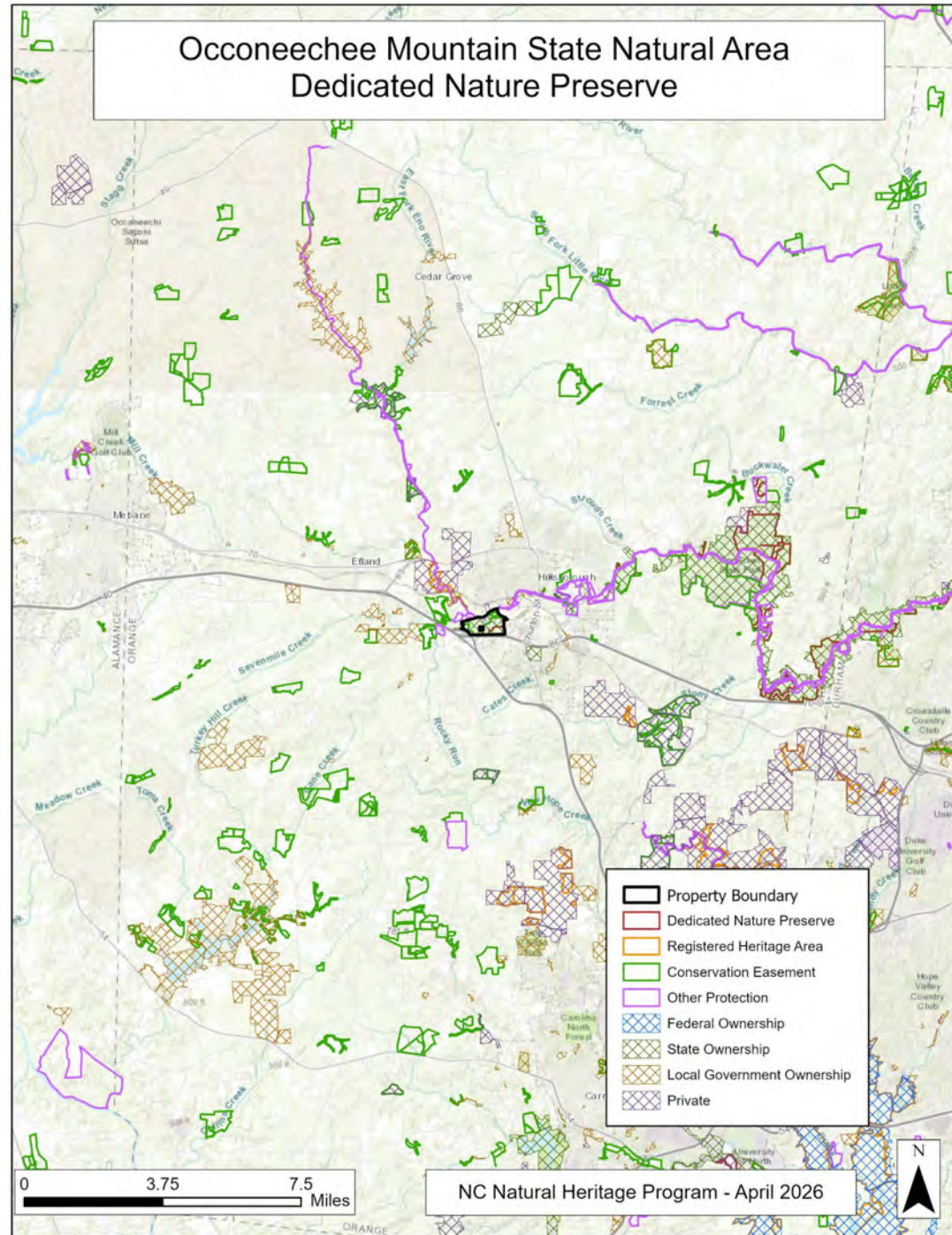
Occoneechee Mountain State Natural Area

Orange County

Lumbee, Cheraw, Catawba, Saponi, Occaneechi, Eno, Shakori



Occoneechee Mountain State Natural Area Dedicated Nature Preserve



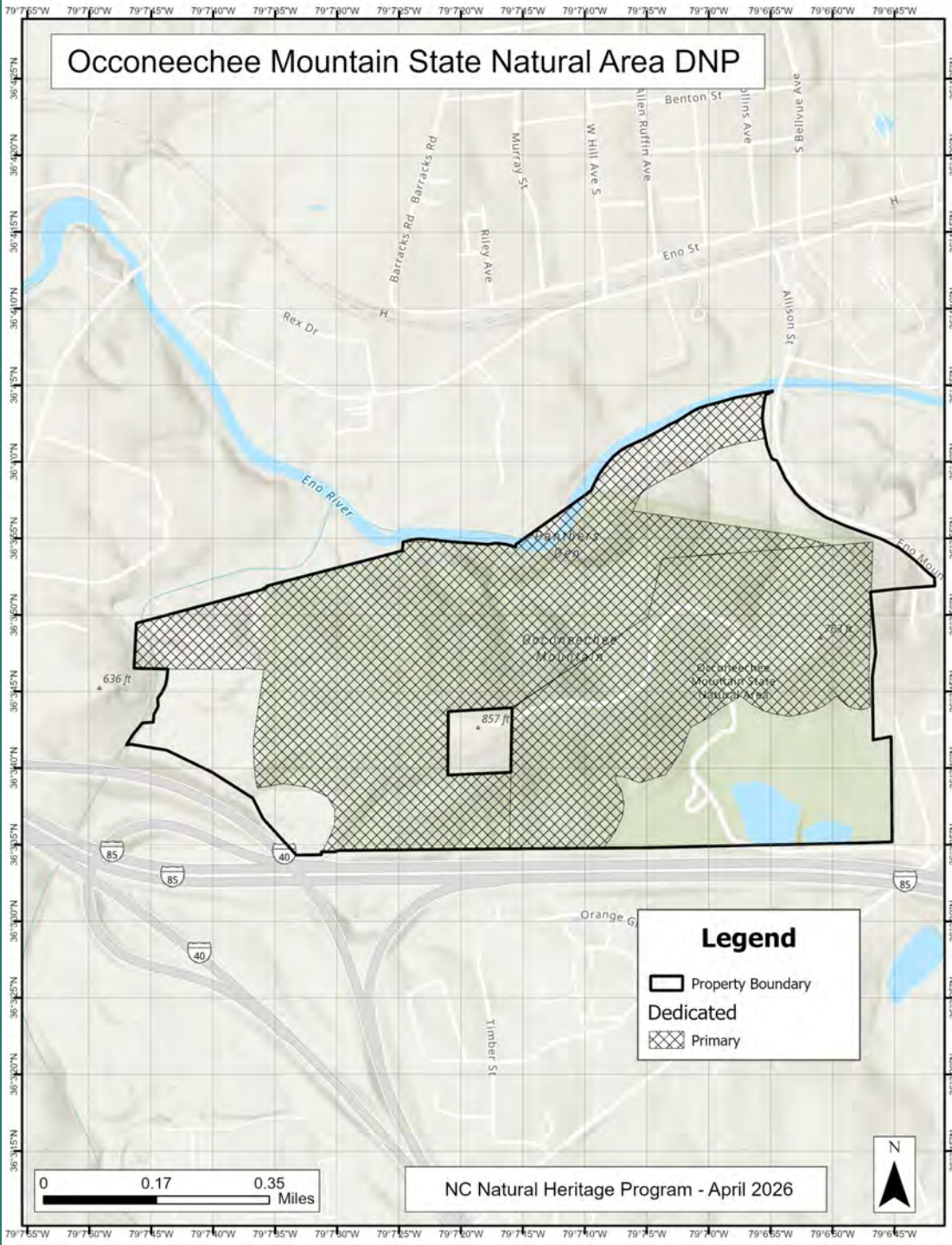
NC Natural Heritage Program - April 2026

Occoneechee Mountain State Natural Area DNP Amendment – Pending Review



 Proposed Addition

Occonechee Mountain State Natural Area DNP - Pending Review



Occonechee Mountain State Natural Area DNP

Amendment to add tract and fulfill terms of NCLWF grant agreement 2022-031 (Morton Tract)

- Adds 7.5 acres, all Primary
- Total DNP 68.5 acres, all Primary

Protects portions of Occonechee Mountain natural area (R1/C3)

- Element occurrences include:
 - Piedmont Monadnock Forest (Typic Subtype) S3/G3
 - Piedmont Monadnock Forest (Heath Subtype) S2/G3
 - Piedmont Monadnock Forest (Pine Subtype) S2/G2
 - Piedmont Cliff (Acidic Subtype) S2/G2
 - Piedmont/Coastal Plain Heath Bluff S3/G3
 - Sweet pinesap (*Monotropsis odorata*) S3/G3...and more



Sweet Pinesap (*Monotropsis odorata*) at Occonechee Mountain State Natural Area by Harry LeGrand

Registry

- Recognizes a natural area for its natural heritage resource values
- Voluntary agreement to protect and manage the natural area
- Agreement between Secretary and landowner
 - Can be rescinded by either party
- Management recommendations provided by NHP

Bluestem Conservation Cemetery Registered Heritage Area - *Pending Review*



Four-toed salamander pool, Bluestem Conservation Cemetery, 17 March 2026

Bluestem Conservation Cemetery RHA

Bluestem
Conservation
Cemetery

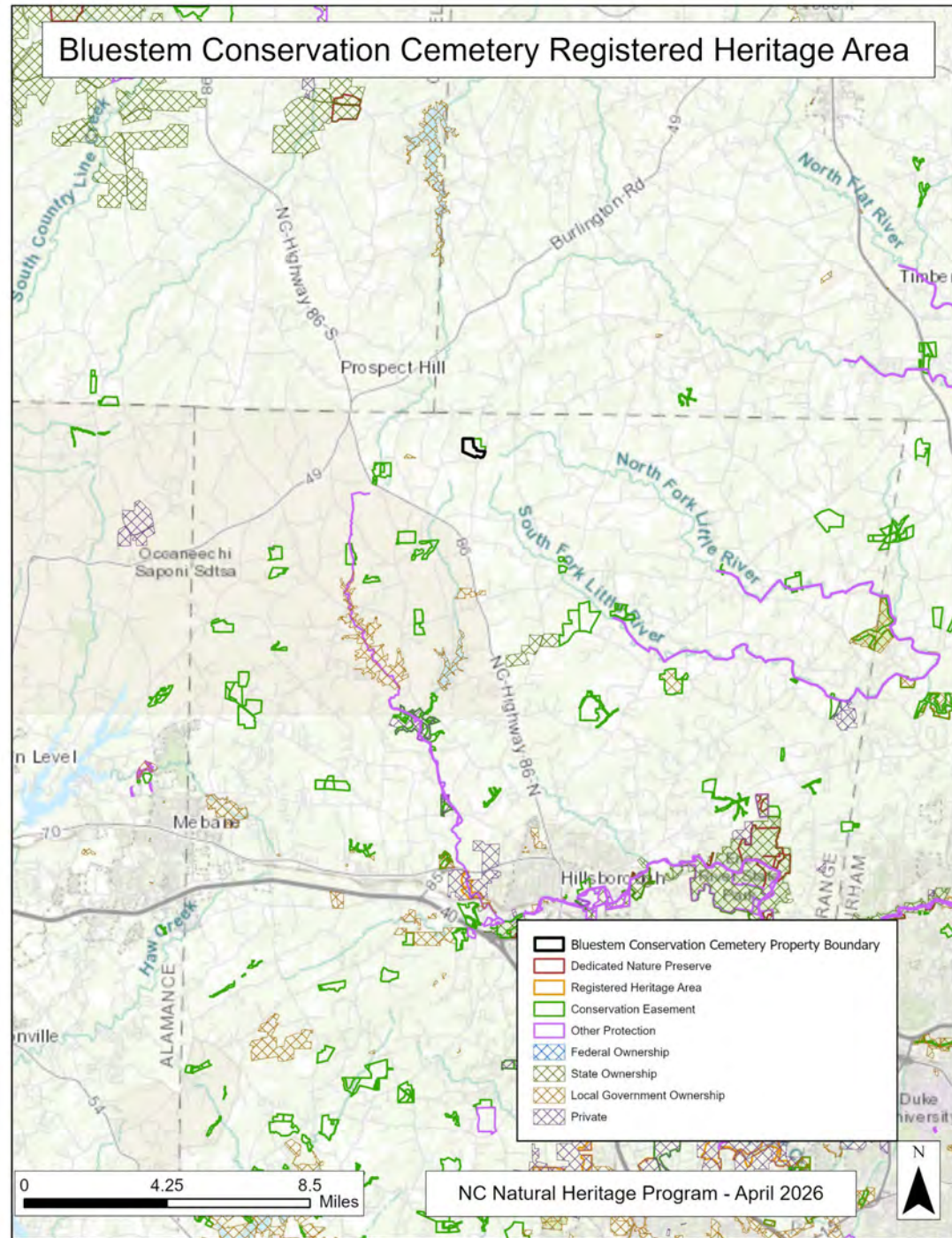


Orange County

Lumbee, Cheraw, Catawba, Saponi,
Occaneechi, Eno, Shakori



Bluestem Conservation Cemetery Registered Heritage Area



Bluestem Conservation Cemetery Registered Heritage Area



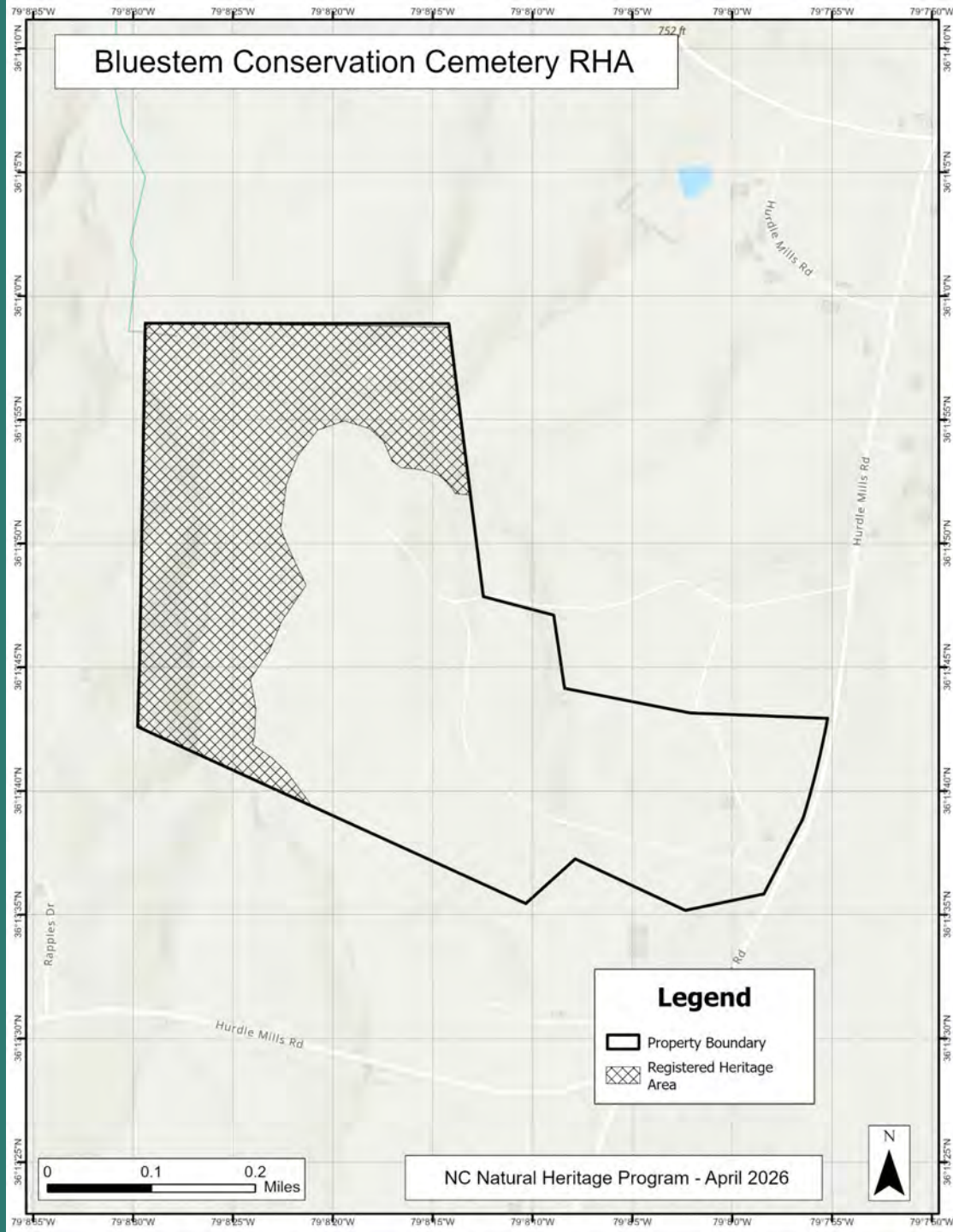
Bluestem Conservation Cemetery Property Boundary

0 0.1 0.2 Miles

NC Natural Heritage Program - April 2026



Bluestem Conservation Cemetery RHA



Legend

- Property Boundary
- Registered Heritage Area

0 0.1 0.2 Miles

NC Natural Heritage Program - April 2026



Bluestem Conservation Cemetery

Registered Heritage Area

Voluntary Registry Agreement
32 acres

Protects Bluestem Cemetery natural area -- R5/C5

Element Occurrences include:

- Four-toed Salamander (*Hemidactylium scutatum*) S3/G5
- Dry-Mesic Oak—Hickory Forest (Piedmont Subtype) S4G5
- Mesic Mixed Hardwood Forest (Piedmont Subtype) S4/G4
- Piedmont Alluvial Forest S4/G4

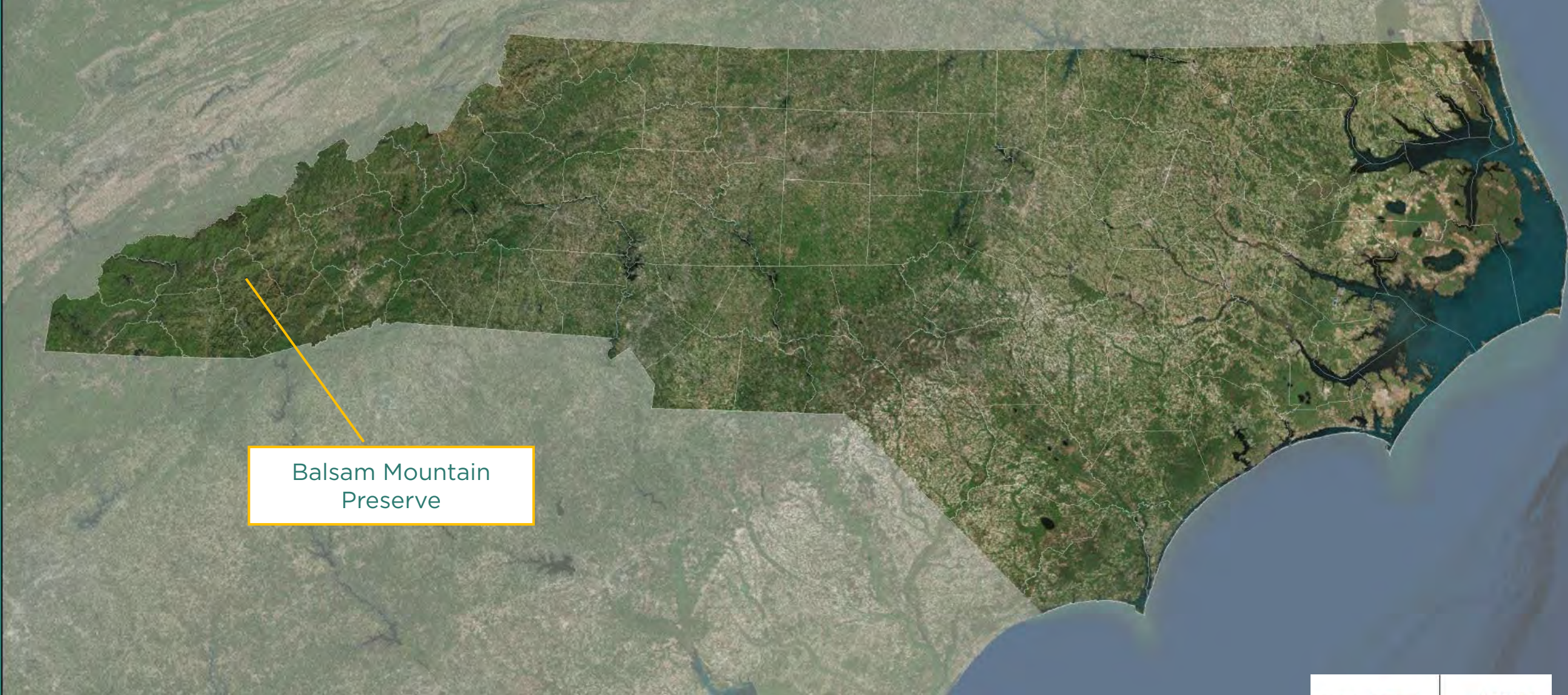


Balsam Mountain Preserve Registered Heritage Area - *Pending Review*



Rich Cove Forest (Boulderfield Subtype), Balsam Mountain Preserve,
Photo by Jess Schaner

Balsam Mountain Preserve RHA

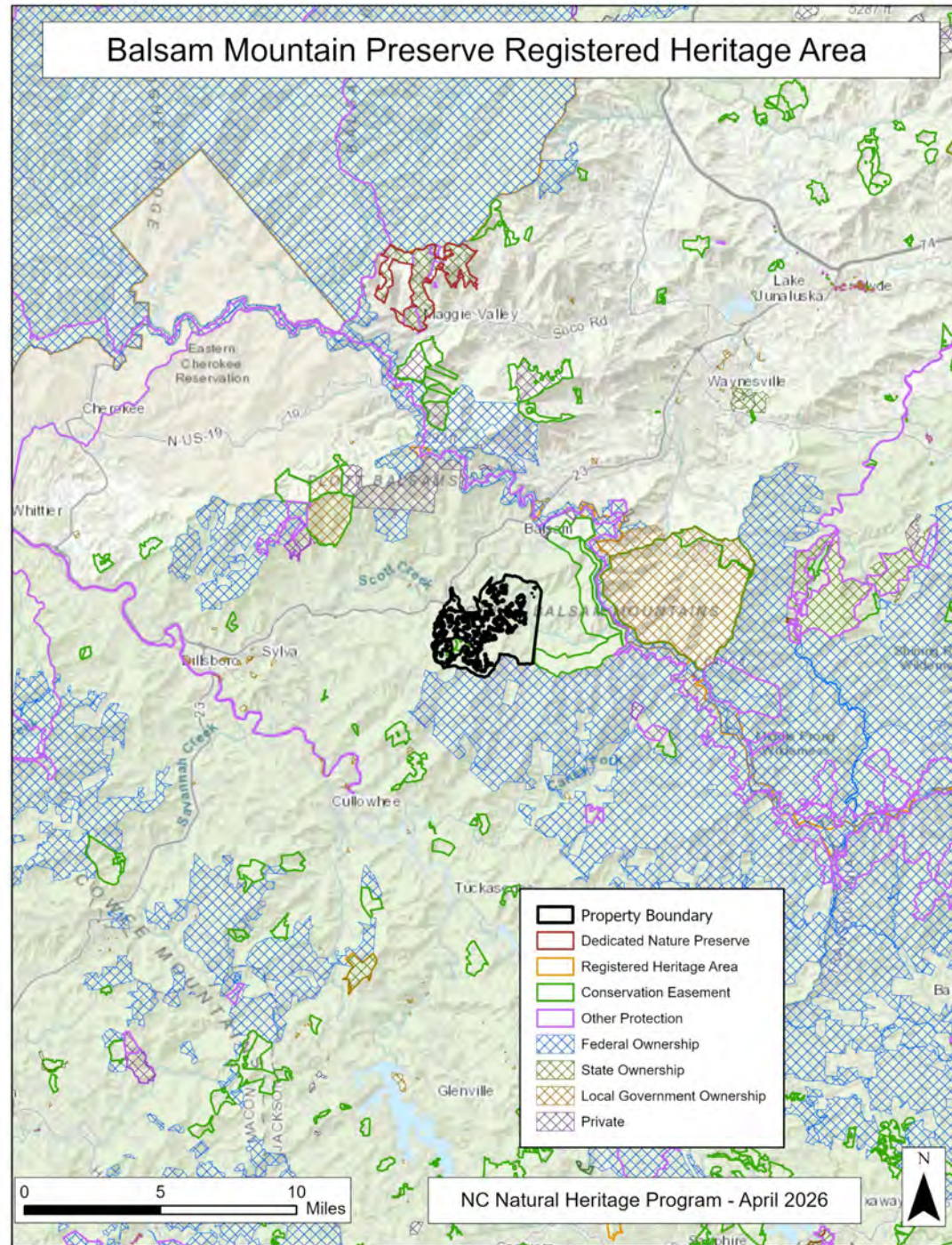


Jackson County

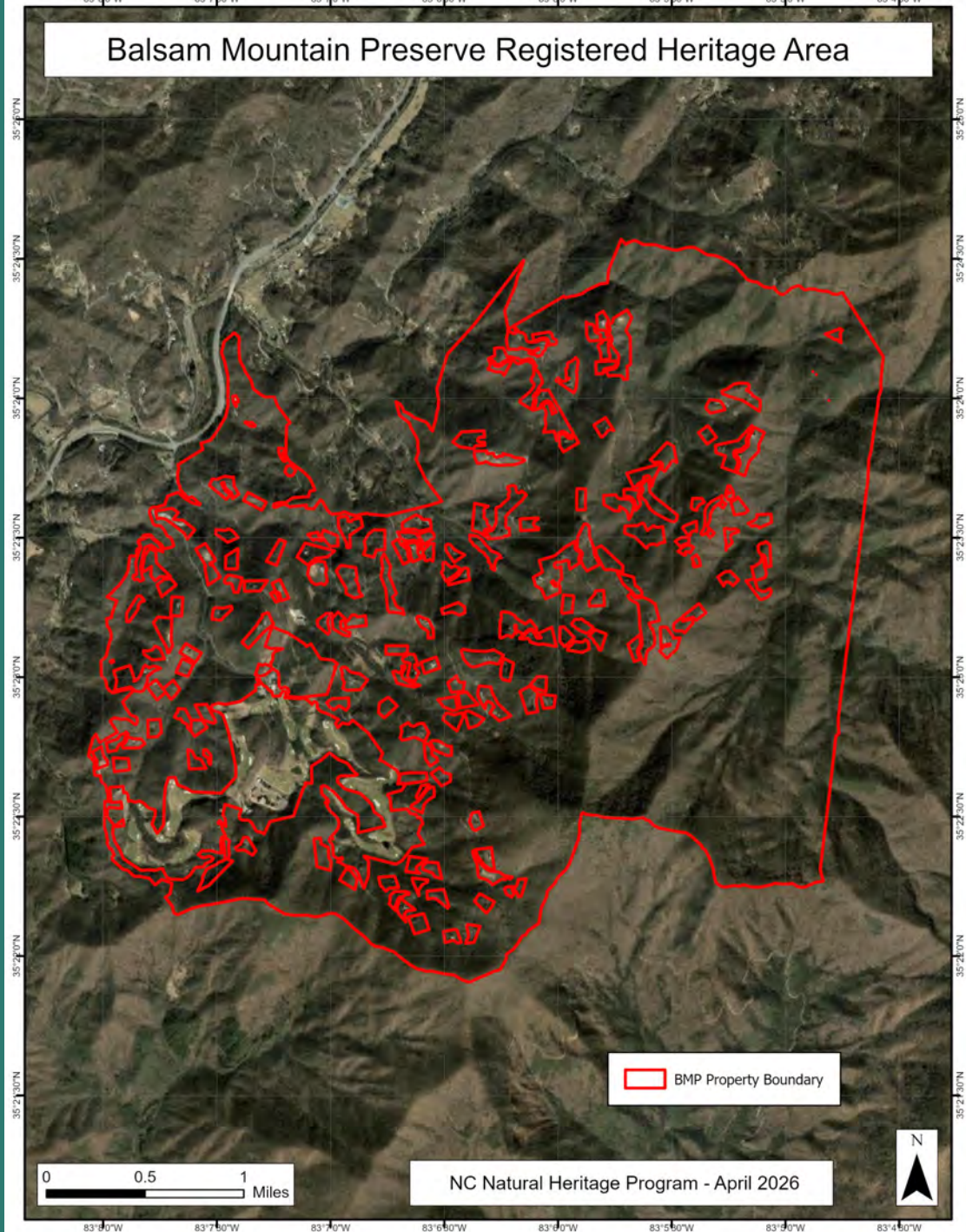
Cherokee, Yuchi, Miccosukee



Balsam Mountain Preserve Registered Heritage Area



Balsam Mountain Preserve Registered Heritage Area



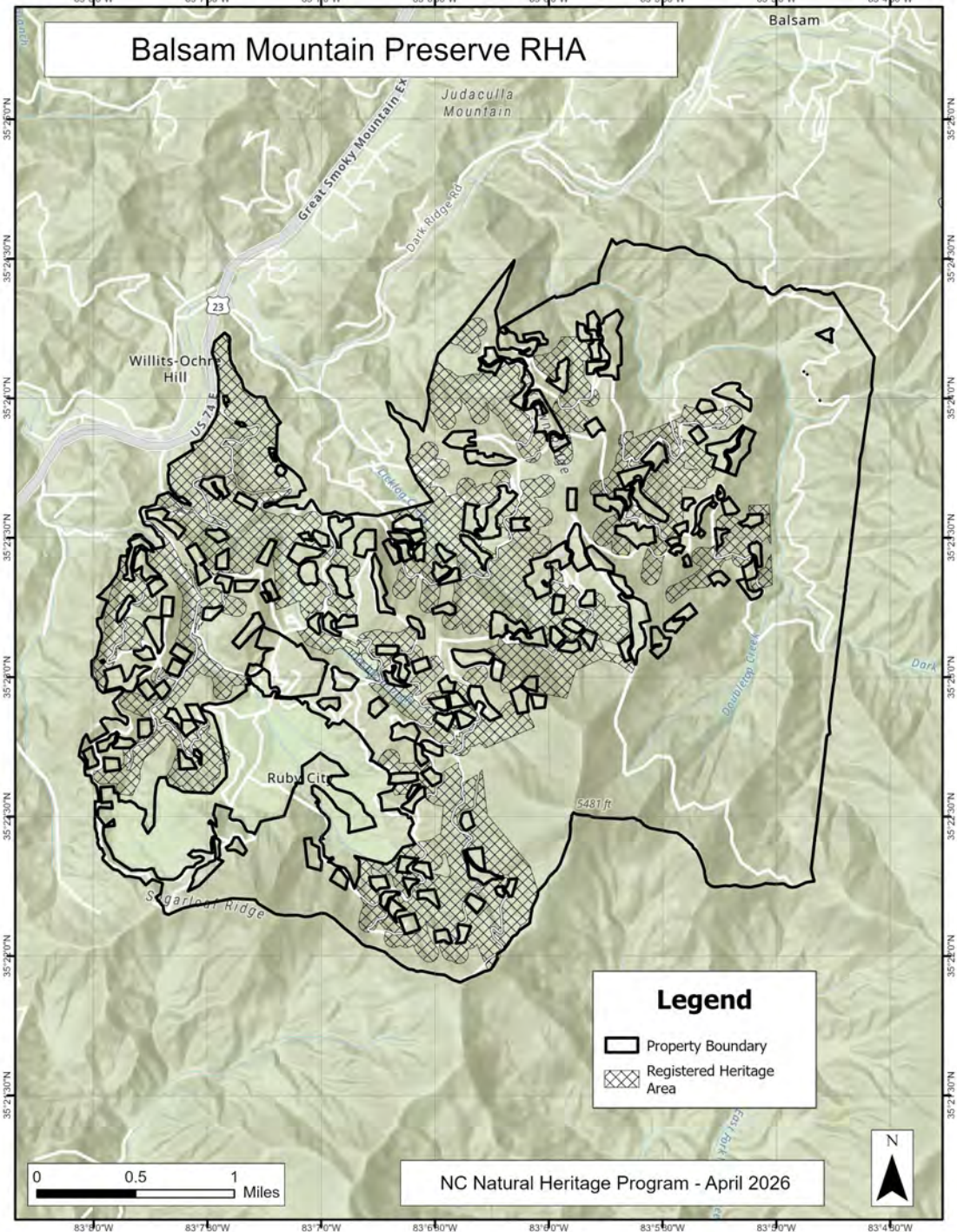
 BMP Property Boundary

0 0.5 1 Miles

NC Natural Heritage Program - April 2026

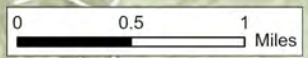


Balsam Mountain Preserve RHA



Legend

- Property Boundary
- Registered Heritage Area



NC Natural Heritage Program - April 2026



Balsam Mountain Preserve

Registered Heritage Area

Voluntary Registry Agreement
1,068 acres

Protects portions of Willits Hornblende Slope (R3/C4), Licklog Falls (R3/C5), and Cold Spring Gap (R2/C4) natural areas

Element Occurrences include:

- American Fly-honeysuckle (*Lonicera canadensis*) S2/G5
- Goldenseal (*Hydrastis canadensis*) S3/G3
- Rich Montane Seep S3/G3
- Aaron's-rod (*Thermopsis villosa*) S1/G3
- Rich Cove Forest (Boulderfield Subtype) S2/G3
- Purple Bee-balm (*Monarda media*) S1/G4
- Rich Cove Forest (Montane Intermediate Subtype) S4/G4...and more

Encumbered by North American Land Trust conservation easement



Licklog Falls, Photo Courtesy Jess Schaner